APPENDIX A: BASELINE ANALYSIS

Introduction

A 26% growth rate in Flathead County during the 1990s and continued rapid growth has emphasized the necessity to update the current Flathead County Master Plan. To comply with Montana State statutes, specifically the adoption of Senate Bill 97, Flathead County has updated and replaced the existing Master Plan with a Growth Policy. Section 76-1-601 of the Montana Code Annotated (MCA) and Senate Bill (SB) 97 requires a Growth Policy to include maps and text describing jurisdictional areas, information on land use, population, housing, economic conditions, local services, public facilities and natural resources.

"Comprehensive planning" is a broad attempt at understanding the past and present situation in a community. The purpose of the Baseline Analysis Appendix to the Growth Policy is to provide the public with information regarding social and economic trends and an overview of existing conditions.

PART 1: Flathead Valley History

Approximately 12,000 years ago, the glaciers of the last Ice Age created the lakebed of Flathead Lake. Human activity at Flathead Lake dates back at least 5,000 years. The Salish, Kootenai and the Pend d' Orielle tribes came from the Pacific Northwest to live near Flathead Lake thousands of years ago.

The United States purchased the Louisiana Territory from France in 1803 that extended from the Mississippi River west to the Rocky Mountains. The area included the land in Montana east of the Continental Divide. Land to the west of the divide remained in the Oregon Country which had been claimed and defined by Euro Americans in the late 1700s.

During the late 1700s and early 1800s, fur traders trapped to supply the European demand for fur and traded goods with the Native Americans in the Mission Valley and other portions of northwestern Montana. Throughout most of the 1800s, Pend d' Oreille, Kootenai, Salish and members of other Native American tribes lived in or passed through northwest Montana. The Mission Valley was the "lower" Flathead Valley and the Flathead Valley was known as the "upper" Flathead Valley.

The Flathead Indian Reservation, located at the south and west end of Flathead Lake, was created in 1855 by the Stevens Treaty. Most Native Americans were forced to move to the reservation, opening up the area to increased white and non-native settlement.

Between 1857 and 1860, the British and American government surveyed the Canadian/American International boundary (the 49th parallel). Fur trading was the mainstay for most early non-native occupants of the region until the discovery of gold in British Columbia in 1860. The discovery of gold in Canada brought miners, freighters and others in hope to prosper through northwest Montana. A few settled in the upper and lower Flathead

Valley to begin raising cattle, horses and to farm. Forest still covered the valley floor. Farmers and ranchers began clearing timber from the valley bottom to create farmland suitable for raising livestock and produce.

During the mid and late 1800s, exploitation of natural resources prompted enactment of several laws including the Timber and Stone Act of 1878 that was an attempt to control timber harvest and quarrying on public lands. The law was ineffective as it allowed wealthy individuals and corporations to purchase large land holdings for a minimal price. Much of the public land converted to private and corporate ownership because of the Timber and Stone Act. Having the land taken out of public ownership allowed these corporations and/or individuals to harvest timber and hold the land for speculation.

Years of over-hunting, over-trapping and over-fishing caused big game, fish and furbearer populations to drop to historic lows during the 1890s and early 1900s. This resulted in additional regulations to limit the number of species that were allowed to be harvested.

The first mapping of Flathead Valley occurred in the early 1870s. Montana was not yet a state, but the area that is now the State of Montana had a population of about 2,500. There were very few people living in the Flathead area until the first significant in migration of white settlers to northwest Montana which occurred in 1883, following the completion of the Northern Pacific Railroad line to Ravalli, north of Missoula.

The area north and west of modern day Kalispell was the first area settled in the upper Flathead Valley. The settlement of Ashley, an early settlement near today's Meridian Road and Seventh Street West in Kalispell, consisted of a few residences, general store, post office, blacksmith shop, saloon and drugstore. Another of the earliest settlements was Demersville, established by Jack Demers in 1887, along the Flathead River approximately 3 miles southeast of today's Kalispell at the "head of navigation" of the Flathead River. Demersville had a store, post office, town hall, hotel, stable, saloons, real estate offices, a weekly newspaper, church and a temporary military outpost.

Montana became a state in 1889. By this time, several other smaller communities had been established throughout the upper valley, including Somers, Creston, Bigfork, Montford, Selish, Egan and Kila. By 1890, Flathead County, which included present day Lincoln and Lake Counties, had a population of about 3,000. Plans to extend the railroad line from St. Paul to Seattle continued to bring people to the valley. Farmers and loggers settled in addition to the first land speculators. The anticipated coming of the railroad through Marias Pass started a construction boom in the valley and initialized the establishment of the town of Kalispell. Kalispell was established in March of 1891. The railroad was completed through the pass and the first construction train arrived in Kalispell in January of 1892. The westerly extension of the railroad brought many immigrants into the Western United States, which significantly contributed to the settlement of the "Upper" Flathead Valley.

In 1893, Flathead County was created out of Missoula County, which included all of northwestern Montana, including what is presently Lincoln and Lake Counties. Kalispell

was declared the county seat the following year. The Flathead County Courthouse was constructed in Kalispell in 1903.

The Flathead and Lewis and Clark Forest Reserves were created in 1897. This is now a major portion of Glacier National Park and the Flathead National Forest. The Forest Service, created in 1905, took over the management of these lands from the General Land Office. Glacier National Park was established five years later in 1910.

Columbia Falls and Whitefish were also settled in anticipation of the railroad crossing the continental divide. The residents of each city were hoping to be located at the railroad division point. The original town site of Columbia Falls was platted during the 1890s but was not incorporated as a city until 1909. The City of Whitefish was established in 1903 after the railroad was extended from Columbia Falls to Whitefish. In 1904, the railroad division point was relocated to Whitefish. Kalispell became the governmental and trade center while Whitefish became a railroad industry community. Columbia Falls was a community supported mainly by the timber industry.

Wood products were in high demand into the early 1900s and lumber mills throughout the valley were operating at capacity. Construction of new sections of railroad increased demand for wood products for railroad ties and housing for workers. In 1901, the Great Northern Railway contracted with lumberman John O'Brien to build a lumber mill at the head end of Flathead Lake. The mill later, in 1906, became the Somers Lumber Company that produced railroad ties, which included the treatment process. Timber was the first product to be exported from the area after the railroad was completed.

During the last decade of the 1800s and early 1900s, several other lumber companies were established to supply the needs of the railroad. In 1891, State Lumber Company was established and operation began in 1906 near the Whitefish River. During the late 1890s, F.H. Stoltze came to the Flathead Valley. Stoltze had been building stores along the Great Northern railroad line as it was constructed through North Dakota and Montana. In 1909 Stoltze, Edward Konantz, William Kiley and W.C. Neffner formed Enterprise Lumber Company. Between 1910 and 1930, Stoltze also formed Empire Lumber Company. Both the Enterprise and Empire Lumber Companies were constructed and operated in the Kila area. In 1918, State Lumber Company moved operations from along the Whitefish River to the Half Moon site northwest of Columbia Falls. Construction of the F.H. Stoltze mill also began in 1918 at the Half Moon site and began operation in 1923. F.H. Stoltze Land and Lumber Company acquired State Lumber Company in 1935. Several other lumber companies began operating including the Kalispell Lumber Company.

Prior to the arrival of the railroad, transport of goods within the valley was accomplished mostly by ferries and barges on the Flathead River. The east and west sides of the valley were connected only by ferries until the "Old Steel Bridge" was constructed across the Flathead River east of Kalispell in 1895. Existing roads consisted mainly of wagon trails that were impassible much of the time due to weather conditions. After the railroad moving the mainline to Whitefish, roads were being improved to move goods to the railroad for shipping. The first automobiles arrived in the valley by rail in 1905. The railroad

encouraged development along its route and after the establishment of Glacier National Park in 1910, the railroad served to promote tourism as well.

Lincoln County was formed in 1909 and Lake County was formed in 1923, both out of the original Flathead County, substantially reducing the size of Flathead County.

During the early 1920s to the beginning of World War II, federal monies stimulated efforts to construct and improve roads and highways. The highway over Marias Pass was completed in 1930 and the Going to the Sun Road in Glacier National Park was completed in 1933. The highway connecting Missoula to Kalispell was completed in 1932. Improvements to the road and highway infrastructure provided jobs for thousands of workers during the early depression years and significantly opened up the Flathead Valley to tourism and other types of development. Accessibility increased when the Flathead County Airport was completed in 1943. The name was changed to the Glacier International Airport, although the call letters, FCA, are still used.

By 1940, the timber industry had transitioned into mechanized logging methods and the depression had brought decreased demand for wood products. Several smaller mills ceased to operate and others greatly reduced production.

With the onset of World War II in December of 1941, men were enlisting in the Armed Services and women began entering the workforce performing jobs formally done by men. It is estimated that 30,000 Montanans enlisted between 1941 and 1944.

Demand for agricultural goods greatly increased during the war years and the years following. Much of the fertile land in the valley bottom had been harvested of timber and converted to farmland. Nearly one-fourth of the workers in Flathead County worked in agriculture and livestock production accounting for over 40 percent of gross income in the valley.

Following the war, major economic generators began to spread throughout the county including increased demand for agricultural products, power generation, tourism and a renewed demand for wood products.

In 1944, due to wartime demand for power, Congress authorized the construction of a 34-mile long reservoir with a 564-foot high dam and hydroelectric plant. Construction began in 1948 on the first major federal dam built since the beginning of World War II. The Hungry Horse Dam was constructed 5 miles southeast of the South Fork of the Flathead River's confluence with the main stem of the Flathead River. The dam and reservoir sites were surrounded by National Forest lands thus creating a great recreational amenity for the Flathead area and the entire region, are as well serving the demand for power generation. Construction of the dam, reservoir and power plant provided thousands of jobs and initiated the development of the small communities of Hungry Horse, Coram, Martin City and Columbia Heights. Completed in late 1953, the Hungry Horse Dam continues to provide power benefits for the entire Pacific Northwest region.

Clearing the timber for the reservoir also created vast supplies of timber to be processed at local mills. In addition to several other mills already operating in the valley, D.C. Dunham moved the D.C. Dunham Lumber Company from Minnesota to Columbia Falls in 1945 and renamed it to Plum Creek.

Big Mountain Ski Resort opened in 1947 marking the beginning of a new tourism industry in the valley. Tourism now surpassed the railroad industry as the primary industry i the Whitefish area and had become a major contributor to the valley's economy. In addition, a period of major industrial development was about to begin that would have major impact and benefits far outside of the area.

In 1952, one year before dam was to be completed Anaconda Copper Mining Company announced that they would build its $45,000,000 aluminum reduction facility two miles downstream from the new Hungry Horse Dam. The facility began operation in August of 1955 and has undergone several expansions and technological improvements since it was constructed.

The 1950s through the 1970s experienced significant expansion of the wood products industry. The early 1980s however, brought an economic slowdown to the timber industry in northwest Montana. Some small lumber mills ceased to operate due to decreasing timber supply from public lands because of environmental concerns and changing policies for management of public lands.
Despite the slowdown in the wood products industry, the Flathead Valley has continued to grow significantly through the 1980s to the present time.

Structural shifts of recent decades in the global and national economy play a key role in economic conditions of a local economy. National and regional trends show increases in the service sector, education and health care, tourism, communications and electronics. Locally, the Flathead Valley has experienced significant expansion in all of these sectors.

In 1967, Flathead Valley residents recognized a need for localized higher education. The Flathead Valley Community College (FVCC) was established, filling that requirement. FVCC has moved and expanded with the demands that continued growth placed on the school. There was an additional development added at FVCC in 2006.

In 1979, Veratech, a corporation established in California in 1978, moved operations to Kalispell and was renamed to Semitool. The company had two employees when it moved to valley. Semitool develops and manufactures equipment for use in fabrication of semiconductor devices worldwide. In 1985, the company moved to a new 60,000 square foot facility on West Reserve Drive north of Kalispell, where most of its manufacturing takes place. During various times of the year, Semitool employs over 1,000 people.

Through the 1990s, the valley experienced accelerated growth, which continues. As the agricultural and the wood products industry continues to decline, the coming of shopping

malls, large retail stores, expansion of medical facilities, tourism, real estate and retirement opportunities appear to be sustaining the economy of the valley.

Sources and Suggested Reading
Flathead County Library, Montana Historical Society,
Montana Historical Society Publication, "Looking Back: A Pictorial History of the Flathead Valley, Montana" by Kathryn L. McKay

PART 2: Land Uses

Flathead County is located in the northwestern corner of Montana and is the third largest county in Montana encompassing approximately 3,361,230[1] acres or 5,252 square miles. Surrounded by mountains on the north, west and east sides and bordered by Flathead Lake to the south, the valley itself is approximately 15 miles wide and 20 miles long. The Continental Divide defines the east boundary and the Canadian American International Border is the northern boundary of the county.

Flathead County is centrally located between several major cities. Spokane is approximately 200 air miles to the west or about a 4-hour drive from Kalispell. Calgary in Alberta, Canada lies north within 200 air miles. Missoula is approximately 100 miles south and Great Falls, 150 miles to the east. Glacier International Airport is also centrally located in the valley and the three incorporated communities of Flathead County. U.S. Highway 2 and U.S. Highway 93 connects the valley to Interstate 90 to the south and Interstate 15 to the east.

The land in Flathead County is managed by four entities: federal government, state government, Salish-Kootenai tribal government and private property owners.

Federal Lands

The Federal government manages approximately 78.6% of the total land in Flathead County. The USDA Forest Service is responsible for management of National Forests (including wilderness areas) and Flathead County contains portions of four National Forests and two Wilderness Areas. Flathead National Forest (including portions of the Great Bear and Bob Marshall Wilderness Areas) has approximately 1,875,545[2] acres within Flathead County that contribute nearly 55% of the total county acreage. Other National Forests that have lands within Flathead County are Kootenai, Lewis and Clark and Lolo (totaling approximately 115,390[3] acres). Combined, the National Forests and Wilderness Areas contribute approximately 59% of the total acreage of Flathead County.

National Forests are not the only land in Flathead County managed by the federal government. Totaling approximately 1,008,306[4] acres, Glacier National Park is split

[1] Montana Natural Resource Information System
[2] Montana Natural Resource Information System
[3] Montana Natural Resource Information System
[4] National Park Service, Glacier National Park

between Flathead County and Glacier County. Approximately 635,214[5] acres of Glacier National Park contribute 19% of the total land mass of Flathead County. Other Federally managed lands in Flathead County include the Lost Trail National Wildlife Refuge (7,885 acres[6]), Swan River National Wildlife Refuge (1,568 acres[7]) and the Flathead, Batavia, McGregor Meadows, Smith Lake and Blasdel Waterfowl Production Areas (totaling 5,189 acres[8]). Combined, Wildlife Refuges and Waterfowl Production Areas contribute an additional 14,642 acres of land in Flathead County.

State Lands

The State of Montana manages a substantial acreage within Flathead County. Lands managed by the DNRC Trust Lands Management System account for approximately 129,670 acres of Flathead County. Fish, Wildlife and Parks manages another approximately 3,208 acres.

Tribal Lands

The Flathead Indian Reservation encompasses approximately 29,864 acres of Flathead County. Approximately 24,315 acres of this total are owned by the Salish/Kootenai Confederated Tribes and are not under the jurisdiction of the Flathead County Growth Policy. Another approximately 3,024 acres of the Flathead Indian Reservation within Flathead County are non-tribal owned private fee lands.[9] Any non-tribal owned fee lands not owned by members of any Indian tribe would be under the jurisdiction of the Flathead County Growth Policy. An additional 2,520 acres of Flathead County within the Flathead Reservation are state-owned lands.

Private Timber Land

A substantial portion of the private property in Flathead County is used for timber production. The three largest corporate timber landowners, F.H. Stoltze Land and Lumber, Plum Creek and Montana Forest Products together account for approximately 9.2% (310,000 acres) of the total land area in Flathead County. Land owned by the three largest corporate timber operations represents approximately 52.7% of the private land in Flathead County. Many small operations exist as well throughout Flathead County contributing additional acreage to the private timberlands category. Although many of the private timberland owners generously allow public access to their land, these lands remain private. Private timberlands provide multiple positive benefits for Flathead County. In addition to the economic aspects of timber production and material products, these timberlands provide watershed protection, wildlife habitat, recreational opportunities and other values.

[5] National Park Service, Glacier National Park
[6] http://www.fws.gov/bisonrange/losttrail/
[7] http://www.fws.gov/bisonrange/swan/
[8] http://www.fws.gov/bisonrange/wmd/
[9] Some of these lands could be owned by individual Tribal members.

Agricultural Land

In the 21st century, a substantial portion of the land in Flathead County is still used for agriculture. In 2002, approximately 40% of the private land (234,861 acres) in Flathead County was being farmed.[10] There were approximately 1,075 individual farms, with the majority of these farms (78%) being under 179 acres in size. Over half the farms in Flathead County had annual sales of less than $2,500.00. These numbers indicate that a large portion of the farms in Flathead County are small hobby farms and are not the primary source of income for the residents. However, in 2002 there were approximately 98 farms that were over 500 acres in size and approximately 115 farms that had annual sales of over $50,000. These farms are more likely to be the primary occupation of the landowner and represent a substantial portion of the acreage in Flathead County.

Industrial Land

Flathead County currently has approximately 194,660 privately owned acres with regulated land use[11]. Many of these lands are located around or between the business centers of Flathead County[12]. Of the 194,660 privately owned acres with regulated land uses, only 311 acres are specifically designated for uses commonly defined as industrial. A limited quantity of land results in higher prices and creates difficulties for businesses seeking efficient locations.

Commercial Land

In 2001, there were 3,279 private, non-farm businesses in Flathead County employing approximately 29,075 people.[13] Only two years later (2003), there were 3,594 private non-farm establishments employing approximately 29,906 people.[14] Current land use regulations allow commercial uses in a variety of designated areas. It is difficult to define exact acreages of existing commercial designations because of varying definitions of commercial uses between zoning districts. There are approximately 938 acres of "Business" zoning. An additional approximately 500 acres are designated "Business Resort". An additional 392,771 acres of private property in Flathead County exists on which land use activity is unregulated by Flathead County.

Residential Land

In 2005, 535 new residential lots came on the market in rural Flathead County (see Table AA.2.1). The number of lots created in 2005 represents 1,928 new acres of residential land from 2004.

[10] USDA 2002 Census of Agriculture
[11] This includes some Federal and State land that is included in the North Fork Zoning District
[12] Primarily Bigfork, Kalispell, Evergreen, Whitefish and Columbia Falls
[13] http://quickfacts.census.gov/qfd/states/30/30029.html
[14] http://censtats.census.gov/cgi-bin/cbpnaic/cbpsect.pl

Table AA.2.1
Flathead County Lots Created: 2000-2005 [15]

Year	Lots Created[16]	Total Acreage Subdivided[17]
2000	260	3,030
2001	326	1,659
2002	517	3,386
2003	592	2,081
2004	894	2,644
2005	535	1,928
Total	**3124**	**14,731**
Average per year	521	2,455

Flathead County contains a variety of growth density designations, some initiated by the County and some initiated by the citizens. Some areas are covered by neighborhood plans, such as The Canyon, West Valley, Lakeside and Bigfork, while other areas are designated in accordance with the existing Flathead County Master Plan. Flathead County currently contains approximately 305,670 acres of land with density designations[18]. Table AA.2.2 shows the acreages with density designations in Flathead County from 1980 to present. All areas of Flathead County were undesignated in 1970.

Table AA.2.2
Lands Currently Regulated 1980-2005

Year	Total Acreage Zoned	Percent change
1980	44,230	--
1990	60,844	38
2000	305,318	401
2005	305,670	0

It is not known how many dwelling units are contained in each designation, making it nearly impossible to determine full development potential. Many areas are not currently fully developed, leaving potentially thousands of acres that could be developed.

PART 3: Open Space Land Uses

Conservation Easements

To protect sensitive areas, a landowner may choose to put land into a conservation easement. Conservation easements permanently prohibit unlimited residential or commercial development, subdivision and uses or practices that would be harmful to agricultural, wildlife, scenic values, or other important values that the land currently sustains. A conservation easement is recorded with the deed to the property and remains

[15] Flathead County Planning and Zoning Office subdivision database.
[16] Number of lots does not include lots created using an exemption from subdivision review such as family transfer or court ordered split.
[17] Acreages do not include land divided using an exemption from subdivision review such as family transfer or court ordered split.
[18] This includes all acreage that is under the jurisdiction of a neighborhood plan and does not include scenic corridor or city zoning districts. This number includes some federal and state lands that are within the jurisdiction of neighborhood plans.

in force regardless of future changes of ownership. Conservation easements allow landowners to continue owning and using their land and to sell it or pass it on to their heirs. A conservation easement does not have to provide public access, or include an entire property nor does it preclude all use or development.

Some of the major areas recently protected by conservation easements include McWennegar and Weaver Sloughs and Foys Bend. These areas have long been recognized for their multiple conservation values. The wetlands areas protect water quality and provide valuable wildlife, waterfowl and fish habitat. The easements protect about 1,470 acres, which include a significant amount of prime farmland.

In late 2000, The Nature Conservancy negotiated an agreement with North Fork landowner, Tom Ladenburg for a 1,227-acre conservation easement on the Rocky Bar O, the only working ranch in the North Fork. Approximately 512 of the ranches 1,800 acres were already protected under an easement with the U.S. Forest Service. This property is the largest tract of private land in the North Fork, representing nearly 10% of the private property in the area and lies adjacent to the North Fork of the Flathead River mainly on river bottomlands. The easement includes open hay meadows, riparian areas and forestlands. The Rocky Bar O Ranch easement provides prime wildlife habitat and protects a critical travel route for wolves and bears as well as elk, deer, moose, mountain lions and other wildlife that travel from the river bottom to the mountains of Glacier National Park. The North Fork has the highest density of grizzlies recorded in the lower 48 and as many as four wolf packs, including the original "magic pack" which was the first naturally occurring wolf pack to repopulate the area on its own.

Another easement of great significance was recorded by Plum Creek in 2000 near McGregor and Thompson Lakes and in the Thompson River corridor. The easement lies mostly in Lincoln and Sanders County with 13,519 acres in Flathead County.

It is difficult to track and calculate the total area of Flathead County that is protected by conservation easements. Several organizations and agencies deal with and negotiate conservation easements in Flathead County. A consolidated list is not available. Three main organizations negotiate these easements, which include the Montana Land Reliance, Flathead Land Trust and the Nature Conservancy.

Conservation easements are filed through the Flathead County Planning Office as well as through negotiation with the Montana Land Reliance, the Flathead Land Trust and the Nature Conservancy. Table AA.3.1 shows the location of the majority of these easements.

Table AA.3.1
Conservation Easements listed with Flathead County – partial list

YEAR	AREA	GRANTOR	GRANTEE	ACRES	HABITAT CHARACTERISTICS

YEAR	AREA	GRANTOR	GRANTEE	ACRES	HABITAT CHARACTERISTICS
1981	KALISPELL-WEST FOYS LAKE	HARRINGTON & BIBLER	FLATHEAD COUNTY	60	FOREST, GRASSLAND, LAKE, PUBLIC RECREATION
1986	KALISPELL-EAST EGAN SLOUGH	ROBOCKER	THE NATURE CONSERVANCY	40	RIPARIAN & WETLAND HABITAT
1988	WHITEFISH-WEST WEST OF CITY	BATTIN	THE NATURE CONSERVANCY	20	RARE PLANT SPECIES
1988	WHITEFISH WEST WEST OF CITY	MURDOCK	THE NATURE CONSERVANCY	116	RARE PLANT SPECIES
1989	WHITEFISH-WEST WEST OF CITY	STOLTZE	THE NATURE CONSERVANCY	80	RARE PLANT SPECIES
1990	KALISPELL-EAST FLATHEAD RIVER EGAN SLOUGH	ROBOCKER	THE NATURE CONSERVANCY	507	WETLAND, AQUATIC PLANT COMMUNITIES
1990	KALISPELL-NORTH STILLWATER RIVER & GRANDVIEW DR	CARLSON	FLATHEAD LAND TRUST	19	RIPARIAN HABITAT, RIPARIAN PLANT SPECIES
1993	KALISPELL-SOUTH LAKESIDE & FLATHEAD LAKE	DRESCHER	THE NATURE CONSERVANCY	38	BALD EAGLE NESTING SITE
1993	COLUMBIA FALLS EAST & FLATHEAD RIVER	BUCHANAN	MONTANA LAND RELIANCE	22	PLANT, WILDLIFE & WATERFOWL HABITAT
1993	KALISPELL-WEST FOYS LAKE-EAST	BIBLER	MONTANA LAND RELIANCE	358	AGRICULTURAL, WILDLIFE HABITAT
1993	KALISPELL-EAST	ROBOCKER	MONTANA LAND RELIANCE	124	PLANT, WILDLIFE & WATERFOWL HABITAT
1993	WHITEFISH OLNEY-UPPER STILLWATER	HORN	MONTANA LAND RELIANCE	940	WETLANDS, PLANT & WILDLIFE HABITAT
1993	COLUMBIA FALLS POLEBRIDGE NORTH TRAIL CR	MARX	THE NATURE CONSERVANCY	154	RIPARIAN & WETLAND HABITAT
1994	KALISPELL - SE BIGFORK-WEST FLATHEAD LAKE	HENDRICKSON	MONTANA LAND RELIANCE	30	AESTHETIC/SCENIC, WILDLIFE & WATERFOWL HABITAT
1994	WHITEFISH-WEST WEST OF CITY	MURDOCK	THE NATURE CONSERVANCY	59	RARE PLANT SPECIES
1994	COLUMBIA FALLS POLEBRIDGE-NORTH	FREDERICK	FLATHEAD LAND TRUST	31	RIPARIAN & WETLAND HABITAT

YEAR	AREA	GRANTOR	GRANTEE	ACRES	HABITAT CHARACTERISTICS
1995	BIGFORK-EAST SWAN RIVER	WILSON	MONTANA LAND RELIANCE	36	FLOODPLAIN & WETLAND HABITAT
1995	COLUMBIA FALLS-NORTH, BLANKENSHIP	KEEVA	MONTANA LAND RELIANCE	220	FOREST, WILDLIFE & WATERFOWL HABITAT
1995	KALISPELL-EAST, OLD STEEL BRIDGE	NELSON	MONTANA LAND RELIANCE	220	RIPARIAN & WETLAND HABITAT
1996	KALISPELL-SOUTH, LOWER VALLEY/SOMERS	CUMMINGS	FLATHEAD LAND TRUST	50	PASTURE & WETLAND HABITAT
1996	KALISPELL-EAST, OLD STEEL BRIDGE	PETERSON	MONTANA LAND RELIANCE	64	FLOODPLAIN & WETLAND HABITAT
1996	KALISPELL-WEST, FOYS LAKE	BIBLER	MONTANA LAND RELIANCE	94	PASTURE & LAKE, WATERFOWL HABITAT
1996	KALISPELL-EAST, CRESTON-EGAN SLOUGH	NOYES	MONTANA LAND RELIANCE	20	PRIME FARMLAND, WETLAND HABITAT
1996	KALISPELL-NORTH, STILLWATER RIVER	KOENIG	MONTANA LAND RELIANCE	530	AGRICULTURAL
1996	KALISPELL-EAST, OLD STEEL BRIDGE	NELSON	MONTANA LAND RELIANCE	25	AGRICULTURAL, RIPARIAN & WETLAND HABITAT
1996	WHITEFISH-EAST, HASKILL BASIN	ADAMS	MONTANA LAND RELIANCE	40	FOREST, WETLAND HABITAT
1997	KALISPELL-EAST, FAIR-MONT EGAN	ROBOCKER	MONTANA LAND RELIANCE	104	AGRICULTURAL, FOREST
1997	KALISPELL-EAST, CRESTON-MANY LAKES	HAUTH	FLATHEAD LAND TRUST	10	FOREST, WETLAND HABITAT
1997	KALISPELL-WEST, SMITH LAKE-ASHLEY CR	BAXTER	MONTANA LAND RELIANCE	86	AGRICULTURAL, WETLAND HABITAT
1997	KALISPELL-WEST, TRUMAN CR	HUTTEN	MONTANA LAND RELIANCE	50	FOREST, AGRICULTURAL, CREEK
1997	KALISPELL-WEST, ROGERS LK	PISK	MONTANA LAND RELIANCE	105	STREAMS, FOREST, AGRICULTURAL
1997	KALISPELL-WEST, BALDY MTN	MITCHELL	MONTANA LAND RELIANCE	20	STREAMS, FOREST, AGRICULTURAL

YEAR	AREA	GRANTOR	GRANTEE	ACRES	HABITAT CHARACTERISTICS
1997	WHITEFISH-WEST, TALLY LK	SULLIVAN & FLOWERS	FLATHEAD LAND TRUST	60	FOREST, AGRICULTURAL, WILDLIFE HABITAT
1997	KALISPELL-EAST, FLATHEAD RIVER-EAST	NELSON	MONTANA LAND RELIANCE	60	FLOODPLAIN, WETLAND HABITAT, AGRICULTURAL
1997	KALISPELL-EAST, FLATHEAD RIVER-FOYS BEND	INGHAM	MONTANA LAND RELIANCE	234	FOREST, WILDLIFE, EAGLE, WETLAND HABITAT
1997	KALISPELL-EAST, CRESTON-FOOTHILLS RD	BEAR PAW PROPERTIES	THE NATURE CONSERVANCY	140	FOREST, WILDLIFE HABITAT
1997	COLUMBIA FALLS-NORTH, POLEBRIDGE-TRAIL CR	BISSELL & MACE	THE NATURE CONSERVANCY	10	FOREST, RIPARIAN HABITAT
1998	KALISPELL-EAST, CRESTON-LAKE BLAINE	WHITNEY	MONTANA LAND RELIANCE	109	AGRICULTURAL, FLOODPLAIN, WETLAND HABITAT
1998	KALISPELL-NORTHWEST, WEST VALLEY-RHODES DRAW	BREEN	FLATHEAD LAND TRUST	40	FOREST, AGRICULTURAL
1998	WHITEFISH-SOUTHWEST, BLANCHARD LAKE	HEBERLING	FLATHEAD LAND TRUST	20	AGRICULTURAL, FOREST
1998	KALISPELL-EAST, FLATHEAD RIVER-EGAN SLOUGH	ROBOCKER-EBERTS	MONTANA LAND RELIANCE	25	AGRICULTURAL
1998	KALISPELL-NORTH, STILLWATER RIVER-GRANDVIEW DR	CARLSON	FLATHEAD LAND TRUST	7	SCENIC, OPEN SPACE
1998	KALISPELL-WEST, FOYS LAKE	PISK	MONTANA LAND RELIANCE	97	FOREST, GRASSLAND, LAKE, PUBLIC RECREATION
1998	WHITEFISH-WEST, TALLY LAKE RD	GILMORE	FLATHEAD LAND TRUST	20	WETLAND HABITAT
1998	KALISPELL-SOUTH, LOWER VALLEY-SOMERS	SIDERIUS	MONTANA LAND RELIANCE	120	AGRICULTURAL, WATERFOWL & WETLAND HABITAT
1998	KALISPELL-EAST, STEEL BRIDGE RD	PETERSON	MONTANA LAND RELIANCE	24	FLOODPLAIN & WETLAND HABITAT
1999	KALISPELL-SOUTH, LAKESIDE-SOUTH, FLATHEAD LAKE-WESTSHORE	GRISWOLD-SMITH	MONTANA LAND RELIANCE	17	WILDLIFE, FISHERIES HABITAT, UNDEVELOPED SHORELINE
1999	WHITEFISH-NORTH, E EDGEWOOD DR	PATTERSON GROUP	FLATHEAD LAND TRUST	65	AGRICULTURAL LAND, OPEN SPACE

YEAR	AREA	GRANTOR	GRANTEE	ACRES	HABITAT CHARACTERISTICS
1999	KALISPELL-SOUTHEAST, LOWER VALLEY	HEINE & BALLARD	MONTANA LAND RELIANCE	194	AGRICULTURAL LAND, OPEN SPACE
1999	BIGFORK-NORTHEAST, ECHO LAKE-EAST	DODSON	MONTANA LAND RELIANCE	72	AGRICULTURAL LAND, OPEN SPACE
1999	WHITEFISH-EAST	STEINER-BRYANT	MONTANA LAND RELIANCE	294	AGRICULTURAL LAND, OPEN SPACE
1999	KALISPELL-SOUTH, AIRPORT ROAD	WALLNER	MONTANA LAND RELIANCE	43	AGRICULTURAL LAND, OPEN SPACE
1999	KALISPELL-SOUTH, AIRPORT ROAD	WALLNER	MONTANA LAND RELIANCE	25	AGRICULTURAL LAND, OPEN SPACE
1999	KALISPELL-SOUTHEAST, LOWER VALLEY	CUMMINGS	FLATHEAD LAND TRUST	71	AGRICULTURAL LAND, OPEN SPACE
1999	BIGFORK-NORTHEAST, BROWNS GULCH	WILKINS	MONTANA LAND RELIANCE	57	SCENIC OPEN SPACE, WILDLIFE HABITAT
1999	BIGFORK-EAST, SWAN RIVER	WILSON	MONTANA LAND RELIANCE	11	SCENIC OPEN SPACE, RECREATIONAL RIVER FRONTAGE
1999	KALISPELL-WEST, STAR MEADOWS	COHEN	FLATHEAD LAND TRUST	200	SCENIC OPEN SPACE, WILDLIFE HABITAT
1999	KALISPELL-WEST, MCGREGOR MEADOWS	OWENS & HURST	FLATHEAD LAND TRUST	160	SCENIC OPEN SPACE, WILDLIFE HABITAT
2000	BIGFORK-EAST, SWAN RIVER	WHITNEY	MONTANA LAND RELIANCE	143	RECREATIONAL, SELECTIVE TIMBER HARVEST
2000	CORAM-ADJACENT TO EXPERIMENTAL FOREST	RHODES	FLATHEAD LAND TRUST	24	SCENIC OPEN SPACE, WILDLIFE HABITAT, WATER RESOURCES
2000	CORAM-ADJACENT TO EXPERIMENTAL FOREST	JORDAN & PINTER	FLATHEAD LAND TRUST	36	SCENIC OPEN SPACE, WILDLIFE HABITAT, WATER RESOURCES
2000	KALISPELL-NORTHEAST, BLACKMER LN	ARNONE	FLATHEAD LAND TRUST	50	WILDLIFE AND BIRD HABITAT
2000	WHITEFISH-SOUTHEAST, BLANCHARD LAKE	ALEXANDER	FLATHEAD LAND TRUST	38	SCENIC OPEN SPACE, WILDLIFE HABITAT
2000	WHITEFISH-NORTH, IRON HORSE	IRON HORSE @ WHITEFISH	FLATHEAD LAND TRUST	72	OPEN SPACE, NATURAL TIMBER LAND

YEAR	AREA	GRANTOR	GRANTEE	ACRES	HABITAT CHARACTERISTICS
2000	WHITEFISH-SOUTH, U S HWY 93 & MT HWY 40	WATKINS & GREER	MONTANA LAND RELIANCE	60	OPEN SPACE, PROTECTION FROM DEVELOPMENT
2000	KALISPELL-WEST, MCGREGOR LAKE-WEST, SOUTH OF HWY 2	PLUM CREEK		13,520	OPEN SPACE, WILDLIFE HABITAT
	KALISPELL-SOUTHEAST, FENNON SLOUGH	SOWERWINE	FLATHEAD LAND TRUST	160	FLOODPLAIN & WETLAND HABITAT
2000	WHITEFISH - WEST, SOUTH OF STAR MEADOWS	GRATCH	FLATHEAD LAND TRUST	160	OPEN SPACE, WILDLIFE AND BIRD HABITAT, WETLANDS
2000	KALISPELL - EAST, McWENNEGER SLOUGH	SMITH	MONTANA LAND RELIANCE	100	AGRICULTURAL, HUNTING, FISHING AND RECREATIONAL
2000	KALISPELL - SOUTH, WEST OF AIRPORT RD	BIBLER	MONTANA LAND RELIANCE	386	AGRICULTURAL, OPEN SPACE, WETLANDS, WILDLIFE HABITAT
2000	KALISPELL-NORTH, WEST OF GN AIRPORT	HARRISON	FLATHEAD LAND TRUST	16	OPEN SPACE, WILDLIFE HABITAT
2000	WHITEFISH-WEST, STILLWATER RIVER	CORNELL	FLATHEAD LAND TRUST	30	SCENIC OPEN SPACE, WILDLIFE HABITAT
2000	COLUMBIA FALLS-NORTH, POLEBRIDGE / HAY CREEK	GAITIS	THE NATURE CONSERVANCY	63	OPEN SPACE, CRITICAL WILDLIFE HABITAT INC GRIZZLY BEAR
2000	POLEBRIDGE-NORTH / TRAIL CREEK	HEGER	THE NATURE CONSERVANCY	50	OPEN SPACE, CRITICAL WILDLIFE HABITAT INC GRIZZLY BEAR
2000	POLEBRIDGE-NORTH / TRAIL CREEK RD	GUYNN	THE NATURE CONSERVANCY	105	OPEN SPACE, CRITICAL WILDLIFE HABITAT INC GRIZZLY BEAR
	TOTAL ACRES THROUGH 2000			**21,460**	

Source: Montana Land Reliance 2006

PART 4: Lands Unsuitable for Development

Floodplains

Flooding causes more property damage in the United States than any other type of natural disaster. In fact, it is estimated that flooding causes 90 percent of all property losses from natural disasters in the United States.

The presence of floodplain in Flathead County is perhaps the greatest impediment to growth and development. The Flathead Valley is a floodplain on a glacial scale. The

valley floor is rich in sediments deposited by floods over the ages. The dynamic nature of the Flathead River and its tributaries is evident by the numerous oxbows and sloughs that were created by the river and then abandoned as the rivers migrated. The relatively flat terrain of the valley floor also manifests itself in the sinuous nature of the rivers that wind through the valley to Flathead Lake. The meandering pattern of the river is a result of bank erosion on the outside bends and subsequent deposition on the insides.

The Federal Emergency Management Agency (FEMA) has not identified all of the floodplain in Flathead County but most of the Flathead River corridor and the valley bottom have been mapped. Approximately 10-15% of the valley area of Flathead County is designated as 100-year floodplain. An additional 10-15% of the valley bottom is designated or as 500 year floodplain. Most of the floodplain is located along the Flathead River corridor, between Columbia Falls and Flathead Lake. Areas of 100-year floodplain are also present along the Stillwater and Whitefish Rivers (see Map 2.7).

The 100-year floodplain defines an area covered by a flood of such intensity that it would, on average, occur once every one hundred years; and the 500-year floodplain, every 500 years. Described another way, a 100-year flood event has a one percent chance of occurring in any given year.

Historically, flooding has shaped much of the Flathead Valley floor. The Flathead Valley has experienced five (5) severe flood events. These occurred in 1894, 1926, 1948, 1964 and 1975 and 1995. During the 1964 flood, families were evacuated from their homes, livestock drowned and property damage was excessive.

The 1975 flood in Evergreen was estimated to be a 25-year flood event. Officials at the time estimated property damage in excess of two million dollars and news stories reported that over 200 mobile homes were either flooded or pulled from high water areas in the Evergreen area. The 1964 flood was much more extensive. The flows through Columbia Falls on the Flathead River were 25 percent higher than a 500-year flood event. The flood was triggered by torrential rains that swept through the mountains and valley during a period of unseasonably high spring temperatures that were already causing a rapid thaw of an unusually high spring snow pack.

This late June event was caused by an unusually high snow pack, a cool spring with little snow melt, followed by unseasonably high temperatures and a brief stretch of heavy spring rains. Again, in 1974 and 1975, spring runoff caused a flood measuring slightly less than a 100-year event as spring runoff inundated low-lying areas in the valley. Property loss and damage was severe.

100-year floodplains offer numerous benefits to the property and community by:

- Providing flood storage and conveyance;
- Reducing flood velocities and potential for erosion;
- Absorbing large volumes of water gradually releasing it to adjacent streams or water bodies during low flow periods;

- Recharging wells and aquifers by holding water long enough to allow it to percolate into underlying soils;
- Supporting vegetation that acts as a flood buffer and stabilizes the shoreline;
- Enhancing water quality by absorbing sediments, toxins and nutrients;
- Providing habitat for millions of birds, mammals, reptiles, fish and amphibians

The floodway fringe is a lower hazard area that would be inundated by a 100-year flood. A 100-year flood is used as the basis of floodplain mapping prepared by FEMA. A 100-year flood can be expected to occur once in a 100-year period or more appropriately, statistically has a 1% chance of occurring each year. Construction is allowed in the floodway fringe by special permit and must meet established regulations. The Flathead City-County Health Department, which issues permits for all on-site sewage disposal systems, does not allow a system in or within 100 feet of a designated 100-year flood plain.

Current national floodplain management standards allow for: floodwater to be diverted onto others; channel and over bank conveyance areas to be reduced; essential valley storage to be filled; or velocities changed with little or no regard as to how these changes affects others in the floodplain and watershed. The net result is that through our actions we are intensifying damage potentials in the floodplains. This current course is one that is not equitable to those whose property is impacted and not economically sustainable.

The Association of State Floodplain Managers and the Association of Montana Floodplain Managers support local accountability and active management of the floodplains through outreach and education. Both organizations support the "No Adverse Impact" policy that is meant to ameliorate negative impacts associated with floodplain development.

“No Adverse Impact Floodplain Management” is a managing principle that is easy to communicate and from a policy perspective tough to challenge. In essence, No Adverse Impact floodplain management is the action of one property owner does not adversely affect the rights of other property owners, as measured by increased flood peaks, flood stage, flood velocity and erosion and sedimentation. No Adverse Impact Floodplains could become the default management criteria; unless a community has developed and adopted a comprehensive plan to manage development that identifies acceptable levels of impact, appropriate measures to mitigate those adverse impacts and a plan for implementation. No Adverse Impact could be extended to entire watersheds as a means to promote the use of retention/detention or other techniques to mitigate increased runoff from urban areas.

Local floodplain regulations are adopted and enforced locally, but are authorized by the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. Prior to these acts, flood insurance was nearly non-existent for private property owners. When local communities participate in the National Flood Insurance Program (NFIP), private property owners are then eligible to obtain flood insurance.

Flathead County began participating in the National Flood Insurance Program (NFIP) September 5, 1984. By participating in the NFIP, the County (and the three municipalities) has adopted Floodplain Regulations to identify all areas within Special Flood Hazard Areas (SFHA). With the adoption of the regulations, they have also adopted Flood Insurance Studies (FIS), which form the basis of the Flood Insurance Rate Maps (FIRM). These documents are used primarily in determining actuarial flood insurance rates and secondarily to assist the local jurisdictions in their efforts to promote sound floodplain management.

FEMA is currently undergoing a comprehensive nationwide map modernization process. This process involves working with local communities and state officials, contracted consultants and the public. The result of this process is to produce digital maps and may include some detailed study on a limited number of waterways. Flathead County has been identified as a priority community that is in need of significant map modernization. This process began in 2004 and will likely continue through October 2007.

Flathead County currently participates in the Community Rating System (CRS) and is recognized as a Class 9 community. This recognition is based on the regulations and management that has been in place and results in property owners throughout the county in enjoying a 5% discount on their flood insurance premiums. Proactive management of the floodplain could result in a classification of 8; and a 10% discount in flood insurance rates.

High Groundwater

Groundwater is water that fills pores and cracks in rocks and soil. Groundwater sustains lake levels, provides for base flows in streams and is a major source of domestic water. Groundwater comes from precipitation and condensation that enters the soil and is susceptible to depletion in quantity and degradation of quality.

Groundwater flows beneath the surface of the earth, generally moving down hill following the contours of the land. It moves toward a point of discharge, which is usually a lake, stream, spring or a well.

The depth to groundwater varies with seasons and precipitation levels. Many areas experience seasonally high groundwater levels, usually in the spring, which limits land use. The areas are commonly near floodplains, alluvial deposits and swamps, which places limitations on septic tanks, basements and road building.

An aquifer is a water-bearing layer of permeable rock, sand or gravel. The thickness and depth of an aquifer vary with its location. The quantity of water a rock can contain depends on its porosity or the amount of open space and cracks between grains. Water movement in rock depends on the permeability, or ability to transmit or allow water to flow. Aquifers are recharged or filled by precipitation and infiltration from streams. Recharge is greatest in late spring when snow melts and there is runoff from the mountains.

A significant amount of area with seasonally high ground water and/or frequent flooding can be found throughout the Flathead River corridor and the valley bottom that is also experiencing development pressure (see Map 2.5). Much of the development in the area south of Kalispell in the Lower Valley area is occurring where the depth to groundwater is less than 15 feet. Homes that are being constructed in this area are on individual water and septic systems. Since there is a direct connection between the aquifer and the Flathead River and Flathead Lake, activity that substantially or incrementally changes the natural integrity of the floodplains and their aquifers will have a direct and pervasive impact on surface water quality. The groundwater supply in this area feeds directly into the aquifer and Flathead Lake. High-density development in the Lower Valley area has the potential to degrade the water quality of Flathead River and Flathead Lake, as well as the groundwater that supplies and recharges domestic water wells in the area.

Four major types of aquifers have been identified in the Flathead Valley. (Flathead River Basin Steering Committee, 1983 and Konezeske, 1968)

1. The Precambrian Bedrock Aquifer is found in hilly areas. Water is trapped in fractures of Precambrian rock and provides a source for domestic water. This includes a fractured limestone area located northwest of Flathead Lake extending north from Rollins to Whitefish Lake.

2. A Pleistocene Artesian Aquifer is found under most of the valley floor and consists of unconsolidated sand and gravel over laid by thick layers of glacial till and sediments. Two zones of sand and gravel have been identified, one deep and one shallow. Many wells extend 200 to 400 feet into the deep aquifer. This aquifer is recharged along the mountain front east of the valley by precipitation and steam seepage.

3. Pleistocene Perched Aquifers are separated from the artesian aquifers by an impermeable layer of clay, till and gravel. The perched aquifers are found in dune and lacustrine sand, glacial drift and glacial outwash. They are small in area extent and water yield. Recharge is by precipitation and stream seepage.

4. A Floodplain Aquifer is located under the floodplains of the Flathead, Stillwater and Whitefish Rivers. It is described as a 30-foot deep, 5-mile wide bed of sand and gravel. Recharge is by precipitation, infiltration from streams, percolation from irrigation water and seepage from high groundwater. Flows range from a few gallons per minute (gpm) in the sand, to as much as 2,000 gallons per minute in gravel deposits.

The major aquifer in the Flathead valley is shallow alluvial aquifer, often referred to as the Evergreen Aquifer and is located between the Flathead River to the east and Whitefish River to the west and between Badrock Canyon to the north and the confluence of the Flathead and Whitefish rivers to the south. The depth to the water table in this area is generally less than 50 feet and for much of the area less than five feet (see Map 2.5).

Slope / Topography

The topography of the land affects almost every aspect of development. Land can be too level for some uses and too steep for others. Slope is one of the controlling factors in the design of streets, storm drainage facilities, sewer and water lines and lot orientation and density. Problems that usually occur because of slope can be grouped under three headings shown in Table AA.4.1.

Table AA.4.1
Slopes

Grade:	Slopes that are too steep or too gentle for a particular land use and therefore, must be changed by cut and fill if development is to occur.
Erosion:	Slopes with steep inclines, light vegetative cover and loose soil material and thus conducive to loss of soil by erosion.
Failure:	Slopes that are composed of weak, steeply inclined materials which have low bearing (weight supporting) capacity and are prone to mass movements such as mudflows, creep and slides.

It is difficult to be specific about slope limitations because of the amount of site design and engineering, which may or may not be incorporated into a particular land use. Generally, 0 to 10 percent slopes are well suited for most types of development. Slopes that are 11 to 25 percent are suitable for some types of development, but engineering constraints and problems are more prevalent. Slopes over 25% consistently exhibit one or more problems of grade, erosion or failure. Any development in this range should be closely scrutinized.

Slope and density adjacent to wild lands should also be considered when a project is proposed. The Montana Department of Natural Resources and Conservation (DNRC) has developed guidelines for fire protection adjacent to wildland residential interface development. General guidelines to meet the defensible space recommendations are:

1) Slope 0%-20% - A minimum of 1 acre for a structure to be placed on land in forest fuels.

2) Slope 21%-30% - A minimum of 1.5 acres for a structure to be placed on land in forest fuels.

3) Never build structures in forest fuels where the slope is greater than 30%, at the mouth of a canyon, in a ridge saddle, or in any other extreme fire hazard area.

(Source: July 1993 Fire Protection Guidelines for Wildland Residential Interface Development)

The distance between structures directly affects how fast a wildfire can spread. Local governments, developers, homeowners and responsible fire authorities should consider base spacing and density, dependent on slope and fuels in the area of the structures.

Slope is generally not a major concern in Flathead County. Most steep slopes occur in the public and corporate timberlands surrounding the valley bottom, as well as in Glacier National Park. The valley bottom, where most development is likely to occur is generally level to moderately sloping. Approximately 75 % of Flathead County has slopes over 25% of which most is in the mountainous National Forest and National Park lands surrounding the valley (see Map 2.6).

Wetlands

There are many different types or classifications of wetlands. Wetland preservation is beneficial to many species of plants, birds, mammals and invertebrates. They also serve as retention areas for overflowing rivers, lakes and streams, thus reducing flood and erosion damage in other areas.

In 1977, the U.S. Fish & Wildlife Service (FWS) began the National Wetlands Inventory (NWI), a systematic effort to classify and map America's remaining wetlands. The NWI defines wetlands according to the "Classification of Wetlands and Deepwater Habitats of the United States", a system that describes wetlands by analyzing soil types, hydrology and vegetation. According to this system, wetlands are defined as land that is transitional between terrestrial and aquatic systems, where the water table is usually at or near the surface or the land is covered by shallow water. For this classification, wetlands must have one or more of the following three attributes: (l) at least periodically, the land supports mainly hydrophytes (aquatic plants), or (2) the substrate is mainly moist un-drained (hydric) soil, or (3) the substrate is saturated with water or covered by shallow water at some time during the growing season each year.

The US Department of Agriculture developed a Food Security Act in 1985 and under this act is a Wetland Conservation Provision, commonly known as "swamp buster". This provision disqualifies farmers for U.S. Dept of Agriculture program benefits if they produce an agricultural commodity on wetlands converted after December 23, 1985, when the Food Security Act was enacted.

Map 2.9 shows Flathead County wetlands as inventoried in the National Wetlands Inventory. Areas designated as wetlands have restrictions regarding development and some activities require a permit. Landowners and developers should contact the local planning officials and the Army Corps of Engineers to determine if wetlands are present before proceeding with projects in wetland areas.

PART 5: Demographics

Flathead County is rich in agriculture, open space and natural resources. It is also experiencing dynamic and sustained population and economic growth and prosperity. Population growth is attributed to two primary factors: 1) natural change and, 2) net migration. The most notable feature of Flathead County's demographics is the accelerated population growth since 1990.

Population

According to U.S. Census Bureau annual estimates, the State of Montana had an estimated population of 926,865 as of July 1, 2004. Since the 2000 Census was taken, the population of the state has increased by 24,670 people. Flathead County is now the third most populated county in Montana at the 2004-estimated population of 81,217, representing an increase of 6,746 since the 2000 Census. These estimates show that Flathead County has absorbed 27% of the total increase in the population of the entire state since the 2000 Census and 17% since 1990. NPA Data Services, Inc. projects that the population of Montana will reach 1,148,162, Flathead County's population will increase to 112,516 and that 10% of Montana residents will reside in Flathead County by 2025 (see Table AA.5.1).

Table AA.5.1
Population Growth

	1990	2000	2004	2005	2010	2015	2020	2025
Flathead County	59,218	74,471	81,217	81,996	89,675	97,127	104,713	112,516

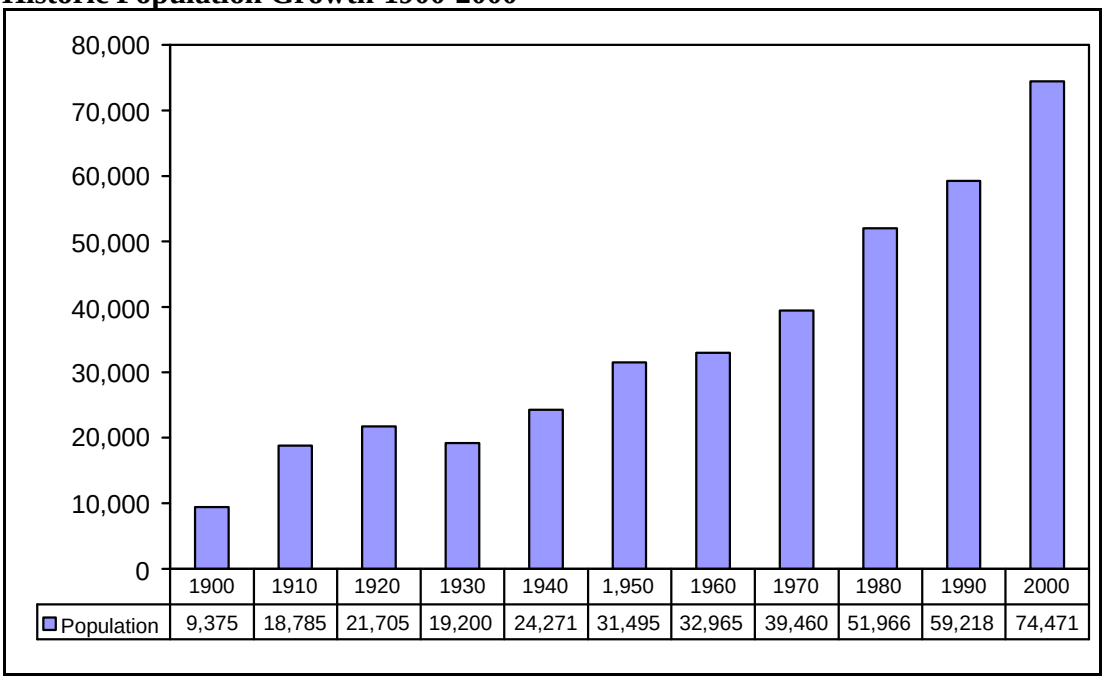
Source: U.S. Census, NPA Data Services, Inc.

Population Growth

There were only a few non-native settlers in the area prior to the opening of Flathead Lake and River to navigation and commerce in the early 1890s. The opening of the lake and river also opened the valley to substantial in-migration of settlers. The extension of a rail line to Kalispell in 1902 resulted in another population surge, doubling the population of the Flathead area to 18,785 by 1910. Within Flathead County, most of the population resided in the City of Kalispell. From 1910 to 1920, the county's population continued to grow to 21,705, adding 2,920 people to the resident population. By 1930, because of the Great Depression, the population decreased to 19,200. However, the timber industry, agriculture and commerce provided the economic foundation for sustained growth and development well into the 1960s. Between 1930 and 1960, the population increased by 13,765 people due in part to large Federal Public Works projects such as the Hungry Horse Dam. Timber, agriculture and the county's regional setting for retail and business activities continued to provide the economic base as well as emerging environmental tourism and service industries.

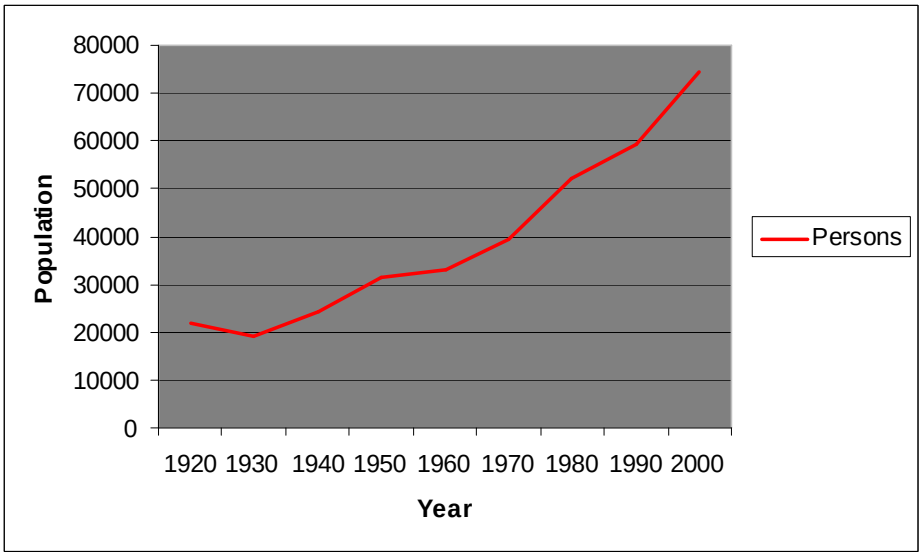
Population growth in Flathead County, including its cities, over the past 100 years has been significant and dynamic as shown in Figure AA.5.1 and Figure AA.5.2. With the exception of the period of 1920 to 1930, area growth has generally exceeded 10% for each decade. Only the period of 1950 to 1960 experienced a single digit population growth of 5%. In total, the population growth for the last 100 years was approximately 65,096 people, which translates into a seven-fold population increase in the County.

Figure AA.5.1
Historic Population Growth 1900-2000



Source: U.S. Census

Figure AA.5.2
Population Growth 1920-2000



Source: U.S. Census

The population boom of recent time began in the 1970s when population growth accelerated dramatically. The largest growth rate for any 10-year period since 1900 was the ten-year period between 1970 and 1980, which experienced a 32% increase in population from 39,460 to 51,966 residents. This growth lessened during the 1980s to

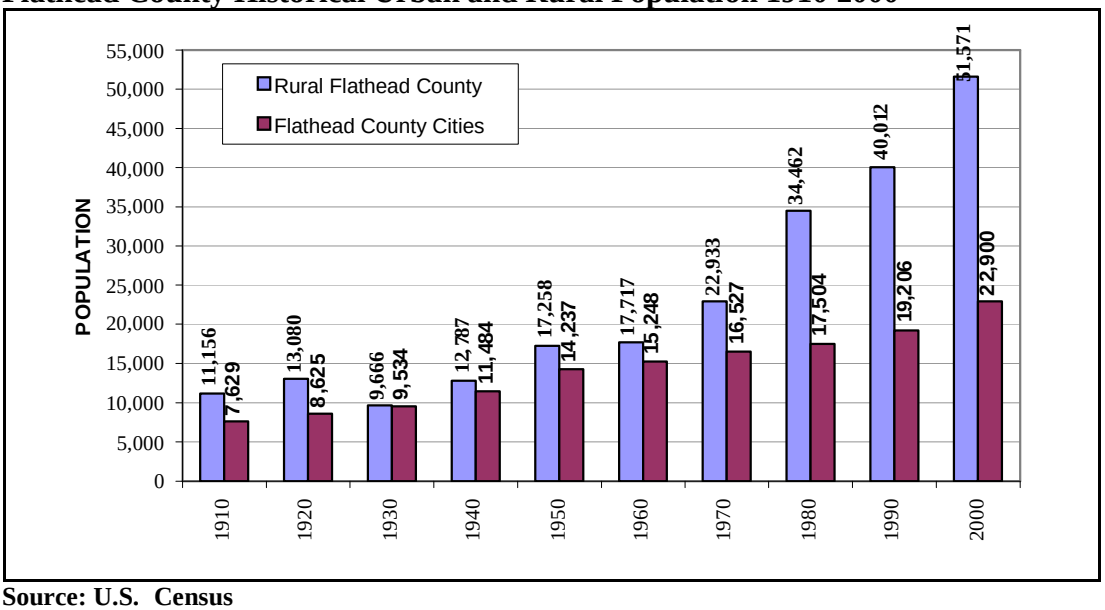
14% as the population increased by 7,252 people. From 1990 to 2000, the growth in population resumed its post 1970 charge with a 26% increase, resulting in a 2000 population of 74,471 people[20].

Since 2000, Flathead County's population has increased at a relatively constant rate of approximately 2% per year. Between 2000 and 2005 the U.S. Census estimates a population increase from 74,471 to 83,172[19] people, representing roughly a 12% increase over the first five years of the decade. This growth rate is consistent with the growth experienced between 1990 and 2000.

Urban and Rural Population Growth

Approximately 69% of the population in Flathead County resides outside of the cities of Columbia Falls, Kalispell and Whitefish (see Figure AA.5.3). This is an increase from 1990 when 68% of the population in the County lived outside of the cities. However, recent data shows that the growth in the cities between 2000 and 2004 has notably increased (see Table AA.5.2). The combined populations of the cities of Columbia Falls, Kalispell and Whitefish equates to approximately 35% of the total 2004 population of the county; an increase of 4% since 2000. The city of Kalispell in particular comprised approximately 21% of the total population in the County in 2004. Kalispell and Whitefish each experienced a growth rate of approximately 22% between 2000 and 2004, while Columbia Falls grew at a rate of 15% over that same period. These growth rates outpace the overall county growth rate of 12% during 2000 to 2004[19].

Figure AA.5.3
Flathead County Historical Urban and Rural Population 1910-2000



Source: U.S. Census

Table AA.5.2

[19] 2004 American Community Survey Data Profile Highlights, US Census

Flathead County Urban and Rural Population 2000-2004

	2004 ESTIMATE	2000 POP	NUMBER INC 00-04	% INC 00-04	1990 POP	NUMBER INC 90-04	% INC SINCE 1990
KALISPELL	17,381	14,223	3,158	22.2%	11,917	5,464	45.8%
WHITEFISH	6,151	5,032	1,119	22.2%	4,368	1,783	40.8%
COLUMBIA FALLS	4,180	3,645	535	14.7%	2,921	1,259	43.1%
RURAL	53,505	51,571	1,934	3.7	40,012	13,493	33.7%
COUNTY TOTAL	**81,217**	**74,471**	**6,746**	**9.1%**	**59,218**	**21,999**	**37.1%**

Source: U.S. Census

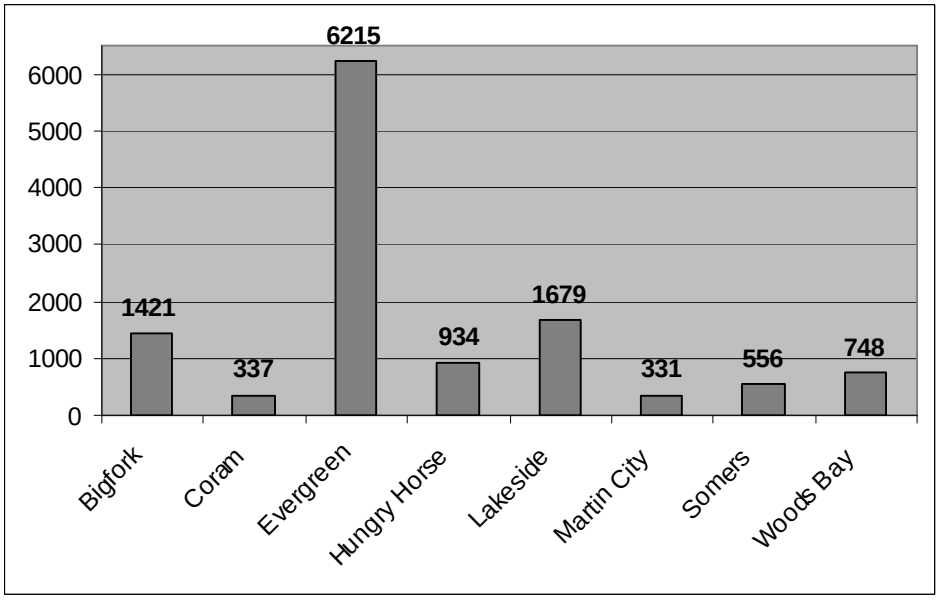
Census Designated Places

Nearly 16%[20] of the County's population living outside of the cities of Columbia Falls, Kalispell and Whitefish are located in Census designated places, as shown in Figure AA.5.4 and Map 3.1. Census Designated Places (CDPs) are delineated to provide data for settled concentrations of population that are identifiable by name but are not legally incorporated.

There are currently eight CDPs in the County. These include the communities of Bigfork, Evergreen, Lakeside, Somers, Hungry Horse, Martin City, Coram and Woods Bay. Evergreen, Bigfork and Lakeside have had the greatest increases in population. The community of Bigfork nearly doubled in population with an 83% increase between 1990 and 2000. The population of Evergreen, which is adjacent to the city of Kalispell, has increased in population by 51% and the population of Lakeside has increased by 77 % during the same ten-year period. Somers has increased in population by 75%[20] over that same period. The most significant increases in population, concerning rural communities, are occurring where vital public services such as public sewer and water facilities are available.

[20] 2000 US Summary File 1, US Census 2000

Figure AA.5.4
Census Designated Places - 2000



Source: U.S. Census

Several other communities throughout the county that are not designated as CDPs are experiencing growth as well. These communities are more scattered and development is less dense. Residents in these communities are self reliant with individual water and sewer facilities. These communities include Marion, Kila, Ferndale, Creston and West Glacier. The more remote communities such as Polebridge, Olney and Essex have not experienced the rapid growth that the more accessible communities in the county are currently undergoing.

Table AA.5.3 provides population and housing unit comparisons within the three incorporated cities and the Census Designated Places in Flathead County. The total population of the rural areas includes the Census Designated Places.

Table AA.5.3
Flathead County Cities and Census Designated Places Population 1990 and 2000

	2004 Pop Estimate	2000 Census Pop	2000 Housing Units	1990 Census Pop	1990 Housing Units
KALISPELL	17,381	14,223	6,532	11,917	5,537
WHITEFISH	6,151	5,032	2,652	4,368	2,259
COLUMBIA FALLS	4,180	3,645	1,470	2,921	1,227
TOTAL URBAN	**27,712**	**22,900**	**10,654**	**19,206**	**9,023**
BIGFORK CDP	**	1,421	962	775	555
CORAM CDP	**	337	337	257	119

EVERGREEN CDP	**	6,215	2,532	4,109	1,635
HUNGRY HORSE CDP	**	934	404	507	256
LAKESIDE CDP	**	1,679	956	949	621
MARTIN CITY CDP	**	331	163	305	135
NIARADA CDP (partial – spans 3 counties)	**	50	22	**	**
SOMERS CDP	**	556	263	317	142
TOTAL IN CDPS	****	**11,523**	**5,639**	**7,219**	**3,436**
REMAINDER OF RURAL	53,505	40,048	18,480	32,793	14,520
TOTAL RURAL	**53,505**	**51,571**	**24,119**	**40,012**	**17,956**
COUNTY TOTAL	**81,217**	**74,471**	**34,773**	**59,218**	**26,979**

Source: U.S. Census Bureau

Seasonal Population

Census population numbers do not accurately account for seasonal fluctuations in population. Seasonal residents require all the local services and infrastructure that full time residents require.

Although there is no precise way to calculate seasonal population, estimates can be derived using several indicators, such as electrical hookups and consumption, increased traffic, waste generation and law enforcement and emergency service calls. Particular communities have higher numbers of seasonal populations. Although it has proven difficult to quantify, the population of the County could be in significant excess of 83,172 persons as estimated by the US Census.

Demand is strong in the County for second home ownership as well as for seasonal, recreational, occasional use and vacation housing. Those housing units dedicated for seasonal, recreational, or occasional use have been identified and quantified in the 2000 US Census. The 1990 Census indicates that there were 2,517 housing units in Flathead County that were occupied for occasional use. In 2000, that number rose to 3,570, a 42% increase. During the same period the total number of housing units in the county increased by 29%[21].

State Trends

A regional look at population trends and estimates show that 33 of 56 Montana counties lost population between 1990 and 2000. This pattern appears to be continuing into the present decade. The majority of counties with declining population are in the eastern half of the state. Table AA.5.4 provides a comparison of counties in Montana with a population in excess of 10,000 people.

Table AA.5.4
Montana Population Trends 1990 - 2004
Montana Counties with a 2004 estimated population over 10,000
(listed ascending by population estimate)

	2004 EST	2000 CENSUS	NUMBER INC / DEC 00-04	% CHANGE 00-04	1990 CENSUS	NUMBER INC / DEC 90-04	% CHANGE 1990-2004
MONTANA	**926,865**	**902,195**	**+24,670**	**2.7%**	**799,065**	**+127,800**	**+16%**
YELLOWSTONE	134,717	129,352	+5,365	+4.1	113,419	+21,298	+18.8%
MISSOULA	99,018	95,802	+3,216	+3.4%	78,687	+20,331	+25.8%
FLATHEAD	**81,217**	**74,471**	**+6,746**	**+9.1%**	**59,218**	**+21,999**	**+37.1%**
CASCADE	79,849	80,357	-508	-0.6%	77,691	+2,158	+2.8%
GALLATIN	75,637	67,831	+7,806	+11.5%	50,463	+25,174	+49.9%
LEWIS AND CLARK	57,972	55,716	+2,256	+4.0%	47,495	+10,477	+22.1%
RAVALLI	39,376	36,070	+3,306	+9.2%	25,010	+14,366	+57.4%
SILVER BOW	33,093	34,606	-1,513	-4.4%	33,941	-848	-2.5%
LAKE	27,919	26,507	+1,412	+5.3%	21,041	+6,878	+32.7%
LINCOLN	19,101	18,837	+264	+1.4%	17,481	+1,620	+9.3%
HILL	16,376	16,673	-297	-1.8%	17,654	-1,278	-7.2%
PARK	15,791	15,694	+97	+0.6%	14,484	+1,307	+9.0%
GLACIER	13,508	13,247	+261	+2.0%	12,121	+1,387	+11.4%
BIG HORN	13,005	12,671	+334	+2.6%	11,337	+1,668	+14.7%
FERGUS	11,539	11,893	-354	-3.0%	12,083	-544	-4.5%
CUSTER	11,454	11,696	-242	-2.1%	11,697	-243	-2.1%
SANDERS	10,945	10,227	+718	+7.0%	8,669	+2,276	+26.3%
JEFFERSON	10,857	10,049	+808	+8.0%	7,939	+2,918	+36.8%
ROOSEVELT	10,660	10,620	+40	+0.4%	10,999	-339	-3.1%

Source: U.S. Census

Growth Factors

Population growth or decline is attributed to two factors: 1) natural change and 2) net migration. Measurements of these two factors illustrate trends over time and are important when planning for the needs of future populations. The combination of the two factors indicates the overall condition and health of the community. Natural change is the difference between births and deaths. Between 2000 and 2004, Flathead County experienced a net increase of 1,214 people due to natural change, representing approximately 18% of the total population growth. Migration patterns are responsible for the remaining 82% of the population increase; approximately 5,577 people relocated to the County from elsewhere during the four year period.

Migration

Migration patterns have always been a major factor affecting the population of an area. The Census Bureau generates a special data series on migration that shows a variety of demographic information on persons moving in and out of geographic areas.

Statewide, the 2000 Census indicated that almost as many people had moved out of Montana since 1995 as had moved into the state. It is currently cumbersome to obtain information regarding out-migration. It can be assumed that there is some level of out-migration from Flathead County, but it is certainly not at the statewide rate. While many counties in eastern Montana are losing population, Flathead County is rapidly increasing in population. The increase over the past two decades in Flathead County indicates that many more people are moving in than are leaving the valley. This trend appears to be continuing at even a more rapid rate as indicated by Census estimates of in-migration since 2000.

Census data indicates if people lived in the same county or state 5 years prior to each Census release. Table AA.5.5 provides information for in-migration between 1990 and 2000. Table AA.5.6 shows 2004 Census estimates of population change as it relates to the natural increase in population and in-migration since 2000.

Table AA.5.5
In-Migration 1990-2000
Montana and Flathead County *(Includes age 5 and older only)*

	1990	% of pop	2000	% of pop
MONTANA				
Lived in a different County, State or Country 5 years prior	164,848	22.2%	195,434	23.1%
Lived in Montana 5 years prior	634,217	77.8%	706,779	76.9%
Total	**799,065**		**902,213**	
FLATHEAD COUNTY				
Lived in a different County, State or Country 5 years prior	11,311	20.5%	15,347	21.9%
Lived in Flathead County 5 years prior	47,907	79.5%	59,124	79.1%
Total	**59,218**		**74,471**	

Source: U.S. Census

Table AA.5.6
Estimated In-Migration 2000-2004
Montana and Flathead County *(Includes age 5 and older only)*

April 1, 2000 to July 1, 2004	Montana	Flathead County	% of Montana total change
Total Population Change	+24,670	+6,746	27%
Births	46,230	4,135	9%
Deaths	35,951	2,921	8%
Net Natural Increase	**10,279**	**1,214**	**12%**
Net Internal Migration	**+13,041**	**+5,433**	**42%**

Source: U.S. Census Bureau, Cumulative Estimates of the Components of Population Change for Counties in Montana: (CO-EST2004-04-30)

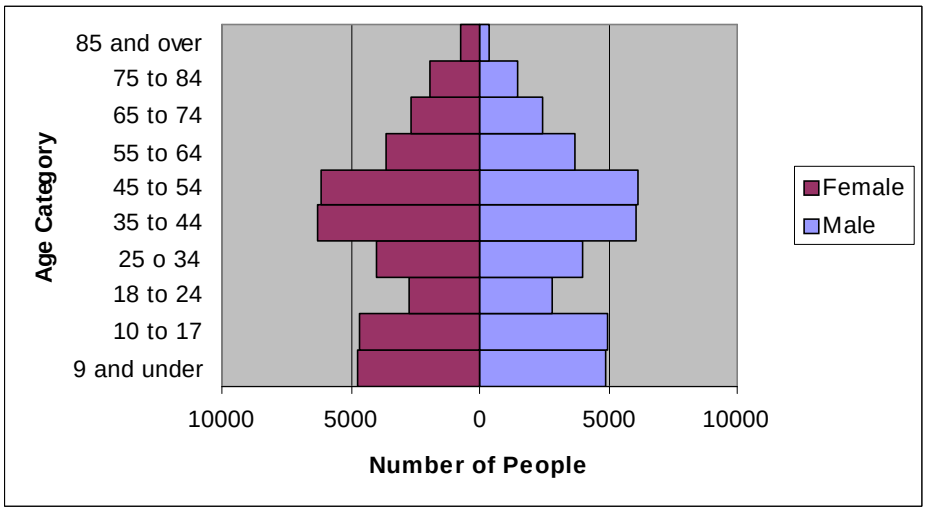
The majority of the estimated population increase since 2000 in Flathead County can be attributed to in-migration. Natural increases only account for about 18% of total population increase in the county since the 2000 Census.

More detailed information about in and out migration in Flathead County and Montana can be found at: the Montana Department of Commerce, Census and Economic Information Center. http://www.ceic.commerce.state.mt.us/ Additional detailed data on all population components can also be found on the U.S. Census Bureau website at: http://factfinder.census.gov/home/saff/main.html?_lang=en.

Population Characteristics

In 2000, the county's male-female ratio was nearly equal to one; meaning there were approximately equal numbers of males and females in the population as shown in Figure AA.5.5 and Table AA.5.7. Although not charted, U.S. Census Bureau historic data indicate that the near even proportion of gender has remained constant since the 1970s. The ethnic composition of Flathead County is rather homogenous. In 2000, approximately 96% of the population was White, with the remaining 4% reflecting those of one or more other races. Those of two or more races comprised 1.5% of the population, followed by American Indian and Alaska Native, which comprised 1.1% of the population. Persons of Asian descent amounted to 0.5% of the population, those of some other race made up 0.4% and African Americans totaled 0.2% of the population[20].

Figure AA.5.5
Flathead County Gender and Age Composition - 2000



Source: U.S. Census

Male-Female Ratio

The male-female ratio is a significant factor in analyzing migration patterns and the work force composition of an area.

The 2000 Census shows that there was an almost equal ratio of 49.7% male and 50.3% female population in Flathead County. This ratio is similar to the statewide figures with a 49.9% male and a 50.1% female population. Census data from 1950 to 2000 indicate that Flathead County and Montana have both had a stable and nearly equal male-female population ratio. Prior to and during the 1940s, state and county numbers indicate that there were approximately 6% more men than women. The increase in the female population since the early 1950s can most likely be attributed to the assumption that the economic outlook and incentive for families to settle in the area was much improved with the beginning of construction of Hungry Horse Dam, the aluminum plant and several lumber mills.

Table AA.5.7
Flathead County and Montana
Male and Female Population 1980-2000

	2004 estimate	% of pop	2000	% of pop	1980	% of pop
Montana						
Male	462,265	49.9	449,480	49.8	392,558	49.9
Female	464,600	50.1	452,715	50.2	394,132	50.1
Total	**926,865**	**100**	**902,195**	**100**	**786,690**	**100**
Flathead County						
Male	40,339	49.7	36,911	49.6	25,827	49.7
Female	40,878	50.3	37,560	50.4	26,139	50.3
Total	**81,217**	**100**	**74,471**	**100**	**51,966**	**100**

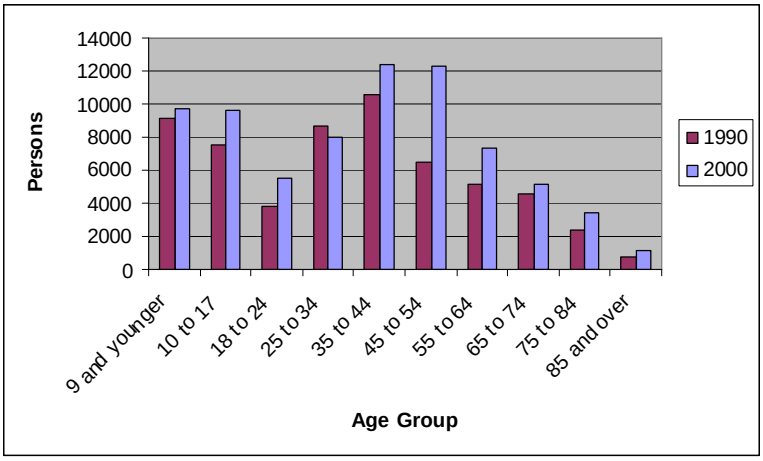
Source: U.S. Census

Age Group Trends

As shown in Figure AA.5.6, all age groupings increased in population during the 1990-2000 decade. The only exception was the ages of 25 to 34, which experienced an approximate 8% decline. The largest population gain and percent increase occurred in the 45 to 55 age-bracket at an increase of 5,760 people representing an 88% increase over the decade. The second largest increase occurred in the 85 and over age bracket at 48%, followed by both those in the 55 to 64 and in the 18 to 24 age brackets which each increased by 44%. The 18 to 24 age group appears to be recovering slightly from an overall 24% decline between 1980 and 2000; however, this group remains to be the smallest segment of the population under the age of 64. The smallest increase in any age group occurred in the 9 years and younger group, which increased at a rate of 5% over the decade[21].

[21] US Census 2000; US Census 1990

Figure AA.5.6
Change in Population of Age Groups from 1990 to 2000



Source: U.S. Census

The evaluation of age group trends is an essential component in the planning process. The evaluation of age group structure establishes the makeup of the work force and the community's need for public facilities such as schools, day care facilities, churches, public transportation, parks, medical and long-term care facilities. It can also be valuable for determining if and what type of retail establishments can be supported or may be needed.

Montana continues to see growth in its older population. Those in the 65 and older group have the higher percentage increase since 1980, increasing by almost 89%. The group with the least increase since 1980 is the group under age 5, only increasing by 12% over the 24-year period. The number of persons aged 85 and over increased by 29% since 2000. Women in the 85 and over group outnumber the men of the same group by more than 3 times.

The trends in age group compositions are presented in Table AA.5.8, Figure AA.5.7 and Table AA.5.9, providing past and current estimates. The data presented in these Tables originates from different sources and may have slight discrepancies from data presented in previous tables. However, these numbers are only intended to show trends. Variations are due to data being acquired from several different sources.

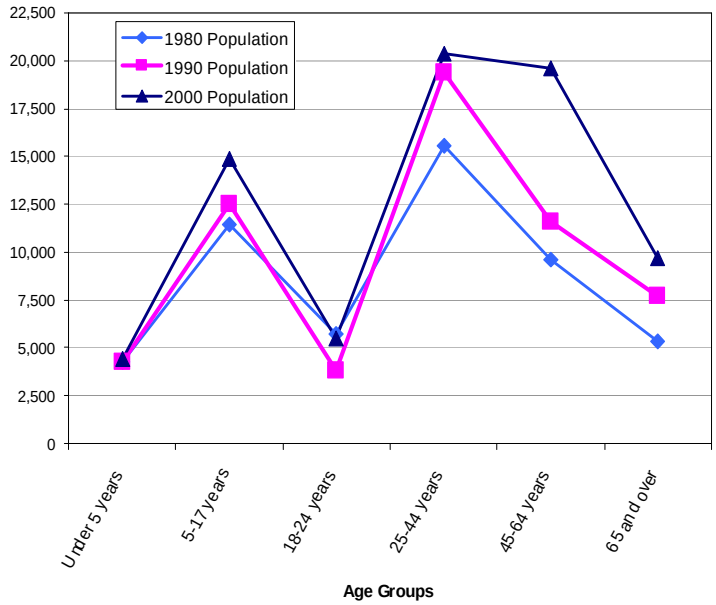
Table AA.5.8
Age Groups
Flathead County 1980-2000

AGE GROUP	1980	% of pop	1990	% of pop	2000	% of pop	% change 80-00
Under 5 years	4,271	8.2	4,278	7%	4,415	5.9%	+3.4%
5-17 years	11,422	22.0	12,522	21%	14,872	19.9%	+30.2%
18-24 years	5,696	11.0	3,827	6%	5,508	7.4%	-3.3%
25-44 years	15,572	30.0	19,336	33%	20,381	27.4%	+30.9%
45-64 years	9,629	18.5	11,560	20%	19,639	26.4%	+4%

65 and over	5,376	10.3	7,695	13%	9,656	13%	+78.9%
Total	51,966		59,218		74,471		+43.3%
Median Age	29.7		35.3		39.0		+31.3%

Source: Population Estimates Program Population Division, U.S. Census Bureau; Montana Census and Economic Information Center (CEIC) Basic Demographic Trend Report 1980-2000

Figure AA.5.7
Age Groups
Flathead County 1980-2000



Source: U.S. Census

The data in Table AA.5.9 is based on the 2004 American Community Survey conducted each year since the 2000 Census. The Census Bureau applies statistical procedures that introduce some uncertainty into data for small population groups. The 2000 Census and subsequent American Community Survey estimates have further identified age groups within the previous 65 and over group. For documentation on the ACS design, estimation methodology and accuracy see: http://www.census.gov/acs/www/Downloads/ACS/accuracy2004.pdf.

Table AA.5.9
Age Group Estimates
Flathead County 2000-2004

AGE GROUP	2000 Census	2001 ACS	2002 ACS	2003 ACS	2004 ACS	% of Total	% change 00-04	% change 80-04
Under 5 years	4,415	4,396	4,301	4,518	4,784	6%	+8%	+12%
5-17 years	14,872	14,635	14,200	13,612	13,840	17%	-6%	+21%
18-24 years	5,508	6,394	6,631	7,965	8,029	10%	+46%	+41%
25-44 years	20,381	19,771	19,170	19,512	20,137	25%	-1%	+29%
45-64 years	19,639	20,769	22,214	22,917	23,411	29%	+19%	+43%

65-74	5,102	5,102	5,290	5,471	5,645	7%	+11%	
75-84	3,421	3,315	2,938	3,051	2,761	3%	-19%	
85 and over	1,133	742	1,351	1,213	1,465	2%	+29%	
Total 65 and over	9,656	9,159	9,579	9,735	9,871	12%	+2%	+84%
Total	**74,471**	**75,124**	**76,095**	**78,339**	**80,072**		**+7.5%**	**+54%**

Source: American Community Survey 2001, 2002, 2003 and 2004; Population Estimates Program Population Division, U.S. Census Bureau; Montana Census and Economic Information Center (CEIC) Basic Demographic Trend Report 1980-2000

In 1980, Flathead County had approximately 8% of its population in the pre-school age group, 22% school age; 60% working age and about 10% in the retirement age group. Since 1980, significant changes have occurred in Flathead County. Similar changes can be noted throughout the entire nation.

The pre-school population has increased only slightly over the past 25 years, compared to the remaining age groups. This is noticeable nation wide by declining birthrates. The aging baby boom generation has moved out of child-rearing age and there has been a decline in the birthrate in succeeding generations. Since the 2000 Census, the number of pre-school children in Flathead County appears to be on the rise with an over 8% increase since 2000.

Population in the school age group of 5 to 17 years appears to be on the decline. Since 2000, this age group has declined by 6%, unlike the previous trend represented by the 30% increase between 1980 and 2000. This may once again be a reflection of declining birthrates, family size and aging population.

During the 1980s and 1990s, the number of persons between 18 and 24 had slowly declined. However, that trend also appears to be turning around showing a 46% increase of population in this group since 2000. This may be attributed to expanding technology and increased occupational and educational opportunity. A significant population in this age group previously left the valley for education and the opportunity for higher paying jobs than the Flathead Valley could offer.

According to American Community Survey (ACS) 2004 estimates, the working age population in Flathead County, which includes those aged between 18 and 64, represents 64% of the county's total population.

The most notable trend over the past 24 years has been the increase in retirement age people in Flathead County. In 1980, people in the retirement age group accounted for 10% of the population. That group now represents about 12% of the total population. Even though this 2% increase seems non-significant, it is the percentage increase over the past 24 years that reflects the true picture. The number of people in Flathead County that are age 65 and over increased by almost 84% between 1980 and 2004. The increase can be partially attributed to similar trends of increased life expectancy and aging population that are prevalent throughout the United States. Perhaps more importantly, Flathead County and northwest Montana have become retirement destinations as well as desirable locations for seasonal or second and third homes for out of state residents.

Median Age

Census 2000 data determined the median age of the population in Flathead County to be 39 years. The median age of the female population was slightly higher at 39.6 years than the male population at 38.3 years. The median age in Flathead County has increased by almost 10 years in the last two decades (see Table AA.5.10).

It is interesting to note that the median age of all Flathead County residents is significantly higher than that of the three municipalities in Flathead County and of all Montana residents. The median age of Montana residents is higher than the median age of the entire population of the United States and the median age of Flathead County residents is significantly higher than that of the United States (see AA.5.8). The higher median age in rural Flathead County also suggests that retirees are choosing to live in rural areas of the county.

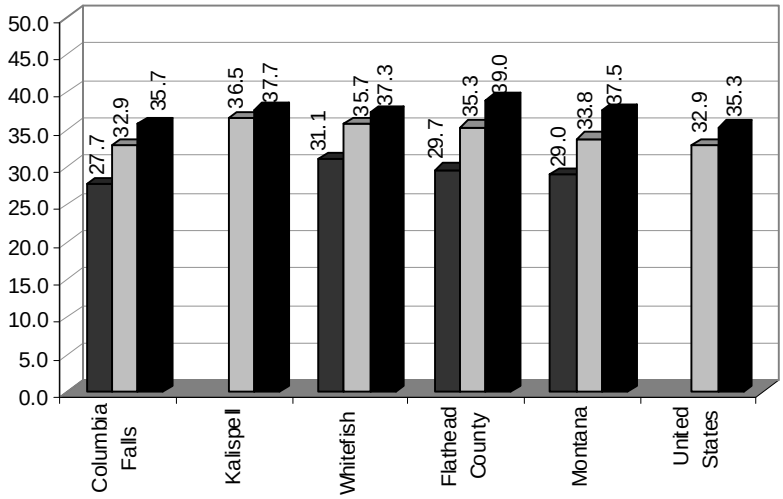
The trend of increasing median age in Flathead County is expected to continue as the existing population ages and as people migrate to the area.

Table AA.5.10
Flathead County, Municipalities & Montana
Median Age 1980-2000

	1980	1990	2000	% change 90 to 00	% change 80-00
Montana	29.0 yrs	33.8 yrs	37.5 yrs	10.9%	29.3%
Flathead County	29.7 yrs	35.3 yrs	39.0 yrs	10.5%	31.3%
Kalispell	32.4 yrs	36.5 yrs	37.7 yrs	3.3%	16.4%
Whitefish	31.1 yrs	35.7 yrs	37.3 yrs	4.5%	19.9%
Columbia Falls	27.7 yrs	32.9 yrs	35.7 yrs	8.5%	28.9%

Source: Table DP-1, Profile of General Demographic Characteristics: U.S. Census 1980, 1990 and 2000

Figure AA.5.8
Median Age Comparisons
Flathead County, Municipalities, Montana and the United States
1980, 1990 & 2000



Source: U.S. Census

Ethnic Composition

The ethnic composition of a community can have significant effect on social and cultural environments that prevail within a community. The ethnic composition of the Flathead County is predominantly white (see Table AA.5.11). The Native American population forms the largest single non-white component of the population. Since 1970, there have been only slight fluctuations in the Native American population in Flathead County. This can be attributed to the fact that there is only a small amount of sparsely populated Flathead Indian Reservation land in the southern portion of the county. These stable numbers are in contrast to the changes occurring at the national level where the "other" category, which includes all other races, has seen dramatic change increasing from 18.9% to 24% of the entire U.S. population between 1990 and 2000.

Table AA.5.11
Ethnic Composition Comparison
Flathead County & Montana 1990-2000

	1990	% of pop	2000	% of pop	% change 90-00
Flathead County					
White	57,897	97.8	71,689	96.3	-1.5
American Indian	858	1.4	856	1.1	-.3
Other	463	.8	1,926	2.6	1.8
TOTAL	**59,218**	*100*	**74,471**	*100*	
Montana					
White	741,111	92.8	817,229	90.6	-2.2

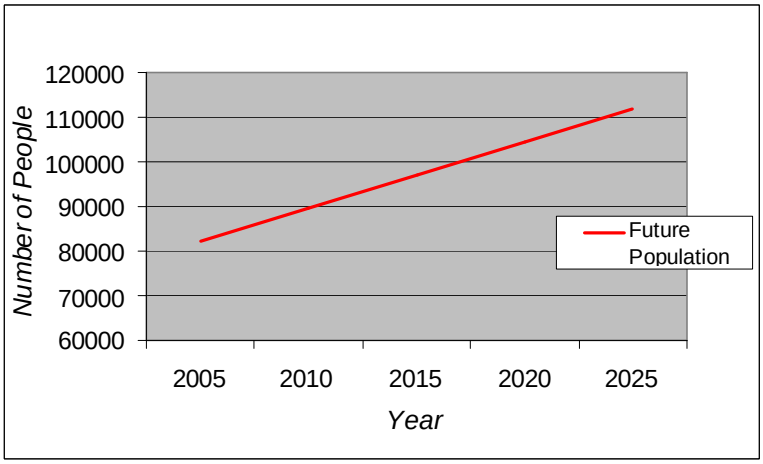
American Indian	47,679	6.0	56,068	6.2	.2
Other	10,151	1.2	28,916	3.2	2.0
TOTAL	**799,065**	*100*	**902,213**	*100*	

Source: Profile of General Demographic Characteristics for Montana, Flathead County & Columbia Falls, U.S. Census Bureau, 1970, 1980, 1990 and 2000

Population Projections

Projections are estimates illustrating plausible courses of future population change based on assumptions about future natural change and net migration patterns. These projections are trends established from existing population data as shown in Figure AA.5.9. The projected population for 2025 is 111,740 representing an increase of 37,269 people from the 2000 population. The projection shows that the total population is likely to increase by 50%. Based on existing natural change and net migration, this projected population will be due primarily to net migration and to a lesser extent by natural change.

Figure AA.5.9
Flathead County Population Projections– 2005 through 2025



Source: NPA Data Services, Inc, 2002

Population Density

An analysis of population and housing density is important in determining the need for additional services and the cost to provide services. The higher the density, the more cost effective it is to provide services. However, when any type of development occurs a considerable distance from local services, it can cost more for government to provide services than the revenue it may generate. Careful consideration needs to be given to these issues when local officials review development proposals that are far from local services.

Outside of the vast amount of National Forest, National Park and State lands, development is occurring almost everywhere in Flathead County. For the most part, high-density development is occurring close to local services, such as public utilities, maintained streets, hospitals and medical facilities and shopping. It is often cost effective

for developments that are within a reasonable distance to a municipal water and sewer supply, to annex into the municipality to receive these services, allowing for a higher density, than would be allowed in a rural area. This often leaves islands that are not within the municipality, but also creates opportunity for infill development. This type of growth has and is occurring adjacent to and near the three municipalities of Kalispell, Whitefish and Columbia Falls. Kalispell has seen dramatic expansion on the north and west, Whitefish to the south and east and Columbia Falls is expanding to the west.

Development in the rural areas of the county has also been fast paced over the past two decades. A naturally occurring pattern is that the closer to local services that a development is, the higher the density. Rural residential development requires at least one acre per residence if on a private water and sewer system. There are several public Sewer and Water Districts throughout the county that will accommodate higher density. Several rural areas where services are available are experiencing development pressure and increasing population. Among these areas are the communities located on or near Flathead Lake and include Bigfork, Lakeside and Somers.

Maps and digital data were created by the Montana State Library, Natural Resources Information System (NRIS) from the 2000 U.S. Census data to display general population densities per square mile (see Map 3.2). The original data was smoothed and the highest resulting density in each kilometer grid cell was assigned to the cell. The actual population density at a given location may be much lower or higher, if the location is in an area farther from or closer to most of the people in a Census Block. These digital files have been downloaded and densities were reclassified to provide additional density levels and enhanced mapping capabilities needed for analysis to complete the Flathead County Growth Policy and Baseline Data.

It is important to note that since the 2000 Census and when the above data was created does not represent the current density. A significant amount of development has occurred in some areas of the county since the 2000 Census. These areas would include the continued growth adjacent to the municipalities and the communities of Bigfork, Lakeside, Somers and Marion and the surrounding vicinities.

PART 6: Housing

As housing costs often constitute the largest single monthly household expenditure, the affordability of housing is a major factor in community growth and development. A common definition of "affordable housing" is housing that costs no more than 30% of the households gross annual income. Households paying in excess of 30% of their income for housing costs are considered cost-burdened and may have difficulty meeting the costs associated with common necessities such as food and transportation[22].

Home prices in Flathead County have increased dramatically at a pace not matched by the increase in household incomes. The average home value in Flathead County

[22] U.S. Department of Housing and Urban Development

increased 116.4% between 1990 and 2000, more than doubling the cost of the average house while the average household income increased by 42.7% over the same period of time[23].
As the disparity between average income and average housing prices continues to remain, the impacts of housing affordability will continue to shape the growth and development the County.

General Affordability

Calculating the annual household income needed to afford the median-value home in a given area provides a snapshot of the current housing affordability.

Using the standard definition of affordability, the Table AA.6.1 illustrates the annual household income needed to afford the median-value home in Flathead County. The Table assumes a 10% down payment, 30-year fixed mortgage, a monthly payment that is 30% of a household's income, 7% interest rate, 1.2% tax rate and a normal insurance charge.

Table AA.6.1
Housing Affordability in Flathead County

Year	Median Home Price in Flathead County	Annual Household Income Needed to Afford Median Home Price
1990	$64,206[24]	$18,401
2000	$138,950[25]	$39,823
2001	$126,000[25]	$36,112
2002	$136,000[25]	$38,978
2003	$159,000[25]	$45,569

After determining the annual household income needed to afford the median home price in the County, Table AA.6.2 compares this to the actual median household incomes for the same periods provides insight as to whether the average home is affordable to the average household.

Table AA.6.2
Actual Costs of Housing Affordability in Flathead County

Year	Annual Household Income Needed to Afford Median Home Price	Median Flathead County Household Income (U.S. Census)
1990	$18,400	$24,145 (1989)[26]
2000	$39,823	$34,466
2003	$45,569	$34,360

[23] U.S. Census Bureau, Census 2000
[24] American Factfinder, US Census 1990
[25] *Economic and Demographic Analysis of Montana, Volume III: Housing Profile*; Montana State University, 2005
[26] American Factfinder, US Census 2000

The median housing price between 1990 and 2000 increased by approximately 116%. More recently, the annual change in median housing price between 1998 and 2003 has varied significantly as shown in Table AA.6.3.

Table AA.6.3
Median Home Prices – 1998 through 2003

Year	Median Home Value[25]	Annual Percent Change
1998	$110,000	---
1999	$108,000	-1.8%
2000	$138,950	28.7%
2001	$126,000	-9.3%
2002	$136,000	7.9%
2003	$159,000	16.9%

The average yearly increase in median home prices over the period of 1998 to 2003 equaled 8% and if annual median housing prices were to increase at 8% each year, the price in 2010 would equal approximately $272,498, requiring a minimum median household income of $78,098, a 127% increase from 2003, to afford a median priced home.

Rental housing is often a more affordable option for those without the ability to own a home. The average gross rent in 2000 equated to $484, which would require a minimum yearly income of approximately $19,360 if the gross rent were to equate to exactly 30% of the occupants' monthly income.

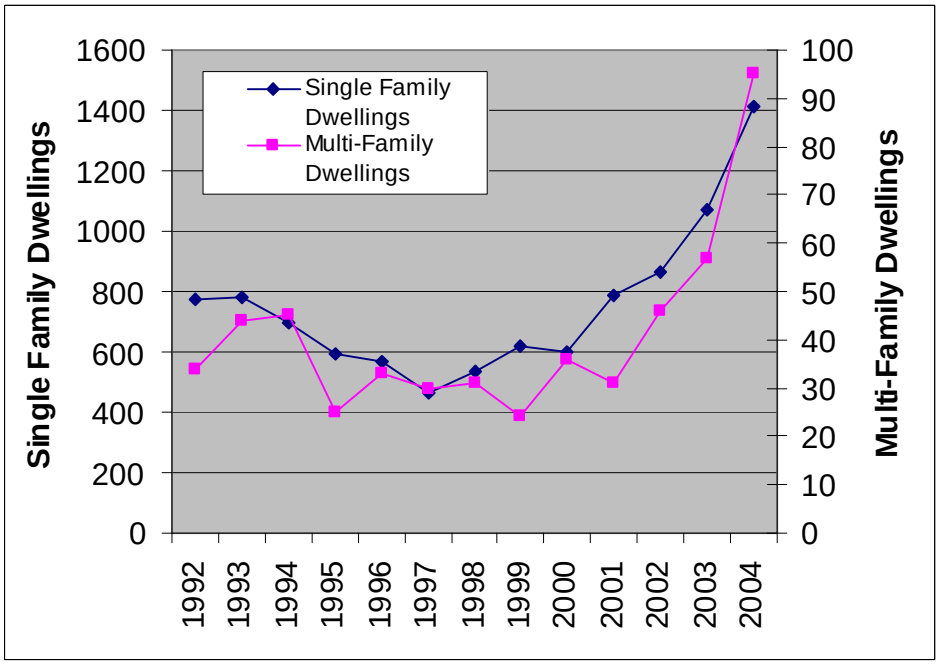
Housing Stock

The majority of homes in the County are one-unit, detached structures; this constitutes 68.5% of the homes in the county. Manufactured or mobile homes are the second most dominant housing type, comprising 16.2% of the housing stock. Multi-family housing, comprised of 2 units or more, accounts for 12.5% of the housing stock. The remaining 0.3% of housing is provided by recreation vehicles, boats, vans and other mobile types[27]

The number of housing units in the County has steadily increased over recent years see Figure AA.6.1. The total housing units in 2000 equaled 34,773 and grew to 36,077 in 2004, a 4% increase[28]. Units are the individual living quarters and include single-family homes, individual condominium units and individual apartments meaning that a multi-family dwelling is comprised of several housing units.

[27] US Census Bureau. *Profile of General Demographic Characteristics: 2000.* Census 2000.
[28] Population Division, US Census Bureau. *Table 4: Annual Estimates of Housing Units for Counties in Montana: April 1, 2000 to July 1, 2004 (HU-EST2004-04-30).* July 21, 2005.

Figure AA.6.1
Construction of Single-Family and Multi-Family Dwellings 1992-2004



Source: U.S. Census

Housing is either rented or owned. Housing types as defined by the Montana Department of Commerce are either residential or commercial. Residential housing are those homes that can be purchased as individual units and include mobile homes, condominium units and single-family homes. Commercial housing mainly refers to multi-unit rental properties including apartments, duplexes, mixed-use structures and townhouses[29].

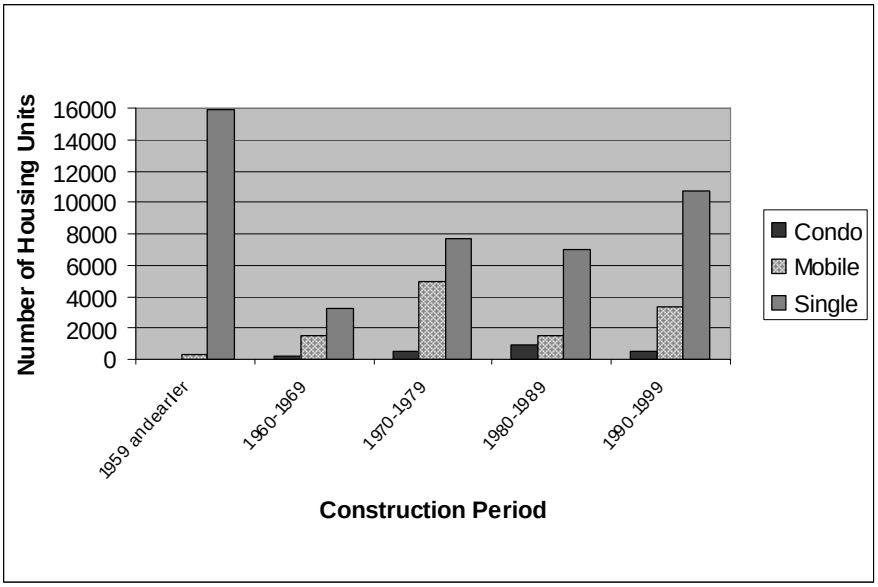
The 2000 overall vacancy rate for the available rental and owner-occupied housing units was nearly 15% or 5,186 units, however approximately 69%, or 3,570 units, of those units were designated as seasonal, recreational, or for occasional use. Therefore, the actual vacancy rate in 2000 for non-seasonal housing was 7% for rental units and 1.7% for owner-occupied.

In 2000, of the 29,588 occupied housing units, 26.7%, or 7,190 units, were renter-occupied while the remaining 73.3% were owner-occupied meaning that the rate of homeownership was 73.3%. Caucasian householders had the highest homeownership rates in the County, equaling approximately 73.6%, while African American householders had a homeownership rate of 65.2% and American Indians/Native Alaskan householders experienced a homeownership rate of 59.2%[30].

[29] Center for Applied Economic Research. *Housing Conditions Study*. 2002. Montana Department of Commerce: Billings, MT.
[30] http://housing.mt.gov/Includes/CP/PDF/CP_E&D-VOL-III.pdf

The majority of single-family homes in Flathead County were constructed prior to 1960 as seen in Figure AA.6.2. The second largest period of new home construction occurred between 1990 and 1999 when 10,780 homes were built, equaling approximately 24% of the total home construction in the county prior to the year 2000. Manufactured or mobile homes experienced a peak in construction during the period of 1970 to 1979, while the majority of condominiums in the county were constructed between 1980 and 1989[29].

Figure AA.6.2
Construction of Residential Housing per Period



Source: Montana Department of Commerce

The Montana Department of Commerce 2005 Housing Condition Study rates the physical condition of residential housing – condominium units, mobile homes and single-family homes – as excellent, very good, good, average, fair. Flathead County has 37% of the existing stock in the state. 42% of condominium units were give the top rating of excellent. In total, 87% of the residential housing units in Flathead County were rated as average or above. Below average rating of fair, poor, very poor, or unsound were given to 4% of single-family homes and 49% of mobile homes in the County[29].

Commercial housing, which offers units for rent and often refers to multi-family structures, is rated for condition as good, normal, fair, poor, or very poor. Nearly 93% of the housing classified as commercial in Flathead County rates as either normal or good[29].

Currently, no county building department exists and therefore no building permits are issued for structures erected in the unincorporated areas of the County. The quality of new housing, including workmanship and construction materials and the safety of these structures is not monitored by the county at this time.

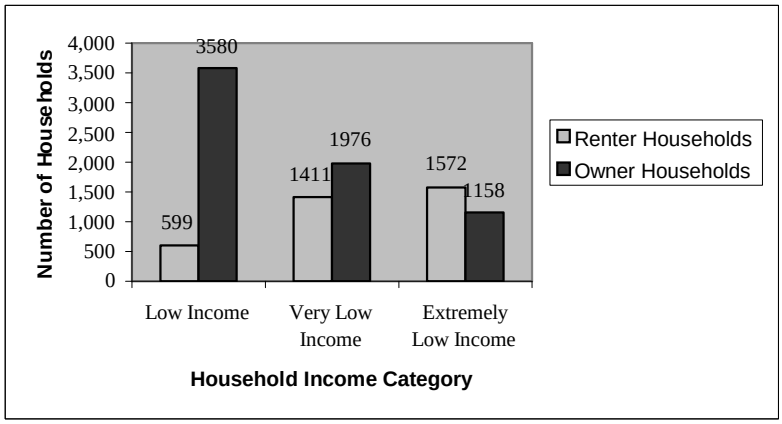
Special Consideration Groups

The US Department of Housing and Urban Development sets standards based on median family income (MFI) for assessing low-income housing needs. Three classifications are used when discussing low-income households and are defined as follows:

Extremely low income - those households with an income of 0% to 30% of the MFI
Very low income – those household with an income of 31% to 50% of the MFI
Low income – those households with an income of 51% to 80% of the MFI

Figure AA.6.3 shows the number of renter and owner households in the County by income category for low, very low and extremely low-income households.

Figure AA.6.3
Low-Income Households in 2000 – Renter vs. Owner



Source: Montana Housing Needs Assessment, Montana Department of Commerce 2004

HUD also defines types of low-income households as small related, large related, elderly and other households, in addition to special needs households that have members with mobility impairment, disabilities, or a drug or alcohol addiction. Elderly and special needs households in particular are comprised of a large portion of the low-income housing population. Over half of both elderly and special needs households are considered low-income and these groups are anticipated to increase as the population ages[25].

Homeless persons are defined as individuals who lack a fixed, regular and adequate nighttime residence and have a primary nighttime residence that is a supervised shelter for temporary living accommodation, an institution providing a temporary accommodation, or a public or private place not designed for sleeping[31]. Two homeless shelters are located in Flathead County, both within the city of Kalispell. The Samaritan House provides shelter for the homeless with 20 beds for men, eight beds for women and four family units. In 2005, the shelter provided temporary living accommodations for 1,061 people. The Ray of Hope is a homeless shelter providing 20 beds total and

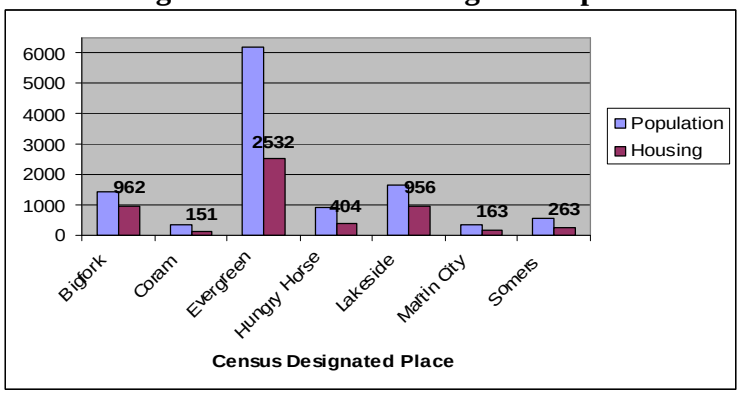
[31] http://www4.law.cornell.edu/uscode/html/uscode42/usc_sec_42_00011302----000-.html

providing temporary accommodations 175 people in 2005. In total, the two homeless shelters serving the County provided temporary nighttime accommodations to 1,236 people in 2005.

Location of Housing

Costs associated with the location of housing can be significant. The cost of transportation to and from destinations such as home, work and school, increases as the distance increases. The same is true for the cost of serving homes located further from public services such as police and fire protection, solid waste collection and public sewer and water services. The average travel time to work for Flathead County commuters is 19 minutes, which coincides with the fact that more than half of the housing in the County in 2000 was located in areas designated as rural. Rural refers to areas outside of incorporated places, outside of US Census Designated Places and with a population of fewer than 2,500[32]. Although the majority of housing is located in the rural areas, the unincorporated rural communities have the largest concentrations of housing, excluding the cities of Kalispell, Whitefish and Columbia Falls. The communities of Bigfork, Coram, Evergreen, Hungry Horse, Lakeside, Martin City and Somers are identified as Census Designated Places; the housing and population in these communities is shown in Figure AA.6.4.

Figure AA.6.4
Census Designated Places – Housing and Population in 2000



Source: U.S. Census

PART 7: Parks and Recreation

The growing popularity and demand for parks and recreational opportunities are in proportion to the dynamic growth and development of Flathead County. The public desires more opportunities for passive and organized sport programming. Greater access to water-based recreation is also a growing priority. The Department of Parks and Recreation is currently responsible for the development, operation and maintenance of a wide range and variety of parks and recreation facilities. Although the existing parks and

[32] http://www.census.gov/population/censusdata/urdef.txt

recreation system offers recreational opportunities for individuals, families and group users, it must also be dynamic to meet changing public needs and desires.

The department currently maintains 37 parks and recreation facilities and one cemetery totaling approximately 383 acres. The facilities can be categorized by function. Of the 37 park sites, 20 are land-based parks, 14 sites are water-based parks and four are special use parks. Table AA. 7.1, Table AA.7.2 and Table AA.7.3 list the parks in each category.

Land-based parks account for 97 acres that vary from 1/3 of an acre to 24 acres with an average area under five acres. There are 20 ball fields, one volleyball court, four basketball courts and multi-purpose fields among other amenities; most offer picnic area and playgrounds for children.

Table AA.7.1
Existing Land-Based Parks and Recreation Facilities

Park	Acres	Facilities
Aero Lane Park	1.0	Ball field
Ben Williams Park	5.0	Volleyball/picnic/playground
Carlyle Johnson Park	14.0	Ball fields/soccer/playground/picnic
Conrad Sports Complex	15.0	Ball fields/basketball/playground/picnic
Country Estates Park	3.7	Grass field
Evergreen Lions Park	3.4	Ball field/basketball/picnic/playground
Green Acres Park	1.5	Picnic/playground
Happy Valley Park	24.0	Playground
Hillcrest Park	7.0	Ball fields/multi-use fields/playground
Hilltop Terrace Park	1.9	Picnic/playground
Kokanee Bend Park	4.2	Ball field/picnic/playground/horseshoe
Lake Hills Park	4.1	Not developed
Martin City Park	1.6	Ball field/playground/picnic
Meadow Hills Park	2.9	Picnic/playground
Mission Village Overlook Park	1.6	Picnic/playground
North Haven Park	1.1	Picnic/playground
Potoczny-Bigfork Park	0.3	Grass field
Silver Shadow Park	1.0	Ball field/playground/picnic
Sliter Park	2.0	Picnic/playground/stage
Sunrise Terrace Park	2.2	Playground/picnic

Source: Flathead County Parks and Recreation

Table AA.7.2
Existing Water-Based Parks and Recreation Facilities

Park	Acres	Facilities
Bigfork Boat Dock Park	--	Benches/picnic (Swan River)
Blankenship/Max Edgar Park	8.3	Boat ramp (Echo Lake)
Blue Grouse Park	4.3	Boat ramp/dock/picnic (Little Bitterroot Lake)
Flathead River Ranchettes Park	2.7	Boat ramp/picnic (Flathead River)
Foys Lake Park	--	Boat ramp/dock/swim area/picnic (Foys Lake)
Kelsey/Cummings Dam Park	1.2	Boat ramp/picnic (Little Bitterroot Lake)
Kings Loop Park	2.0	Fishing Access (Whitefish River)
Lakeside – Adams Park	--	Boat ramp (Flathead Lake)
Lakeside – Bierney Creek Park	--	Boat ramp (Flathead Lake)
Lazy Bay Park	3.2	Dock (Whitefish Lake)
Leisure Island Park	137.2	Boat ramp/picnic (Flathead River)
Little Bitterroot Lake Park	1.2	Lake access (Little Bitterroot Lake)
Somers Swimming Park	2.0	Swim area/picnic (Flathead Lake)
Whitefish Boat Park	0.5	Boat dock/picnic (Whitefish Lake)

Source: Flathead County Parks and Recreation

Table AA.7.3
Existing Special Use Parks

Park	Acres	Facilities
Demersville Cemetery	--	Cemetery/Historic Site
Foys Community Center	2.0	Community center building
Herron Equestrian Park	118.0	Horse stalls/dressage/picnic/x-country skiing
Hungry Horse Island Park	3.3	Monuments

Source: Flathead County Parks and Recreation

There are 14 water-based parks, covering 163 acres, offering access to lakes and rivers for boat ramps, docks and for fishing. These waterfront public accesses areas are especially important due to the increasing private shoreline development and the increasing popularity with water-based recreation. The average size of water based parks is about 12 acres, although most of the Leisure Island Park is undeveloped and in a natural state. Excluding the Leisure Island Park natural area, the average size is approximately two acres. These water based facilities offer access to three rivers and six lakes.

The four special use facilities account for 123 acres. Special use facilities are dedicated for specific or single-purpose recreational activities and serve a limited population, such as the Herron Equestrian Park. Herron Equestrian Park also offers camping, biking cross-county skiing, rugby and other multi-purpose organized activities. The Demersville Cemetery receives maintenance only.

Current Level of Service

Level of service is one tool used to baseline existing parks and recreational infrastructure relative to population. Flathead County's population in 2004 was estimated to be slightly less than 82,000. The population of the unincorporated area of the county was estimated

at 53,505. Based on the unincorporated population the county offers approximately 7.2 acres of total recreational areas per 1,000 residents. Park space per 1,000 population is shown on Table AA.7.4 for each of the park types.

Table AA.7.4
Park Space Level of Service

Park	Number	Acres	Average Size	AC/1,000 population
Land-Based	20	97	5	1.8
Water-Based	14	163*	12*	3.0
Special Use	3	123	41	2.3
Overall	37	383	10	7.2

Source: Flathead County Parks and Recreation

State and Federal Recreation Areas

In Flathead County, there are numerous parks and recreation areas under federal and state management. These facilities offer a wide diversity and outstanding all-season outdoor recreational amenities for all county residents. Major recreational facilities and administering agencies are listed in Table AA.7.5.

TABLE AA.7.5
Federal & State Recreation Areas

Facility	Area	Management Agency
Glacier Nat'l Park	635,214	US National Park Service
Flathead National Forest	1,875,545	US Forest Service
Kootenai National Forest		US Forest Service
Lewis & Clark National Forest		US Forest Service
Lolo National Forest		US Forest Service
Lost Trails National Wildlife Refuge	7,885	US Fish & Wildlife
Swan River National Wildlife Refuge	1,568	US Fish & Wildlife
Smith Lake Waterfowl Production Area	5,189	US Fish & Wildlife
Wayfarers State Park	67	Montana Fish, Wildlife, Parks
Whitefish Lake State Park	11	Montana Fish, Wildlife, Parks
Whitefish State Trust Lands	13,000	Montana Fish, Wildlife, Parks

Source: Flathead County Parks and Recreation

The primary distinction between federal and state recreation areas and county recreation areas is programming. Parks under county administration offers active organized sport activities (e.g. softball, volleyball, soccer and football, etc.) while federal and state lands promote unique outdoor activities such as camping, hiking, fishing and hunting. The importance of federal and state lands for recreation is tied to custom and culture of Montana residents and visitors for outdoor activities. Flathead County seeks to provide recreational opportunities that are an alternative to those activities found on federal and state lands public lands and to ensure public access to federal lands and water bodies.

PART 8: Economy

Economic Composition

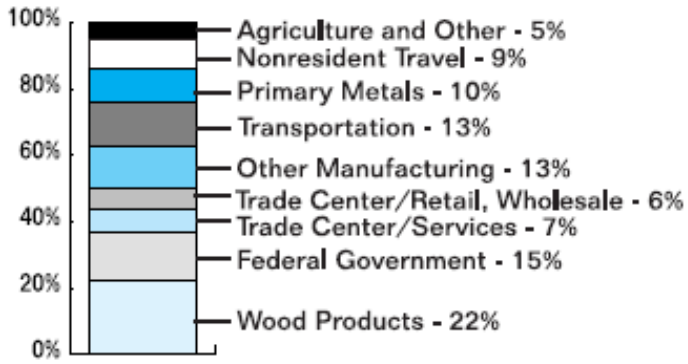
The Flathead Valley was historically a natural resource based economy. Logging, mining and commodities production have decreased in importance over time and what is emerging is a diverse economy that is particularly strong in a variety of retail trade and service industries. The County economy has experienced significant restructuring over the past twenty years as employment, labor earnings and sales have witnessed enormous increases in the services and retail trade sectors, far out-shadowing sectors with slower or negative growth. The natural amenities contributing to the character in Flathead County has attracted many small business and technology companies, which are becoming more prevalent in light of the new knowledge-based, globalized economy. Population growth, bringing demand for goods and services, has triggered this economic change.

Several indicators can be used to evaluate the trends in sectors and sub-sectors of the economy. Wages and incomes, employment and sales are some of the indicators that show changes over time. All of these indicators are discussed throughout the Chapter to contrast past and current trends and to provide a snapshot of today's economy. The amount of data detailing the Flathead County economy is extensive; however, consistent information for inter-sector comparisons per year is not always available. Information in this chapter describes both basic and non-basic sectors. Basic sectors are those which are entirely dependent on export of their goods or services and examples of which are agriculture, manufacturing and retail trade, while non-basic sectors are dependent on local consumption of goods and services and include sectors such as healthcare and education.

The County has grown in population over the past two decades. However, the growth in indicators such as wage income has vacillated between 1970 and 2000. For basic economic sectors, manufacturing of wood products, primary metals refining and high-tech account for approximately 45% of the economic base of the county. Other large elements in the economy are the federal government, which includes the USDA Forest Service and the U.S. Park Service, transportation including railroads and non-resident travel as shown in Figure AA.8.1.[33]

[33] Outlook for Flathead County, Montana's 2005 Economic Outlook

Figure AA.8.1
Wage Income for Basic Economic Sectors – 2000 through 2003



Source: Outlook for Flathead County, Montana's 2005 Economic Outlook

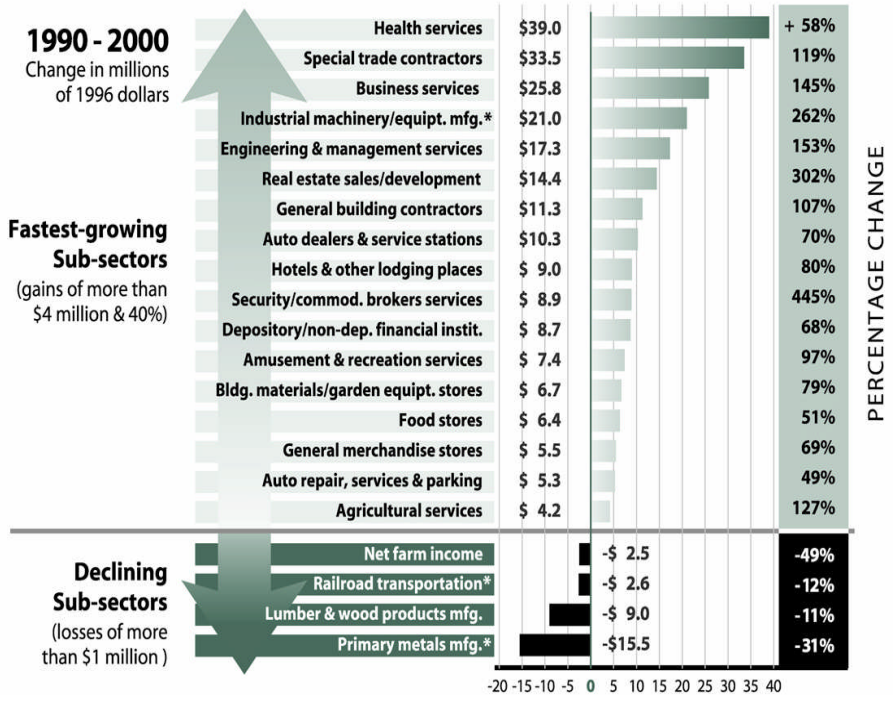
The economic sectors detailed in the US Economic Census provide data for standard sectors in the County economy (however, construction is not included). From the Census information, the total increase in sales for all sectors equaled 6% over the five-year period, increasing from $2.24 million to $2.40 million during that period. Retail trade were the largest portion of the sales in the County equaling over $1 billion in 2002, while manufacturing sales totaled nearly $646 million and health care and social assistance equaled $278 million[38].

Services and Retail Trade

Goods and services are provided in the service and retail trade sectors. Retail trade includes a plethora of business categories from hardware stores to used car dealers to florists, while services include banks, property management, lawyers, travel agencies and schools.

Increases in sales per sector between 1997 and 2002 showed that educational services sector with includes elementary, secondary and trade schools increased the most significantly with a 262% growth, closely followed by health care and social assistance with 257% growth. The sectors of administrative and support and waste management and remediation services; arts, entertainment and recreation; and real estate and rental leasing experienced notable increases at 112%, 94% and 92%, respectively[38]. Overall, the services and retail trade sectors witnessed remarkable growth between the previous two US Economic Censuses. The labor earning in the private non-basic sectors, many of which are service and retail trade sectors, have shown significant growth as detailed in Figure AA.8.2.

Figure AA.8.2
Labor Earnings by Sub-Sector – 1990 through 2000



Source: Gateway to Glacier: The Emerging Economy of Flathead County; National Parks Conservation Association, 2003

Construction

Home construction has increased with population growth. Since 1990, the increase in both single-family and multi-family has been considerable. This has been reflected in the number of employees in the construction sector. In 1998, the construction industry employed 1,925 persons in 427 establishments, by 2004 this number had increased to 3,090 persons and 743 establishments, a 61% increase in employment and a 74% increase in the number of establishments over the six year period[34]

Manufacturing and Agriculture

Manufacturing includes sub-sectors such as sawmills, breweries, dairies and foundries. Major manufacturing industries in the county include Semitool and the Columbia Falls Aluminum Plant. Manufacturing has begun to decline in importance as growth has provided alternative job opportunities. A decline in manufacturing of 18% was the only US Census-documented decreased in sales for any sector in 2002.

Agricultural sales appear to be steady with a decline in the number of active farms and ranches. Flathead County ranks fourth in the state for the number of total farms and ranches equaling 1,075 in 2005, which is a 2% decline from 1997. The total market

[34] 1998 County Business Patterns (NAICS), US Census Bureau; Labor Market Information for Flathead County, Montana Department of Labor and Industry, 2004.

value of production for all agriculture equaled over $30 million in 2002, an 8% increase from 1997. The average market value of production per farm totaled $28,384 in 2002, a 10% increase from 1997. The County ranks first in the state for sales of mint for oil, nursery, greenhouse, floriculture and sod products and llamas, in addition to ranking second in sales of cut Christmas trees.[35]

Tourism

Flathead County is a "Gateway Community" providing access to Glacier National Park. Visitors to Flathead County create a demand for goods and services provided by several sectors. Lodging, transportation and fuel, food and drink and retail items are the goods and services for which tourists spend money. In 1998, 29% of expenditures by visitors were on retail trade, lodging comprised 20% of spending and restaurant/bar spending accounted for 19%[36]. Total expenditures in Flathead County by tourist in 1998 equaled $145 million, 10 % of total tourist expenditures in the state of Montana. The total expenditures by visitors to the County grew by more than $1million in 2002, equating to over $146 million[37]. Two of the fastest growing sub-sectors of the County economy in 2000 were hotels and lodging which ranked ninth and amusement and recreation, which ranked twelfth.

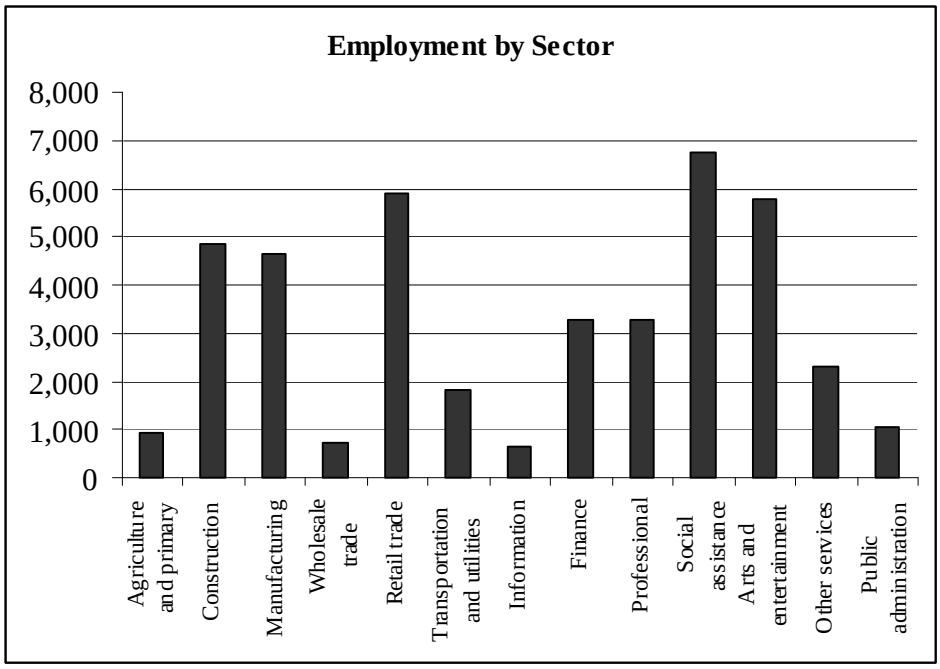
Tourist spending is an important inflow of money into Flathead County economy. As such, the character of the area and visitor attractions play an important role. People mainly visit Flathead County to experience Glacier National Park, with 74% of visitors surveyed giving the Park as the attraction which brought them to the area. Mountains, rivers, open space and wildlife were the next most important attractions to those who were surveyed, all features of the natural environment that make the County unique and a desirable destination.

Employment

From 1990 to 2000, 15,700 new jobs were created, which was an increase of nearly 50%. Dramatic increases occurred between 1980 and 2000 in areas of services and in retail trade.

[35] *2002 Census of Agriculture County Profile*; National Agricultural Statistics Services, US Department of Agriculture
[36] McMahon, Kim. *Regional Non-Resident Spending in Montana;* Institute for Tourism and Recreation Research, University of Montana, 2000
[37] Nickerson, Norma and Jim Wilton. *Niche News: Flathead County Visitor Characteristics*; Institute for Tourism and Recreation Research, University of Montana, 2002

Figure AA.8.3
Employment by Sector – 2005



Source: US Census

Approximately 35,707 persons were employed in private and public firms in 2004. Employment is spread out over several sectors as shown in Figure AA.8.3. The sector with the largest number of employees is that of retail trade with 5,551 employees, followed by government, accommodation and food services and healthcare and social services. Those sectors with the least number of employees are management of companies and enterprises with 92, mining with 190 and utilities with 193**.**

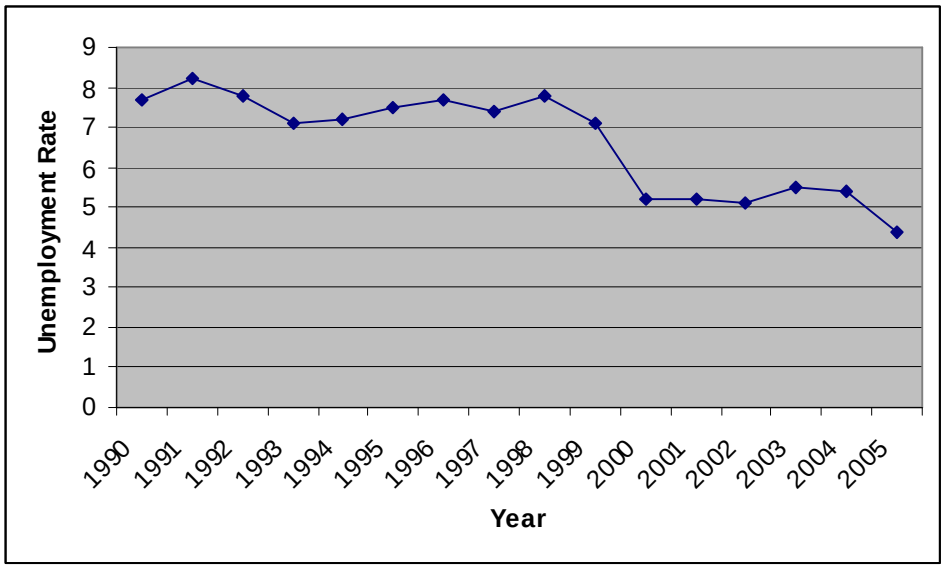
Growth in the service and retail sectors which includes retail trade and finance, insurance and real estate, has notably increased to meet the growth in population. Service and retail trade sectors witnessed a 57% employment growth during the 1990s. The types of occupations that increased in number were mainly high quality jobs such as those in the areas of health care, engineering and management services and business services. Service and retail occupations accounted for over 70% of the labor earnings during the 1990s. Between 1997 and 2000, the number of employees in health care and social assistance increased by 257%, followed by arts, entertainment and recreation with an increase of 74% and employees in administrative and support and waste management and remediation services which increased by 70%.[38]

[38] US Economic Census 1997, 2002

Unemployment Rates

Flathead County is experiencing an historically low unemployment rate as seen in Figure AA.8.4. The Flathead County Job Service Workforce Center reports 600 job openings, as compared with 400 in spring 2005. Businesses in the service and retail trade sectors are experiencing difficulty hiring and maintaining dependable employees; however, with the growth in these sectors, employment opportunities have considerably risen.

Figure AA.8.4
Unemployment Rate – 1990 through 2005



Source: Unemployment Rates and Labor Force Statistics; www.ourfactsyourfuture.org

Wages

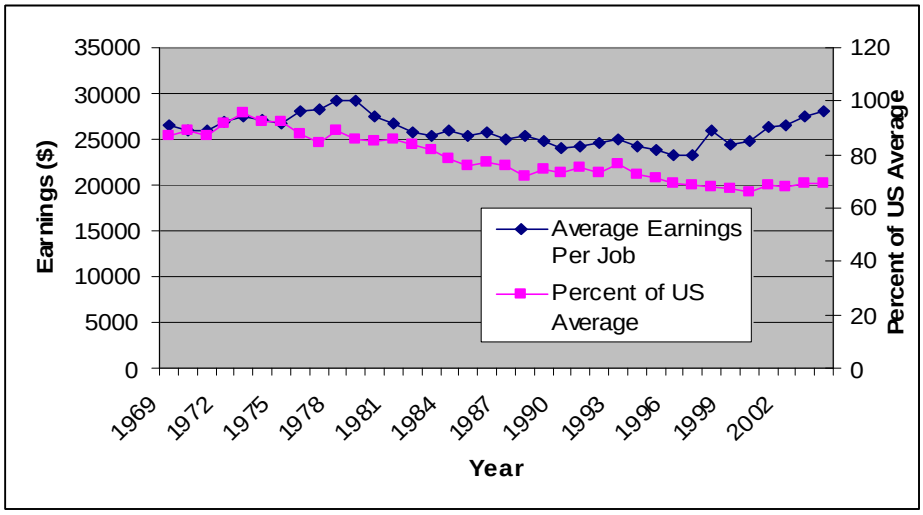
Although Flathead County wages are rising, they are far from meeting the average national average. Flathead County employers pay less than US employers on average, but are more competitive with average wages for Montana across numerous sectors[39]. Wages rose by 7.4% from 2003-2004. Per capita personal income in 2004 was $28,598 placing Flathead County as 10th highest in the state

The increasing cost of living in Flathead County has a large influence on what is a 'livable wage' or in other words a wage that covers the costs of basic needs such as housing, food, transportation, healthcare and insurance. The cost of housing in the County as discussed in Chapter 3 is a major factor when determining a livable wage as this cost in particular has risen dramatically over the past decade. Approximately 51%of private businesses offer medical benefits[39]. Small businesses that have four or fewer employees offer medical plans only 47% of the time. In addition, only 20% of the employers in the County provide pension plans and 41% offer a 401(k) or savings plan[39].

[39] Davis, Gregg, PhD and Lynette Smith. Flathead County Wage and Benefit Survey; Center for Business Information and Research, 2005

Although wages as a whole have generally been on the increase since the later part of the 1990s, when compared to the United States, the average earnings per job in Flathead County have steadily declined against the national average as shown in Figure AA.8.5. In the early 1970s, the earnings per job in the County were comparable to those nationwide, when in 1973 the average earnings per job in the County were over 95% of the national average. By the year 2004, the average earnings per job had dropped below 70% of the national average.

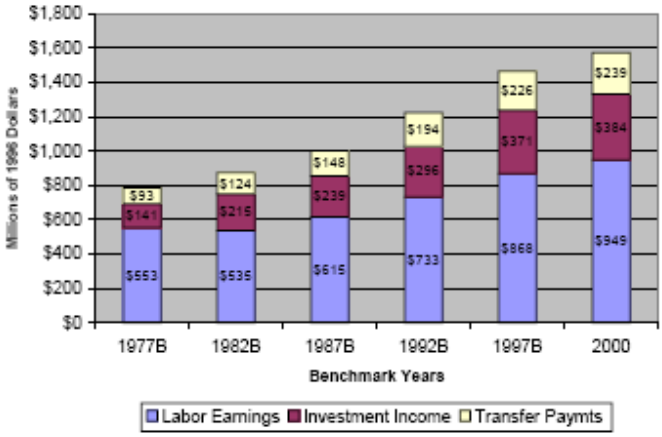
Figure AA.8.5
Average Earnings per Job – 1969 through 2004



Source: Flathead County and Montana: Average Earnings per Job, 1969-2004; Northwest Income Indicator Project.

The County has witnessed an increase in non-wage incomes, which include income from investments and transfer payments, such as social security, as the County population of 40 to 60 year olds has grown. In 2000, 60% of incomes were wage-based a 10% decrease from 1990. Nearly 25% of all income in the County came from investments such as dividends, capital gains and interest. The remaining15% of all income came from transfer payments sources such as social security, Medicare and Medicaid. Figure AA.8.6 shows the income composition in the County from 1977 through 2000, comparing wage and non-wage incomes.

Figure AA.8.6
Wage vs. Non-Wage Incomes – 1977 through 2000



Source: National Parks Conservation Association, 2002

Workforce

There is a large number of vacant positions indicating that employers are experiencing difficulty when hiring and retaining dependable employees. The lack of sufficient workforce in Flathead County produces concerns about education, training and employee recruitment, in addition to the gender gap in employment.

The majority of Flathead County residents 25 years or older have some college education, with 5% holding a 2-year associate degree, 18% holding a 4-year bachelors degree, 6% with graduate or professional degrees and 29% with some college but no degree. However, this equates to 63% of the population with no more than a high school diploma. The education trend is similar to that in the entire state of Montana. In 2000, male workers comprised 54% of the workforce with female workers comprising the remaining 46%. Men held more jobs in labor-intensive industries such as manufacturing and construction and in retail trade while more women held positions in education, healthcare and finance and insurance[40].

Business Characteristics

The majority of businesses in the county are small businesses alluding to the fact that entrepreneurship is significant in the area. Advanced telecommunications infrastructure and transportation has allowed new business opportunities in the County. The attraction of the area offering a high quality of living is an advantage in enticing the relocation or start-up of high-tech and value-added businesses, as these businesses produce high value goods with low environmental impact. Non-employee businesses, or small businesses that sustain only the business owner, are prevalent and compose a notable part of the Flathead County economy.

[40] www.censusscope.org

Approximately 3,986 individual private businesses operated in the County in 2004, 91% of which are small businesses with one to 19 employees[41]. Construction firms are the most numerous with 743 construction businesses, which include construction of buildings, heavy and civil engineering construction and special trade contractors. Retail trade is the second most numerous in regard to number of establishments with 534 businesses including motor vehicle and parts dealers, furniture and home furnishing stores, gasoline stations and general merchandise stores. Professional and technical services, accommodation and food services and other services are the next most numerous sectors concerning number of businesses as shown in Table AA.8.1.

Table AA.8.1
Number of Establishments per Sector - 2004

Industry	# of establishments
Construction	743
Retail trade	534
Professional and technical services	358
Accommodation and food services	324
Other services	317
Healthcare and social assistance	304
Administrative and waste services	207
Real estate and rental and leasing	205
Finance and Insurance	200
Manufacturing	186
Transportation and warehousing	130
Wholesale trade	121
Arts, entertainment and recreation	115
Agriculture, forestry, fishing and hunting	101
Information	76
Educational services	29
Mining	18
Management of companies and enterprises	11
Utilities	9
Total private businesses	3986

Source: Labor Market Information for Flathead

Larger employers comprise a much smaller segment of the Flathead County economy. In 2000, twenty-four businesses employed between 100 and 499 employees, while only three businesses employed 500 or more employees[41]. Some of the top private employers in the County are shown in Table AA.8.2.

[41] 2000 County Business Patterns for Flathead, MT; US Census 2000

Table AA.8.2
Top Employers in 2004

Industry	Employer
Utilities	Century Tel, Flathead Electric
Services	Glacier Bank, Kalispell Regional Medical Center
Retail Trade	Wal-Mart, Smith's Food & Drug
Manufacturing	Semitool, Inc, Columbia Falls Aluminum
Construction	Rocky Mountain Contractors, Schellinger Construction

Source: Labor Market Information for Flathead County; Montana Department of Labor and Industry, 2005

Facilities and Infrastructure

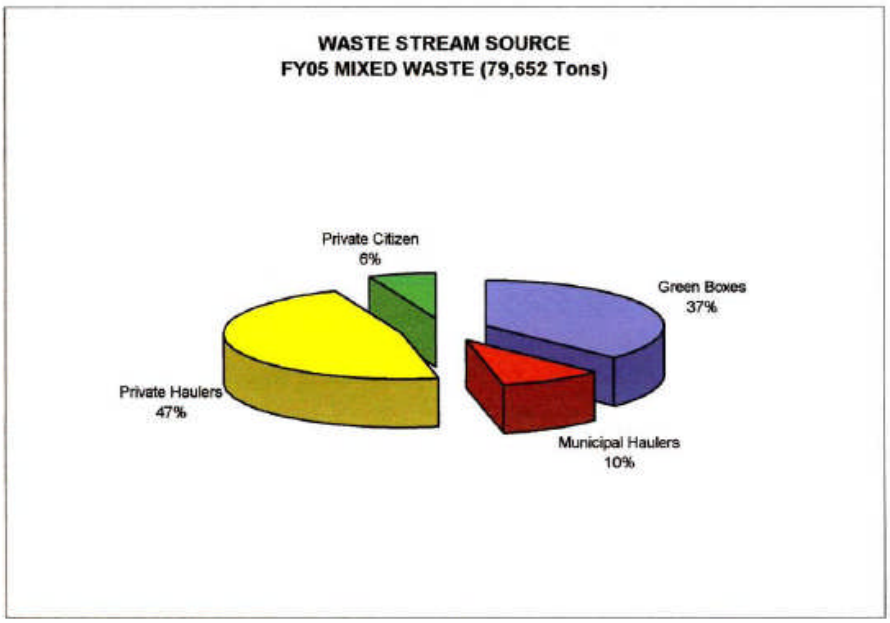
Adequate business facilities and public infrastructure are necessary to promote a healthy business climate. Successful business communities often rely upon designated business districts to promote close proximity of businesses and services. Advances in transportation and communication technologies have enabled businesses to thrive in more remote areas of the nation. Important transportation infrastructure for the County economy includes Glacier National Airport, road networks and the railroad lines while utilities such those providing high speed internet and phone services are also essential. For an overview of land use considerations for commercial development please see Chapter 2 and for more information on public facilities and infrastructure in the County, please refer to Chapter 7.

PART 9: Solid Waste

Solid waste disposal is provided by the Flathead County Solid Waste District. The District provides refuse collection, disposal services, hazardous waste collection and recycling opportunities to all County residents.

The Flathead County landfill is located five miles north of the city of Kalispell on US Highway 93 and is permitted for waste management activities on approximately 80-acres, with a total of 275-acres dedicated for current and future waste management needs. The facility operates six days a week and permits rural county residents to drop off waste at the county landfill or dispose of household refuse at one of the 12 containers or "green box" sites. Container sites are located in the communities of Bigfork, Columbia Falls, Coram, Creston, Denny's, Essex, Kila, Somers, Olney, Nyack, Marion and Lakeside (see Figure AA.9.4). Refuse accumulated at these sites is hauled by the District to the Flathead County landfill. As shown in Figure AA.9.1, waste travels to the landfill via four methods: individual private citizen haul, contracted private company haulers, municipal haulers and green box disposal. Contracted private hauling companies are the most utilized method, followed by green box disposal, municipal haulers and individual private citizen haul.

Figure AA.9.1
Waste Disposal in 2005

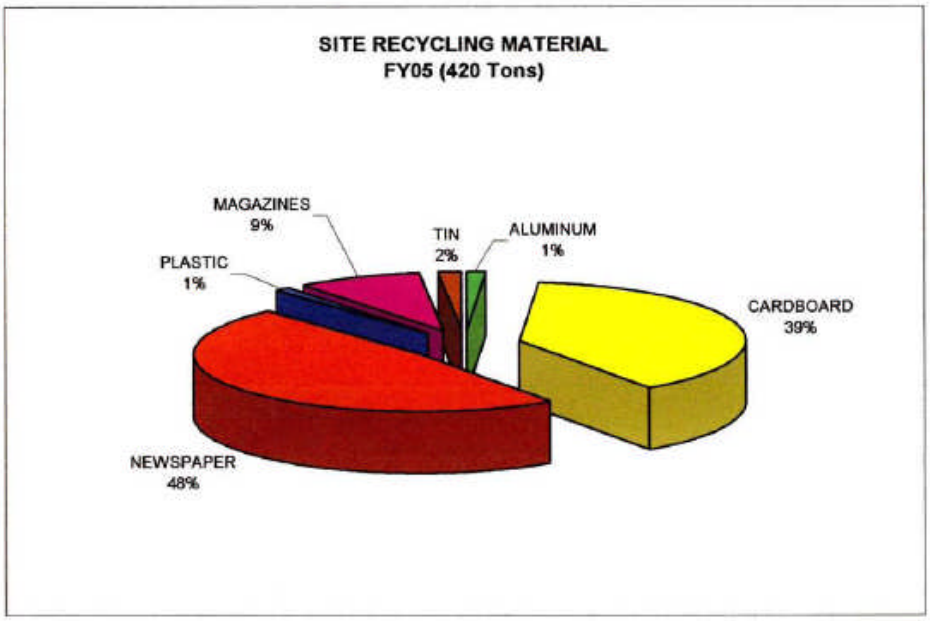


Source: 2005 Solid Waste Report, Flathead County Solid Waste District

Recycling

The Solid Waste District funds the county WasteNot consumer education program to increase awareness of solid waste issues, with emphasis on recycling, waste reduction and safe disposal of household hazardous waste. In the county, recycling programs provides opportunity to recycle cardboard, newspaper, tin and aluminum and plastic bottles and milk jugs Recycling containers are available at the Flathead County Landfill and the Columbia Falls, Coram, Kila, Creston, Bigfork and Lakeside collection sites. The District maintains a contract with the Valley Recycling Center for the recycling of household recyclable materials. As is shown in Figure AA.9.2, the most frequently recycled material is newspaper, followed by cardboard, magazines, tin, aluminum and finally plastic; glass recycling is not currently offered. In addition to recycled household materials, lead batteries, used oil and materials from appliances and junk vehicles can be recycled.

Figure AA.9.2
Materials Recycled in 2005



Source: 2005 Solid Waste Report, Flathead County Solid Waste District

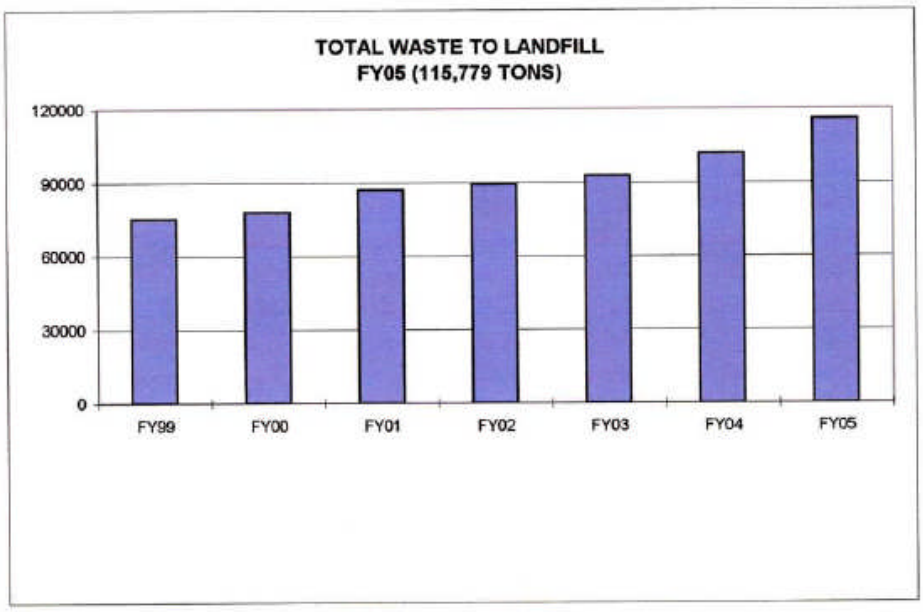
The Solid Waste District maintains a household hazardous waste program (HHW) that collected over 8,000 gallons of household hazardous waste in 2005. Residents can dispose of HHW at no cost while small businesses have the opportunity to dispose of HHW once a year for a fee. Household hazardous waste is collected and transported to a hazardous waste facility where it is either recycled or disposed of properly. Much of the household hazardous waste in the county is not disposed of properly; the District estimates that Flathead County residents dispose of between 80 and 240 tons of hazardous products in their garbage on an annual basis.

The Solid Waste District is funded through an annual assessment of $74.54 per household and a "per volume" of waste fee assessment for businesses. Additionally, a pay-as-you-throw tipping fee of $28.75 per ton is assessed for commercial haulers that haul waste directly to the landfill. In 2005, the District generated $4,014,085 through assessment fees and $1,148,827 though pay-as-you-throw fees. The total revenues for the District in 2005 totaled $5,440,712; the total expenditures equaled $6,055,770, with over $2 million in funds transferred to the expansion and closure trusts.

As growth in the County has steadily continued, it is reflected in the volume of waste collected and disposed of in the landfill (see Figure AA.9.3). The District has witnessed a 40% increase in the tons of refused hauled from the container sites between 2000 and 2005. The total tons of refuse disposed of per month at the landfill have increased from 8,275 tons to 9,869 tons from 2004 to 2005, resulting in a 19% increase over the past year. The summer months result in the largest volume of waste disposal, with a 500 ton per day disposal rate. The increase in waste disposal during the summer can be attributed

to the influx of visitors and seasonal residents during this time. The total amount of waste disposed of in the landfill in 2005 equaled 115,779 tons[42].

Figure AA.9.3
Total Waste Disposal at Landfill – 1999 through 2005

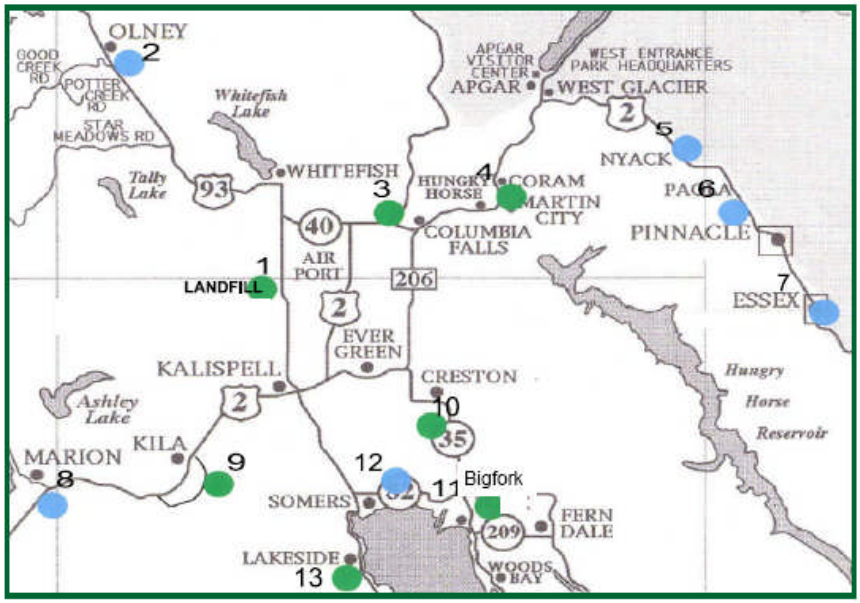


Source: 2005 Solid Waste Report, Flathead County Solid Waste District

The increasing amount of refuse being collected from the containers sites has resulted in an increase in wildlife attraction to the container areas, including attraction of bears and large game and a visual degradation of the sites due to litter and lack of appropriate screening. In addition, the illegal dumping of business wastes has also increased. The increase of individual households hauling refuse to the landfill and to container sites has resulted in litter along transportation routes because the refuse is improperly covered or secured and in increased traffic congestion at the container sites and landfill.

[42] 2005 Solid Waste Report, Flathead County Solid Waste District

Figure AA.9.4
Solid Waste Sites



1 • LANDFILL—4098 US Highway 93 North, Kalispell
2 OLNEY—Highway 93 West
3 • COLUMBIA FALLS—Truck Route
4 • CORAM—Highway 2 East
5 NYACK—Highway 2 West
6 DENNY'S—Highway 2 East
7 ESSEX—Highway 2 West
8 MARION—Highway 2 East
9 • KILA—Kila Road
10 • CRESTON—MT Highway 35 (Broeder Loop Rd.)
11 • BIGFORK—MT Highway 83
12 SOMERS—MT Highway 82
13 • LAKESIDE—Blacktail Road

• Sites with Recycle Containers
Contracted with Valley Recycling— 257-2574

Flathead County Solid Waste District
Dave Prunty, Director
4098 Highway 93 North

Source: Flathead County Solid Waste District

PART 10: Public Drinking Water and Wastewater Treatment

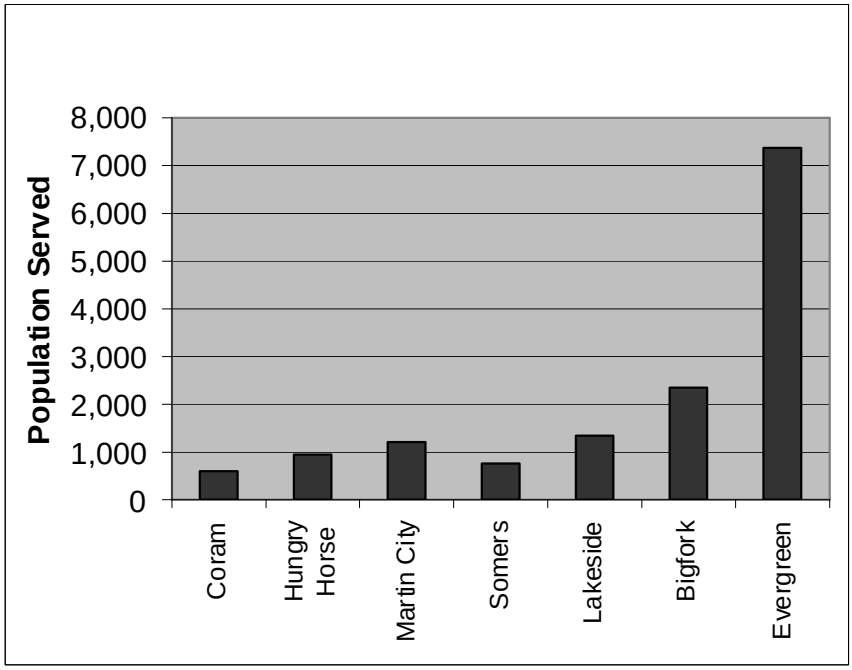
County Water and Sewer Districts

The majority of development in the unincorporated areas of the county utilizes individual septic systems and individual water wells. However, 26 water and/or sewer districts have been established to serve larger scale development or rural communities. The ability to provide public sewer and/or public water services is a major factor influencing the potential density and type of development in a community as the necessary land area for septic systems and individual water wells is no longer a limiting factor.

Major Districts

Seven major water and sewer districts as seen in Figure AA.10.1 serve entire unincorporated communities, half of which provide both water and wastewater treatment services. These water and sewer districts in the communities of Bigfork, Coram, Evergreen, Hungry Horse, Lakeside, Martin City and Somers each serve between 600 and 5,500 residents and businesses. The Coram, Hungry Horse and Martin City Districts offer public water services only; no public sewer treatment is available. The Bigfork and Lakeside Districts operate their own sewer treatment facilities, while Somers contracts with Lakeside for sewer treatment and Evergreen contracts with the City of Kalispell for sewer treatment services.

Figure AA.10.1
Major County Water and Sewer Districts in Unincorporated Areas



Source: U.S. Census

As hundreds to thousands of residents are served by these systems, protection of their drinking water sources is vital to public health. Assessments of the susceptibility to potential contamination for public water sources are accomplished by evaluating the land uses in three zones or regions surrounding the wells. The Control Zone, which is the most critical area because it is the land located directly over and around the well, is defined as the area within a 100-foot radius of the well. The Inventory Region is either the land area within a 1,000-foot (for wells in confined aquifers) to 1-mile radius (for conservative estimates) of the well or the area which is within a three year groundwater time of travel, whichever is larger. The Recharge Region is the entire portion of the aquifer or an area that contributes water to the local aquifer and often includes the entire watershed area.

Coram, Hungry Horse, & Martin City

The Coram, Hungry Horse and Martin City County Water and Sewer Districts are located in areas that are not currently experiencing the same high growth rates as the communities of Bigfork, Lakeside, Somers and Evergreen that each grew by over 50% between 1990 and 2000[43]. The contrast in growth rates can be attributed to several factors, one of which is the lack of public sewer system in Coram, Hungry Horse and Martin City. Because these three districts do not provide a public sewer system, residents in these communities are forced to use individual or multi-user septic systems.

The Coram Water and Sewer District serves the fewest number of residents and businesses, providing water to 600 persons. The Hungry Horse Water and Sewer District utilizes two wells to provide 943 persons at residences and businesses with drinking water and is the largest county water and sewer district, in terms of population served, which does not offer sewer treatment services. The Martin City Water and Sewer District utilizes two wells to provide water services to approximately 300 full-time and 200 transient persons at residences and businesses.

In particular, source water delineation and assessment for Hungry Horse and Martin City reveal threats to drinking water quality and well susceptibility to these threats. As the two communities are within close proximity to each other, analysis of their Control Zone shows that no apparent threats exist in this area. In the Inventory Region threats include individual septic systems, underground storage tanks/leaking underground storage tanks (UST/LST), large capacity septic systems, major travel corridors such as US Highway 2, an RV septic dumpsite and the Hungry Horse Dam Town old dumpsite. In the Recharge Region, potential contamination sources are US Highway 2, Great Northern Railroad Line, West Glacier wastewater discharges and underground storage tanks. The susceptibility to potential contamination for the drinking water systems is shown in Table AA.10.1.

Table AA.10.1
Drinking Water Source Susceptibility to Potential Contamination – Hungry Horse & Martin City

Potential Contamination Source	Hungry Horse	Martin City
Individual septic	Very High	High
Large septic	Very High	High
US Hwy 2	Very High	Very High
Old dumpsite	High	N/A
RV dumpsite	Very High	N/A
UST/LUST	Moderate	N/A
RR Line	Low	Low

Source: Source Water Delineation and Assessment Report, Source Water Protection Section, Montana Department of Environmental Quality, 2004

[43] US Census 2000

Somers

The Somers Water and Sewer District utilizes two wells and a 100,000 gallon elevated reservoir to provide drinking water for approximately 765 persons at residences and businesses and maintains a contract with the Lakeside Water and Sewer District for 45,000 gallons per day of wastewater discharge. The Somers district currently utilizes 70 percent of the allowed daily capacity for wastewater discharge.

The source water delineation and assessment report for the Somers District reveals no significant potential contaminant sources in the control zone and domestic wells and individual septic systems as potential contamination sources in the inventory zone. Hydrocarbons from service stations, Somers Marina, the old dumpsite, the Great Northern Tie Treatment Plant and individual septic systems are sources of contaminants in the Recharge Zone. The most significant potential contaminant source noted in the report is the Great Northern Tie Treatment Plant in the Recharge Region[44]. Table AA.10.2 lists several potential sources of contamination and the public water system's susceptibility to contamination.

Table AA.10.2
Drinking Water Source Susceptibility to Potential Contamination – Somers

Potential Contamination Source	Somers
Domestic Wells	Low/Moderate
Domestic Residences	Low
Septic Systems	Low

Source: Source Water Delineation and Assessment Report for the Somers County Water and Sewer District Public Water System; Land and Water Consulting, Inc., 2003

Because Somers maintains a contract with the Lakeside District for wastewater treatment, they are limited in expansion in terms of effluent flow by the Lakeside District. A large portion of the area that is serviced by the Somers District is within high groundwater areas in close proximity to the Flathead Lake, the 100-year floodplain and wetland areas, making expansion of public sewer facilities fundamental to growth.

Lakeside

Estimates for the number of Lakeside County Water and Sewer District customers approximate that between 800 and 1,340 persons at residences and businesses are served by the district. This district provides drinking water through two separate well systems and provides sewer treatment services. The Lakeside district has increased in the number of new sewer service customers by nearly 20% and new drinking water service customers by 45.5% between 2000 and 2005.

The source water delineation and assessment report for the Lakeside District identified vandalism and careless use of domestic products by nearby residents as potential sources

[44] Source Water Delineation and Assessment Report for the Somers County Waster and Sewer District Public Water System; Land and Water Consulting, Inc., 2003

of drinking water contamination in the Control Zone. The susceptibility of contamination from these sources is moderate to high as the Control Zone is developed with residential uses. Potential drinking water contamination threats in the Inventory Region are domestic wells and individual septic systems, hydrocarbons from service stations, spills or accidents on US Highway 93 and leaks in the sanitary sewer mains. In the Recharge Region, the Montana Department of Transportation gravel pit, former sewage lagoons, Blacktail Mountain Ski Area, former US Air Force radar station and the former Kalispell Air Force Station pose potential contamination threats. Table AA.10.3 details the susceptibility to potential contamination from multiple sources.

Table AA.10.3
Drinking Water Source Susceptibility to Potential Contamination – Lakeside

Potential Contamination Source	Lakeside
US Hwy 93	Low
PWS Wells	Moderate
Service Stations	Low/Moderate
Underground Vault (TCE)	Low/Moderate
Residences	Low
Domestic Wells	Low
Sanitary Sewer Main	Low

Source: Source Water Delineation and Assessment Report for the Lakeside County Water and Sewer District Public Water System; Land and Water Consulting, Inc., 2003

A fourth well formerly utilized by the District has since been abandoned after it became contaminated with Trichloroethylene (TCE) from a vault located twenty feet from the well. Additionally, three hydrocarbon spills have occurred in the past 10 years - the Lakeside Exxon release in 2000, a release at Burrheads Gas Groceries and Grub in 1999 and a release at Lakeside School in 1997.

Bigfork

The Bigfork County Water and Sewer District provides customers with drinking water and sewer treatment service. Two wells provide the drinking water to 2,350 persons at residences and businesses. Approximately 47,000 feet of gravity sewer pipe connects customers to the sewer treatment facility. The sewer treatment facility utilizes an advanced wastewater treatment system, discharging treated effluent into the Swan River and Flathead Lake, while the remaining sludge is stored in retention tanks during the winter months and land application during the remainder of the year

The source water delineation and assessment report for the Bigfork District identified no potential source of drinking water contamination in the Control Zone and determined that individual septic systems and large capacity septic systems are potential contaminant sources in the Inventory Region. Potential sources of contamination in the Recharge Region are Montana Highways 35 and 26, underground storage tank/leaking underground storage tanks (UST/LUST), Montana Department of Transportation maintenance

facilities and a particular storm water discharger. The susceptibly of the source wells for contamination by several of the potential sources is described in Table AA.10.4.

Table AA.10.4
Drinking Water Source Susceptibility to Potential Contamination – Bigfork

Potential Contamination Source	Bigfork
Large Capacity Septic Systems	High
Cropland	Low
Septic Density	Very Low
Highways and Other Roadways	N/A
MDT Maintenance Facilities	N/A
UST/LUST	N/A

Source: Source Water Delineation and Assessment Report for the Bigfork County Water and Sewer District Public Water System; Source Water Protection Section, Montana Department of Environmental Quality, 2005

Evergreen

The Flathead County Water and Sewer District #1 - Evergreen is commonly referred to as the Evergreen Water and Sewer District. This district provides water and sewer services to approximately 7,372 persons at residences and businesses. Nine wells and a 1 million gallon above ground storage reservoir provide drinking water in the Evergreen service area. The Evergreen Water and Sewer district maintains an agreement with City of Kalispell for the treatment of wastewater.

Due to the fact that the Evergreen District utilizes nine separate well sources, the potential contaminant sources may not be a threat to every well, but do pose a potential threat to at least one well. In the Control Zone, the only potential source of contamination is from hydrocarbons for the standby generator located in one of the pump houses. The potential sources of contaminants in the Inventory Region are raw or inadequately treated sewage, spills from accidents on US Highway 2 or Burlington Northern Rail tracks, an abandoned oil refinery site, the former Kalispell Pole and Timber Company site, livestock pasture, spills from service stations and microbial and other contaminants from a slough/pond. The Recharge Region includes the entire Flathead Valley floor that encompasses a multitude of land uses and activities and thus potential contamination sources[45].

Expansion of the Evergreen District concerning sewer treatment is limited by its agreement with the City of Kalispell. Currently the new sewer hookups are only permitted for those properties within the existing boundaries of the Evergreen District. The ability to increase service outside of the current District boundaries will require permission from the City of Kalispell.

[45] Source Water Delineation and Assessment Report; Evergreen Water District, 2003

District Health-Based Violations

Drinking water quality for water and sewer districts is overseen by the State of Montana. Health-based violations have been issued for several of the major districts. Each violation was issued because the source exceeded the allowable concentration of total coli form (TCF) which is a bacterium commonly found in soil or vegetation and can be the result of fecal contamination[46]. The presence of coli form often requires a water boil alert when the violation issued in order to protect the public health. Table AA.10.5 list the health-based violations incurred by several districts.

The Coram County Water and Sewer District has received three health-based violations for total coli form levels, one in 2000 and two in 2001. The Hungry Horse County Water and Sewer District has been issued one health-based violation for the presence of total coli form in the water supply in 2000. The Martin City County Water and Sewer District has received no health-based drinking water quality violations.

The Somers District was issued one health-based violation in 1997 for total coli form levels in the drinking water supply. No health-based violations for drinking water quality have been issued for the Lakeside District. The Bigfork District has been issued one health-based violation for total coli form in the drinking water supply in 2001.

The Evergreen Water and Sewer District has received one health-based violation in 1996 for total coli form levels in the drinking supply. No further violations of this type have been issued for the District.

Table AA.10.5
Health-Based Water Quality Violations by District

District	Contaminant	Violation Date
Coram	TCF	2000
Coram	TCF	2001
Coram	TCF	2001
Hungry Horse	TCF	2000
Somers	TCF	1997
Bigfork	TCF	2001
Evergreen	TCF	1996

Minor Districts

The remaining 19 county water and wastewater treatment systems listed below serve large subdivision areas, not entire communities. Many of the smaller county water and sewer districts were established for serving one or two large subdivisions and often provide only water services. These systems are often comprised of one or two wells providing drinking water and several are serviced by a county or city sewer district. The

[46] http://www.epa.gov/enviro/html/icr/gloss_path.html

number of full-time residents that these districts serve is approximately between 20 and 400.

- Big Mountain County Sewer District (sewer only)
- Eagle Ridge Estates County Water and Sewer District (water only)
- Essex County Water and Sewer District (water only)
- Flathead County Water District #8 (Happy Valley – water only)
- Foys Lakeside County Water District (water only)
- Glacier Ranch County Water and Sewer District (inactive - water and sewer)
- Green Tree Meadows HOA County Water and Sewer District (water only)
- Happy Valley Area B County Water District (water only)
- Kelsey County Water District (water only)
- Lakeshore Heights County Water District (water only)
- Meadow Hills County Water and Sewer District (water only)
- Meadow Lake County Water and Sewer District (water and sewer)
- Panoramic Mountain River Heights County Water District (water only)
- Pleasant View Homesites County Water and Sewer District(water only)
- Ranch County Water and Sewer District (water only)
- Smith Lake Vista County Water and Sewer District (water only)
- Stillwater Estates County Water and Sewer District (water only)
- Village County Sewer District (consolidated into the Kalispell system)
- Wapiti Acres County Water and Sewer District (water only)

PART 11: Transportation Planning

States are required to conduct continuing, comprehensive and collaborative inter-modal statewide transportation planning that facilitates the efficient, economic movement of people and goods in all areas of the state, including metropolitan areas. Statewide and metropolitan transportation planning processes are governed by Federal law (23 USC 134 and 135). Applicable state and local laws are required if Federal highway or transit funds are used for transportation investments. Federal planning regulations are codified in 23 CFR 450. Title 60 of the Montana Codes Annotated (MCA) governs administration of Montana State Highways.

The quality and quantity of transportation within a community can restrict or enhance growth and development. Transportation helps shape an area's economic health and quality of life. Not only does the transportation system provide for the mobility of people and goods, it also influences patterns of growth and economic activity through accessibility to land. The performance of the transportation system affects such public policy concerns as air quality, environmental resource consumption, social equity, "smart growth," economic development, safety and security. Transportation planning recognizes the critical links between transportation and other societal goals. It requires developing strategies for operating, managing, maintaining and financing the area's transportation system in such a way as to advance the area's long-term goals. Because transportation

infrastructure necessarily precedes development, current transportation planning will shape future growth.

Transportation planning examines travel and transportation issues and needs, which typically includes a demographic analysis of the community, as well as an examination of travel patterns and trends. The process includes an analysis of alternatives to meet projected future demands and for providing a safe and efficient transportation system that meets mobility needs without creating adverse impacts to the environment or the general character of an area. The analysis includes all types of transportation, including road systems, air and rail, mass transit, as well as bicycle and pedestrian facilities. In small communities and rural areas there is no federally designated body to do transportation planning. In some states, planning for these areas is undertaken by the State Department of Transportation. In rural Montana and Flathead County, these functions are performed by rural planning organizations or local governments.

Because a transportation system can have a substantial impact on an area, the American Association of State Highway and Transportation Officials (AASHTO), the American Public Transportation Association (APTA) and the Association of Metropolitan Planning Organizations (AMPO), requested a document be prepared to serve as a primer for board members and other transportation decision makers. A report created by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) provides government officials and transportation service providers with an overview of transportation planning. The report provides a basic understanding of the key concepts, but is not intended to provide details of each policy issue. This report is available electronically at the following website: www.planning.dot.gov and will be updated periodically to include additional topics or information.

PART 12: Roads Transportation

Flathead County is connected to interstate routes by U.S. Highway 93 and U.S. Highway 2. The closest junction to Interstate 90 is 110 miles south of Kalispell. As such, the county is isolated and driving times are long to get to proximate urban areas. To the west, U.S. 2 connects to U.S. Highway 95 that connects to Interstate 90 into Spokane. One hundred fifty miles east of Kalispell, U.S. 2 connects to Interstate 15 traveling north to Calgary and south to Helena and Wyoming. U.S. Highway 93 and U.S. Highway 2 intersects in downtown Kalispell. U.S. Highway 93 runs south from Kalispell to Missoula where it connects to Interstate 90. To the north, U.S. 93 goes through Eureka to Canada. By road, Flathead County is not directly connected to major urban centers such as Spokane, Missoula, Great Falls, Billings and Calgary via interstate. There is, however, US and state highway connectivity.

The Flathead County Road and Bridge Department is responsible for maintaining non-private roads outside of the three cities in Flathead County and is under the direct control of the Flathead County Board of County Commissioners. Department responsibilities cover a large geographic area, including to the Canadian border on the north, Essex to the northeast, Ferndale and Bigfork to the east and south, Lakeside and Niarada to the south, Thompson River and Pleasant Valley and Olney to the west.

The Road and Bridge Department, under a Superintendent, has a total staff of 68. Office staff consists of seven employees, including a Shop Supervisor, an Office Administrator, a Right-of-Way Specialist, an Office Assistant III and 2 Office Assistant II staff. The Flathead County Road and Bridge Department is always on call and responds to requests from the Sheriffs Department, Montana Highway Patrol and Fire and Emergency Services. Staff performs their duties in three sub-departments.

The Flathead County Road Department has adopted and is in the process of implementing the PASER (Pavement Surface Evaluation Rating) system as the first step in gravel and paved road management. As resources have been available, the department has begun evaluation of Flathead County roads using the PASER system that was developed at the University of Wisconsin. The PASER system is widely used by facility and property managers across the country to assist with evaluating the condition of pavements including parking lots. The system describes varying types of defects and provides a simple system to visually rate pavement condition.

The rating system uses a 1 to 10 scale to rate all roads. There are basic scoring criteria used with the PASER system for gravel and paved roads. More detailed criteria on ratings are available by contacting the Flathead County Road Department.

Gravel roads are intrinsically difficult to evaluate because their condition can change literally overnight. Heavy rains and local heavy traffic can dramatically change the surface characteristics of gravel roads from one day to the next. In addition, routine maintenance activities, such as one pass from a road grader, could improve the surface conditions of a gravel road significantly. Gravel road evaluation, therefore, should be based on major factors such as: road cross section, drainage and adequacy of the gravel layer.

Paved roads have a less variable nature and a given treatment will correct problems into the future. In the management of paved roads, surface condition is important. Each rating in the PASER system for paved roads will suggest a procedure to rehabilitate the road surface. These may range from routine patching to overlay or reconstruction. The rating does not dictate the final maintenance or rehabilitation technique, however. Safety, future traffic projections, original construction and pavement strength must also be considered. These considerations may dictate a more comprehensive rehabilitation than the rating alone suggests.

Using local road funds more efficiently requires good planning and accurate identification of appropriate rehabilitation projects. The Flathead County Road Department will use the PASER system to make decisions based on the objective condition of a road. Combined with other data such as traffic counts and projected growth, PASER will allow the Department to use funds where they can do the most good for the most road users. Assessing roadway conditions is an essential first step in this process. Each roads PASER ratings can be used directly by local officials and staff in the development of future projects. They can be combined with additional testing and data collection in a more comprehensive pavement management system.

The transportation network of a community should provide a means of safe and efficient internal circulation as well as facilitating through traffic. The State and Federal Highway Transportation has developed highway and street classifications that can be used to assist in planning, designing, constructing, maintaining and operating a street system within communities. Flathead County has developed a classification system that is more general, having categories of "arterial" or "collectors". Classification of county roads is incomplete at this time. Transportation planning for a community should utilize classifications that are consistent with those used by the state. Consistency allows for better data analysis. As transportation studies occur, roads and streets should be classified into the categories that are relative to their functionality.

Recommended classifications include:

1. Rural Interstate
2. Urban Interstate
3. Rural Principal Arterial
4. Rural Minor Arterial
5. Rural Major Collector
6. Recreational
7. Urban Principal Arterial
8. Urban Minor Arterial & Collector

Interstates and Major Arterials are intended to move a high volume of traffic at moderate to high speeds and provide access to a regional transportation network. These include Federal and State Highways that provide a connection between communities. Major Arterials that service Flathead County include:

- U.S. Highway 2
- U.S. Highway 93
- Montana Highway 40
- Montana Highway 206

A Minor Arterial is intended to move traffic at moderate speeds from one major part of a community to another or to and from the major arterial system. Under the current Flathead County classification system, major and minor arterial streets and/or highways are symbolized with heavy red lines.

Collectors are intermediate or secondary streets, intended to move local traffic at low to moderate speeds from neighborhoods to adjacent neighborhoods or transfer traffic to the arterial system. Many streets and roads in Flathead County serve as collectors. With recent rapid population growth, many local streets are now functioning as collectors. The Flathead County GIS (Geographic Information Systems) geo-database classifies Flathead County streets and roads into several categories. The database is incomplete and local streets that may be acting as collectors may not be classified as such. Updating and completing street classifications in Flathead County could be implemented into the PASER inventory and scoring procedure.

Local streets are minor streets intended to serve individual sites and generally provide access to collector streets but do not provide direct access to the arterial system. Most other streets that are not shown as arterials or collectors are currently considered local streets.

More information can be obtained from the Flathead County Road Department at: http://www.co.flathead.mt.us/road/index.html

Traffic Counts

Providing safe and efficient street and road maintenance and planning for transportation needs of the future requires periodic traffic counts on highways and streets. The Montana Department of Transportation (MDOT) monitors traffic periodically on State and Federal Highways and the Flathead County Road Department monitors traffic on Flathead County roads twice a year at various locations.

Table AA.12.1 of the U.S. Census Transportation Planning Package (CTPP 2000) provides basic information on number of commuters to work, means of transportation and travel time to the workplace. A comparison is made between the most recent and the previous decennial census.

Table AA.12.1
Census Transportation Planning Package (CTPP 2000)

Table 1. Profile of Selected 1990 and 2000 Characteristics						
Geographic Area: Flathead County, Montana						
Subject	**1990 Census**		**Census 2000**		**% Change 1990 to 2000**	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**
POPULATION						
Total population	59,218	100.0	74,471	100.0	15,253	+25.8%
In households	58,383	98.6	73,317	98.5	14,934	+25.6%
In group quarters	835	1.4	1,154	1.5	319	+38.2%
HOUSEHOLD SIZE						
Total households	22,856	100.0	29,694	100.0	6,838	+29.9%
1-person household	5,551	24.3	7,439	25.1	1,888	+34.0%
2-person household	7,927	34.7	11,060	37.2	3,133	+39.5%
3-person household	3,556	15.6	4,517	15.2	961	+27.0%
4-person household	3,561	15.6	4,011	13.5	450	+12.6%
5-or-more-person household	2,261	9.9	2,667	9.0	406	+18.0%
Mean number of persons per household	2.55	(X)	2.47	(X)	-0.09	(X)
VEHICLES AVAILABLE[1]						
Total households	22,856	100.0	29,694	100.0	6,838	+29.9%
No vehicle available	1,185	5.2	1,328	4.5	143	+12.1%

1 vehicle available	6,020	26.3	8,299	27.9	2,279	+37.9%
2 vehicles available	9,642	42.2	12,525	42.2	2,883	+29.9%
3 vehicles available	4,300	18.8	5,224	17.6	924	+21.5%
4 vehicles available	1,196	5.2	1,690	5.7	494	+41.3%
5 or more vehicles available	513	2.2	628	2.1	115	+22.4%
Mean vehicles per household	2.00	(X)	1.99	(X)	-0.01	(X)
WORKERS BY SEX[1]						
Workers 16 years and over	24,966	100.0	34,045	100.0	9,079	+36.4%
Male	13,686	54.8	18,615	54.7	4,929	+36.0%
Female	11,280	45.2	15,430	45.3	4,150	+36.8%
MEANS OF TRANSPORTATION TO WORK						
Workers 16 years and over	24,966	100.0	34,045	100.0	9,079	+36.4%
Drove alone	18,732	75.0	26,229	77.0	7,497	+40.0%
Carpooled	3,146	12.6	4,139	12.2	993	+31.6%
Public transportation (including taxi)	39	0.2	136	0.4	97	+248.7%
Bicycle or walked	1,530	6.1	1,574	4.6	44	+2.9%
Motorcycle or other means	176	0.7	246	0.7	70	+39.8%
Worked at home	1,343	5.4	1,721	5.1	378	+28.1%
TRAVEL TIME TO WORK						
Workers who did not work at home	23,623	100.0	32,324	100.0	8,701	+36.8%
Less than 5 minutes	1,550	6.6	2,041	6.3	491	+31.7%
5 to 9 minutes	4,707	19.9	5,578	17.3	871	+18.5%
10 to 14 minutes	5,462	23.1	6,518	20.2	1,056	+19.3%
15 to 19 minutes	4,239	17.9	5,579	17.3	1,340	**+31.6%**
20 to 29 minutes	4,175	17.7	6,348	19.5	2,173	**+52.0%**
30 to 44 minutes	2,463	10.4	4,225	13.1	1,762	**+71.5%**
45 or more minutes	1,027	4.3	2,035	6.3	1,008	**+98.1%**
Mean travel time to work (minutes)	16.2	(X)	19.0	(X)	2.8	(X)
TIME LEAVING HOME TO GO TO WORK						
Workers who did not work at home	23,623	100.0	32,324	100.0	8,701	+36.8%
5:00 a.m. to 6:59 a.m.	3,977	16.8	6,466	20.0	2,489	+62.6%
7:00 a.m. to 7:59 a.m.	7,986	33.8	11,135	34.4	3,149	+39.4%
8:00 a.m. to 8:59 a.m.	4,984	21.1	6,164	19.1	1,180	+23.7%
9:00 a.m. to 9:59 a.m.	1,516	6.4	1,923	5.9	407	+26.8%
10:00 a.m. to 11:59 a.m.	985	4.2	1,308	4.0	323	+32.8%
12:00 p.m. to 11:59 p.m.	3,677	15.6	4,230	13.1	553	+15.0%
12:00 a.m. to 4:59 a.m.	498	2.1	1,098	3.4	600	+120.5%

1See the entry for this item in the Technical Notes in the root directory or state subdirectories (filename: tech_notes.txt).
(X) Not applicable. Source: U.S. Census Bureau. Census of Population and Housing, 1990 and 2000 long-form (sample) data.

The above table has deficiencies in that the accelerated growth that has occurred since 2000 is not reflected. Nor does it consider the impact of second home residents that data estimates to be 20-30% more than the 2000 census population.

The County Road and Bridge Department also conducts traffic counts on county roads using automatic traffic counter from the Montana Department of Transportation. These are raw counts so the data were added; using the state factors, to convert the raw counts to Average Annual Daily Traffic (AADT) counts. Since the sampling methods for the state and county road department are not the same, comparisons between county and state data cannot be reliably made. However, comparisons between county roads can be used.

Sixteen of the most active county roads were sampled; the raw data converted to AADT and percent increases per year computed (see Table AA.12.2). The period for most of the county roads is much less than the state. Most periods are from 1997/8 to 2004/5 rather than the 1990- 2004 period used for state data. The results are below.

Table AA.12.2
Flathead County Traffic Counts

		Early ADT	Sample			Late ADT	Sample				
Road	Type **	Mo/ Yr	ADT	Factor	AADT	Mo/Yr	ADT	Factor	AADT	# yrs	% inc / yr
Bierney Crk Rd	C	May 98	933	0.88	821.04	Jul 05	1427	0.80	1141.60	8	4.88
Boon Rd	C	May 98	390	0.88	343.20	Jul 05	668	0.80	534.40	8	6.96
Cemetery Rd	A	Jun 99	753	0.77	579.81	Sept 05	1246	0.81	1009.26	7	10.58
Cemetery Rd	A	Apr 97	681	0.95	646.95	Jul 03	1249	0.73	911.77	7	5.85
Jellison Rd	C	Jul 01	153	0.80	122.40	May 05	490	0.88	431.20	5	50.46
Jellison Rd	C	May 98	205	0.88	180.40	May 05	1121	0.88	986.48	8	55.85
JP Rd	C	May 97	456	0.88	401.28	May 05	1506	0.88	1325.28	9	25.58

Kila Rd	A	Apr 97	1098	0.95	1043.10	Sept 05	1960	0.81	1587.60	9	5.80
LaBrandt Rd	C	Nov 97	307	0.93	285.51	Sept 04	515	0.85	437.75	8	6.67
McCaffrey Rd	C	Nov 97	354	0.93	329.22	Sept 04	564	0.85	479.40	8	5.70
Pioneer Rd	C	May 98	398	0.88	350.24	May 05	1322	0.88	1163.36	8	29.02
Rocky Cliff Rd	C	Apr 97	629	0.89	559.81	Sept 05	1132	0.85	962.20	9	7.99
Stillwater Rd	C	Apr 97	480	0.89	427.20	Aug 03	961	0.82	788.02	7	12.07
Valley View Dr	C	Apr 97	397	0.89	353.33	Sept 05	1518	0.85	1290.30	9	29.46
W Springcreek Dr	A	Apr 97	948	0.95	900.60	Jun 02	1522	0.77	1171.94	6	5.02
W Valley Dr	C	Apr 97	581	0.89	517.09	Aug 03	867	0.82	710.94	7	5.36
** A-rural minor arterial											
C-rural major collector											

Source: Flathead County Road and Bridge Department

Table AA.12.2 shows the same general pattern as the state traffic counts. In 1997, only one of the sample roads had an AADT of over 1000; in 2004/5, seven of the same roads had AADTs of over 1000.

The primary arterial corridors with AADTs over 10,000 are.

- US2 between Columbia Falls and Kalispell
- US93 between Whitefish and Kalispell
- SH35 between Big Fork and Kalispell

Secondary arterial corridors with AADTs of over 5,000 but less than 10,000 are:

- US2 east of Columbia Falls
- SH40 between Whitefish and Columbia Falls
- US2 west of Kalispell
- US93 south of Kalispell
- SH83 east of Big Fork

Tertiary arterial corridors with AADTs less than 5,000 are:

- US93 north of Whitefish
- SH206 between US2 and SH35
- SH82 between SH35 and US93
- Whitefish Stage between SH40 and Kalispell

To gain a better idea of traffic patterns in the county the Long Range Planning Task Force committee organized the valley floor area into sixteen "traffic sheds." Traffic sheds are similar to water sheds and show geographic areas where the traffic uses similar patterns. For each traffic shed, highly traveled "collector" roads were determined using traffic count data. A collector is a road that connects local access roads to the main arterials. Since traffic patterns indicate that most travel is done to Kalispell, distance to the US2/US93 intersection was measured for each traffic shed. The distance was split between collector mileage and corridor mileage. The impact that the growth of 100 households would have on each shed was computed as well as the vehicle miles traveled (VMT)[47] over collectors. VMT provides an estimate of the impact on travel that each collector represents; the higher the VMT the larger the impact on the county road system[48]. The results of the traffic-shed analysis are shown on Table AA.12.3.

Table AA.12.3
Traffic Shed & Corridor Information
Flathead County Montana- February 2006

						Daily		
North East Sector			Dist to Kal	Dist to Kal	Dist to Kal	Veh mi for	Coll	
Traffic Shed	Collector	AADT	Total (mi)	Coll Rd	Corr Rd	100 hshld	VMT	Corridor
Teakettle								
	Lake 5 Road at US2	475	35	2	33	17500	950	US2E
	SH 486 N of CF	711	22	8	14	11000	5688	US2E
Half Moon	Half Moon Rd N of US2	1885	18	5	13	18000	9425	US2E
WF Stage	WF Stage N of Meridian	2640	8	8	0	8000	21120	
Helena Flats	Rose Crossing E of US2	1247	8	3	5	8000	3741	US2E
Columbia Mtn								
	SH 206 N of SH35	4070	13	6	7	6500	24420	SH35
	Col Falls Stg N of SH35 (Note 1)	1000	12	6	6	6000	6000	SH35
						Daily		
South East Sector			Dist to Kal	Dist to Kal	Dist to Kal	Veh mi for	Coll	
Traffic Shed	Collector	AADT	Total (mi)	Coll Rd	Corr Rd	100 hshld	VMT	Corridor
Echo Lake								

[47] VMT is computed by multiplying AADT times the length of the road section in miles.
[48] Most of the collectors are county roads but a few, example SH206 and US93, are state roads.

	Lk Blaine Rd E of SH35	2673	19	10	9	9500	26730	SH35
	Echo Lk Rd at SH83	1678	27	4	3	13500	6712	SH35
Big Fork E	Swan Rvr Rd S of SH83	874	24	2	22	24000	1748	SH35
Big Fork W	Holt Dr W of Chapmn Hill	1244	23	2	21	23000	2488	SH35
Foys Canyon								
	Foys Lake Rd	?	7	7	0	3500		
	Airport Rd	?	8	8	0	4000		
Lakeside	US93 S of SH82	8310	16	1	15	16000	8310	US93S
Lower Valley								
	Fairmont Rd S of SH35	796	7	2	5	3500	1592	SH35
	Lwr Val Rd E of Willow Gln	1822	9	6	3	4500	10932	US93S
						Daily		
South West Sector			Dist to Kal	Dist to Kal	Dist to Kal	Veh mi for	Coll	
Traffic Shed	Collector	AADT	Total (mi)	Coll Rd	Corr Rd	100 hshld	VMT	Corridor
Ashley Lk		986						
	Batavia Ln frm Ashley Lk	493	18	12	6	18000	5916	US2W
	Batavia Ln frm Kienas	493	9	3	6	9000	1479	US2W
Marion	Pleasant Valley Rd	1288	25	3	22	25000	3864	US2W
Truman Crk	Truman Crk Rd (Note 2)	648	17	7	10	17000	4536	US2W
						Daily		
North West Sector			Dist to Kal	Dist to Kal	Dist to Kal	Veh mi for	Coll	
Traffic Shed	Collector	AADT	Total (mi)	Coll Rd	Corr Rd	100 hshld	VMT	Corridor
KM Ranch								
	Church Dr E of Frm to Mkt	453	13	6	7	6500	2718	
	KM Ranch Rd	270	11	3	8	5500	810	US93N
Lost Creek	Rhodes Draw	109	14	7	7	14000	763	US93N
Notes:								
1. AADT estimated								
2. AADT from Spring Hill Rd included								

Source: Flathead County Long Range Planning Task Force

Motor Vehicle Accidents

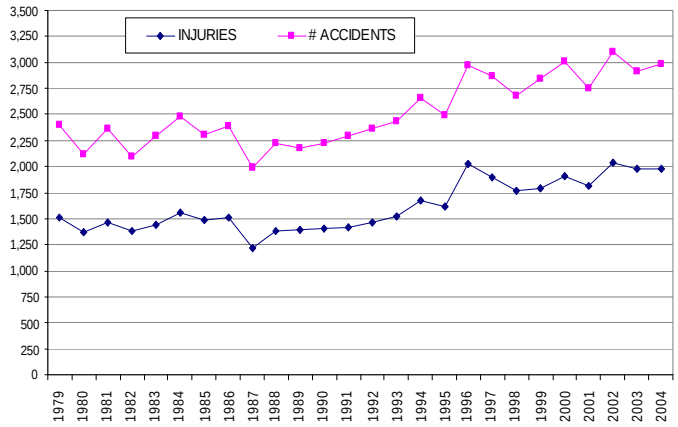
Looking at the numbers in the previous section and the rapidly growing population, it is not surprising that the number of motor vehicle accidents in Flathead County is also increasing.

Captain Clancy King of the Kalispell Division of the Montana Highway Patrol provided some general information in early December, showing the increasing occurrence of motor vehicle accidents in and around Flathead County (see Table AA.12.4).

In the Flathead, Lake and Lincoln Counties, the Montana Highway Patrol has an average of 2 or 3 troops working rotating and overlapping shifts. There are 13 Montana Highway Patrol officers assigned to the Flathead Valley. These officers occasionally provide assistance in Lake and Lincoln Counties, as well. Between 1973 and 2005, the legislature did not approve any increase in the number of MHP officers statewide and assignments were moved as they became vacant. The Kalispell Division added only one additional officer who was moved to Kalispell in 2003 after a Libby Trooper retired. The 2005 legislature finally approved a labor increase that will become effective in 2007 and is the first increase since 1973.

Table AA.12.4
Flathead County Motor Vehicle Accidents and Injuries

YEAR	# OF MVAs	FATALITIES	INJURIES
1979	1,506	21	898
1980	1,368	17	751
1981	1,467	19	898
1982	1,377	5	723
1983	1,443	17	846
1984	1,552	25	928
1985	1,490	15	820
1986	1,505	10	880
1987	1,223	22	771
1988	1,382	19	837
1989	1,391	14	786
1990	1,399	16	828
1991	1,419	16	871
1992	1,461	17	900
1993	1,525	13	908
1994	1,679	7	976
1995	1,612	11	887
1996	2,024	14	951
1997	1,894	18	979
1998	1,771	17	906
1999	1,796	12	1,048
2000	1,905	14	1,103
2001	1,816	21	940
2002	2,032	14	1,072
2003	1,973	22	937
2004	1,977	19	1,007



Finances

Property tax is the primary financial support for the county road system. Although residential growth has increased the tax base, the cost of operating the Roads Department, which includes fuel and supplies, has also seen a significant increase. This has negated any increase in the tax base, allowing inflation to diminish tax dollars and the department's ability to maintain previous levels of service. Approximately 3.4% of each dollar of county tax revenue goes to the Road and Bridge Department. In other words, if a homeowner paid $1,000 in property taxes, approximately $34 would go to the Road and Bridge Departments.

Rural Special Improvement Districts (RSID) are essentially the use of property taxes but have the advantage that the improvement district is directly benefiting the properties paying the extra assessment.

Although supported by Montana State law, developer contributions, such as impact fees, have been used but not consistently. The county has no set policy for obtaining financial support from developers.
Maintenance districts are used by cities but they are not allowed for counties. County districts, if authorized by the state, could be formed for a special purpose, such as maintaining roads. The district assessments could only be used for the maintenance of roads in the district.

Equipment

The County Shop, another sub-department of the Flathead County Road and Bridge Department, currently operates and maintains over 450 pieces of vehicles and equipment with the use of a Preventative Maintenance program. The equipment repair shop consists of 13 mechanics, technicians and welders. The Road and Bridge Departments alone have over 250 vehicles and pieces of equipment, including 15 motor graders, 22 dump truck and sanders, 25 other miscellaneous trucks, tractors, flatbeds, distributors, etc., a fleet of pickups, shop trucks, welding and maintenance vehicles, 15 pup trailers, 13 other trailers

including flatbeds, lowboys, belly dumps, tilt trailers, sign and culvert trailers and more. The shop maintains over 200 vehicles in other departments of county government.

The Flathead County Shop also keeps track of the costs per unit and makes upgrades as the budget allows. The Shop Supervisor oversees the budget and bidding process for all Road and Bridge vehicles and equipment purchased, plus the bids on gas & diesel, tires, propane and any other contract purchases. The County Shop continues to work on and maintains the premises of the Flathead County Road & Bridge complex, as well as several satellite buildings, to provide a safe and healthy work environment.

PART 13: Flathead County Bicycle and Pedestrian Facilities

The Montana Department of Transportation "TranPlan 21 2002 update Bicycle and Pedestrian Transportation Policy Paper" reported that in Flathead County, approximately 1,574 of the working population over the age of 16, bicycled or walked to work in 2000, compared to 1,530 in 1990. This indicates an increase of workers bicycling or walking to work. Transportation to work is the only systematic data available at the state level and does not include the use of pedestrian facilities by those under 16 years of age or those who are not working that walk or bicycle for recreational purposes or other activities. However, as trails are built in Flathead County, they are utilized. It is common to see a families biking together on the Meridian Rail Trail or a group of cyclist racing down the Somers trail.

Flathead County and the municipalities have recently been requiring new subdivisions to provide an easement for future bicycle and pedestrian facilities or to construct the facilities. There is no current consolidated inventory of where these easements exist. Planning for future bicycle and pedestrian facilities must include an inventory of these resources.

Flathead County Planners and City Planners and local volunteer organizations cooperatively seek ways to create a bicycle and pedestrian trail network in Flathead County. The County and the three cities of Kalispell, Whitefish and Columbia Falls all actively pursue Federal funds to accomplish constructing new facilities and to enhance and connect existing facilities. Flathead County and the three cities, independently have received allocations every year since 1992 for projects covered by federal Community Transportation Enhancement Program (CTEP) funds.

Table AA.13.1
CTEP Funds allocated to Flathead County

2000	2001	2002	2003	2004
$226,668	$241,970	$289,180	$236,419	$234,951

Total obligated for projects	Total available for new projects
$2,678,869	$271,391

Source: TEA-21

Table AA.13.2
Flathead County CTEP Project Summary

Project No.	Project Name	Total $	Federal $	Local $
STPE 15(23)	Fairmont Pedestrian and Bike Path	$133,085	$106,468	$26,617
STPE 15(24)	Grand Avenue Walkway in Bigfork	$133,450	$106,760	$26,690
STPE 15(26)	Lone Pine Path SW of Kalispell	$74,492	$59,594	$14,898
STPE 1-2(82) 115	Smith Valley Rail Trail	$224,293	$194,195	$30,098
STPE 15(27)	Somers Rail Trail	$122,036	$105,659	$16,377
STPE 6799(14)	Meridian Rail Trail	$191,422	$153,138	$38,284
STPE 6728(1)	Edgerton Bike Path	$240,589	$192,471	$48,118
STPE 6799(22)	Kalispell Trail Connection	$237,416	$59,594	$14,898
STPE 15(25)	Swan River Bike/Ped Trail	$136,409	$118,409	$18,306
STPE 15(42)	Red Bridge Columbia Falls	$0	$0	$0
STPE 1-2(111)116	Great Northern Rail Trail	$479,894	$415,494	$64,400
STPE 15(48)	Helena Flats Bike/Ped Trail	$422,370	$365,689	$56,681
STPE 15(53)	River Road Path Columbia Falls	$0	$0	$0
STPE 15(52)	Farm to Market Road Path	$165,183	$143,017	$22,166
STPE 15(59)	Lakeside to Somers Trail	$193,992	$167,959	$26,033
TOTAL PROJECTS		**TOTAL**	**TOTAL**	**TOTAL**
15		**2,754,631**	**$2,334,101**	**$420,530**

Three trails have been recommended by the commissioners and have been submitted by Flathead County for CTEP funding for 2005. These projects include: Evergreen Sidewalk from Helena Flats to the Evergreen Junior High, the Sam Bibler Memorial Trail and the Smith Lake project of the continuing Rails to Trails of NW Montana.

Additional detailed information on these projects, as well as current and planned bicycle and pedestrian facilities, can be obtained by contacting the Flathead County Planning and Zoning Department, or the Flathead County Parks and Weed Department.

Table AA.13.3
CTEP Funds allocated to the City of Kalispell

2000	2001	2002	2003	2004
$67,545	$72,105	$79,754	$65,203	$64,798

Total obligated for projects	Total available for new projects
$830,212	$32,059

Source: TEA-21

Table AA.13.4
City of Kalispell CTEP Project Summary

Project No.	Project Name	Total Cost $
STPE 6701(4)	Meridian Road Walkway	$129,870
STPE 6799(10)	North Main Street and Lawrence Park Trail	$58,608.20
STPE 6799(11)	Woodland Park Access	$58,034.45
STPE 6799(15)	1996 Lawrence Park Trail & Bridge Crossing	$377,953.55
STPE 6799(21)	1997 Woodland Park Trail	$88,486.70
STPE 6799(23)	Meridian Trail Connection	$250,605
TOTAL PROJECTS 6		**TOTAL $963,557.90**

Source: TEA-21

Additional detailed information on these projects, as well as current and planned bicycle and pedestrian facilities, can be obtained by contacting the City of Kalispell Parks and Recreation Department.

Table AA.13.5
CTEP Funds allocated to the City of Whitefish

2000	2001	2002	2003	2004
$24,578	$26,429	$28,217	$23,068	$22,295

Total obligated for projects	Total available for new projects
$174,601	$137,936

Source: TEA-21

Table AA.13.6
City of Whitefish CTEP Project Summary

Project No.	Project Name	Total Cost $
MT 15(67)	3 miles of Whitefish Area Trails (ongoing)	$1,511,920
STPE 15(28)	Riverside Park Trails	$153,684.99
STPE 15(45)	Whitefish Area Parks Landscaping & Beautification	$250,775.69
TOTAL PROJECTS 3		**TOTAL $1,916,380.68**

Additional detailed information on these projects, as well as current and planned bicycle and pedestrian facilities, can be obtained by contacting the City of Whitefish Parks or Public Works Department.

Table AA.13.7
CTEP Funds allocated to the City of Columbia Falls

2000	2001	2002	2003	2004
$16,675	$17,801	$20,439	$16,710	$16,606

Total obligated for projects	Total available for new projects

$292,710	$45,189

Source: TEA-21

Table AA.13.8
City of Columbia Falls CTEP Project Summary

Project No.	Project Name	Total Cost $
STPE 15(38)	** Talbot Road Trail	$166,565.94
STPE 15(30)	Columbia Falls Sidewalks	$55,084
STPE 15(43)	4th Ave W and 6th St Path	$36,896.96
STPE 15(63)	4th Ave N Path	$34,136
TOTAL PROJECTS 4		**TOTAL $292,682.90**

Additional detailed information on these projects, as well as current and planned bicycle and pedestrian facilities, can be obtained by contacting the City of Columbia Falls Public Works Department.

PART 14: Public Transportation

Eagle Transit – Public Transit for Flathead County

Twelve cities in Montana have local public transportation. Most have the capability to transport elderly and/or disabled passengers. In Kalispell, Eagle Transit makes several scheduled stops at specific locations daily, Monday through Friday. The company provides service in Whitefish and Columbia Falls as well. The system is capable of transporting the general public, elderly and disabled population. For more information on schedules and routes, contact Eagle Transportation at 758-5728.

Eagle Transit received a mill levy from the voters of Flathead County in 2005 for $123,825.00. This amount is 25% of the 2005-2006 budget.

SNOW Bus – shuttle to Big Mountain Resort from Whitefish Montana

The SNOW Bus operates during the ski season of the Big Mountain Resort and transports people to the resort from Whitefish. The bus is free to the passengers. In 2005-2006, it cost approximately $210,000 to operate and is paid for by the member businesses of the Big Mountain Commercial Association. The SNOW Bus provides over 40,000 passenger rides during its time of operation. Residents use the SNOW Bus for getting around town as well as to the resort.

Taxi Service

There are five taxi companies in the Flathead Valley. They are A-B Taxi, DC Cab, Flathead Glacier Transportation, Great Northern Taxi and Kalispell Taxi. All companies have a 50-mile limit from the base of operations in which to operate per the Montana Public Service Commission. Wild Horse Limousine operates a private charter car service

in the area. There is also a shuttle to Blacktail Ski Area once a day from Kalispell, but is strictly a chartered ski bus.

Intercity and Charter Bus Service

Currently, three private bus companies provide scheduled service between cities in Montana. These include Greyhound, Powder River Trailways and Rimrock Trailways. They serve communities along major highways and connect to all larger cities in Montana as well as destinations outside of the state. Greyhound has stops at Kalispell, Whitefish and Lakeside. The Rimrock Trailways bus leaves Whitefish each morning en route to Missoula and returns in the afternoon. There are no full service bus terminals in Flathead County. As a rule, no ticketing, baggage, or package express service is offered at stop locations.

In addition, there are three private charter bus companies in the Flathead Valley. They are Brown Bear Charters, Flathead Glacier Transportation and Rocky Mountains Transportation.

PART 15: AIR TRANSPORTATION

There are four FAA (Federal Aviation Administration) approved airports in Flathead County. These include Glacier Park International Airport, Kalispell City Airport, Whitefish Airport and Ferndale Airfield. Several major commercial airlines, as well as private charter services operate out of these facilities.

Federal airport certification regulations [Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139] establishes certification requirements for airports.

Glacier Park International Airport

Glacier Park International Airport began service in 1942 as the Flathead County Airport. The airport is centrally located on U.S. Highway 2 between Kalispell and Columbia Falls. In 1970, the airport was designated as a port of entry for international flights and the name was changed from Flathead County Airport to Glacier International Airport. By 1991, the airport was servicing almost 130,000 passengers per year. In 2004, the annual passenger enplanements were 178,334.

Glacier Park International Airport is a Class I airport. A Class I airport means an airport is certificated by FAA to serve scheduled operations of large air carrier aircraft that can also serve unscheduled passenger operations of large air carrier aircraft and/or scheduled operations of small air carrier aircraft.

Several lighted runways accommodate approximately 62,990 aircraft operations per year, including commercial, transient, local general and air taxi/jet aircraft operations. There are 162 aircraft based at the field, facility.

Major commercial airlines providing service out of the airport include, American West, Big Sky, Northwest, Alaska/Horizon and Delta/Skywest Airlines. These commercial airlines have scheduled daily flights in and out of Glacier International Airport and Edwards Jet Center provides airline charter service and Flathead Glacier Transportation provides shuttle service to and from the airport. Car rentals and taxi service are available at the terminal. Limousine service is also available to transport anywhere in Western Montana as well as Canada and Idaho and Washington.

Additional FAA data including geographic information, communications, runway surface, lighting and coordinates, operational statistics, ground support and instrument approach procedures can be found at: www.**glacierairport**.com.

Kalispell City Airport

The Kalispell City Airport is a public airport, owned by the City of Kalispell and is located about one mile south of the downtown area. This airport does not accommodate large air carrier aircraft, so it does not have an FAA class rating. The 3,600-foot long asphalt runway is lighted with two radio towers. There are 64 aircraft based on the field, some in hangars and operations average 105 aircraft per day.

The airport has been the subject of several studies over the last 25 years including a Feasibility Study done by Morrison and Maierle, Inc., in 1999, resulting in airport redesign by Robert Peccia and Associates. Increasing development and existing land use in the airport vicinity has raised safety and security concerns. The Feasibility Study by Morrison and Maierle, Inc. identified several issues to be addressed including runway length and alignment, the KGEZ radio tower, security, funding for improvements, surrounding land use and land acquisition. Efforts are ongoing to address the issues identified in the study and to bring the facility into compliance with FAA standards to upgrade the to a B-II Utility Airport. This classification means it can accommodate aircraft having approach speeds of 91 knots or more, or less than 121 knots and having wingspans of at least 49 feet, but less than 79 feet. Currently, the airport has a "provisional" status. More information on the study and the re-design of the airport can be obtained by contacting either of these firms or the City of Kalispell.

Additional FAA data including geographic information, communications, runway surface, lighting and coordinates, operational statistics, ground support and instrument approach procedures can be found at: http://www.kalispell.com/city_airport.

Whitefish Airport

The Whitefish Airport is a public airport, owned by Flathead County and is located about one mile east of Whitefish. The airport does not accommodate large air carrier aircraft. The airport has a 2,560-foot long turf runway that accommodates an average of 20 aircraft operations per week. The runway is unlighted. Approximately 67% of operations are local general traffic and about 29% is transient general traffic. There are 3 single engine aircraft based on the field. Additional FAA data including geographic

information, communications, runway surface, lighting and coordinates, operational statistics, ground support and instrument approach procedures can be found at: http://www.airnav.com/airport/S58S

Ferndale Airfield

The Ferndale Airfield is also a public airport. The land is owned by Flathead County but is privately operated and is located approximately 3 mile northeast of Bigfork. This airport has a 3,500 foot long unlighted runway and does not handle large aircraft. In winter months, delayed snow removal may make the runway inaccessible. The Ferndale Airfield accommodates an average of 29 aircraft operations per day. Additional FAA data including geographic information, communications, runway surface, lighting and coordinates, operational statistics, ground support and instrument approach procedures can be found at: http://www.airnav.com/airport/53U

In addition to the public airports, there are several private landing fields in Flathead County. These facilities are for private use and no further information is available.

PART 16: Railroads

The railroad is an important transportation corridor for the Flathead Valley. Amtrak supplies daily eastbound and westbound passenger service aboard the Empire Builder, which runs between Seattle/Portland and Chicago along the Burlington Northern Sante Fe Railroad line. Connections to the Amtrak Passenger System are available in Whitefish and West Glacier. A limited amount of agricultural and commercial shipping in and out of the Flathead occurs along the same route with a spur into Kalispell.

PART 17: Education

Flathead County has 19 public elementary, 4 high school districts and Flathead Valley Community College. In addition, there are seven private elementary, one private faith-based high school and three therapeutic boarding schools. Home schooling is also an option for 13% of Flathead County residents.

Enrollments have fluctuated as the demographics of the county have changed. Examining the period of 2000-2005, the enrollment at West Glacier Elementary decreased 42%, while the enrollment at Swan Valley increased 17.61%. Overall enrollment for all public elementary schools in the county has increased by 6.57%.

Enrollment at private elementary schools has decreased 5.46% overall for 2000-2005, while private high schools are up. The therapeutic boarding schools continue to have increasing enrollment every year.

Flathead Valley Community College is a two year college that offers residents educational opportunities for advancement to a four-year college, career enhancement and life long learning. A graduate of FVCC can obtain an Associate of Arts, Associate of

Science and Associate of Applied Science degrees or a certificate in a variety of programs.

Public schools receive funding based on enrollment numbers. The Average Number Belonging (ANB) of a school district depends on two official enrollment counts reported in October and February of each school year. The 2005-2006 school year enrollments (ANB) will not be finalized and available until late June 2006. School funding comes from property tax revenue in the state general fund, state and county aid and district school levies. General fund voted levies, building reserve levies and bond issue levies require voter approval.

Public Schools

Flathead County has 19 public elementary and 4 high school districts. Flathead County public schools have highly qualified teachers and many have won national honors. Students score above the national average in all curricular areas and several are Presidential Award winners in Math and Science at both the elementary and high school levels.

The Montana Office of Public Instructions "No Child Left Behind" report card webpage provides information on various education indicators required by the new federal education law. Custom reports can be generated for specific schools and districts as well as on a statewide basis. Information is provided on student academic performance for math and reading tests, the "adequate yearly progress" status and highly qualified teachers for all of Montana's schools and districts. http://www.opi.state.mt.us.

Enrollment in most public elementary schools has been generally decreasing since 1992 (see Table AA.17.1 and Figure AA.17.1). School districts like West Valley, Somers and Deer Park are seeing increases in enrollment with increased development in rural communities. High school enrollment increased significantly during the early and mid 1990s and dropped off slightly between 1998 and 2001. High school enrollment appears to be increasing once again (see Table AA.17.2 and Figure AA.17.2), also probably due to the recent rapid growth in the general population. Figure AA.17.3 shows enrollment over time for both public and private schools.

Table AA.17.1
Public Elementary School District Enrollment 1992-2005

	1992	1994	1996	1998	2000	% change 92-00	2002	2004	2005	% change 00-05	% change 92-05
Bigfork	595	544	579	562	545	-8.4%	468	498	492	+5.1%	-17.4%
Cayuse Prairie	242	238	239	212	204	-15.7%	176	166	173	-1.7%	-28.5%
Columbia Falls	1,733	1,719	1,815	1,720	1,712	-1.2%	1,666	1,640	1,596	-4.2%	-7.9%
Creston	89	96	92	71	86	-3.4%	73	66	66	-9.6%	-25.8%
Deer Park	93	99	122	114	121	+30.1%	112	107	113	+0.9%	+21.5%
Evergreen	752	746	676	702	713	-5.2%	748	760	769	+2.8%	+2.3%
Fair-Mont Egan	169	158	160	162	154	-8.9%	149	144	128	-14.1%	-24.3%
Helena Flats	211	213	208	202	189	-10.4%	210	194	202	-3.8%	-4.3%
Kalispell	2,620	2,554	2,584	2,443	2,380	-9.2%	2,427	2,476	2,518	+3.7%	-5.9%
Kila	135	144	154	131	132	-2.3%	118	140	141	+19.5%	+4.4%
Marion	107	113	117	128	116	+8.4%	114	114	112	-1.8%	+4.7%
Olney Bissell	107	114	98	91	74	-30.8%	66	79	73	+10.6%	-31.8%
Pleasant Valley	9	6	8	8	4	-55.6%	0	5	4	+100%	-55.6%
Somers	424	502	552	502	535	+26.2%	519	526	531	+2.3%	+25.2%
Smith Valley	163	173	154	155	148	-9.2%	146	180	173	+18.5%	+6.1%
Swan River	145	184	168	154	142	-2.1%	148	172	167	+12.8%	+15.2%
West Glacier	65	53	63	56	50	-23.1%	45	32	29	-35.6%	-55.4%
West Valley	281	293	305	322	327	+16.4%	312	357	369	+18.3%	+31.3%
Whitefish	1,294	1,375	1,403	1,336	1,279	-1.2%	1,183	1,199	1,197	+1.2%	-7.5%
TOTAL	9,234	9,324	9,497	9,071	8,911	-3.5%	8,680	8,855	8,853	+2.0%	-4.1%

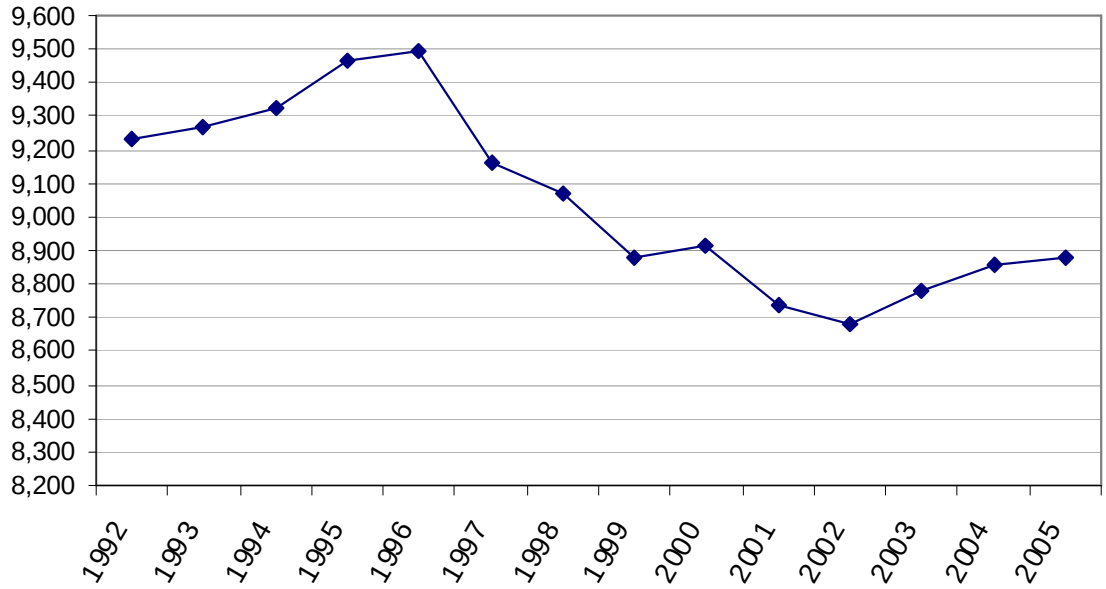
Source: Montana Office of Public Instruction

Table AA.17.2
Public High School District Enrollment 1992-2005

	1992	1994	1996	1998	2000	% change 92-00	2002	2004	2005	% change 00-05	% change 92-05
Bigfork	350	354	379	388	367	+4.8%	391	366	375	-4.1%	+7.1%
Columbia Falls	750	829	927	922	880	+17.3 %	877	863	862	-1.7%	+14.9 %
Kalispell	2,057	2,178	2,359	2,481	2,425	+17.9 %	2,452	2,466	2,494	+1.7%	+21.2 %
Whitefish	587	606	657	649	697	+18.7 %	697	742	725	+4.0%	+23.5 %
TOTAL	**3,744**	**3,967**	**4,322**	**4,440**	**4,369**	**+16.7 %**	**4,417**	**4,437**	**4,456**	**+0.9 %**	**+19.0 %**

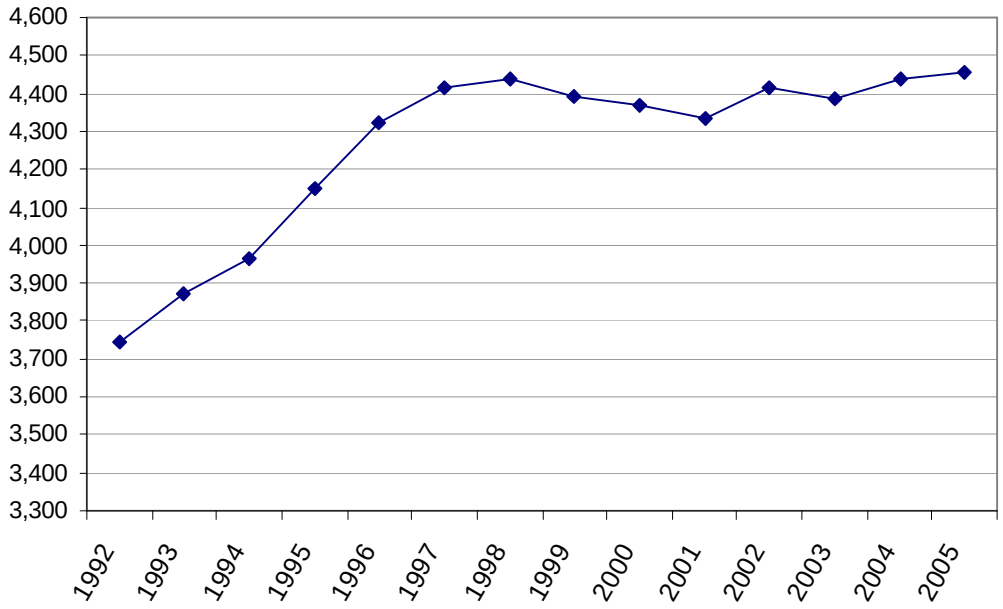
Source: Montana Office of Public Instruction

Figure AA.17.1
Public Elementary School District Enrollment 1992-2005



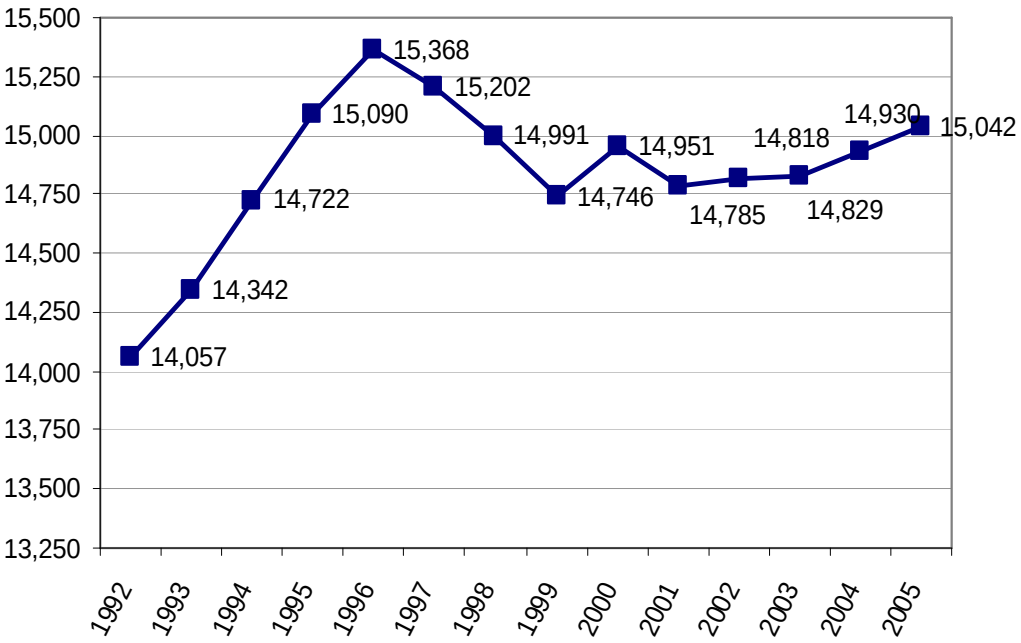
Source: Montana Office of Public Instruction

Figure AA.17.2
Public High School District Enrollment 1992-2005



Source: Montana Office of Public Instruction

Figure AA.17.3
Flathead County School Enrollment – Public and Private 1992-2005



Source: Montana Office of Public Instruction

Decreasing enrollment does not necessarily equate to decreased school expenditures. School districts have fixed costs and must maintain teacher accreditation, pension funds, facilities, libraries, transportation and special needs programs. Decreasing enrollment typically increases the cost per student (see Table AA.17.3), especially in isolated districts with low enrollment, such as Pleasant Valley, Olney/Bissell and West Glacier.

Detailed information regarding Flathead County school enrollment, budgets, expenditures and funding sources can be obtained from the Flathead County Superintendent of Schools website Schools Statistical Report 2005 located at: http://www.co.flathead.mt.us/schools/index.html.

Table AA.17.3
Per Pupil Expenditures
Flathead County Public School Districts 2000-2005

School District # & Name	Per Pupil Expend. 00-01	Per Pupil Expend. 01-02	Per Pupil Expend. 02-03	Per Pupil Expend. 03-04	Per Pupil Expend. 04-05	% change 00-05
1 West Valley (Elem)	$4,953.64	$5,166.57	$5,216.75	$5,117.93	$5,488.88	+10.8%
2 Deer Park (Elem)	$4,203.91	$5,032.38	$5,205.25	$5,750.21	$5,792.60	+37.8%
3 Fair-Mont-Egan (Elem)	$4,887.37	$5,016.24	$5,599.36	$5,610.99	$5,715.35	+16.9%
4 Swan River (Elem)	$5,667.84	$5,178.76	$5,194.70	$5,019.21	$5,343.06	-5.7%
5 Kalispell (Elem)	$5,495.15	$5,872.84	$5,878.46	$5,994.65	$6,023.71	+9.6%
5 Flathead (High)	$6,200.04	$6,326.04	$6,415.32	$6,703.69	$6,986.36	+12.7%
6 Columbia Falls (Elem)	$5,104.34	$5,479.50	$5,676.67	$5,762.90	$6,124.99	+20.0%
6 Columbia Falls (High)	$5,679.88	$5,559.01	$5,838.08	$6,158.08	$6,123.62	+7.8%
8 West Glacier (Elem)	$7,684.86	$8,073.68	$8,513.00	$8,510.50	$9,368.63	+21.9%
9 Creston (Elem)	$5,332.73	$5,363.91	$5,932.23	$5,414.14	$6,463.52	+21.2%
10 Cayuse Prairie (Elem)	$5,182.31	$6,030.30	$6,445.81	$6,676.14	$6,404.54	+23.6%
15 Helena Flats (Elem)	$5,063.76	$4,952.60	$4,915.93	$5,117.67	$5,877.60	+16.1%
20 Kila (Elem)	$5,112.98	$6,600.80	$5,776.03	$6,411.41	$5,599.79	+9.5%
27 Pleasant Valley (Elem)	$11,808.00	$9,782.40	NA	$11,503.75	$8,697.80	-26.3%
29 Somers (Elem)	$4,845.18	$5,169.36	$5,455.76	$5,574.83	$5,799.56	+19.7%
38 Bigfork (Elem)	$4,798.50	$5,310.67	$5,837.92	$5,666.00	$5,776.89	+20.4%
38 Bigfork (High)	$6,710.23	$6,496.79	$6,441.65	$7,083.16	$7,864.20	+17.2%
44 Whitefish (Elem)	$4,829.92	$5,373.65	$5,808.16	$6,266.93	$6,601.13	+36.7%
44 Whitefish (High)	$5,448.96	$6,271.67	$6,116.73	$6,636.22	$6,299.73	+15.6%
50 Evergreen (Elem)	$4,670.00	$5,034.05	$5,283.15	$5,747.76	$5,662.26	+21.2%
54 Marion (Elem)	$5,460.80	$5,607.75	$6,041.55	$6,127.93	$6,286.18	+15.1%
58 Olney/Bissell (Elem)	$6,472.73	$7,836.38	$7,699.39	$9,976.51	$7,239.41	+11.8%
89 Smith Valley (Elem)	$5,238.89	$4,758.74	$5,491.72	$4,806.71	$5,887.35	+12.4%
Average Expenditure per Elementary Student	**$5,126.77**	**$5,509.33**	**$5,715.23**	**$5,868.27**	$6,045.41	**+17.9%**
Average Expenditure per High School Student	**$6,018.30**	**$6,176.10**	**$6,255.93**	**$6,620.74**	$6,777.89	**+12.6%**

Source: Montana Office of Public Instruction

New School Construction

Flathead High School enrollment has been far over its capacity for several years. The new Glacier High School, which is under construction on a 60-acre site, will provide added capacity. The facility is initially designed for 1200 students but is master planned

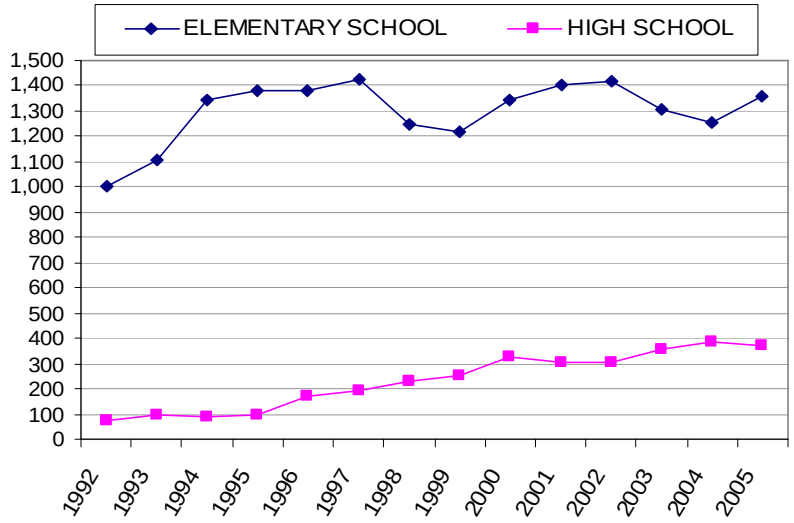
to accommodate up to 1500 students with future growth. Total project budget is $35,000,000. Glacier High School is expected to be operating by the fall of 2007. A major remodel of the Kalispell Junior High (Middle School) is also underway and will accommodate students from Linderman School, which will be closing.

Private and Home Schools

Several private and Christian schools in Flathead County offer alternatives to public education. These institutions are licensed by the state and utilize their own curriculum and teaching techniques. Licensed private schools fund themselves by charging a tuition fee for students. Some, such as the Hope Ranch, Turtle Bay, Summit Preparatory and the Montana Academy offer special services. These facilities offer counseling and education to students with behavior problems. Tuition for this type of specialized service is approximately $4,200 per month. Enrollment trends for private schools are shown in Table AA.17.4 and Table AA.17.5.

The number of elementary students which are home schooled has remained relatively steady while the number of high school students who are home schooled has increased (see Figure AA.17.4). Montana law defines a home school as the instruction given by a parent of his child, stepchild, or ward in his residence. Parents are free to select the type of curriculum from a collection of resources available from education sources. Montana does not require teacher certification to qualify the parent to home educate. The present home school requirements (20-5-109, MCA) were adopted by the legislature in 1983. In 1991, another section of law was added to Montana's statutes (20-5-111, MCA) which clarified the "responsibilities and rights of parents who provide home school and rights of a child in home school". The statute lists four areas which the home educating parent is "solely" responsible for; the educational philosophy of the home school, the selection of instructional materials, the time, place and method of instruction and the evaluation of the home school instruction.

Figure AA.17.4
Private and Home School Enrollment 1992-2005



Source: Montana Office of Public Instruction

Table AA.17.4
Private and Other Elementary School Enrollment 1992-2005

	92	**94**	**96**	**98**	**00**	**02**	**04**	**05**	**%** change
Cross Currants Christian	94	126	119	108	105	135	71	85	-9.6%
Stillwater Christian	119	169	199	199	207	202	208	216	+81.5%
Glacier Christian	51	52	45	25	25	41	12	10	-80.4%
Kalispell Montessori	81	90	81	93	93	110	116	111	+37%
St. Matthews	167	147	135	161	175	197	198	232	+38.9%
Trinity Lutheran	188	206	206	188	207	207	197	202	+7.4%
Valley Adventist	12	27	25	16	23	23	17	20	+66.7%
Other Private	17	17	13	15	1	6	4	**	
Home Schools	275	508	555	446	509	497	430	484	-9.6%
TOTAL	**1,004**	**1,342**	**1,378**	**1,251**	**1,345**	**1,418**	**1,253**	**1,361**	**+35.6%**

**** combined with Home Schools category for 2005**
Source: Montana Office of Public Instruction

Table AA.17.5
Private and Other High School Enrollment 1992-2005

	92	**94**	**96**	**98**	**00**	**02**	**04**	**05**	**%** change
Stillwater Christian	64	86	116	110	109	108	108	95	+48.4%
Star Meadows Hope Ranch					19	18	23	28	
Montana Academy				27	50	59	66	77	
Summit Preparatory School								52	
Valley Adventist Christian								3	
Other Private						4	59	**	
Home Schools	11	3	55	92	148	114	129	117	+964%
TOTAL	**75**	**89**	**171**	**229**	**326**	**303**	**385**	**372**	**+396%**

**** combined with Home Schools category for 2005**
Source: Montana Office of Public Instruction

Flathead Valley Community College

Flathead Valley Community College was established in 1967 when Flathead County voters created a community college district. In 1983, voters of Lincoln County created an extension center of FVCC in Libby to serve the residents of Lincoln County. In 1984 and 1985, the college added the Glacier Institute program in Glacier National Park. The campus is located at 777 Grandview Drive and along U.S. Highway 93 in Kalispell.

A decade of growth and new trends in postsecondary education has created the need for additional facilities. In 2005, the college purchased adjacent property and a 19.3 million dollar campus expansion is underway. New facilities will include an Occupational Trades Building and Arts and Technology Building. The buildings are scheduled to be complete in the fall of 2006 and the spring of 2007.

Enrollment has tripled since the college was established in 1967. FVCC offers two-year college programs, the first two years of a four-year college degree and occupational training. The facility provides college transfer, vocational-technical and community service classes, as well as adult basic education. Many courses are offered online. Table AA.17.6 and Figure AA.17.5 demonstrate general enrollment trends since 1967.

According to the FVCC economic impact fact sheet of October 2005, FVCC skills embodied in the present-day workforce increase regional income in the FVCC Service Area economy where the former students are employed by $38.6 million. Altogether, the economy in the FVCC Service Area owes nearly $50 million of its current labor and non-labor income to the past and present efforts of FVCC. This demonstrates FVCC as an engine of economic growth. For more information, see Section 4 - Economics or visit http://www.jobs-now.org.

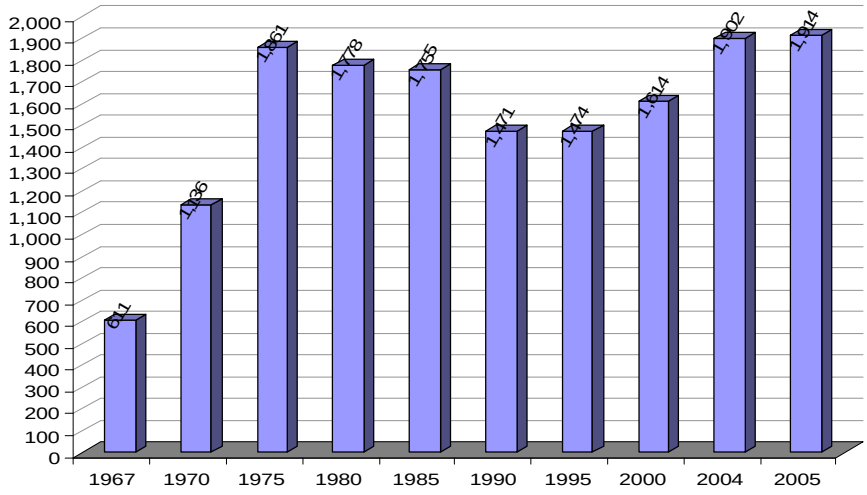
Table AA.17.6
Flathead Valley Community College Enrollment Trends 1967-2005

	2005	2000	1995	1990	1985	1980	1975	1970
Male	703	596	482	488	550	626	810	550
Female	1,211	1,018	992	983	1,205	1,152	1,051	586
Total	**1,914**	**1,614**	**1,474**	**1,471**	**1,755**	**1,778**	**1,861**	**1,136**
Full Time	856	667	743	689	542	489	772	578
Part Time	1,058	947	731	782	1,213	1,289	1,089	558
% Full Time	44.7%	41.3	50.4	46.8	30.9	27.5	41.5	50.9
% Part Time	55.3%	58.7	49.6	53.2	69.1	72.5	58.5	49.1
Average Credit Load	9.32	9.96	9.75	9.27	7.05	6.44	8.57	9.24
*FTE	1,200	964	958	909	825	763	1,063	699
Average Age	29.4	31.5	*	*	*	*	*	*
Flathead County Residents	1,711	1,460	1,340	1,314	1,513	1,579	1,603	*
Other Montana Residents	143	105	77	103	119	151	186	*
Non State Residents or Foreign	60	49	57	54	43	48	72	*
TOTAL	**1,914**	**1,614**	**1,474**	**1,471**	**1,755**	**1,778**	**1,861**	**1,136**

*** not available**

FTE – represents full-time equivalency. This is a measure used by all colleges and universities to measure enrollment. FVCC did not begin reporting enrollment on an FTE basis until the fall of 1970. Prepared by Faith Hodges, FVCC, December 2005

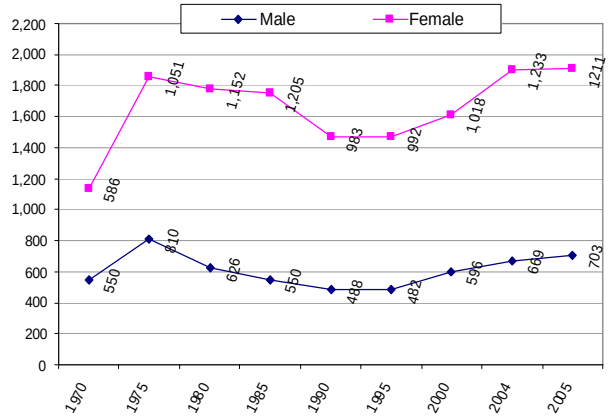
Figure AA.17.5
Flathead Valley Community College Enrollment Trends
1967-2005



Source: Flathead Valley Community College

Since Flathead Valley Community College began operation in 1967, female enrollment has been significantly higher than male enrollment (see Figure AA.17.6) and Flathead County resident enrollment far outnumbers that of out of county residents.

Figure AA.17.6
Flathead Valley Community College Enrollment Trends in Gender 1967-2005



Source: Flathead Valley Community College

PART 18: Fire and Wildfire

Fire response in Flathead County is covered by 16 volunteer fire departments. In the past five years, over 900 lots have been created in Flathead County. The fire departments are

liable for keeping up with the fast growing population. In addition, development continues to increase in rural high-risk fire areas that are far from services.

Many of the departments, such as Evergreen, are responsible for a high-density area equivalent to the surrounding municipal departments of Kalispell, Columbia Falls and Whitefish. The municipal and volunteer departments generally have mutual aid agreements to assist each other for better coverage.

Wildland/Urban Interface

Recent wildfire activity and development in rural areas adjacent to public lands has created wildland/urban interface concerns in Flathead County. The wildland/urban interface is described as the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. To protect these areas, cooperative agreements have been signed between recognized Federal fire protection agencies and the State of Montana. Such agreements give general guidelines for the protection of all lands to the mutual advantage of the protection agencies entering into the agreement. Currently, cooperative agreements exist between the State and the United States Forest Service, the State and the Bureau of Land Management (BLM) and the State and the Bureau of India Affairs (BIA), Flathead Agency. A new Master Cooperative Agreement is being developed to include the State, United States Forest Service, Bureau of Land Management, Bureau of Indian Affairs, the National Park Service and the U.S. Fish and Wildlife Service.

Following the 2000 wildfire season, Congress authorized funding within the U.S. Departments of Interior and Agriculture to implement the National Fire Plan (NFP). The National Fire Plan is a long-term strategy for reducing the effects of catastrophic wildfire throughout the United States. The National Fire Plan provides authority for increases of fire suppression capabilities, rehabilitation and restoration of burned areas, reduction of hazardous fuels, community assistance and accountability to the public and Congress. NFP funding to states occurs under community assistance and is made available through the U.S. Forest Service, State and private forestry programs. The Department of Natural Resources and Conservation (DNRC) has responsibility for delivery of these programs on State and privately owned lands. Grant monies are available for such projects as community education in wildland/urban interface, fuel hazard reduction, equipment and training for County fire departments, homeowner and community action and defensible space home audits. The Healthy Forest Restoration Act requires that communities develop plans to qualify for grant monies. More information about grants and current projects can be found at http://dnrc.mt.gov/forestry/fire.

The Flathead Community Wildfire Fuel Reduction-Mitigation Plan was completed in March of 2005 and identifies the interface areas and prioritizes fuel reduction projects areas in Flathead County. It was developed as an appendix to the Flathead County Pre-Disaster Mitigation Plan. Completion of this document paves the way for fuel reduction projects in Flathead County. The document was prepared for the Northwest Regional Resource Conservation and Development Area Incorporated, a non-profit organization and Flathead County, by GCS Research in Missoula. This comprehensive document includes over 50

maps including, fire history, communities at risk, wildland/urban interface areas, countywide priorities for fuel hazard reduction as well as risk assessment maps that show areas in Flathead County that have relatively high fire risks. Priority areas for wildfire protection and fuel reduction projects were identified through a public process with input from community members and rural fire departments. The complete document with maps of the priority areas countywide and by municipal and rural county districts is available online at www.co.flathead.mt.us/fcpz.

The uniqueness of the Flathead County landscape and intermingled land ownership creates dependence on rural fire departments for wildfire suppression in the wildland/urban interface, as these departments are often the first responders. While rural fire departments have traditionally been mainly responsible for protection of structures within their district, these rural fire departments are also responsible for wildfire protection within their district boundaries. The State (DNRC) has overlapping wildland fire suppression responsibilities in all of the rural fire districts in Flathead County. Most rural fire departments consist of volunteers with training mainly in dealing with structure fires. The State's overlapping responsibilities with rural fire districts assures adequate protection in rural fire districts.

Structure Fires

Structure fires within designated municipal and rural fire district boundaries are always the responsibility of that municipal or rural fire department. The National Park Service protects structures within Glacier National Park. The State is not responsible for engaging in structure fire suppression, nor is any Federal agency, except Glacier National Park. However, both State and Federal agencies will provide structure protection to areas that do not have other means of protection, if mutual agreements have been made between those agencies and the County.

PART 19: Municipal and Rural Fire Districts

As with all emergency services, response time to a fire location is critical. Response time includes travel time from home or place of employment to the fire location. The maximum response time in combination with other variables, determines the ISO (International Organization for Standardization) rating of a fire department or fire district. ISO ratings range from 1 – 10 with 1 being the best rating. ISO ratings are used by insurance companies to access risk. These ratings are important because, among other things, the insurance companies base their insurance premiums on them. The lower the ISO rating, the lower the homeowner insurance premium will be. All municipal and rural fire departments will have an ISO rating. Some will have more than one rating depending on the response time to a location.

Within Flathead County there are three municipal fire departments including the Kalispell, Whitefish and Columbia Falls Fire Departments. In addition, there are (17) Rural Fire Districts and (2) Fire Service Areas. Rural Fire Districts include Badrock, Bigfork, Big Mountain, Blankenship, Columbia Falls, Coram/West Glacier, Creston, Evergreen, Ferndale, Hungry Horse, Marion, Martin City, Olney, Smith Valley, Somers/Lakeside, South Kalispell and West Valley. Personnel and equipment from both municipal and rural

fire departments also respond to other emergencies, such as vehicle accidents, hazardous materials incidents and search and rescue. Departments have trained personnel to handle medical emergencies and provide advanced life support, as well.

Fire Service Areas are a relatively new form of fire protection and are usually responsible for protection outside of established fire districts. They are formed by submitting a petition to the County Commissioners and require the signature of 30% of the real property owners within the proposed area. These Fire Service Areas are usually formed when there are several large landowners in an area and because it is sometimes difficult to get the 50% or more of the owners of a majority of land to sign a petition to form a Rural Fire District. Fire Service Areas are supported by a tax on structures or improvements that would benefit. Fire Service Areas have no direct or implied wildland fire protection component. Only the Commissioners, by resolution, can decide on the boundaries and levels of service that will be provided. Unless a resolution specifies that wildland fire protection will be provided, it is not mandated that a Fire Service Area provide this service. Most FSAs will respond to wildland fire when it is within their boundaries as it is prudent to help stop the spread of wildfire before it involves the structures they are mandated to protect. There are (2) such Fire Service Areas in Flathead County. These are the Whitefish Fire Service Area and the Flathead County Fire Service Area.

Mutual Aid Agreements

Within Flathead County and amongst the municipalities and rural fire districts, a Mutual Aid Agreement currently exists, titled "Outside Aid Protective Assistance Contract". This agreement is intended to provide the ability for one or more jurisdictional areas to provide personnel and equipment to assist another in the event that one jurisdiction requests or as is necessary. This agreement includes all of the Municipal and Rural Departments and the Whitefish Fire Service Area. However, (4) of the Rural Fire Districts adjacent to the City of Kalispell declined signing the agreement. These Districts include West Valley, South Kalispell, Smith Valley and Evergreen.

In Flathead County, Municipal and Rural Fire Districts and the Flathead County and Whitefish Fire Service Areas encompass most of the private lands in the valley bottom and foothills. Most rural fire department personnel are volunteers, sometimes making availability a concern and mutual aid agreements between rural fire departments are critical for providing adequate fire protection.

City of Kalispell Fire Department

The Kalispell Fire Department is located in downtown Kalispell on First Avenue East. The new Station 62 is located near the intersection of Four Mile Drive and Highway 93, in the same vicinity as the Costco and Lowes stores. The Kalispell Fire Department currently has an ISO rating of 5. That rating is bound to go lower with the new station.

Station 62 will provide services to the rapidly growing north section of the city. Initial staffing of Station 62 will include four Firefighters/Paramedics with 24-hour coverage. Future staffing projections are for 8 Firefighter/Paramedics with 24-hour coverage. It is

estimated that personnel from this new station will respond to approximately 2000 calls annually, or about 50% of the current calls of the single downtown station. Response times will be reduced to 1-5 minutes in the north city area.

The Kalispell Fire Department averages 450 fire calls and 2,350 EMS calls per year. Call volume has increased dramatically in the past years due to a booming population increase in the Flathead Valley. Over the past four years, the Department has seen annual increases in responses ranging from 13% to 18%, which is directly related to the rapidly increasing population. Approximately 50% of total responses are for Emergency Medical Services outside of the city limits. Approximately 67% of responses within the city are for Emergency Medical Services with the remaining for fire, rescue and hazardous materials calls.

The Kalispell Fire Department has a compliment of three engines, an 85-foot ladder truck, two administrative vehicles and four ambulances. Employees of the Kalispell Fire Department are crossed trained in both fire and medical, providing an Advanced Life Support (ALS) service to the local community with Firefighter/Paramedics. Employees also provide the local community with fire prevention and education, rescue and have members involved with the City/County Hazardous Materials Team at the Technician level.

The Kalispell Fire Department currently employs 22 Firefighters and three administrative personnel and an Administrative/Billing Clerk. For more information visit http://www.kalispell.com/fire/ or contact the Kalispell Fire Chief.

Whitefish Fire Department

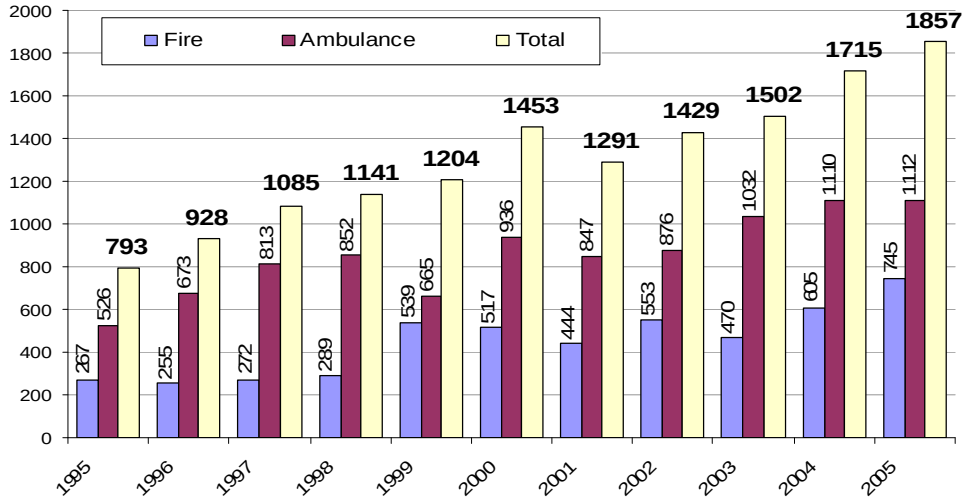
The Whitefish Fire Department provides service to both the area within the city limits as well as the rural Whitefish Fire Service Area, which encompasses approximately 100 square miles around the city. The department is full service, providing fire suppression, heavy rescue and emergency medical services with four advanced life support ambulances. The Department has two stations. The main station is in downtown Whitefish and the other is located out of town on the corner of Hodgson Road and Whitefish Stage Road.

Maximum response time for anywhere within the coverage area is about 20 minutes depending on road conditions and time of year. The current ISO rating for residences within the city or within 1,000 feet of a fire flow rated hydrant is an ISO 4. The rating for all other areas not in the city and/or within 1000 feet of a fire hydrant is rated ISO 8-B.

The Whitefish Fire Department currently has 10 paid firefighters and 15 volunteers. The paid department employees work 12-hour shifts, 7 days a week and include four Paramedics and two EMT personnel. All night responses are by call out and volunteer shifts. Four resident volunteer firefighters respond from Station #1 on day and night calls when not working their day jobs and if they are available. Nearly all, including the reserve personnel or volunteers, have training in emergency medical service and CPR.

During 2003, department personnel responded to 242 fire and 700 ambulance calls within the city and 228 fire and 332 ambulance calls in the rural areas. From January 1, to November 11, 2005, there were 500 fire and 755 ambulance calls in the city. Requests for assistance in the rural areas have remained steady over the past three years. Personnel responded to 202 fire and 227 ambulance calls outside of the city during the current year of 2005. Both fire and ambulance calls have more than doubled since 1995 as shown in Figure AA.19.1.

Figure AA.19.1
Whitefish Fire Department Response by Type 1995-2005



Source: Whitefish Fire Department

The Whitefish Fire Department is currently trying to secure funding for a new Fire Station in the city during the upcoming year and is looking for possible locations for additional rural stations. For more information contact: fire01@cityofwhitefish.org

City of Columbia Falls Fire Department

The Columbia Falls Fire Department provides fire protection to the city of Columbia Falls as well as the rural area surrounding the city, which is the Columbia Falls Rural Fire District. The main fire station is located adjacent to City Hall in downtown Columbia Falls. The Department serves a significant area from its downtown station as a well as the substation on U.S. Highway 2, located one mile south of the Highway 40 and U.S. Highway 2 (LaSalle) intersection. Even though the City of Columbia Falls has a population that may not warrant a paid department, the ***actual*** approximate population that the department serves is 12,000 including the Columbia Falls Rural Fire District. The population served warrants a paid department.

The maximum response time within the city is approximately 5 to 7 minutes for the ISO rating of 5. Outside of the city, there is an ISO rating of 5 with an average response time

of 7 to 14 minutes. The Highway 2/LaSalle substation significantly improved response time in the rural area of the Columbia Falls Rural Fire District.

According to information provided by the Fire Chief in December 2005, the department has 22 volunteers and a full time paid Fire Chief. The department would like up to 33 volunteers, indicating there is opportunity for the department to increase its membership and/or staffing. Within the department, there are 12 EMT-FR and 4 EMT-B certified firefighters with various endorsements.

Between the two stations, the department's equipment includes 4 Class A engines with from 500 to 1000 gallon water capacity, 2 Type 6 engines, a EMS Medium Duty Rescue vehicle with air cache and scene lighting, an EMS QRU Suburban, 2 Water Tenders with 2500 to 4250 gallon water capacity and a Command vehicle. The Flathead County Hazardous Materials unit is routinely housed and available at Rural Station #2.

Rural County Fire Departments

Rural Fire Department personnel are 99% volunteers. Most have wage paying jobs and may not always be able to respond as quickly as could a municipal Fire Department. As the demand for services increases with the population, volunteer organizations have assumed additional responsibilities including providing emergency medical services and responding to motor vehicle accidents.

All rural fire department members, including volunteers, are required to obtain a minimum of 36 hours of training each year. Many members participate in up to 150 hours of training annually. Volunteers are not compensated for their time either in responding to emergency calls or during training.

Housing in rural areas is generally distributed over a larger area with substandard road conditions, making response time longer. Most Rural Fire Districts have an ISO rating of ISO-5 to ISO-8.

Badrock Rural Fire Department

The Badrock Fire Department is located on Montana Highway 206 and Kelly Road east of Columbia Falls. The district encompasses approximately 18,144 acres or 28 square miles south and east of the Flathead River. For more information, contact the Badrock Fire Chief.

Bigfork

In 2005, the Bigfork Fire Department and Bigfork Quick Response Unit and Ambulance merged to provide services. Bigfork Fire & Ambulance is a volunteer organization and provides emergency medical care and fire and rescue services to the communities of Bigfork, East Lake Shore, Ferndale, Echo Lake and Swan Lake. Bigfork Fire and Ambulance has one main station and three substations. The main station is located on Highway 35 in Bigfork and houses a fully equipped engine and several fully equipped

Attack, Rescue, Utility and Ambulance units. Woods Bay satellite station is located in Woods Bay on Sylvan Drive and is equipped with an engine and a 2,200-gallon vacuum water tender. Echo Lake satellite station is located near Echo Lake and houses an engine and a 2,500-gallon vacuum water tender. The Bigfork Fire Department has an ISO rating of 6.

There are 44 personnel between the Medical and Fire divisions, 11 of which belong to both. Under the Fire Division, there are 28 volunteer firefighters, a paid part time Fire Chief, a paid full time Assistant Chief/Fire Marshall/Training Officer and a paid full time Administrative Assistant to both the Fire and Medical Divisions. The Medical Division is mostly volunteers with 26 medically trained personnel, a paid part time Office Assistant, a paid part time Training Assistant and a volunteer Assistant Chief/Medical.

The Bigfork Fire District encompasses over 22,000 acres of which over 8,000 acres were identified as priority areas for fuel hazard reduction in the Flathead County Community Wildfire Fuels Reduction-Mitigation Plan. The largest is the Echo Lake area because of the amount of fuels and the high density of homes. Heavy fuels and west facing slopes have also placed Swan Hill and the east shore of Flathead Lake on the list. A smaller area on Chapman Hill, north of Bigfork, was identified which has high-end homes and more development planned.

In 2005, Bigfork Fire District received federal grant monies for reducing fire hazards around homes to reduce potential property and home loss from wildfires. The grant is scheduled to end in June 2006. The money provides incentive for the home and property owners in the Bigfork, Ferndale and Swan Lake Fire Districts to reduce wildfire fuels on their private property. Accomplishments under this grant include homeowner assessments, thinning and pruning, chipping and slash piling and burning with focus on the identified priority areas. For more information on this program, please contact the Bigfork Fire and Ambulance organization or visit http://www.bigforkfire.com.

Big Mountain

Big Mountain Fire District encompasses about 1,443 acres. It is a relatively small area and includes all of the Big Mountain resort and residential area. Big Mountain Fire District has developed and actively maintains its own fire plan for its area of responsibility. The Big Mountain Fire District has an ISO rating of 6 where there are hydrants and 9 where there are no hydrants.

This district is relatively isolated and surrounded by public and private forestland. Access is limited. The Big Mountain Road is the only improved access to the resort area. This situation may limit the effectiveness of mutual aid for fire and emergency services. The value of structures is also very high. There have been two areas of concern identified within the district and include the Elk Meadows and the Glades subdivisions. These subdivisions are still in the development phase. In addition, the Big Mountain Road is being rebuilt and an emergency egress will then be available. For more information, contact the Big Mountain Fire Chief at 862- 3748.

Blankenship

The Blankenship Fire District encompasses approximately 6,662 acres or 10.4 square miles. The district lies west of the North Fork of the Flathead River approximately seven miles north of Columbia Falls. The area is surrounded by lands managed by the State, Forest Service and National Park Service. The North Fork valley has historically experienced periodic major stand replacing wildfires. Much of the area in the Blankenship Fire District was burned over in 1926 and 1929 then again in 2003 when the Robert Fire burned over the area.

The Department has concern over several items including water supply. The river is designated as a Wild and Scenic River which does not allow for installation of a hydrant and they have only one 1954 vintage Water Tender. Access is marginal in many areas with homes and Teakettle Road is in poor condition. Most homes in the district are within one-half mile of forested lands, which is considered the wildland urban interface. Priority areas for fuel reduction projects were identified by the department. These include the Spoon Lake area and a large area in the southern end of the district along the forks of the Teakettle Road. The department also feels that there is need for fuel reduction on the adjacent National Forest lands.

Blankenship Fire Department members are all volunteers. The Coram/West Glacier Fire District lies to the east of the river. The bridge allows access for mutual aid between the two rural fire districts. Adequate protection in this district requires effective implementation of existing mutual aid agreements between the Rural Fire Departments and State and Federal Agencies. For more information, contact the Blankenship Fire Chief at 387-4349.

Coram/West Glacier

The Coram/West Glacier Fire Department is a volunteer organization. The District encompasses about 9,902 acres or 15.5 square miles and lies east of the North Fork of the Flathead River and the Blankenship Fire District, along U.S. Highway 2. This district is surrounded by lands managed by the National Park Service and the U.S. Forest Service and has experienced periodic major wildfires. All of the area encompassed in the Coram/West Glacier Fire District was burned over by wildfire in 1910 and has regenerated into a mostly Lodgepole forest. A mature Lodgepole forest is susceptible to disease and wildfire. Advanced firefighting techniques prevented the Robert Fire of 2003 from crossing U.S. Highway 2 and burning the area again.

The Burlington Northern Railroad line runs through the district, creating concerns over access to almost 100 homes located west of the tracks. This is the only ingress and egress to these structures. It is possible for the railroad crossing to be blocked by a train at the time of call for emergency services to that area. The area west of the tracks has been identified as a priority area for fuel reduction, as well as the railroad crossing itself and one historical structure.

Adequate protection in this district also requires implementing existing mutual aid agreements between the other Rural Fire Departments, the State, the Forest Service and National Park Service. For more information, contact the Coram/West Glacier Fire Hall at 387-4298.

Creston

The Creston Fire District located east of Kalispell and north of Bigfork, is the largest rural fire district in Flathead County, encompassing approximately 53,547 acres or 84 square miles. The Creston Fire Department has 4 stations, located at 4498 Montana Highway 35, 2540 Montana Highway 35, 595 Lake Blaine Road and 3180 Foothill Road. The department also maintains a training facility at Lake Blaine Station

The Creston Fire Department is a 100% volunteer organization with a current membership of 32, of which 15 are trained medical personnel. All members are trained in CPR and in the use of an Automated External Defibrillator (AED). The department provides basic life support and stabilization of a patient in emergency medical situations but does not have an ambulance to transport a patient.

Maximum response within the district is 8 to 9 minutes from time of dispatch. This response time gives the district an ISO rating of ISO-8. As additional water supplies are developed, the district will be asking for an assessment to lower the ISO rating which will reduce insurance rates to homeowners.

The Creston Fire Department has 7 fully-equipped engines including a 1996 Central States 2000 gallon capacity with a 1250 gallon per minute (gpm) pump and Compressed Air Foam, a 1992 Central States, 3000 gallon capacity with a 1250 gpm pump and a 1969 GMC, 800 gallon capacity with a 500 gpm pump used for wildland fire and backup. Additional engines include a 1984 Grumman, 1000-gallon capacity with a 750-gpm pump, a 2003 Compressed Air Foam engine with a 360-gallon capacity that is also used for light rescue, a 1999 Type 6 engine with a 350-gallon capacity and a 1992 Pierce, 750-gallon capacity Compressed Air Foam engine. The Creston Fire Department has the only 3 Compressed Air Foam engines in the valley. Compressed Air Foam is much more effective in firefighting than plain water. The engines carry a full array of emergency medical equipment including defibrillators. The equipment is housed at the four locations in Creston, Lake Blaine, Mountain Brook and Fairmont-Egan.

Approximately 30% of the Creston district is in the wildland urban interface. The Many Lakes area has been identified as an area of major concern by the department. The high-density development in the forested area has a one-way ingress and egress with narrow driveways and dead end streets. Foothill Road, Lindsey Lane, South Echo Lake, Bachelor Grade and Lake Blaine areas have all been identified as being heavily forested or having poor access, narrow and/or dead end roads and contiguous to National Forest lands. For more information, contact the Creston Fire Hall at 755-2760.

Evergreen

The Evergreen Fire District is northeast and adjacent to Kalispell. The District encompasses approximately 14,734 acres or 23 square miles. Evergreen Fire Department has one full time paid employee the remaining members are volunteers.

The Department provides mutual aid assistance to the adjacent and nearby rural fire districts, but does not respond to calls in the City of Kalispell.

The U.S. Fish and Wildlife Service campground area on the Flathead River has been identified as an area of concern, due to limited or no access to the brushed in and swampy areas. The end of Bayou Road has homes behind a gated access. Plum Creek Mill and new subdivisions in forested areas have also been identified as possible problem areas.

For additional information, contact the Evergreen Fire Hall at 752-4636.

Ferndale

The Ferndale Fire District is located southeast of Bigfork and encompasses approximately 5,585 acres or 8.7 square miles in Flathead County. The district also includes a significant amount of additional area in the northeast corner of Lake County. Much of the district is in the wildland urban interface. Several areas of concern for possible fuel reduction efforts have been identified. Over 900 acres in the Bear Creek area in the east side of the district adjacent to National Forest lands is heavily forested and has high dollar homes on steep slopes with only one access road. A similar situation has been identified at the end of Tamarack Lane, to the south of Bear Creek. For more information, contact the Ferndale Fire Hall.

Hungry Horse

The Hungry Horse Fire District is located along U.S. Highway 2 and adjacent to and south of the South Fork of the Flathead River. The District is small encompassing only 808 acres, consisting mainly of the community of Hungry Horse itself. The Department is 100% volunteer. For more information, contact the Hungry Horse Fire Hall.

Marion

The Marion Fire District is located approximately 18 miles west of Kalispell on U.S. Highway 2 and generally includes the community of Marion and the private lands surrounding Little Bitterroot and McGregor Lakes. The District encompasses approximately 19,141 acres or 29.9 square miles. Department members are all volunteers. The ISO rating is 7.

The department has identified the McGregor Lake area as a priority area for fuel reduction projects, because the area is heavily timbered with a high density of older homes. The area borders Plum Creek lands, which is considered high risk and has

limited access with one way in and one way out. A grant to fund fuel reduction in this area is pending. A significant amount of new housing construction is occurring near Little Bitterroot Lake that also has limited access with one way in and one way out of the subdivision. Response time from the fire station to the north end of the lake is 10 to 15 minutes. Water supply is also a concern in the Little Bitterroot Lake area with poor access to the lake for drafting. The Department of Natural Resources and Conservation (DNRC) have fire protection responsibilities surrounding the district. Adjacent rural Fire Departments have a considerable response time for providing mutual aid to the Marion department. For more information, contact the Marion Fire Hall at 854-2828.

Martin City

Martin City Volunteer Fire Department serves a population of approximately 800 and the District encompasses about 9 square miles. The Department operates out of one station located on Main Street in Martin City and has 22 volunteers. Major equipment include a 3,500 gallon Water Tender, one engine, capable of pumping 750 gallons per minute, a 1-ton four wheel drive Wildfire / Attack fire vehicle with a 250 gallon capacity Attack and a 1987 Chevy 1-ton four wheel drive extrication unit.

In addition to providing fire protection, Martin City houses the "jaws" unit for vehicle extrication for the canyon area. Department members often respond to the adjacent districts under Mutual Aid Agreements to assist to Quick Response Units and emergency medical situations. The Department has personnel trained in Advanced Life Support (ALS) and search and rescue and often assists in these types of activities within a 3,000 square mile area, including Badrock Canyon to the Continental Divide and into the Bob Marshall Wilderness. Canyon area emergency service providers are in close proximity of vast recreation areas such as Glacier National Park and Flathead National Forest and are likely to be responding to more search and rescue calls than some of the other rural fire departments. For more information, contact the Martin City Fire Hall at 387-5378.

Olney

The Olney Fire District is located approximately 18 miles north of Whitefish and encompasses approximately 1,018 acres or 1.6 square miles. The district is totally surrounded by State and National Forest lands and isolated from the other rural Fire Districts. The district generally includes all private lands that are surrounded by State and Forestland. The Stillwater State Forest Headquarters is located in Olney and houses fire equipment and personnel and would provide the most efficient mutual aid to the Olney Fire District. Department members are all volunteers. For more information, contact the Olney Fire Hall.

Smith Valley

The Smith Valley Fire District is located west of Kalispell and encompasses approximately 35,449 acres or over 55 square miles. The Department has identified several areas of concern and possible fuel mitigation measures. Most areas were

identified because they are in the wildland/urban interface with poor access. Response time to areas with high housing density, fuel buildup and limited access to water supply are issues of concern. Addressing was also identified as a problem, especially in the Hoffman Draw area. The department provides mutual aid to other rural Fire Districts but does not respond to calls for assistance in the City of Kalispell. For more information, contact the Smith Valley Fire Hall at 752-3548 or email svlyfd@centurytel.net.

Somers/Lakeside

The Somers/Lakeside Fire District is located approximately 7 miles south of Kalispell. The District encompasses 27,474 acres or about 43 square miles. The department indicates that there is one-way access, steep slopes and fuel buildup in the Angel Point area and few homeowners have taken measures to protect their homes from fire. Fuel reduction also needs to be done in the Blacktail area. For more information, contact Somers/Lakeside Fire Hall at 857-3566.

South Kalispell

The South Kalispell Fire District is located south and east of Kalispell. The District encompasses 7,073 acres or over 11 square miles. Areas in the south section of the district have access and safety zone issues as well as access to water supply. Much fuel reduction work has already been done. The department has an ISO rating of 6 within a mile of the fire hall and 10 beyond one mile.

The department provides mutual aid to other rural Fire Districts but does not respond to calls for assistance in the City of Kalispell. For more information contact the South Kalispell Fire Hall at 257-2282 or email skvfd@in-tch.com

West Valley

The West Valley Fire District is located west and north of Kalispell. The District encompasses 43,051 acres or about 67 square miles. The department provides mutual aid to other rural Fire Districts but does not respond to calls for assistance in the City of Kalispell. The ISO rating is 7. For more information, contact the West Valley Fire Hall at 756-9878.

PART 20: Law Enforcement

Flathead County Sheriff

The Flathead County Sheriffs Department is responsible for protecting 5,098 square miles and 55,460 residents of the non-incorporated area of the county. They are dedicated to the protection of the people of Flathead County and the professional enforcement of local, state and federal laws. There are six divisions within the Sheriffs Department:

1. Patrol Division
2. Detective Division
3. Adult and Juvenile Division
4. Civil Division
5. Coroner
6. Crime Stoppers

Currently the Flathead County Sheriffs Department employs 118 people. However, only 48 of them are in "on the ground" law enforcement. This is a ratio of one law enforcement officer for every 470 residents. The remainder work as support, court or jail staff. The adult correctional facility employs 28 and the juvenile facility employs 12. The juvenile facility is regulated by the State of Montana and the ratio of staff to inmate is almost 1:1.

Federal and State law enforcement in Flathead County

FBI – The Federal Bureau of Investigation has over 27,000 Special Agents and Support Personnel in 65 Divisions, over 400 Resident Agencies and in 32 Foreign Liaison Offices throughout the world. The Salt Lake City Division covers the states of Utah, Idaho and Montana, making it geographically one of the largest divisions in the FBI.

Border Patrol – Eight additional Border Patrol positions were created after 9/11 for a total of 12.

Highway Patrol – The Montana Highway Patrol for Flathead County employs 16 full time officers and one support person. The dispatch is handled by the State of Montana Highway Patrol dispatch office in Helena.

City of Columbia Falls

The City of Columbia Falls police department employs 9 officers, 3 full time dispatchers and 3 part time dispatchers. The service area is approximately 12 square miles.

City of Whitefish

The City of Whitefish police department employs 14 full-time officers, 4 part-time officers, 4 full time dispatchers and 4 part time dispatchers. The service area is approximately 18 square miles.

City of Kalispell

The City of Kalispell police department employs 35 people. The service area is approximately 12 square miles.

PART 21: Utility Services – Communications, Electricity and Natural Gas.

County residents rely on many basic services, including utilities, which help define their quality of life and maintain their health and well-being. Utilities in Flathead County

include natural gas delivery, electricity and telecommunication services. These services are usually taken for granted, but coordination and conscientious planning for future growth must be established to assure service is uninterrupted and adequate.

Internet

Thirteen Internet Service Providers service the Flathead Valley. These include About Montana, Access Montana, Cyberport and Montana Digital. Bresnan Communications offers cable and cable internet connections. Satellite and wireless services are available, as well.

CenturyTel delivers advanced communications to Northwestern Montana. The company is a provider of consumer and business communications in rural areas and small to mid-size cities in 26 states. Century Tel offers dial-up and DSL internet service. Although Century Tel serves mostly rural properties, approximately 79% of the company's access lines are within 18,000 feet (over three miles) of a central office or remote terminal, which is the maximum distance to which DSL can be enabled. For more information on Century Tel services, visit the local Century Tel website at http://flathead.community.centurytel.net/index.cfm.

Telephone

Phone service is offered by CenturyTel, Bresnan Communications and AT&T. Bresnan and AT&T do not have traditional landlines. Instead, the service is conducted over cable or internet. In addition, there are three cellular companies in the Flathead Valley. They are Alltel Wireless, Verizon and Chinook Wireless.

The Flathead Valley is well connected and has advanced telecommunications media available.

Electrical Service

Flathead Electric Cooperative, Inc. (FEC) is a locally owned and operated cooperative and is the only supplier of both commercial and residential power to Flathead County. Flathead Electric Coop is the second largest electric utility in Montana with more than 44,500 members/customers. Over 3,800 miles of line serve the entire Flathead Valley and Libby. There were 2,189 new meters hooked up in 2005.

According to the 2004 FEC Annual Report, the Coop processed a record number of work orders and new services. Engineering released more than 2,700 jobs for construction taking in more than 125 new subdivisions. Underground cable replacement projects were completed in Desert Mountain, Kokanee Bend Subdivision, Rogers Lake Road and Peaceful Acres Subdivision. More than 416,000 feet of underground cable was installed, compared with 376,000 feet in 2003. Other projects completed in 2004 included U.S. Highway 93 from Four Corners to 13th Street in Kalispell, the Bigfork transmission rebuild, the Montana Avenue rebuild in Kalispell, design work for new substations in Lakeside and North Kalispell as well as a number of relocation projects related to

highway construction. Replacement of standard electric meters with automated meter reading units continued, allowing the meters to be read electronically from the FEC office. More than 5,500 old standard meters were replaced with new automated meters in 2004.

The 2004 report suggests that summer months are not the peak season anymore for new service requests, but rather there is year round demand and that the demand was expected to continue. For more information about Flathead Electric Cooperative, visit their website at: http://www.flatheadelectric.com/

Natural Gas Service

Northwest Energy is the only major supplier of natural gas to the Flathead Valley. There are 170,000 customers in Montana, with 70,500 square miles of service area. Pricing for natural gas is approved by the Montana Public Service Commission and is deregulated.

PART 22: Public Services

Hospitals

The Kalispell Regional Medical Center (KC) employs over 1,500 and is the largest private employer in Flathead County. The new hospital was completed in January of 1976 north of downtown Kalispell and has been expanding in size and services since its construction. The facility provides a full range of services including cardiac care and surgery, air ambulance, skilled nursing, cancer treatment, 24-hour physician and emergency room coverage, infant and maternity care, mental health and chemical dependency treatment, private care, home health and hospice services. The hospital had the nation's first rural hospital based helicopter ambulance service (A.L.E.R.T.) in 1975 and in 1987 installed Montana's first MRI (magnetic resonance imaging) machine.

North Valley Hospital located in Whitefish is also a full service health care facility. The median age of the population of Flathead County is increasing and recent rapid growth indicated the need for a new facility in Whitefish, in addition to the expansions of the KC. In May of 2003 North Valley Hospital and the North Valley Hospital Foundation, purchased 45 acres for the construction of a 72,300 square foot replacement hospital near U.S. Highway 93 and Montana Highway 40 on the southern edge of Whitefish. The new facility is expected to open in February of 2007.

The Montana Veterans Home in Columbia Falls is a facility intended to serve veterans in Montana. An expansion program completed in early 1984 increased the capacity of the facility to 150 residents. There are rooms for 65 nursing patients and 85 domicile resident rooms.

Both the Kalispell Regional Medical Center and North Valley Hospital are private entities, while the Montana Veterans Home is a federal facility.

Community and Environmental Health and Social Services

City-County Health Department

The mission statement of the Flathead City-County Health Department states, "to assure the conditions in which people can be healthy through collaboration, promoting stewardship of our resources and providing preventative health services to the community**."** The Flathead City-County Health Department promotes nutrition and physical activity programs, as well as workplace wellness programs.

The community health division addresses communicable disease control, such as TB, as well as health counseling, well child programs and educational programs. The Women Infant and Children Program is also administered by the health department. WIC is a special supplemental nutrition program for women, infants and children. It provides short-term, low-cost, preventative health services to families who are at risk due to nutrition related health conditions. In addition, a reproductive health clinic includes family planning, HIV and breast and cervical services.

City-County Environmental Health Department

The City-County Environmental Health Department provides the water and sanitation services, subdivision review, air quality services, to help provide a safer community in which to live.

Plans for public water and sewer projects are reviewed and sanitary surveys of public water supplies are conducted by this program. In addition, Sewage Treatment System Services deal with compliance with the Flathead County Regulations for Sewage Treatment Systems. Permitting, site evaluations and inspection of sewage treatment installations are the primary program activities.

The Montana Department of Environmental Quality contracts with the Flathead County Environmental Health Department to review proposed subdivisions for compliance with the Sanitation in Subdivisions Act and related administrative rules. The program conducts reviews of subdivided lots less than 20 acres for provision of adequate water and sewer facilities.

Air Quality Services operates the outdoor air quality program, which includes collecting data from monitoring sites in Kalispell, Whitefish and Columbia Falls and administering the Flathead County Air Pollution Control Program. This program regulates open burning during those times of the year when it is allowed and issues daily burning restrictions based on data received from the monitoring sites and ventilation forecast. In addition, within the Control Districts of Kalispell, Whitefish and Columbia Falls, paving and dust mitigation of high volume traffic areas is required.

The indoor air quality program conducts mold spore samples by prescription and provides radon test kits ($5) as well as radon information to the community. Information

is provided to individuals who are interested in testing their homes, reducing radon levels in their homes and constructing homes that resist radon accumulation.

The Food & Consumer Safety Services program is responsible for inspection of food service and other food-related facilities, public accommodations, trailer courts, tourist campgrounds, swimming pools, spas and schools. Day care and assisted living centers are inspected in conjunction with the Community Health Division of the Health Department. Food facilities operating throughout the year are inspected biannually and seasonal operations are inspected at least once annually with additional follow-up inspections and visits done as needed.

Senior Services

The Area IX Agency on Aging serves people with the goal of enabling persons 60 years of age and older to lead independent, meaningful and dignified lives, by providing direct services, contracting for services and networking with the community to locate services.

Public Libraries

The Flathead County Library operates branches in 4 communities including Whitefish, Columbia Falls, Bigfork and Marion. The five members of the Flathead County Library Board of Trustees are appointed by the Flathead County Board of Commissioners to five-year terms. The Commissioners try to ensure that all geographical areas of the county are represented on the board. The library features an online searchable library catalog, magazine index and online books. A large collection of genealogical information is also available through HeritageQuest online and the Flathead County website at: http://www.flatheadcountylibrary.org/index.asp

Administrative Services

Planning Office

The Flathead County Planning & Zoning Office provides technical planning assistance to Flathead County. It is administered by the Board of County Commissioners. The primary responsibilities include assisting in all facets of long range Community and Neighborhood planning, Zoning Administration and Subdivision Review. The Flathead County Lakeshore Protection Program and Flathead County Floodplain Program are also administered by the planning office. The staff is available to talk about any aspect of development occurring in Flathead County.

It is the mission of the Flathead County Planning and Zoning Office to provide professional planning assistance to the rural communities of Flathead County. The office serves the public interest by providing a forum for open dialogue, identification of issues and goals, creative problem solving, plan development and implementation. The office staff work to educate, coordinate and facilitate strategies that protect and maintain property values, public investment, built and natural environment and the quality of life. For more information, call (406)751-8200.

Clerk and Recorder

The purpose of the Flathead County Clerk and Recorders office is to preserve the history of the County through preservation of the recorded documentation of that history. The Flathead County Clerk and Recorders office is responsible for election information, birth and death certificates, lien filings, UCC filings, landownership documents and county commissioners' proceedings. For more information, call (406)758-5526.

Plat Room

The Plat room/Surveyors Office is the official source of land ownership information, as well as survey records for Flathead County. The Plat Room also has information about Montana Survey laws. The staff continually strive for the most current and accurate records to assure proper taxation. Addressing the non-corporate areas of the County is a function of the Plat Room/ Surveyors Office. They also handle change of owners address for tax purposes. This public record information can be accessed by anyone. Various area and district maps are available for a fee. For more information, call (406)758-5510.

PART 23: Natural Resources

Flathead County is rich in natural resources. Approximately 3% of the area of the county is water. There are over 40 lakes and 3 major rivers in Flathead County. Flathead Lake lies in both Lake and Flathead Counties and has nearly 200 square miles of surface area, 185 miles of shoreline and is the largest body of fresh water between the Mississippi River and the Pacific Ocean, stretching 28 miles long and 16 miles at its widest point. Many of the county's lakes and rivers are surrounded by or adjacent to public lands providing for ample recreational opportunities. The surrounding mountains are mostly forested, much of which is federal or state managed land. The majority of the valley bottom is open because of extensive logging in the late 19th and early 20th century, to accommodate for agricultural use and other types of development.

Approximately 75% of the county's land area is public land, including Federal and State managed lands. Of these public lands, Glacier National Park encompasses approximately 968 square miles or 18% and National Forest land including designated wilderness areas, encompasses 2,751 or 52% of Flathead County. Montana State School Trust Lands cover approximately 204 square miles, or 4% of the county. U.S. Fish and Wildlife Service and Montana Fish Wildlife and Parks manage about 1% of lands in the county. There are 45 square miles of The Flathead Indian Reservation in the southwest corner of the county encompasses 45 square miles or less than 1% of the county area. The remaining 25% of land in Flathead County is privately owned. The majority of non-corporate owned private lands are located in the valley bottom.

Corporate timberlands account for 36% of privately owned land and almost 9% of the total area of the county. Nearly 32% or 403 square miles is owned by Plum Creek Marketing and Stoltze Land and Lumber Company owns about 51 square miles or 4% of the private land in Flathead County. As the county's population increases and the wood products industry

declines, there is increasing pressure as well as financial incentive to develop corporate timberlands.

The weather is relatively mild as an area of climatic transition between coastal and continental. The weather ranges from moderately dry summer and autumn to moderately wet winter and spring. Precipitation ranges from 16 inches on the valley bottoms to more that 100 inches on the mountain tops. On the valley bottoms about half of the annual precipitation falls as snow, while up to 60 percent of the precipitation at the higher elevations is snow. Elevation ranges from about 3,000 feet above sea level on the valley floor, to over 7,000 feet at Big Mountain Ski Resort. Several mountains in Glacier National Park rise to over 10,000 feet. The average temperature is 27 degrees Fahrenheit in January and 74 degrees in July. Average wind velocities range from 5 to 6.8 mph, with the highest average in April and May.

PART 24: Flathead Watershed

The Flathead Basin encompasses the Swan River and the North, Middle and South Forks of the Flathead River. These rivers provide about 90%[49] of the water flowing through the Flathead Valley. The North, Middle and South Forks of the Flathead River drain the eastern portion of the Flathead Basin and merge at Columbia Falls to become the Upper Flathead River. The Whitefish River and Stillwater River drain the northwest part of the Flathead Basin and join the Upper Flathead River below Kalispell. The Upper Flathead River and Swan River are the two main tributaries that empty into the northeast corner of Flathead Lake. Water flows into and through the Flathead Lake are partially controlled by the Hungry Horse Dam on the South Fork of the Flathead River and the Kerr Dam near the lake's outlet.

DEQ has divided the state into 91 watershed-planning areas. Flathead County crosses 15 watersheds but not all contribute flow to the Flathead Basin. Tributaries within the major watersheds that contribute flow into Flathead Lake are listed in Table AA.24.1.

[49] Flathead Basin Stewardship Index, 2002

Table AA.24.1
Basin area and discharge characteristics of major tributaries contributing flow through Flathead Lake

Tributary	Basin area km^2	Total volume[a] $m^3 \times 10^6$	Max flow m^3/sec	Min flow m^3/sec	Period of record years
South Fork Flathead River	4,307	3,190	1,310	0.21d	53
North Fork Flathead River	4,009	2,670	1,960	5.61	50
Middle Fork Flathead River	2,921	2,630	3,960	4.90	42
Swan River	1,881	1,040	252	5.47	29
Stillwater River	875	301	123	1.13	29
Whitefish River	440	172	45	1.08	30
Ashley Creek[c]	520	29	--	--	5
Flathead River at Lake Outlet	18,372	10,500	2,340	0.14[d]	74

[a] Average annual discharge, [b] For calculation of mean total volume, [c] Data collected by the Flathead Lake Biological Station, [d] Due to dam closure

Source: Montana Department of Environmental Quality

Rivers and streams in the Flathead basin create floodplain areas, riparian corridors and wetlands critical to water quality, wildlife habitat and fisheries habitat. Functional riparian corridors are important for filtering nutrients, trapping sediments, reducing flooding, stabilizing soils and providing habitat. Riparian corridors extend along the banks of rivers, streams and drainage ways where ground water and surface water mix.

Groundwater is an important resource in the Flathead Basin. Most of the residential and agricultural developments rely on groundwater wells for drinking water. Shallow aquifers provide water to the wells. Well-defined shallow aquifers include:

(1) the Delta region, between the north shore of Flathead Lake and the Flathead River;
(2) the Evergreen aquifer between the Flathead and Whitefish Rivers, which is the most developed shallow aquifer;
(3) the east side between the Flathead River and the foothills of the Swan Mountains; and
(4) the Lost Creek fan west of the Stillwater River near the Salish Mountains.

Most other places where shallow aquifers have been developed are along stream valleys.

Major threats to the water resources of the Flathead Basin include non-point source pollution where sediments and nutrients, in particular nitrogen and phosphorus, end up in

streams and lakes via storm water runoff or groundwater contamination. Water quality in the Flathead Lake is an important indicator of the health of the entire Flathead Basin. Research by the University of Montana Flathead Lake Biological Station at Yellow Bay shows that water quality in Flathead Lake has been declining since 1977. Flathead Lake was listed as an impaired water body by the Montana Department of Environmental Quality in 1996 and 2000.

Clean Waters

The waters from the majority of rivers and streams in the Flathead Valley ultimately, flow into Flathead Lake. The health of Flathead Lake is a good indicator of the health of the rivers, streams, lakes and surface water that flow into the lake. Among some of the major contributing waters to Flathead Lake are Whitefish Lake and the Stillwater and Whitefish Rivers, the North Fork, Middle Fork, South Fork and the main stem of the Flathead River and Swan River and Swan Lake.

Every two years the Montana Department of Environmental Quality (DEQ) compiles a list of water bodies that fail to meet water quality standards. This document is known as the 303(d) list after the section of the Federal Clean Water Act that requires states to report impaired waters. The 303(d) list identifies the probable causes of impairment as well as the suspected sources of the pollutant. DEQ is required to develop Total Maximum Daily Loads (TMDL) for all water bodies on the 303(d) list.

There are two sources of water pollution. Point sources are discharges from an identifiable outfall such as pipes or ditches. Point-source discharges are regulated by permits issued by the DEQ. Examples of point sources include municipal and public sewage treatment facilities, factories, some storm sewers and large livestock feedlots. Non-point sources are generally land extensive activities that do not require discharge permits. Non-point sources include agriculture and forestry activities, small construction projects, unregulated storm water discharges and individual septic systems. 90 percent of stream pollution and 80 percent of lake impairments in Montana come from non-point sources[50].

Flathead Lake Water Quality

Flathead Lake has been listed as a "water quality-limited water body" or "impaired" by the Montana Department of Environmental Quality and therefore a Total Maximum Daily Load (TMDL) is required. A TMDL is the total amount of a pollutant that a water body may receive from all sources without exceeding water quality standards. A TMDL can also be defined as a reduction in pollutant loading that result in meeting water quality standards. Swan Lake is also a high priority water body for TMDL development. Whitefish Lake and the Stillwater River are each identified as moderate priority water bodies for TMDLs. Including the low priority water bodies on the list, the Flathead basin has 35 water bodies that require development of watershed specific plans draining into Flathead Lake (see Table AA.24.2).

[50] http://www.deq.state.mt.us/wqinfo/nonpoint/chapter2.pdf

Table AA.24.2
Flathead Basin Total Maximum Daily Load Priorities

Low priority - Ashley Creek (3 segments), Big Creek, Coal Creek, S. Fk. Coal Creek, N. Fk. Coal Creek, Flathead River, S. Fork (below dam), Goat Creek, Granite Creek, Hungry Horse Reservoir, Jim Creek, Lion, Logan Creek, Lake Mary Ronan, Morrison Creek, Ole Creek, Piper Creek, Red Meadow Creek, Skyland Creek, Spring Creek, E. Spring Creek, Squeezer Creek, Stillwater River, Sullivan Creek, Swift Creek, E. Fk Swift Creek, W. Fk Swift Creek, Whale Creek, Whitefish River

Moderate priority - Whitefish Lake. Stillwater River

High priority - Flathead Lake, Swan Lake

Source: Montana Department of Environmental Quality

More than twenty-five years of water quality monitoring show a steady decline in the water quality of Flathead Lake due to increases in nitrogen and phosphorus. The lake remains among the cleanest large lakes in temperate regions worldwide. Nevertheless, research shows that water quality in Flathead Lake has been steadily declining since 1977. Primary productivity, or the rate of algae growth, is increasing according to Flathead Lake Biological Station Director Dr. Jack Stanford and the amount of dissolved oxygen in water at the bottom of Big Arm Bay is declining.

Lake-wide blooms of pollution algae occurred twice in the past. In 1998, the amount of primary production was the second highest ever recorded. The levels of dissolved oxygen in Big Arm Bay were the lowest ever recorded and blooms of a pollution algae (*Anabaena Flosaquae*) were observed near shore. As nutrients increase (nitrogen and phosphorus), the number of algae and other organisms increase. As these organisms die, bacteria break down their remains using oxygen in the process. The result is that the oxygen supply in the water becomes depleted. Oxygen depletion is a recognized sign of water quality degradation. Similar oxygen sags, as they are called, have been identified in Swan Lake and Whitefish Lake. Nitrogen concentrations in the Stillwater and Flathead rivers were among the highest ever recorded.

The 303(d) List identified the probable causes of impairment as: nutrients, siltation, suspended solids, flow alteration, organic enrichment or low dissolved oxygen, algal growth, PCBs, metals, mercury and noxious aquatic plants. The main sources of pollution include runoff from development, old and poorly maintained septic systems, poor agricultural and timber harvest practices and air pollution.

Many factors other than nitrogen and phosphorus load influence alga growth in large lakes, including seasonal light availability, the strength of summer thermal stratification (i.e., depth of mixing during stratification) and food web interactions (i.e., availability of herbivorous zooplankton above the thermocline). Based on sound ecological science, nutrient loads must be reduced if the increasing trend in primary production is to be reversed and noxious algae (Anabaena) blooms reduced or prevented.

The Flathead Lake Biological Station (FLBS) has monitored water quality in Flathead Lake continuously since 1977. These studies have been the technical background for development of a Total Maximum Daily Load (TMDL) allocation for the purpose of managing nutrient loads reaching Flathead Lake. Based on that research, the Flathead Basin Commission recommended the following interim targets for the protection of water quality in Flathead Lake: 1) annual primary production will not exceed 80 gC m^{-2} yr^{-1} (80 grams of carbon per square meter per year), 2) annual average chlorophyll *a* concentration shall not exceed 1 µg/L (1 microgram per liter), 3) no declining trend in oxygen concentrations in the bottom waters of the Lake, 4) no measurable blooms of *Anabaena Flosaquae* (or other pollution algae) and 5) no increase in the biomass of lakeshore periphyton.

Primary productivity experiments measure Flathead Lake's ability to grow algae. Long-term records of primary productivity in Flathead Lake are a good indicator of long-term changes taking place in water quality. An increase in algal production reflects a decrease in water quality. High numbers reflect lesser water quality while low numbers reflect higher water quality. Primary production in Flathead Lake in 2003 was the third highest value since monitoring began in 1977, exceeding the TMDL target value by 49%.

The mean annual chlorophyll *a* (the pigment in algae) concentration in 2003 was very near the long-term average. Although there were very dense bands of algae at about 18–20 m depth during the summer months (with the highest levels of chlorophyll ever measured in the Lake), the low values for winter resulted in an average for 2003 that met the TMDL target.

Profiles of dissolved oxygen in Flathead Lake during the late summer and fall of 2003 revealed a decline in oxygen concentrations with depth as the period of thermal stratification in the lake continued through early fall. Percent oxygen saturation dropped to 72.0 % (8.50 mg/L) near the bottom at the deepest midlake site and 76.0 % (8.56 mg/L) at the Ross Deep site in Big Arm Bay. Thermal stratification at Ross Deep did not persist beyond early September, thus oxygen levels did not reach the low levels observed in some prior years.

The TMDL interim targets recommend no measurable blooms of *Anabaena Flosaquae* (or other pollution algae) at the midlake deep site. Lack of sufficient funding since the TMDL targets were established has resulted in limited information concerning this particular target. No visible algal blooms were observed during the 2003 water year, but phytoplankton samples have not been examined microscopically to confirm this observation. Several samples from citizens at Lake Mary Ronan in late June 2004 confirmed the presence of *Anabaena Flosaquae* in dense accumulations along the shoreline. The TMDL interim targets also state that there shall be no increase in the biomass (mass) of lakeshore periphyton (the algae attached to rock surfaces). Long-term monitoring of periphyton biomass began in 1999. The mean chlorophyll *a* concentration at the East Shore "B" Beach site was 5.2 µg/cm 2 (micrograms per square centimeter of rock surface) in August 2003 compared to 1.2 in August 1987. However, at this early stage of monitoring (years: 1987, 1999, 2000, 2002, 2003), it is not possible to determine

a trend in periphyton biomass. Continued monitoring is needed to assess natural variation.

During the 2003 water year, the Flathead Lake Biological Station was able to assess 4 of the 5 interim TMDL targets established for the protection of water quality in Flathead Lake. The mean chlorophyll *a* concentration in 2003 was right below the target value, but the dissolved oxygen target was not met (i.e., a decline in oxygen was observed) and primary production at midlake deep exceeded the target value by 49%. Continued monitoring of periphyton biomass will be necessary in order to assess a trend in that target parameter.

Table AA.24.3
Proposed Flathead Lake TMDL Targets

Primary production	80.0 g $C/m^2/yr$
Chlorophyll a	1.0 micrograms/l
Soluble Reactive Phosphorous (SRP)	<0.5 micrograms/l (BDL)
Total Phosphorous	5.0 micrograms/l
Total Nitrogen	95 micrograms/l
Ammonia (NH_3)	<1.0 micrograms/l
Nitrate/ Nitrite ($NO_{2/3}$)nitrogen	30 micrograms/l

No measurable blooms of Anabaena (or other pollution algae)

No oxygen depletion in the hypolimnion

Algal biomass measured as Chlorophyll a (on near-shore rocks) remains stable or exhibits a declining trend.

Source: Flathead Basin Commission

The response of the lakes primary production to nutrient (pollution) loading is complex. It involves light dynamics produced by seasonality and river turbidity. In addition, the external nitrogen and phosphorus (point, non-point and natural loading) and internal nutrient supply play a major role on lake water quality. Over the period of record, annual primary productivity has varied between 62 and 138 $gC/m^2/yr$ with a gradually increasing trend.

Phosphorus and nitrogen are nutrients that contribute to algae growth. Past efforts to reduce the amount of nutrients reaching Flathead Lake and its tributaries have been successful. Upgrading sewage treatment plants in the upper basin for phosphorus removal, connecting Evergreen to the Kalispell sewer system and banning domestic use of phosphorus-containing detergents have reduced the amount of nutrients reaching Flathead Lake from these sources.

The level of reduction needed to protect the Lake is commensurate with the levels achieved by wastewater treatment through implementation of the 1986 Flathead Lake Phosphorous Strategy. Community wastewater treatment plants have achieved the state mandated phosphorous limit of 1mg/L. All of the facilities in the basin meet or surpass this standard on an annual basis. The city of Kalispell routinely exceeds this standard, meeting levels closer to 0.2 mg/L for total phosphorous and has voluntarily undertaken active nitrogen removal. The wastewater treatment facilities have reduced pollution loading 70 to 90 percent.

Community facilities have also played a significant role in reducing non-point loading. Reductions in non-point loading through the development of new public systems (Lakeside/Somers) and the expansion of areas served by public systems such as the Evergreen, Big Mountain/ Whitefish Lake and Bigfork have played a major role in protecting water quality.

Storm Water Runoff

Polluted runoff, also known as non-point source pollution, is perhaps the greatest threat to water quality in the Flathead Basin. It is caused by rainfall or snowmelt moving over and through the ground. As it moves, runoff picks up and carries natural and human-caused pollutants, finally depositing them into rivers, lakes and groundwater.

Croplands, livestock feedlots, golf courses, lawns, gardens, roadways, parking lots, construction sites, landfills, city storm sewers, logging operations, residential septic systems and erosion from streams, river-banks and lake shores are all sources of polluted runoff. Even airborne chemicals and particulates carried into our waters by rain or snow contribute to the problem.

The scattered locations of these pollutants and their often unpredictable dispersal make clean up efforts complex and often costly. This is because the waterways within a watershed are interconnected. Streams flow into rivers, which flow into lakes. There can be a connection between these surfaces waters and groundwater. A pollutant introduced in one area upstream can pollute the water downstream.

Meeting TMDL targets and allocations for Flathead Lake will most likely require reductions in nutrient loading in the Flathead River Headwaters and Whitefish and Swan Lakes as well as the rivers and streams that flow into and out of these lakes.

Floodplains

Flooding causes more property damage in the United States than any other type of natural disaster. In fact, it is estimated that flooding causes 90 percent of all property losses from natural disasters in the United States. Floods are the most common and costly natural catastrophe. In terms of economic disruption, property damage and loss of life, floods are “nature’s number-one disaster.”

The presence of floodplains in Flathead County (see Map 2.7) is perhaps the greatest impediment to growth and development. The topography of the county, which includes extremely mountainous areas, large lakes, several deep river valleys and the low valley floor, form a very complex drainage system and wide variation in climate.

Foothills and valley-bottom land make up approximately 20 percent of the county landscape. The relatively flat terrain of the valley floor also manifests itself in the sinuous nature of the rivers that wind through the valley to Flathead Lake. Glacier outwash underlies most of the area in the Flathead River Valley and forms floodplains and terraces adjacent to Flathead River and its tributaries.

Precipitation averages are generally higher in Flathead County than in other areas of Montana. Typically, the most sever flooding in Flathead County occurs in the spring and early summer months because of snowmelt and/or rainfall runoff. On rare occasions, ice jams cause some over bank flooding. In addition to the flooding along streams, shallow flooding periodically occurs in other isolated, developed areas Flathead County due to other factors. The mountains sometimes receive several hundred inches of snow annually. Low flows in the basin occur naturally during the winter months and floods normally occur in the spring during periods of rapid snowmelt. Runoff from snowmelt, occasionally combined with rainfall, provides high stream flows in the spring.

Historically, flooding has shaped much of the Flathead Valley floor. The Flathead Valley has experienced five (5) severe flood events. These occurred in 1894, 1926, 1948, 1964 and 1975 and 1995. During the 1964 flood, families were evacuated from their homes, livestock drowned and property damage was excessive.

The 1975 flood in Evergreen was estimated to be a 25-year flood event. Officials at the time estimated property damage in excess of two million dollars and news stories reported that over 200 mobile homes were either flooded or pulled from high water areas in the Evergreen area. The flows through Columbia Falls on the Flathead River were 25 percent higher than a 500-year flood event. The flood was triggered by torrential rains that swept through the mountains and valley during a period of unseasonably high spring temperatures, which were already causing a rapid thaw of an unusually high spring snow pack.

In 1974 and 1975, spring runoff caused a flood measuring slightly less than a 100-year event as spring runoff inundated low-lying areas in the valley. Property loss and damage was severe.

The 100-year floodplain is the land subject to inundation by one percent (1%) or greater chance of flood in any given year, i.e., the 100-year flood floodplain. Construction is extremely limited in these areas and requires state, federal and local permits. The floodway fringe further limits the amount of construction within this boundary. The floodway is the channel of a stream and the adjacent over bank areas that must be preserved in order to discharge a base flood without cumulatively increasing the water surfaces elevation more than one-half (1/2) foot. The Flathead City-County Health

Department, which issues permits for all on-site sewage disposal systems, does not allow a system in or within 100-feet of a designated 100-year floodplain.
The Federal Emergency Management Agency (FEMA) has not identified all of the floodplain in Flathead County but most of the Flathead River corridor and the valley bottom have been mapped. Approximately 10-15% of the valley area of Flathead County is designated as 100-year floodplain. An additional 10-15% of the valley bottom is designated or as 500-year floodplain. Most of the floodplain is located along the Flathead River corridor, between Columbia Falls and Flathead Lake. Areas of 100-year floodplain are also present along the Stillwater and Whitefish Rivers.

100-year floodplains offer numerous benefits to the property and community by:

- Providing flood storage and conveyance;
- Reducing flood velocities and potential for erosion;
- Absorbing large volumes of water gradually releasing it to adjacent streams or water bodies during low flow periods;
- Recharging wells and aquifers by holding water long enough to allow it to percolate into underlying soils;
- Supporting vegetation that acts as a flood buffer and stabilizes the shoreline;
- Enhancing water quality by absorbing sediments, toxins and nutrients;
- Providing habitat for millions of birds, mammals, reptiles, fish and amphibians

The floodway fringe is a lower hazard area that would be inundated by a 100-year flood. Construction is allowed in the floodway fringe by special permit and must meet established regulations.
Current national floodplain management standards allow for: floodwater to be diverted onto others; channel and over bank conveyance areas to be reduced; essential valley storage to be filled; or velocities changed with little or no regard as to how these changes impact others in the floodplain and watershed. The net result is that through our actions we are intensifying damage potentials in the floodplains. This current course is one that is not equitable to those whose property is impacted and is not economically sustainable.

The Association of State Floodplain Managers and the Association of Montana Floodplain Managers support local accountability and active management of the floodplains through outreach and education. Both organizations support the "No Adverse Impact" policy that is meant to ameliorate negative impacts associated with floodplain development.

“No Adverse Impact Floodplain Management” is a managing principle that is easy to communicate and from a policy perspective tough to challenge. In essence, No Adverse Impact floodplain management is the action of one property owner does not adversely affect the rights of other property owners, as measured by increased flood peaks, flood stage, flood velocity and erosion and sedimentation. No Adverse Impact Floodplains could become the default management criteria. However, a community that has developed and adopted a comprehensive plan to manage development that identifies acceptable levels of impact, appropriate measures to mitigate those adverse impacts and a

plan for implementation. No Adverse Impact could be extended to entire watersheds as a means to promote the use of retention/detention or other techniques to mitigate increased runoff from urban areas.

Local floodplain regulations are adopted and enforced locally, but are authorized by the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. Prior to these acts, flood insurance was nearly non-existent for private property owners. When local communities participate in the National Flood Insurance Program (NFIP), private property owners are then eligible to obtain flood insurance.

Flathead County began participating in the National Flood Insurance Program (NFIP) September 5, 1984. The result is that the County (and the three municipalities) has adopted Floodplain Regulations to identify all areas within Special Flood Hazard Areas (SFHA). With the adoption of the regulations, the county and municipalities have also adopted Flood Insurance Studies (FIS), which form the basis of the Flood Insurance Rate Maps (FIRM). These documents are used primarily in determining actuarial flood insurance rates and secondarily to assist the local jurisdictions in their efforts to promote sound floodplain management.

FEMA is currently undergoing a comprehensive nationwide map modernization process. This process involves working with local communities and state officials, contracted consultants and the public. The result is digital maps and may include some detailed study on a limited number of waterways. Flathead County has been identified as a priority community that is in need of significant map modernization. This process began in 2004 and will likely continue through October 2007.

Riparian Areas and Wetlands

Riparian areas are plant communities contiguous to perennial, intermittent and ephemeral rivers, streams or drainage ways. They have one or both of the following characteristics:

1) distinctively different vegetative species than adjacent areas; and/or
2) species similar to adjacent areas but exhibiting more vigorous or robust growth forms. (Adapted from USFWS, 1997)

Wetlands are 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 saturation soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. (Federal Register, 1982)

In 1977, the U.S. Fish & Wildlife Service (FWS) began the National Wetlands Inventory (NWI), a systematic effort to classify and map America's remaining wetlands. The NWI defines wetlands according to the "Classification of Wetlands and Deepwater Habitats of the United States", a system that describes wetlands by analyzing soil types, hydrology and vegetation. According to this system, wetlands are defined as land that is transitional between terrestrial and aquatic systems, where the water table is usually at or near the

surface or the land is covered by shallow water. For this classification, wetlands must have one or more of the following three attributes:

(l) at least periodically, the land supports mainly hydrophytes (aquatic plants), or
(2) the substrate is mainly moist un-drained (hydric) soil, or
(3) the substrate is saturated with water or covered by shallow water at some time during the growing season each year.

Wetland preservation is beneficial to many species of plants, birds, mammals and invertebrates. They also serve as retention areas for overflowing rivers, lakes and streams, thus reducing flood and erosion damage in other areas.

Only about 4 % of the state of Montana, has been identified as riparian and/or wetland habitat. Yet more than 40% of the state's mammals, birds, amphibians, reptiles and fish depend on the preservation of riparian habitat. About 1/3 of species in greatest need of conservation also require riparian habitats, according to the Comprehensive Fish and Wildlife Conservation Strategy prepared by Montana Fish, Wildlife & Parks.

The quality of Montana's blue ribbon streams are uniquely dependent on the riparian habitat that is commonly found along rivers, streams and lakes. These areas usually have a variety of riparian forbs, shrubs and trees such as cottonwood, alder, serviceberry, chokecherry and willow to keep them intact. There is often abundant wildlife and waterfowl as well as amphibious and unique plant life.

Riparian vegetation helps slow stream erosion, adds nutrients to the water, improves fish spawning habitat and helps to maintain cool water temperatures that many fish species require. Riparian habitat may be degraded when water diversions and dams prevent flooding or when wetlands are drained or filled. Harvesting of trees, noxious weed invasions, livestock over-grazing and human uses can also destroy riparian habitat. The main stem of the Flathead River, Stillwater River, Whitefish River and Ashley Creek and their associated backwater channels, spring creeks, wetlands and tributaries provide important wildlife habitat. Areas that still support intact natural stands of forest and shrubby vegetation are critical to retaining a variety of wildlife. These areas provide food as well as hiding and thermal cover and although these habitats may be intermingled with residential development and agricultural use, they remain important to wildlife species that depend on them.

Groundwater and Depth to Water Table

Groundwater is water that fills pores and cracks in rocks and soil. Groundwater sustains lake levels, provides for base flows in streams and is a major source of domestic water. Groundwater comes from precipitation and condensation that enters the soil and is susceptible to depletion in quantity and degradation of quality. Groundwater flows beneath the surface of the earth, generally moving down hill following the contours of the land. It moves toward a point of discharge, which is usually a lake, stream, spring or a well.

The depth to groundwater varies with seasons and precipitation levels. Many areas experience seasonally high groundwater levels, usually in the spring, which limits land use. The areas are commonly near floodplains, alluvial deposits and swamps placing limitations on septic tanks, basements and road building.

An aquifer is a water-bearing layer of permeable rock, sand or gravel. The thickness and depth of an aquifer vary according to location. The quantity of water a rock can contain depends on its porosity or the amount of open space and cracks between grains. Water movement in rock depends on the permeability, or ability to transmit or allow water to flow. Aquifers are recharged or filled by precipitation and infiltration from streams. Recharge is greatest in late spring when snow melts and there is runoff from the mountains.

The major aquifer in the Flathead valley is shallow alluvial aquifer, often referred to as the Evergreen Aquifer and is located between the Flathead River to the east and Whitefish River to the west and between Badrock Canyon to the north and the confluence of the Flathead and Whitefish rivers to the south. The depth to the water table in this area is generally less than 50 feet and for much of the area less than five feet.
A significant amount of area with seasonally high ground water and/or frequent flooding can be found throughout the Flathead River corridor and the valley bottom that is also experiencing development pressure. Much of the development in the area south of Kalispell in the Lower Valley area is occurring where the depth to groundwater is less than 15 feet. Homes that are being constructed in this area are on individual water and septic systems. Since there is a direct connection between the aquifer and the Flathead River and Flathead Lake, activity that substantially or incrementally changes the natural integrity of the floodplains and their aquifers will have a direct and pervasive impact on surface water quality. Groundwater supply in this area feeds directly into the aquifer and Flathead Lake. High-density development in the Lower Valley area has the potential to degrade the water quality of Flathead River and Flathead Lake, as well as the groundwater that supplies and recharges domestic water wells in the area.

Shallow aquifers are intrinsically susceptible to surface sources of contamination. The aquifer materials are highly permeable, allowing rapid movement of water (and any associated contamination) from the land surface to the aquifer. As the land surface in the valley becomes more developed, potential sources of point and non-point source contamination will increase.

Development of intermediate and deep aquifers has accelerated during the past 25 years. Between 1975 and 2000, at least 4,200 new wells (168 wells per year) were drilled, resulting in a more than four-fold increase in the total number of wells. Most wells completed in intermediate and deep aquifers are located along the east and northeast edges of the Flathead Valley.

PART 25: Fish and Wildlife Resources

Fish and Wildlife Habitat

Mountain forests, meadows, streams, lakes, valley rivers, wetlands and riparian corridors are aquatic and terrestrial habitats for wildlife. These wilderness areas are nesting sites for 310 species of birds including the threatened bald eagle. Terrestrial habitats include the endangered grey wolf and the threatened grizzly bear and lynx. Twenty-seven species of fish inhabit the aquatic ecosystems, which also provide habitat for nine species of amphibians and nine species of reptiles.[51]

Glacier National Park and the Flathead National Forest include federal wilderness, research natural areas and Wild and Scenic Rivers. These critical habitat areas provide large, relatively undisturbed blocks of open space important for wildlife migration corridors.

Conservation easements provide important aquatic and terrestrial habitat. A conservation easement permanently protects a designated property from development while the owner retains title and may continue using the land as it has been used traditionally. It is a voluntary legal agreement between the landowner and a qualified organization such as the Nature Conservancy, the Flathead Land Trust or the Montana Land Reliance.

These protected areas may play an increasing role in supporting critical habitats than in the past, due to the large amount of population growth and the loss of other habitat in adjacent landscapes.

The biggest threat to fish and wildlife is habitat loss. The Montana Fish, Wildlife and Parks (FWP) are the primary agency responsible for the management of fish and wildlife populations. FWP jointly manage fish and wildlife habitats with the Salish and Kootenai Tribes within the Flathead Reservation. Throughout the year FWP, regulate fishing and hunting seasons for big game, upland game birds, web less migratory birds, waterfowl and furbearer. The white-tailed deer is the most popular big game animal pursued by hunters. The Montana Partners in Flight prepared the Montana Bird Conservation Plan to identify priority bird species and habitat most in need of conservation. Table AA.25.1 lists the Special Designated Wildlife Areas in the county.

[51] Flathead Basin Stewardship Index – 2002

Table AA.25.1
Special Designated Wildlife Areas in Flathead County

Name	Acres	Year Initiated	Management Agency
Flathead Waterfowl Protection Area	2,370	1971	FWS
Batavia Waterfowl Protection Area	510	1975	FWS
Smith Lake Waterfowl Protection Area	975	1973	FWS
Blasdel Waterfowl Protection Area	535	1987	FWS
McGregor Meadows Waterfowl Protection Area	799	1999	FWS
Lost Trail National Wildlife Refuge	7,885	1999	FWS
Ray Kuhns Wildlife Management Area	1,530	1953-1986	FWP
Flathead River Wildlife Habitat Protection Area	220	1986-1999	FWP
Owen Sowerwine Natural Area	480	1970s	DNRC
Total	**15,304**		

Source: U.S. Fish and Wildlife Service

Fish Species

The rivers, streams, reservoirs and lakes of Flathead County support native fish communities that are threatened from declining water quality and the introduction of non-native fish species. In the 1980s, a non-native population of mysis relicta, the opposum shrimp, had moved into Flathead Lake. The Flathead Lake Biological Station found the mysis relicta had consumed the food of kokanee salmon. The subsequent decline in kokanee salmon has eliminated a food source for bald eagles that migrated to the kokanee spawning grounds. Montana Fish, Wildlife and Parks (FWP) fisheries biologists have conducted sinking and floating gill net surveys of Flathead Lake to assess shifts in species composition in 1983 (pre-mysis) and 1999. The surveys have shown a decrease in native westslope cutthroat trout from 23% of the catch in 1983 to only 5% of the catch in 1999, while northern pike minnow increased from 12% of the catch in 1983 to 25% of the catch in 1999. The kokanee salmon population significantly decreased in the late 1980s and has essentially disappeared from FWP catch surveys.

Wildlife Species

Of the total 3,361,230 acres that make up Flathead County, 82.5% of the land is managed by federal, state or tribal agencies (see Land Uses section). These public lands are home to a wide range of forest carnivores, big game species, osprey, eagles, upland game birds, migratory waterfowl, amphibians and reptiles.

Important wildlife species include grizzly and black bear, mountain lion, white-tailed deer, three species of mountain grouse and furbearers such as marten and wolverine. Big game species include black bears, mountain goats and lions, moose, elk, whitetail and mule deer. Elk and deer inhabit forested areas, while moose occupy wetland and riparian

areas. Highly important bear habitats occur along foothills of major valleys, particularly east Flathead Valley, Stillwater, Swan, Middle Fork and North Fork Valleys.

The U.S. Fish and Wildlife Service maintains a list of all species classified as endangered, threatened, or candidate in Flathead County (see Table AA.25.2). Endangered species are in danger of extinction throughout all or a significant portion of its range. Threatened species are likely to become endangered in the near future. A candidate species are those for which there is sufficient information on biological vulnerability and threats to support a proposal to list as endangered or threatened. The loss of a species to extinction can have irrevocable impacts on the ability of remaining species to survive.

Table AA.25.2
Endangered, Threatened and Candidate Species

Designation	Species Name
Endangered	gray wolf, whooping crane
Threatened	grizzly bear, bald eagle, Canada lynx, bull trout, water howellia, Spalding's Catchfly
Candidate	None

Source: U.S. Fish and Wildlife Service Endangered Species List, May 1, 2006

PART 26: Land Resources

Forestry

The USDA Forest Service is responsible for management of National Forests (including wilderness areas) and Flathead County contains portions of four National Forests and two Wilderness Areas. Flathead National Forest (including portions of the Great Bear and Bob Marshall Wilderness Areas) has approximately 1,875,545[52] acres within Flathead County. Various species of trees found in the mid-elevation areas of these forests are Douglas fir, western larch, Lodgepole pine, western white pine, grand fir, western red cedar, western hemlock and Engelmann spruce. Various species of trees found in the higher-elevation areas of these forests are subalpine fir, whitebark pine and subalpine larch.

The three largest corporate timber landowners, F.H. Stoltze Land and Lumber, Plum Creek and Montana Forest Products together account for approximately 9.2% (310,000 acres) of the total land area in Flathead County. Land owned by the three largest corporate timber operations represents approximately 52.7% of the private land in Flathead County (see Map 2.2).

The following table provides data regarding logging operations in Flathead County from 1998 and 2003. The purpose of this data analysis is to sample how an industry extracting natural resources from Flathead County is performing in the local economy.

[52] Montana Natural Resource Information System

The information was obtained from the U.S. Census Bureau – County Business Patterns division. The businesses reporting employment and earnings are categorized according to the North American Industrial Classification System (NAICS).

Table AA.26.1 shows logging businesses in Flathead County from 1998 to 2003 are a declining business sector. Logging businesses have declined in employment by -9%. In addition, annual earnings of logging businesses have declined from 9,515,000 in 1998 to 9,441,000 in 2003. The loss of employment has caused average annual earnings of workers to increase by 9%. Overall, logging operations in Flathead County have declined in employment and annual earnings.

Table AA.26.1
Flathead County Business Patterns for 1998-2003 - Logging

Industrial Code		Employment			
Ind. Code	Industrial Description	1998	2003	Change	98/'03%
11	Forestry, fishing, hunting and agriculture support	311	283	-28	-0.09

Earnings					
Annul.$'98	Annul.$'03	Avg.$'98	Avg.$'03	$change	$'98/'03%
9,515,000	9,441,000	30,595	33,360	2,766	0.09

Source: County Business Patterns :http://censtats.census.gov

Agriculture

Agriculture represents a portion of the historic culture in the Flathead Valley and as the economy changes in Flathead County, agriculture remains critically important toward maintaining economic diversity. In 2002, approximately 40% of the private land (234,861 acres) in Flathead County was being farmed.[53] There were approximately 1,075 individual farms, with the majority of these farms (78%) being under 179 acres in size.

Some of the major crops produced by farmers include wheat, barley, flax alfalfa, grain hays, silage and livestock pasture. Specialty crops such as seed potatoes, mint, lawn sod, canola, mustard, raspberries, strawberries, grapes and vegetable crops are also very important products.[54] Farms that utilize irrigation projects from rivers, streams and deep wells also produce wildlife habitats.

A primary concern of residents is the conversion of farmlands into developments. The conversion of these lands affects the rural community character, water quality, water supply and wildlife habitat.

[53] USDA 2002 Census of Agriculture
[54] Flathead County Natural Resource Use Policy

Soils

Soils in the relatively flat portion of Flathead County north of Flathead Lake consist of two broad types. One is rocky and poorly drained and is underlain by unsorted glacial till. This is commonly used for timber production. The second general type soil is deep, well structured and well drained. It is underlain by deposits that have been reworked or sorted by running water and is the most productive in Flathead County.

The concept of hydric soils includes soils developed under sufficiently wet conditions to support the growth and regeneration of hydrophytes vegetation. Soils that are sufficiently wet because of artificial measures are included in the concept of hydric soils. Soils in which the hydrology has been artificially modified are hydric if the soil, in an unaltered state, was hydric. Some series, designated as hydric, have phases that are not hydric depending on water table, flooding and ponding characteristics.

Hydric soil lists have a number of agricultural and nonagricultural applications, including land use planning, conservation planning and assessment of potential wildlife habitat. A combination of the hydric soil, hydrophytes vegetation and hydrology criteria defines wetlands as described in the National Food Security Act Manual (Soil Conservation Service, 1994) and the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987).

Surveys were completed in the upper Flathead valley for most of the valley bottom by the Natural Resource Conservation Service, soil survey. The majority of hydric soils are found along the Flathead River in the Lower Valley area, along Ashley Creek and Smith Lake and southeast of Whitefish. Much of the remaining soil types in the valley bottom have hydric inclusions and characteristics, especially prevalent along the Flathead River corridor. A complete list of hydric soils and soils with hydric inclusions in the Upper Flathead Valley with descriptions of soil characteristics is available at the Montana Natural Resource Conservation Service (NRCS).

Geology and Minerals

The topography of Flathead County was formed during the ice ages when the enormous glacier that filled the Rocky Mountain Trench of British Columbia thinned as it spread southward through the Flathead Valley and into the Mission Valley. The Mission Range split the glacier sending one branch of ice down the Swan Valley and another to the southern end of Flathead Lake. When the glacier melted, it left a deep fill of sediment in the floor of the Flathead Valley.

The valley bottom is generally level to moderately sloping. Most steep slopes occur in the public and corporate timberlands surrounding the valley bottom, as well as in Glacier National Park. Approximately 75 % of Flathead County has slopes over 25% of which most is in the mountainous National Forest and National Park lands surrounding the valley.

At the beginning of the 1900s, coal and oil exploration with mining and drilling occurred in the North Fork. Currently, open-cut mining is primarily limited to sand, gravel and rock. Various types of gravel are in demand for road construction. Round rock is used for concrete and asphalt road construction. Crushed rock is used for fill and road surfaces.

Under the Metal Mine Reclamation Act (MMRA), "mining" is defined as the extraction of ores or minerals in commercial quantities for sale, beneficiation, refining, or other processing.

All open-cut sand and gravel operations must comply with applicable zoning regulations if the proposed mine site is in an area zoned as residential. An air quality permit from the DEQ is required for the operation of any mineral crushing or other processing plants. The Employment Relations Division of the Montana Department of Labor and Industry enforces mine safety regulations. The divisions Safety Bureau works with the mine operator and mining contractors who must report the name of the mine, the location of the mine, the name of the company and contractors operating the mine, the type of mining activity, the date mining activity will begin and other information.[55]

Currently, over 240 gravel pits are active, inactive, unknown, or reclaimed. 142 gravel pits are currently active and 25 are unknown.[56] Historically, county governments have put side rails on gravel pit operations, limiting hours of operation or requiring measures be taken to curb dust and noise pollution for pits near housing developments.

PART 27: Air Quality

Under the Clean Air Act, the Environmental Protection Agency establishes air quality standards to protect public health, including the health of “sensitive” populations such as people with asthma, children and older adults. EPA also sets limits to protect public welfare. This includes protecting ecosystems, including plants and animals, from harm, as well as protecting against decreased visibility and damage to crops, vegetation and buildings.

Air quality problems in Montana are usually related to urban areas and mountainous topography or river valleys that are sensitive to temperature inversions. Particulate matter and carbon monoxide are the criteria pollutants that have the greatest adverse impact on Montana's air quality. Particulate matter generally comes from vehicles traveling on unpaved roads, sand and gravel from winter traction material and residential wood burning. Carbon monoxide comes primarily from motor vehicles and residential wood burning. Although industrial sources account for only a small part of carbon monoxide and particulate matter emissions in most communities, industries are the main sources of sulfur dioxide and lead pollution in Montana.

[55] Montana DEQ
[56] Flathead County Geographic Information System

The Flathead County Air Pollution Control Program requires the use of all available practicable methods to reduce, prevent and control air pollution in Flathead County. The Flathead County Air Pollution Control Plan regulates open burning, solid fuel burning, prohibited materials for wood or coal residential stoves and the Kalispell, Columbia and Whitefish Air Pollution Control Districts.

Congress states that one of the purposes of the Clean Air Act is "to preserve, protect and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores and other areas of special national or regional natural, recreation, scenic or historic value".

In Glacier National Park, an extensive air quality-monitoring network exists for pollution and visibility conditions. As a Class I air shed, Glacier National Park is provided the greatest air quality protection under the Clean Air Act. This includes visibility and fluoride monitoring and a national atmospheric deposition network. Glacier's monitoring instruments are located mostly on the west side of the park. Seasonal vegetation collection associated with fluoride monitoring also occurs at various sites on the west side.

PART 28: Custom and Culture

For information on Custom and Culture, please see Flathead County Resolution No. 1777C – Natural Resource Policy

APPENDIX B: PUBLIC INVOLVEMENT SUMMARY

2011/2012 Growth Policy Update

Pursuant to Chapter 9, Part 6 of the originally-adopted Growth Policy document, and supported by Section 76-1-601(3)(f)(iii) M.C.A., the Growth Policy should be reviewed and updated at least once every five years. During the fall of 2010, the Flathead County Planning Board and, more specifically, Planning Board Sub-Committee "A", began discussing the Growth Policy update process and timeline in anticipation of the five-year deadline of April 2012. The following timeline begins with the initial public workshop the Planning Board used to hear public comment and address current Growth Policy content in need of updating or amending. The timeline summarizes all actions made by the Planning Board and County Commissioners and identifies the date, time and location of every public workshop, meeting or hearing related to the Growth Policy update process.

In addition to any press or Daily Interlake Daybook announcements, the time, date, location and agenda of all public workshops listed below were noticed on the Flathead County Planning and Zoning Office's website a minimum of 48 hours in advance of each workshop. All public comments, evidence of public notice, meeting agendas, newspaper articles, draft documents, emails and minutes referenced below have been and are available for the public to review at the Flathead County Planning and Zoning Office, 1035 First Avenue West in Kalispell, MT as well as on the FCPZO website at the following link: http://flathead.mt.gov/planning_zoning/growth_resolution2015a.php

October 8, 2010	• **PRESS RELEASE** announces initial public workshop on Growth Policy update, scheduled for October 20, 2010.
October 18, 2010	• **ARTICLE** announcing the October 20, 2010 Planning Board public workshop appears in *The Daily Interlake*.
October 20, 2010	• **PUBLIC WORKSHOP** held from 6:00-9:00 PM in Conference Rooms A & B in the Earl Bennet Building, 1035 First Avenue West, Kalispell. The purpose of the workshop was to hear public comment regarding issues related to the five-year Growth Policy update, what chapters and information should be prioritized for review and updating.
October 21, 2010	• **ARTICLE** summarizing the outcome of the October 20, 2010 Planning Board public workshop appears in *The Daily Interlake*.
November 3, 2010	• **ARTICLE** summarizing the outcome of the October 20, 2010 Planning Board public workshop appears in *The Whitefish Pilot*.

November 17, 2010	• **PLANNING BOARD SUB-COMMITTEE "A" MEETING** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell. Planning Board members discussed comments received at the October workshop and drafted a scope of work, work plan and timeline for completing the Growth Policy update by April 2012.
December 8, 2010	• **PLANNING BOARD MEETING** beginning at 6:00 PM in Conference Rooms A & B in the Earl Bennet Building, 1035 First Avenue West, Kalispell. Sub-committee 'A' presented a draft work plan to the full Planning Board during Agenda Item 'F' – Committee Reports for discussion action. The Board voted unanimously to forward the Growth Policy Update Work Plan to the County Commissioners for consideration.
December 9, 2010	• **PLANNING DIRECTOR'S MONTHLY MEETING WITH COUNTY COMMISSIONERS** beginning at 9:00 AM in the Commissioner's Chambers, 800 South Main, Kalispell. Director BJ Grieve presented the draft work plan to the County Commissioners and requested further guidance on beginning the update process. Commissioners authorized planning staff to work with the County Attorney to prepare a resolution for updating the Growth Policy in conformance with proposed work plan for 2011/2012.
December 13, 2010	• **ARTICLE** summarizing Commissioner's meeting on Growth Policy update appears in *The Daily Interlake*.
December 20, 2010	• **PLANNING DIRECTOR/COMMISSIONER MEETING TO DISCUSS DRAFT WORK PLAN/GROWTH POLICY UPDATE** was held beginning at 11:00 AM in the Commissioner's Chambers, 800 South Main, Kalispell. Draft work plan and resolution was discussed; it was decided at this time it would make more sense to wait to vote on the resolution until the newly-elected Commissioner was present (after the 1st of the new year).
January 3, 2011	• **CONSIDERATION OF ADOPTION OF RESOLUTION: REQUEST BY THE FLATHEAD COUNTY PLANNING BOARD TO UPDATE THE FLATHEAD COUNTY GROWTH POLICY** beginning at 9:45 AM in the Commissioner's Chambers, 800 South Main, Kalispell. Commission voted unanimously to approve Resolution

	No. 2015P authorizing the start of the Growth Policy update process following the proposed work plan.
January 10, 2011	• **ARTICLE** announcing the start of the Growth Policy update process on January 12th, 2011 appears in *The Daily Interlake*.
January 12, 2011	• **ARTICLE(S)** announcing the start of the Growth Policy update process on January 12th, 2011 appear in both *The Bigfork Eagle*, *The Whitefish Pilot* and *The Hungry Horse News*.
January 12, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell. ***Cancelled by Chair due to inclement weather.***
January 24, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
February 9, 2011	• **PUBLIC WORKSHOP** immediately following the regularly schedule Planning Board meeting at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
February 23, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
March 9, 2011	• **PUBLIC WORKSHOP** immediately following the regularly schedule Planning Board meeting at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
March 23, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
April 1, 2011	• **PRESS RELEASE** announcing "checkpoint" public workshop scheduled for April 20, 2011.
April 6, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
April 18, 2011	• **ARTICLE** requesting public attendance and comments during the "checkpoint workshop" scheduled for April 20th, 2011

	appears in *The Daily Interlake*.
April 20, 2011	• **"CHECKPOINT" PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell. Purpose of workshop is to review all edits and updates considered under Phase I of the approved Growth Policy Work Plan.
May 3 & 4, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for May 4th public workshop.
May 4, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
May 11, 2011	• **PRESS RELEASE** announcing Phase II of the Growth Policy update process.
May 16 & 17, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for May 18th public workshop.
May 18, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
May 30 & 31, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for June 1st public workshop.
June 1, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
June 14 & 15, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for June 15th public workshop.
June 15, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
July 12, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for July 13th public workshop.
July 13, 2011	• **PUBLIC WORKSHOP** immediately following the regularly schedule Planning Board meeting at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.

July 15, 2011	• **PRESS RELEASE** announcing "checkpoint" public workshop scheduled for July 27th, 2011.
July 24, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for July 27th public workshop.
July 27, 2011	• **"CHECKPOINT" PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell. Purpose of workshop is to review all edits and updates considered under Phase II of the approved Growth Policy Work Plan.
August 4, 2011	• **PRESS RELEASE** announcing Phase III of the Growth Policy update process.
August 8, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for August 10th public workshop.
August 10, 2011	• **PUBLIC WORKSHOP** immediately following the regularly schedule Planning Board meeting at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
August 23 & 24, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for August 24th public workshop.
August 24, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
September 7, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell. ***Cancelled due to staff illness.***
Sept. 20 & 21, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for September 21st public workshop.
September 21, 2011	• **PUBLIC WORKSHOP** immediately following the regularly schedule Planning Board meeting at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
October 4 & 5, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for October 5th public workshop.
October 5, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the

	Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
October 19, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for October 19th public workshop.
October 19, 2011	• **PUBLIC WORKSHOP** immediately following the regularly schedule Planning Board meeting at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
November 1 & 2, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for November 2nd public workshop.
November 2, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
Nov. 8 & 9, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for November 9th public workshop.
November 9, 2011	• **PUBLIC WORKSHOP** immediately following the regularly schedule Planning Board meeting at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell.
November 29, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for November 30th public workshop.
November 30, 2011	• **ARTICLE** on Growth Policy update winding down appears in *The Daily Interlake*.
November 30, 2011	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell. ***Cancelled due to staff illness.***
December 7, 2011	• **PRESS RELEASE** announcing "checkpoint" public workshop scheduled for December 14th, 2011.
Dec. 13 & 14, 2011	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for December 14th public workshop.
December 14, 2011	• **"CHECKPOINT" PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell. Purpose of workshop is to review all edits and updates considered under Phase III of the approved Growth Policy

	Work Plan.
January 11, 2012	• **PLANNING BOARD MEETING** beginning at 6:00 PM in Conference Rooms A & B in the Earl Bennet Building, 1035 First Avenue West, Kalispell. Under "New Business," the Board schedules a public hearing for February 15, 2012. Agenda showing New Business item posted on FCPZ website.
January 29, 2012	• **LEGAL NOTICE** appears in *The Daily Interlake* for February 15th Planning Board public hearing.
February 15, 2012	• **PLANNING BOARD PUBLIC HEARING:** beginning at 6:00 PM in Conference Rooms A & B in the Earl Bennet Building, 1035 First Avenue West, Kalispell. Planning Board holds public hearing on first final draft. After close of public hearing, Planning Board schedules additional workshop for February 29, 2012.
February 27-29, 2012	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for February 29th public workshop.
February 29, 2012	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell. Workshop to review Property Rights section, review goals and policies, review proposed edits and updates from comment provided during public hearing and determine process moving forward. Planning Board sets an additional workshop for March 14, 2012.
March 12-14, 2012	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for March 14th public workshop.
March 14, 2012	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell. Workshop to review Part 4 of Preface based on public comment at public hearing. Board requests a tax classification map. Planning Board wants to review language of policies based on public comment from public hearing so sets an additional workshop for March 28, 2012.
March 26-28	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for March 28th public workshop.
March 28, 2012	• **PUBLIC WORKSHOP** beginning at 6:00 PM in the

	Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell. Workshop to review tax classification map, language of policies, and proposed amendments to Chapter 10 based on language introducted at March 14, 2012 workshop. Board wants to review a 2nd final draft and discuss public comment made at the beginning and end of this workshop, so schedules another workshop for April 25, 2012.
April 04, 2012	• **FULL DRAFT OF TEXT POSTED ONLINE** reflecting all changes discussed and authorized by Planning Board through March 28, 2012 workshop. • **EMAIL SENT TO PLANNING NEW LIST** informing that full draft posted online prior toApril 25, 2012 workshop.
April 11, 2012	• **ALL DRAFT MAPS POSTED ONLINE** reflecting all changes discussed and authorized by Planning Board through March 28, 2012 workshop.
April 25, 2012	• **DAYBOOK ANNOUNCEMENT** appears in *The Daily Interlake* for April 25 public workshop. • **PUBLIC WORKSHOP** beginning at 6:00 PM in the Flathead County Planning & Zoning Conference Room, 1035 First Avenue West in Kalispell. Further discuss all public comments received thus far and status of draft.
April 27, 2012	• **FULL SECOND FINAL DRAFT POSTED ONLINE** reflecting all changes discussed and authorized by Planning Board through April 25, 2012 workshop and prior to June 13, 2012 Planning Board public hearing.
June 13, 2012	• **PLANNING BOARD PUBLIC HEARING:** beginning at 6:00 PM in Conference Rooms A & B in the Earl Bennet Building, 1035 First Avenue West, Kalispell. Planning Board holds public hearing on first final draft. After close of public hearing, Planning Board waits for copies of all written comments and holds brief discussion. During discussion, board asks staff to prepare information on impacts of recommending that the Commissioners repeal the growth policy instead of a recommendation for approval or denial. After receiving copies of comments, board continues discussion to July 11, 2012 to allow 4 weeks for members to read and consider all public comments submitted.
July 02, 2012	• **AGENDA** posted on FCPZ website for July 11 Planning Board

	meeting.
June 28, 2012	• **EMAIL/PRESS RELEASE** sent to Planning Board and all members of public that have joined FCPZ email list and all press outlets. Email contains information requested of staff by Planning Board at June 13, 2012 public hearing regarding possible imapts of repeal of Growth Policy. Email also provides date of continuation of board discussion (July 11, 2012).
July 11, 2012	• **ARTICLE** on continuation of Planning Board discussion appears in *The Daily Interlake*. • **PLANNING BOARD MEETING:** beginning at 6:00 PM in Conference Rooms A & B in the Earl Bennet Building, 1035 First Avenue West, Kalispell. Meeting is a continuation of board discussion after close of public hearing on June 13, 2012. By resolution, the board recommends the updated Growth Policy to the Flathead County Commissioners on an 8-1 vote with DeKort dissenting.
August 29, 2012	• **COMMISSIONERS PASS** Resolution of Intent to Adopt the updated Flathead County Growth Policy. 30-day comment period begins.
October 01, 2012	• **COMMENT PERIOD ENDS** at 5:00 p.m. Commissioners receive 299 written comments (emails, letters and postcards) and a petition containing 451 signatures on 60 pages.
October 12, 2012	• **COMMISSIONERS PASS** Final Resolution adopting updated Flathead County Growth Policy.

2007 Growth Policy Document

The Flathead County Planning Board began the process of updating the 1987 Master Plan with a series of organizational workshops in the fall of 2002. It was decided that a series of "town hall meetings" would be the best way to distribute a survey, answer the public's questions about the growth policy, and learn what the people of Flathead County wanted to see in the document. The following timeline begins with the first "town hall meeting" that was held in the North Fork.

ALL public comments, meeting agendas, newspaper articles, papers, draft documents, emails and minutes referenced below are available for the public to review at the Flathead County Planning and Zoning Office, 1035 First Avenue West in Kalispell, MT.

November 12, 2002	• **TOWN HALL MEETING** at Sonderson Hall in the North Fork. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
November 19, 2002	• **TOWN HALL MEETING** at the Earl Bennett Building in Kalispell. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
December 3, 2002	• **TOWN HALL MEETING** at the Columbia Falls City Hall. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
December 10, 2002	• **TOWN HALL MEETING** at the West Glacier Community Building. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
December 17, 2002	• **TOWN HALL MEETING** at the Whitefish City Hall. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
January 7, 2003	• **TOWN HALL MEETING** at the Evergreen School. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
January 14, 2003	• **TOWN HALL MEETING** at the Bissell School. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
January 21, 2003	• **TOWN HALL MEETING** at the West Valley School. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the

	public.
January 28, 2003	• **TOWN HALL MEETING** at the Bigfork High School. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
February 4, 2003	• **TOWN HALL MEETING** at the Lakeside School. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
February 11, 2003	• **TOWN HALL MEETING** at the Smith Valley School. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
February 18, 2003	• **TOWN HALL MEETING** at the Somers School. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
February 25, 2003	• **TOWN HALL MEETING** at the Creston School. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
March 4, 2003	• **TOWN HALL MEETING** at the Marion School. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
March 11, 2003	• **TOWN HALL MEETING** at the Canyon Elementary School. Planning Board met with members of the public to discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public.
March 18, 2003	• **TOWN HALL MEETING** at the Olney Fire Hall. Planning Board met with members of the public to

	discuss ideas for a growth policy. Surveys were handed out consisting of questions submitted by members of the public. • 73 total responses were ultimately collected at all Town Hall meetings. Surveys and meeting minutes were used when drafting the growth policy.
July 7, 2003	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy. (Approval of minutes from this meeting occurred on July 30, 2003)
July 25, 2003	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy. (Approval of minutes from this meeting occurred on July 30, 2003)
July 30, 2003	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy. (Minutes from this meeting indicate workshops to be held August 6, 20 and 27, but no minutes of August 20 and 27 workshops exist).
August 6, 2003	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
August 20, 2003	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
August 27, 2003	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
September 30, 2003	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
October 1, 2003	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
October 29, 2003	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth

	Policy.
December 3, 2003	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy. (Minutes of this meeting were approved at January 21 meeting).
January 21, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
January 28, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy. (Minutes of this meeting approved at February 2004 meeting).
February 4, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
February 18, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
February 25, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
March 3, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
March 17, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
March 24, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
June 2, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy. (minutes of this meeting approved at June 16 meeting)

June 16, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
June 23, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
June 30, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
July 7, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
August 4, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
September 1, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
September 22, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
September 29, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
October 6, 2004	• Planning Board **WORKSHOP** to discuss and prioritize work being done to write the Flathead County Growth Policy.
November 3, 2004	• Planning Board moves to have staff prepare a **RFQ** for consultants "to assist the Flathead County Planning Board in preparing the Growth Policy…" and have the RFQ prepared by the next meeting (Nov. 10).
November 10, 2004	• Draft **RFQ** presented to Planning Board and approved to be forwarded to the Commissioners.
November 29, 2004	• Commissioners authorize **RFQ** for publishing on

	December 5 and 19. RFQ published in *Missoulian*, *Independent Record* and *Daily Interlake* as well as nationally on the American Planning Association website.
January 26, 2005	• **SELECTION COMMITTEE**, consisting of three members of the Flathead County Planning Board, meets and selects four most qualified applicants from submitted SOQs.
March 3, 2005	• **SELECTION COMMITTEE** meets to hear presentations by three selected consulting firms (fourth dropped out prior to presentations).
March 18, 2005	• **CONSULTANT** (Collins Planning Associates of Jackson, WY) is selected.
April 6, 2005	• **CONTRACT FOR SERVICES** with Collins Planning Associates is signed by Flathead County Commissioners. Contract provides for initial "issue identification" visit and creation of a "scope of work" document detailing process for creating a Flathead County Growth Policy.
May 09, 2005	• Consultants arrive for three-day "**ISSUE IDENTIFICATION**" visit. Meet with Commissioners, Long Range Planning Task Force, Planning Board and representatives from each of the neighborhood plans.
May 10, 2005	• **PANEL ISSUE MEETINGS** • 8:00 am- Transportation • 9:45 am- Public Health and Community Services • 12:45 pm- Mapping • 2:30 pm- Natural Resources • 6:00 pm- **PUBLIC** Issue Meeting
May 11, 2005	• **PANEL ISSUE MEETINGS** • 8:00 am- Education • 9:45 am- Economic Development • 1:15 pm- Emergency Services • 2:30 pm- Recreation • 3:45 pm- Existing Zoning, Floodplain and Lakeshore Regulations. • 6:00 pm Conclusion meeting with Planning Board.
May 31, 2005	• **SCOPE OF WORK** document received from Collins.

	Document calls for "Issue Papers" to present alternatives for addressing issues identified. Document also proposes a limited, advisory role for consultants in light of budget constraints. Document details work program that fits available budget and requires extensive "in house" work by staff.
July 5, 2005	• Commissioners **APPROVE CONTRACT** for consultant's services for "Option A" outlined in scope of work. Consultants will serve an advisory role to staff. Issue paper preparation and scoping meetings will occur concurrently.
August 29, 2005	• List of **271 "ISSUES" RELEASED** and public comment requested.
August 31, 2005	• **NEWSPAPER** article on page A6 of the Daily Interlake covers the variety of ways that public will be encouraged to interact with the upcoming growth policy process. List includes meetings, website, email, mailings, phone numbers to call, flyers and workshops.
October 12, 2005	• **PRESENTATION** to local banks, realtors, and builders.
October 13, 2005	• **HOUSING ISSUE PAPER** released.
November 6, 2005	• **NEWSPAPER** article on the front page of the Daily Interlake covers upcoming scoping meetings and gives schedule of all 21 meetings. • **POSTERS** hung county-wide in retail businesses, libraries and offices displaying schedule of scoping meetings. • **TELEVISION** coverage of scoping meeting schedule on "Wake Up" on KTMF.
November 10, 2005	• **NEWSPAPER** article on the front page of the Bigfork Eagle covers upcoming scoping meetings and gives schedule of all meetings. • **GROWTH MANAGEMENT ISSUE PAPER** released.
November 16, 2005	• 7:00 am **STAKEHOLDER MEETING** with Kalispell Area Chamber of Commerce Natural Resources Committee.
November 17, 2005	• **NATURAL RESOURCES ISSUE PAPER** released.

	• **EDUCATONAL PRESENTATIONS** to two Flathead Valley Community College classes. Approximately 20 students in each class.
November 27, 2005	• **NEWSPAPER** article on the front page of the Daily Interlake covers upcoming scoping meetings and gives schedule of first four meetings. • **RADIO** spots appear on all Flathead radio stations advertising December 5 scoping meeting.
November 28, 2005	• Full page **ADVERTISEMENT** containing a schedule of all scoping meetings appears on Page A14 of Daily Interlake. • **SCOPING MEETING** held at 6:00 pm at the Olney Fire Hall. Written comments received from approximately 35 people in attendance.
November 29, 2005	• **SCOPING MEETING** held at 6:00 pm at Bethany Lutheran Church in Bigfork. Written comments received from approximately 44 people in attendance.
November 30, 2005	• **SCOPING MEETING** held at 6:00 pm at Somers School. Written comments received from approximately 41 people in attendance.
December 1, 2005	• **SCOPING MEETING** held at 6:00 pm in the Glacier National Park Community Center in West Glacier. Written comments received from approximately 30 people in attendance.
December 5, 2005	• **RADIO** commercials appear on all Flathead radio stations advertising Dec. 5 scoping meeting. • **SCOPING MEETING** held at 6:00 pm at Kalispell Junior High School. Written comments received from approximately 11 people in attendance.
December 6, 2005	• Full list of scoping meetings appear on www.flatheadevents.com **WEBSITE** • **SCOPING MEETING** held at 6:00 pm at West Valley School. Written comments received from approximately 22 people in attendance.
December 12, 2005	• **NEWSPAPER** article on page A11 of the Daily Interlake covers upcoming scoping meetings and gives schedule of five upcoming meetings.

	• **TELEVISION** covers growth policy on ABC-42. • **SCOPING MEETING** held at 1:00 pm at Flathead Electric in Evergreen. Written comments received from approximately 38 people in attendance. • **SCOPING MEETING** held at 6:00 pm at Evergreen Junior High School. Written comments received from approximately 20 people in attendance.
December 13, 2005	• **SCOPING MEETING** held at 6:00 pm at Bethany Lutheran Church in Bigfork. Written comments received from approximately 9 people in attendance.
December 14, 2005	• 9:00 am **EDUCATIONAL PRESENTATION** to "Career Awareness" class at Flathead Valley Community College. • **SCOPING MEETING** held at 6:00 pm at West Valley School. Written comments received from approximately 21 people in attendance.
December 15, 2005	• **SCOPING MEETING** held at 6:00 pm at Creston School. Written comments received from approximately 25 people in attendance.
December 16, 2005	• **COMMUNITY CHARACTER ISSUE PAPER** released.
December 29, 2005	• **NEWSPAPER** article on page A6 of the Daily Interlake covers public opinions presented at scoping meetings so far and gives schedule of four upcoming meetings.
January 3, 2006	• **NEWSPAPER** article in the Westshore News covers upcoming January 9 meeting in Lakeside. • Scoping meetings continue to appear in the Daybook calendar in the Daily Interlake. • Schedule of January scoping meetings appears in the Interact section of the Daily Interlake. • **SCOPING MEETING** held at 1:00 pm at the Earl Bennett Building in Kalispell. Written comments received from approximately 22 people in attendance. • **SCOPING MEETING** held at 6:00 pm at Marion School. Written comments received from approximately 58 people in attendance.
January 5, 2006	• **NEWSPAPER** article about the January 9 and 17 scoping meetings appears on the front page of the

	Hungry Horse News. • **SCOPING MEETING** held at 1:00 pm at North Valley Hospital in Whitefish. Written comments received from approximately 23 people in attendance. • **SCOPING MEETING** held at 6:00 pm at the Earl Bennett Building in Kalispell. Written comments received from approximately 14 people in attendance.
January 8, 2006	• **LEGAL NOTICE** of January 25 workshop appears in Daily Interlake.
January 9, 2006	• **SCOPING MEETING** held at 1:00 pm at Moving Image in Columbia Falls. Written comments received from approximately 26 people in attendance. • **SCOPING MEETING** held at 6:00 pm at Lakeside Chapel. Written comments received from approximately 49 people in attendance.
January 10, 2006	• **SCOPING MEETING** held at 6:00 pm at Smith Valley School. Written comments received from approximately 47 people in attendance.
January 12, 2006	• **NEWSPAPER** article describing January 9 scoping meeting appears on page A9 of the Hungry Horse News. • **SCOPING MEETING** held at 6:00 pm at the North Valley Hospital in Whitefish. Written comments received from approximately 25 people in attendance.
January 16, 2006	• **NEWSPAPER** article on page A5 of the Daily Interlake reviews scoping meetings so far and gives schedule of 2 remaining meetings.
January 17, 2006	• **SCOPING MEETING** held at 6:00 pm at Moving Image in Columbia Falls. Written comments received from approximately 18 people in attendance.
January 18, 2006	• **SCOPING MEETING** held at 6:00 pm at Swan River School outside Bigfork. Written comments received from approximately 25 people in attendance. • **TELEVISION** covers growth policy on KAJ.
January 24, 2006	• **NEWSPAPER** article covering January 25 joint Planning Board/Long Range Planning Task Force workshop appears on page A6 of the Daily Interlake.

January 25, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board/Long Range Planning Task Force reviewed scoping meetings and public comments received at meetings. 44 people in attendance. Draft growth policy outline and completion timeline is distributed.
January 26, 2006	• **NEWSPAPER** article covering final scoping meeting at Swan River School and discussing the upcoming process appears on the front page of the Bigfork Eagle.
February 3, 2006	• **STAKEHOLDER MEETING** with Flathead County farmers. 33 attended.
February 17, 2006	• **STAKEHOLDER MEETING** with Flathead County timber interests. 10 attended.
February 21, 2006	• 12:00 pm **EDUCATIONAL PRESENTATION** on the Flathead County Growth Policy effort to approximately 170 members of the Kalispell Area Chamber of Commerce. • **STAKEHOLDER MEETING** with Flathead National Forest. Forest supervisor, public relations director and planning staff present.
February 22, 2006	• 1:00 pm **EDUCATIONAL PRESENTATION** to the North Fork Interlocal Agreement Meeting. Approximately 49 people attended. • 6:00 pm **JOINT WORKSHOP** held at which Planning Board/Long Range Planning Task Force received a progress report and gave approval of the general direction the process was headed.
February 23, 2006	• 12:00 pm **EDUCATIONAL PRESENTATION** to a faculty luncheon at Flathead Valley Community College. Approximately 15 faculty members attended.
February 26, 2006	• **NEWSPAPER** article covering ongoing writing of draft growth policy appears on page A6 of the Daily Interlake.
February 28, 2006	• **STAKEHOLDER MEETING** with Columbia Falls City Manager and Flathead County planning staff. • **STAKEHOLDER MEETING** with Flathead County Solid Waste District and Flathead County planning staff.
March 3, 2006	• **STAKEHOLDER MEETING** with The Confederated

	Salish and Kootenai Tribes of the Flathead Reservation and Flathead County planning staff.
March 8, 2006	• 10:00 am **STAKEHOLDER MEETING** with Kalispell management and Flathead County planning staff. • 12:00 pm **STAKEHOLDER MEETING** with Flathead Conservation Roundtable and Flathead County planning staff. • 3:00 pm **STAKEHOLDER MEETING** with Whitefish planning staff and Flathead County planning staff. • 4:00 pm **STAKEHOLDER MEETING** with Whitefish growth policy steering committee and Flathead County planning staff.
March 24, 2006	• **EDUCATIONAL PRESENTATION** scheduled for Flathead County real estate professionals. All members of NMAR were notified and 3 attended. Presentation was postponed.
March 28, 2006	• **EDUCATIONAL PRESENTATION** to the Lakeside Chamber of Commerce at Vista Linda south of Somers.
March 29, 2006	• **STAKEHOLDER MEETING** with leadership of local property rights group.
March 30, 2006	• 12:00 pm **EDUCATIONAL PRESENTATION** to approximately 60-70 members of the Kalispell Rotary Club.
April 6, 2006	• **STAKEHOLDER MEETING** with representatives of Flathead County schools.
April 7, 2006	• **STAKEHOLDER MEETING** with representatives of public and private utility companies.
April 14, 2006	• **STAKEHOLDER MEETING** with representatives of local surveying companies.
April 18, 2006	• 6:00 pm **EDUCATIONAL PRESENTATION** to the Flathead Builders and Industry Association. Approximately 150 people in attendance, presentation was approximately one hour long.
April 19, 2006	• 7:00 am **EDUCATIONAL PRESENTATION** to members of the "Business Network Inc." 23 people in

	attendance.
April 20, 2006	• **EDUCATIONAL PRESENTATION** to a Geography class at FVCC. Approximately 11 students present, presentation lasted 60 minutes.
April 25, 2006	• **NEWSPAPER** article covering April 26 joint Planning Board/Long Range Planning Task Force workshop appears on page A6 of the Daily Interlake.
April 26, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board/Long Range Planning Task Force first reviewed preliminary goals and policies and suggested changes. 35 people in attendance.
April 28, 2006	• **STAKEHOLDER MEETING** with representatives of local property rights groups.
May 31, 2006	• 6:00 pm **JOINT WORKSHOP** held at which Planning Board/Long Range Planning Task Force reviewed draft goals and policies and suggested numerous revisions.
June 8, 2006	• 7:00 am **EDUCATIONAL PRESENTATION** to the "Daybreakers Rotary Club." Approximately 50 people in attendance; spoke for 15 minutes and took 5 minutes of questions.
June 22, 2006	• 11:20 am Presentation to **COMMISSIONERS** summarizing the entire public process through recent completion of the draft growth policy and reviewing upcoming distribution and meeting schedule.
June 25, 2006	• **NEWSPAPER** article in the Daily Interlake advertising day of availability and all methods to interact with draft growth policy.
June 27, 2006	• **PRESS RELEASE** announcing availability of Draft Flathead County Growth Policy sent to all radio, tv and newspapers in Flathead County.
June 28, 2006	• **DRAFT GROWTH POLICY** given to Planning Board
June 29, 2006	• Draft growth policy given to Commissioners • 11:00 am, draft growth policy available online • 5:00 pm, Email sent to 700+ recipients notifying that

	draft available online.
June 30, 2006	• Draft growth policy available in paper form at Flathead County libraries and Flathead County Planning and Zoning Office. • **ADVERTISEMENT** of draft availability and all upcoming open houses appears on page A5 of Daily Interlake.
July 2, 2006	• **ADVERTISEMENT** of draft availability and all upcoming open houses appears on Page A4 of Daily Interlake.
July 3, 2006	• **ADVERTISEMENT** of draft availability and all upcoming open houses appears on Page A7 of Daily Interlake.
July 4, 2006	• **ADVERTISEMENT** of draft availability and all upcoming open houses appears on Page A7 of Daily Interlake.
July 5, 2006	• **ADVERTISEMENT** of draft availability and all upcoming open houses appears on Page A7 of Daily Interlake.
July 6, 2006	• **ADVERTISEMENT** of draft availability and all upcoming open houses appears on Page A7 of Daily Interlake. • **ADVERTISEMENT** of July 12 Bigfork open house appears in the Bigfork Eagle.
July 8, 2006	• **ADVERTISEMENT** of draft availability and all upcoming open houses appears on Page A7 of Daily Interlake.
July 9, 2006	• **NEWSPAPER** article in Daily Interlake regarding open houses and comment opportunities.
July 10, 2006	• 9:10 am, 50 minutes of "KOFI Talk" on KOFI • 6:00 pm, draft growth policy **OPEN HOUSE** in Kalispell attended by 42 people.
July 11, 2006	• 6:00 pm, draft growth policy **OPEN HOUSE** in Evergreen attended by 20 people.

July 12, 2006	• 6:00 pm, draft growth policy **OPEN HOUSE** in Bigfork attended by 63 people. Advertisement of meeting appeared in the July 6 Bigfork Eagle.
July 13, 2006	• 6:00 pm, joint draft growth policy **WORKSHOP** between Planning Board and Long Range Planning Task Force to review first thoughts and comments. 8 members of public attended. • Most local **TV** and **RADIO** stations carrying news stories regarding availability of draft and schedule of meetings. • **NEWSPAPER** article in Daily Interlake regarding subdued response to draft. • **ADVERTISEMENT** of draft availability and all upcoming open houses appears on Page 35 of Missoula Independent.
July 16, 2006	• **NEWSPAPER** article in Daily Interlake regarding first joint workshop.
July 17, 2006	• 6:00 pm, draft growth policy **OPEN HOUSE** in Whitefish attended by 36 people.
July 18, 2006	• 9:00 am, meeting with agricultural landowners in Flathead County to discuss draft growth policy • 6:00 pm, draft growth policy **OPEN HOUSE** in Somers/Lakeside attended by 45 people.
July 19, 2006	• 6:00 pm, draft growth policy **OPEN HOUSE** in Columbia Falls attended by 8 people.
July 20, 2006	• 6:00 pm, joint draft growth policy **WORKSHOP** between Planning Board and Long Range Planning Task Force to review first thoughts and comments. 7 members of public attended. • **NEWSPAPER** editorial in Daily Interlake regarding growth policy. • **NEWSPAPER** article in Bigfork Eagle regarding July 12 open house. • **NEWSPAPER** editorial in Hungry Horse News regarding growth policy. • **NEWSPAPER** article in Whitefish Pilot regarding growth policy.
July 23, 2006	• **NEWSPAPER** article appears in Daily Interlake

	regarding upcoming events.
July 24, 2006	• **LEGAL NOTICE** of August 8 and 10 public hearings appears in Daily Interlake.
July 30, 2006	• **NEWSPAPER** editorial in Daily Interlake regarding close of public comment on draft growth policy.
August 01, 2006	• 5:00 pm, close of written comment period. 625 paper copies of the draft were printed and distributed since June 28, 2006. Comments received from approximately 200 individuals and/or groups.
August 6, 2006	• Full page **ADVERTISEMENT** notifying of all public involvement so far, ways to read the draft, upcoming public hearings and upcoming process.
August 7, 2006	• **NEWSPAPER** article appears in Daily Interlake regarding public hearings to be held August 8 and 10.
August 8, 2006	• Local **RADIO** and **TV** advertise public meetings throughout the day. • **NEWSPAPER** article appears in Daily Interlake regarding public hearings to be held tonight. • 6:00 pm, **PUBLIC HEARING** at Red Lion Kalispell Center. Attended by approximately 152 people. 52 people spoke. 9 additional written comments submitted.
August 9, 2006	• **NEWSPAPER** article appears in Daily Interlake regarding topics public discussed at August 8 hearing.
August 10, 2006	• 6:00 pm, **PUBLIC HEARING** at Red Lion Kalispell Center. Attended by approximately 90 people. 55 people spoke. 19 additional written comments submitted. • **NEWSPAPER** article in the Missoula Independent regarding the content of the draft growth policy.
August 12, 2006	• **NEWSPAPER** article appears in Daily Interlake regarding public comments received at August 10 hearing.
August 17, 2006	• **NEWSPAPER** article in the Bigfork Eagle regarding August 8 and 10 public hearings.
August 18, 2006	• All **PUBLIC COMMENTS** along with staff revision

	suggestions available for public review. Electronic (CD and Online) and paper copies available. • **CONSULTANTS COMMENTS** posted to the county website.
August 20, 2006	• **LEGAL NOTICE** of September 6 public hearing appears in Daily Interlake.
August 27, 2006	• **LEGAL NOTICE** of September 7, 12, and 14 workshops appears in Daily Interlake.
September 1, 2006	• **NEWSPAPER** article in Daily Interlake regarding September 6 hearing on revisions suggestions.
September 2, 2006	• **NEWSPAPER** article in Daily Interlake regarding consultant's review of growth policy.
September 3, 2006	• **NEWSPAPER** article in Daily Interlake regarding public comments. • **LEGAL NOTICE** of September 19 workshop appears in Daily Interlake. • **LEGAL NOTICE** of September 7, 12, and 14 workshops appears again in Daily Interlake (also see August 27).
September 6, 2006	• 6:00 pm, **PUBLIC HEARING** on staff's revision suggestions. Attended by 66 people. 30 people spoke. 10 written comments submitted to Planning Board.
September 7, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
September 8, 2006	• **NEWSPAPER** article in Daily Interlake regarding Planning Board beginning work on growth policy revisions.
September 10, 2006	• **NEWSPAPER** article in Daily Interlake regarding the growth policy needing more time. • **NEWSPAPER** article in Daily Interlake regarding zone changes being postponed until the growth policy is adopted.
September 12, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.

September 14, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy. • **NEWSPAPER** article in Daily Interlake regarding open space provisions being removed from growth policy.
September 17, 2006	• **NEWSPAPER** article in Daily Interlake regarding Planning Board supporting affordable housing. • **NEWSPAPER** editorial in Daily Interlake regarding growth policy.
September 19, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy. • **LEGAL NOTICE** of September 26 and 28 workshops appears in Daily Interlake.
September 21, 2006	• **NEWSPAPER** article in Daily Interlake regarding speed at which draft will be reviewed.
September 26, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
September 28, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
October 4, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
October 10, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
October 12, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
October 17, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
October 19, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
October 24, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
October 26, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.

November 2, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy. • **NEWSPAPER** article in Daily Interlake updating public on workshop review process and status
November 9, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
November 12, 2006	• **NEWSPAPER** article on front page of Daily Interlake informing that final adoption of the growth policy will now officially take place in the new year, due to timing required for all actions.
November 14, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
November 16, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
November 17, 2006	• **NEWSPAPER** article in Daily Interlake regarding planning board deciding to hold a special meeting on December 11.
November 21, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy.
November 24, 2006	• **LEGAL NOTICE** of December 11 special meeting appears in Daily Interlake.
November 30, 2006	• 6:00 pm **WORKSHOP** held at which Planning Board reviewed and revised draft growth policy. Planning Board finished revising document, adopted Appendix A and cancelled meetings scheduled for Dec. 5 and 7.
December 10, 2006	• **NEWSPAPER** article in Daily Interlake regarding special meeting to be held December 11 and highlighting some of the changes to the draft.
December 11, 2006	• 6:00 pm **SPECIAL MEETING** held by the Planning Board to pass a resolution unanimously recommending approval of the revised draft growth policy.
December 12, 2006	• **NEWSPAPER** article in Daily Interlake regarding unanimous approval of resolution favorably forwarding the draft growth policy to the commissioners.

December 14, 2006	• **NEWSPAPER** article in the Hungry Horse News regarding unanimous approval of resolution favorably forwarding the draft growth policy to the commissioners. • Tentative Commissioner's review **SCHEDULE RELEASED** via email to over 600 people and all media outlets. Public service announcements will follow in Daily Interlake.
December 15, 2006	• **NEWSPAPER** editorial in Daily Interlake thanking staff, citizens and especially planning board for all their work and effort in moving the growth policy forward.
December 18, 2006	• **NEWSPAPER** article appears on page A6 of Daily Interlake summarizing Commissioner's review schedule released December 14 (see above). Dates, locations and times of meetings are given, as well as reference to tentative nature of schedule.
December 24, 2006	• 4" by 5.5" newspaper **ADVERTISEMENT** notifying public of commissioner's growth policy workshop appears in the Daily Interlake on page D3, opposite the Opinion page.
December 31, 2006	• 4" by 5.5" newspaper **ADVERTISEMENT** notifying public of commissioner's growth policy workshop appears in the Daily Interlake on page A15.
January 9, 2007	• **NEWSPAPER** article appears on front page of Daily Interlake indicating that a meeting will take place that night for the commissioners to review the growth policy, and that public comment will be taken. • Commissioners hold a **WORKSHOP** meeting at which they review the growth policy as revised by the planning board, ask representatives of the planning board questions, and take public comment per open meeting laws.
January 10, 2007	• **NEWSPAPER** article appears on front page of Daily Interlake reviewing the first workshop that was held and a summary of the Commissioner's review and public comment received.
January 13, 2007	• **NEWSPAPER** article appears on front page of Daily Interlake covering changes to the Commissioner's review

	schedule. Same meetings, just rescheduled to give staff more time to review public comment.
January 18, 2007	• **STAFF REPORT** presented to Commissioners summarizing public comment on Planning Board's changes to draft growth policy received through January 11, 2007.
January 19, 2007	• **NEWSPAPER** article appears on front page of Daily Interlake summarizing comments on the Planning Board's revisions to the growth policy and issues raised by public on morning of January 18 at Commissioner's morning general comment period.
January 23, 2007	• **COMMISSIONER'S WORKSHOP** to review draft growth policy and planning board's revisions. Commissioners proposed and made changes to revised draft growth policy.
January 24, 2007	• **NEWSPAPER** article appears on front page of Daily Interlake summarizing work done by Commissioners at January 23, 2007 workshop.
January 29, 2007	• **NEWSPAPER** article appears on the Valley page of the Daily Interlake discussing schedule of commissioners review events.
January 30, 2007	• **COMMISSIONER'S WORKSHOP** to review draft growth policy and planning board's revisions. Commissioners proposed and made changes to revised draft growth policy.
January 31, 2007	• **NEWSPAPER** article appears on front page of Daily Interlake summarizing work done by Commissioners at January 30, 2007 workshop.
February 05, 2007	• **COMMISSIONERS PASS** resolution of intent to adopt final draft of Flathead County Growth Policy, beginning 30-day comment period.
February 06, 2007	• **NEWSPAPER** article appears on page A6 of Daily Interlake covering passage of resolution of intent and announcing 30-day comment period. • **RADIO** stations carry notification of opening of 30-day comment period.

March 9, 2007	• 30-day final draft public **COMMENT PERIOD ENDS** at 5:00 pm. 145 individual comments and 2 petitions received.
March 19, 2007	• Flathead County **COMMISSIONERS APPROVE** Resolution #2015A adopting Flathead County Growth Policy • **TELEVISION** report covering adoption of growth policy.
March 20, 2007	• **NEWSPAPER** article appears on front page of Daily Interlake announcing adoption of new growth policy.
March 22, 2007	• **NEWSPAPER** articles appear in Whitefish Pilot and Hungry Horse News announcing adoption of new growth policy.
March 29, 2007	• **NEWSPAPER** article in the Missoula Independent covers adoption of the Flathead County Growth Policy.

The growth policy process outlined above was finished with a series of 6 town hall meetings at which the public was encouraged to learn and ask questions about the new growth policy. Staff was available from 6:00 to 7:30 at each of the meetings listed below.

"50 for the Flathead"

March 26, 6:00 pm- Evergreen, Flathead Electric

March 27, 6:00 pm- Marion School Gym

April 9, 6:00 pm- Lakeside Chapel

April 17, 6:00 pm- Bigfork, Bethany Lutheran

April 24, 6:00 pm- Glacier National Park Community Building

May 1, 6:00 pm- Whitefish, Mountain West Bank

APPENDIX C: IMPLEMENTATION PLAN

INTRODUCTION

On March 19, 2007 the Flathead County Commissioners adopted the Flathead County Growth Policy. That document contained 50 goals and 262 accompanying policies that guide growth in Flathead County. Chapter 10 of the document calls for the completion of an implementation plan to guide the prioritization and implementation of policies. The following is a detailed analysis of the 259[1] existing policies and the regulatory and non-regulatory mechanisms needed to implement that Flathead County Growth Policy. This plan is non-binding and non-regulatory and can be modified as needed based on the availability of resources and public will.

PART 1: Re-categorization of policies.

An important first step in implementing the Flathead County Growth Policy is identifying the follow-up technique for each policy. The first part of this plan will re-categorize each policy as "Policy," "Action Item" or "Neither" and list the implementation method. A definition of each is provided below. Duplicate or similar policies are cross-referenced for convenience.

Definitions:

Policy: A specific but non-regulatory statement that directly guides a community towards meeting an established goal regarding the promotion of public health, safety, welfare and efficiency in the process of community development. Growth-related policies are frequently directly implemented with regulatory mechanisms.

Action Item: A statement providing guidance for future planning efforts and requiring a follow-up action such as creation of a subsequent, more detailed plan or educational outreach effort. Implementation of an action item (i.e. creation of an additional plan) can result in detailed policies regarding a specific issue.

Neither: The "policy" as stated in the Flathead County Growth Policy provides no specific growth guidance or direction for future planning efforts.

Implementation Method: A suggested way to apply the policy or action item to promote healthy, safe and efficient growth. Some methods may be administrative, some are regulatory while others necessitate additional planning efforts with an increased level of detail beyond that which can be offered by the county-wide growth policy.

[1] The 2011/2012 Growth Policy update now contains 51 goals and corresponding 259 policies. 1 goal was added during the 2011/2012 update, 4 policies were removed, and 1 policy was added back in to the Growth Policy at the end of the process per the Planning Board resolution recommending approval of the Growth Policy to the Flathead County Commissioners.

POLICIES

Policy		Implementation Method
P.2.3	Recognize the potential for imprecisely surveyed parcels throughout Flathead County as a result of the original surveying methods used by the General Land Office. As a result, respect private property rights by allowing minimum lot sizes that enforce the spirit of density guidelines without punishing those who own slightly less than standard acreage units.	Zoning- allowance for percentage of minimum lot size to meet the requirement.
P.5.1	Match requirements of industrial land uses (such as human resources, adequate water supply, suitable road networks) and areas of Flathead County where those requirements can best be met.	Neighborhood Plans Industrial Zoning
P.5.2	Promote industrial parks and centers that take advantage of infrastructure and minimize impacts to the environment or adjacent land uses.	Neighborhood Plans Industrial Zoning
P.5.5	Restrict industrial uses that cannot be mitigated near incompatible uses such as residential, schools and environmentally sensitive areas such as wetlands, floodplains, riparian areas, areas of shallow groundwater, etc.	Neighborhood Plans Industrial Zoning
P.6.1	Encourage internal, interconnected roads for commercial development and frontage roads where appropriate.	Commercial Zoning, combined with Official Right of Way map identifying areas to be reserved for frontage road. Subdivision Regulations. Neighborhood Plans Overall Development Plans
P.6.2	Restrict commercial development in unsafe, inaccessible, remote rural areas.	Neighborhood Plans Overall Development Plans

		Commercial Zoning
P.6.4	Require traffic impact analysis for all major commercial projects on major highways and arterials.	Subdivision Regulations
P.6.5	Conserve resources and minimize transportation demand by encouraging redevelopment and infill of existing commercial areas in the county.	Neighborhood Plans. Overall Development Plans Commercial Zoning
P.7.3	Encourage small-scale, impact-mitigated and compatible commercial developments in accessible, developing rural areas with good access and away from urban areas.	Commercial Zoning Overall Development Plans Neighborhood Plans
P.7.6	Encourage mixed use developments that share infrastructure requirements such as parking, pedestrian facilities, etc. and reduce traffic by promoting live/work situations where appropriate in Flathead County.	Commercial Zoning Possibly a new zone would need to be created to guide mixed use development. Overall Development Plans Neighborhood Plans
P.10.1	Discourage high density development within the 500-year floodplain.	Zoning Flathead County Floodplain Regulations. Overall Development Plans Neighborhood Plans
P.10.2	Discourage development within the 100-year floodplain that displaces floodwaters to neighboring properties.	Flathead County Floodplain Regulations. Subdivision Regulations
P.10.4	Restrict development directly on lands with steep slopes.	Development Predictability Map (DPM) Overall Development Plans

		Neighborhood Plans Subdivision Regulations
P.10.5	Protect wetlands and riparian areas. See Goal 38 and Policies 38.1 through 38.4.	Zoning Overlay Development Predictability Map. Subdivision Regulations
P.10.7	On lands that contain areas both suitable and unsuitable for development, encourage open space development design techniques to cluster dwellings away from hazardous and/or unsafe areas.	Overall Development Plans Neighborhood Plans Zoning with clustering incentives. Subdivision Regulations
P.12.5	Designate areas where mineral resource extraction is most appropriate and will have the least impact on other resources and land uses.	Zoning overlay- new zone to implement this policy and those identified in Mineral Resource Extraction Plan. Rural Lands Policy and Regulation Advisory Committee
P.12.6	Restrict sand and gravel operations in areas that pose a threat to water quality.	Mineral Resource Extraction Plan. Zoning overlay
P.12.7	Encourage progressive reclamation of mineral extraction operations.	Reclamation standards for zoning overlay in areas deemed appropriate for gravel extraction. Mineral Resource Extraction Plan.
P.13.3	Abide by all applicable FAA guidelines for safety around airfields.	Use zone developed for P.13.1 to implement FAA guidelines for structures,

		towers, etc.
P.13.4	Encourage the development of an airport-appropriate industrial/business center to provide convenient access to Glacier International Airport and serve a growing economy.	Industrial/Commercial Zoning. Neighborhood Plans
P.14.1	Identify a 1,320 foot buffer surrounding the landfill and designate this area only for those land uses compatible with current and future landfill activities. Compatible use types such as industrial should be encouraged in this buffer.	Zoning Neighborhood Plans
P.14.4	Encourage visually screened, wildlife resistant, centralized collection sites or contract hauling in new subdivisions.	Subdivision Regulations. Similar to P.26.2 and P.26.3
P.15.2	Provide services and facilities to support elderly and special-needs residents.	Utilize zoning to designate growth areas near bases of needed elderly services
P.16.1	Provide land use-based incentives and density bonuses for the promotion and development of affordable housing opportunities for a range of household types, family sizes, incomes, and special consideration groups.	Affordable housing incentives need such things as density bonuses through zoning, fee waivers and expedited review AND follow-up administration to ensure affordability of units once built.
P.16.3	Promote the development of affordable single and multi-family housing in areas of adequate service networks.	Neighborhood Plans Incentive zoning in appropriate areas. Subdivision Regulations Development Predictability Map (DPM)
P.17.1	Include provisions in the county zoning and subdivision regulations to promote affordable homeownership throughout the county	Text amendment to zoning regulations to create affordable housing incentive zoning.

		Subdivision Regulations
P.17.2	Incorporate density bonuses in zoning and subdivision regulations for developments offering affordable homeownership.	Same as P.16.1, P.16.3, P.17.1. Same implementation. Subdivision Regulations
P.17.3	Encourage mobile home parks as a form of affordable homeownership in areas with access to public sewer and water.	Similar to P.16.7. Neighborhood Plans Zoning to promote mobile home park development in appropriate areas. Subdivision Regulations
P.18.2	With the exception of water based parks, utilize subdivision park requirements to create and/or fund dedicated park sites of an optimal size of no less than five acres, to accommodate operation and maintenance costs.	Subdivision regulations, in cooperation with Flathead County Parks Board AND Parks and Recreation Master Plan.
P.19.3	Support "pocket parks" which are owned and maintained by Home Owner groups and Associations.	Subdivision Regulations- pocket parks are different than county parks. HOAs can maintain .5 acre parks, the county cannot and needs larger parks to make maintenance efficient.
P.21.1	Provide adequate land area designated for commercial and industrial use to promote affordability, creating entrepreneurialism and/or businesses relocation to Flathead County.	Commercial/Industrial Zoning Neighborhood Plans Overall Development Plans Rural Lands Policy and Regulation Advisory Committee
P.21.7	Support the continuation of traditional and existing industries to maintain economic	Zoning- create adequate land use designations that

	diversity.	support existing industries.
P.22.2	Promote business centers and industrial parks in areas served by sufficient infrastructure with consideration to proximity to population densities.	Commercial and Industrial Zoning. Neighborhood Plans Overall Development Plans Similar to P.5.2.
P.22.3	Encourage the development of an airport industrial/business center to provide convenient access to Glacier International Airport and to foster a growing economy.	Almost EXACTLY the same as P.13.4. Industrial/Commercial Zoning.
P.23.2	Limit private driveways from directly accessing arterials and collector roads to safe separation distances.	Subdivision Regulations, with collectors and arterials defined in the Transportation Plan.
P.23.3	Encourage local (neighborhood) roads that access directly onto collector roads.	Subdivision Regulations.
P.23.4	Recognize areas in proximity to employment and retail centers as more suitable for higher residential densities and mixed use development.	Development Predictability Map Neighborhood Plans Subdivision Regulations
P.23.5	Protect public safety and allow safe travel by restricting development in areas without adequate road improvements.	Development Predictability Map Neighborhood Plans Subdivision Regulations
P.23.6	Support land use patterns along transit corridors that reduce vehicle dependency and protect public safety.	Revisit zoning regs regarding excessive parking requirements, pedestrian facilities, and mixed use structures.
P.23.9	Adopt urban road standards and designs	Similar to P.23.12

	consistent with city road standards in county areas adjacent to cities.	Official map to ID areas of urban densities, amend road standards to include "urban standards" and include spatial cross reference in subdivision regulations. Road Design Manual
P.23.12	Adopt urban transportation standards in areas developed to urban densities.	Similar to P.23.9 Official map to ID areas of urban densities, amend road standards to include "urban standards" and include spatial cross reference in subdivision regulations. Road Design Manual
P.24.2	Require County road improvements to mitigate impacts directly attributable to a subdivision or development as a necessary component of that development to preserve the carrying capacity of the roadway.	Impact fees. Subdivision Regulations
P.24.3	Require development projects to design road systems that complement planned land uses and maintain mobility on arterial roads and highways.	Subdivision Regulations.
P.24.4	Require road easement dedications for identified areas of future connectivity as subdivision developments are proposed, to serve the present and future needs of the county residents.	Official Map, after defensible prioritization in Transportation Plan, then cross reference in Subdivision Regulations
P.25.1	Encourage developments that provides functional alternative modes of travel such as bicycle and pedestrian paths.	Subdivision Regulations Neighborhood Plans Overall Development Plans
P.25.4	Support the expansion of the Glacier International Airport to keep pace with the	Utlize zoning to limit density around GPI.

	emerging demand for aviation services.	
P.26.1	Create design criteria for new development to ensure the safe, efficient, and effective collection and disposal of solid waste. Require all new subdivision site plans to be reviewed by the solid waste district and/or private hauler.	Subdivision Regulations
P.26.2	Encourage new subdivisions to establish centralized refuse and recycling collection sites within the development when curb-side pick-up is not feasible.	Subdivision Regulations Similar to P.14.4
P.26.3	Encourage new development to utilize contractor haul of refuse.	Subdivision Regulations Similar to P.14.4
P.26.7	Ensure that programs for junk vehicle collection and disposal are available and encourage stricter enforcement for existing laws.	Planning Staff can implement via enforcement assistance.
P.27.1	Encourage contract hauling in all new developments to reduce traffic and disposal burden at satellite container sites (green boxes).	Subdivision Regulations
P.28.1	Encourage high density development in areas that will be served by community sewer systems that treat to municipal standards.	Development Predictability Map- both to ID "high density" as well as regulate where it goes. Neighborhood Plans Overall Development Plans
P.28.2	Discourage development in areas not conducive to individual on-site sewage disposal systems because of flooding, ponding, seasonal high water tables, bedrock conditions, severe slope conditions or lack of access to a community sewage system.	Development Predictability Map to ID areas that are "not conducive" as well as regulate growth away from those areas. Neighborhood Plans Overall Development Plans

		Subdivision Regulations
P.28.7	Encourage land division served by public sewer facilities in areas of high groundwater as established by the Montana Department of Environmental Quality.	Development Predictability Map Neighborhood Plans Overall Development Plans Subdivision Regulations
P.29.1	Ensure developments comply with state regulations to provide evidence that drinking water of sufficient quantity and quality is available in areas of proposed development.	Subdivision Regulations.
P.29.2	Promote the installation of community sewer and/or water services in areas where the quantity and/or quality of drinking water resources are threatened.	Subdivision Regulations.
P.31.4	Support multi-use of schools/parks and other community meeting places.	Zoning can be used to collocate mutually beneficial uses, such as high density residential near schools so school open space can be utilized by families during summers and off times. Neighborhood Plans
P.32.1	Require new subdivisions to have adequate on-site water capacity and recharge for fire protection.	Subdivision Regulations.
P.32.3	Recommend subdivisions located outside existing rural fire districts be annexed into the nearest district if possible.	Subdivision Regulations.
P.32.4	Ensure convenient access to and within all subdivisions for the largest emergency	Subdivision Regulations.

	service vehicles.	Flathead County Road Standards.
P.32.5	Encourage two or more subdivision access points in areas of high and extreme fire hazard.	Subdivision Regulations.
P.32.6	Encourage subdivisions to either mitigate the impacts of delayed ambulance response times or limit density of development in identified rural areas.	Development Predictability Map Neighborhood Plans Overall Development Plans Impact fees for emergency facilities. Subdivision Regulations
P.33.3	Support crime prevention through planning and community design.	Zoning and subdivision regulations that create setbacks, lighting standards, emergency access etc. all assist crime prevention.
P.34.2	Coordinate with utility providers for co-location easements to ensure adequate easement access to all current and future utilities at the time of final plat.	Subdivision Regulations.
P.34.3	Promote land use patterns that permit logical, predictable and effective extension and integration of utilities.	Development Predictability Map, Neighborhood Plans and Overall Development Plans created in communication with utility providers. Rural Lands Policy and Regulation Advisory Committee
P.36.1	Require development to demonstrate compliance with local, State, Tribal, and Federal water quality standards, where applicable.	Subdivision Regulations

P.36.4	Require all public waste water treatment systems to meet applicable DEQ discharge standards.	The subdivision review process can be used as a checkpoint ensure compliance with existing laws.
P.36.5	Identify and encourage land development practices that do not contribute to increases in Total Maximum Daily Loads.	Water Quality/Flathead Basin Management Plan Neighborhood Plans Overall Development Plans Also, zoning and/or subdivision regulations that encourage buffers to reduce non-point source pollution.
P.36.6	Support non-point source pollution reduction within the Flathead Basin watershed.	Water Quality/Flathead Basin Management Plan Neighborhood Plans Overall Development Plans Also, zoning and/or subdivision regulations that encourage buffers to reduce non-point source pollution.
P.37.1	Encourage the development of innovative stormwater collection, detention and retention systems.	Water Quality/Flathead Basin Management Plan Subdivision Regulations.
P.37.4	Encourage constructed wetlands as part of on-site drainage plans to restrict untreated storm water from entering lakes, rivers, and streams.	Water Quality/Flathead Basin Management Plan Subdivision Regulations. Performance standards for zoned areas.
P.38.3	Discourage development in floodway or floodway fringe that may result in a net increase in the floodplain area.	Flathead County Floodplain Regulations.

		Subdivision Regulations
P.38.5	Discourage development that displaces floodwaters within the 100-year floodplain.	Flathead County Floodplain Regulations. Similar to P.38.3 Subdivision Regulations
P.40.2	Promote development into areas with public facilities or appropriate depth to groundwater to preserve water quality and water supply.	Development Predictability Map Neighborhood Plans Overall Development Plans Zoning
P.40.3	Encourage rural residential densities or community wastewater treatment systems in areas of high groundwater, as established by MT DEQ.	Development Predictability Map Neighborhood Plans Overall Development Plans Zoning
P.40.4	Encourage rural low-intensity land uses in areas of high groundwater, as defined by the MT DEQ.	Development Predictability Map Neighborhood Plans Overall Development Plans Zoning
P.41.2	Discourage unmitigated development in areas identified as critical wildlife habitat.	Subdivision Regulations.
P.42.1	Promote an active and environmentally responsible timber industry utilizing sustainable practices on private and public lands.	Flathead County Natural Resource Use Policy Rural Lands Policy and Regulation Advisory Committee

P.42.2	Encourage agricultural practices and uses which protect natural resources and allow for productive use.	Agriculture Zoning in areas needing protection of natural resources. Rural Lands Policy and Regulation Advisory Committee
P.42.3	Recognize and respect the important history and heritage of hunting and fishing by encouraging development that creates new or preserves existing access to public lands and waters.	Subdivision Regulations
P.43.3	Encourage industrial and other land uses that do not degrade the Glacier National Park Class I air shed.	Canyon Neighborhood Plan Zoning
P.48.6	Discourage urban-density development that lacks urban services *and* facilities.	Subdivision Regulations. Zoning.
P.51.4	Consider relevant state and federal planning documents when reviewing development proposals that will impact federal or state lands.	Neighborhood Plans Subdivision Regulations.

ACTION ITEMS

Action Item		Implementation Method
P.1.1	Attempt to develop cooperative agreements with Flathead National Forest and Glacier National Park on issues including, but not limited to, local economies, adjacent land development, road status changes, access to public lands, land use planning documents, public hearings, and noxious weed alleviation and control.	Statement of Coordination with Federal agencies.
P.1.2	Attempt to develop an intergovernmental agreement to codify jurisdiction issues with the Confederated Salish and Kootenai Tribes on their land.	Statement of Coordination with Tribal government.
P.1.3	Attempt to develop cooperative agreements with the Montana Department of Natural Resources and Conservation on issues including, but not limited to, land use conversion, adjacent land development, land use planning documents, public hearings, trust land uses, public access for recreation, land acquisition and state exchanges of trust land with private and federal entities. Attempt to develop cooperative agreements with Montana Fish, Wildlife and Parks on issues including, but not limited to, public access for recreation, recreation programs and fishing access sites, among others.	Statement of Coordination with DNRC and FWP. Rural Lands Policy and Regulation Advisory Committee
P.1.4	Attempt to develop strategies for the County to provide meaningful advice on land use issues to the appropriate Federal, State and Tribal agencies so the County can influence decisions, which are of vital interest to County residents on the 78.6% of land in the County controlled by those agencies.	Flathead County Natural Resource Use Policy-Custom and Culture Document. Rural Lands Policy and Regulation Advisory Committee
P.1.5	Communication and coordination between MT DNRC Trust Lands staff and the county will allow for local and regional planning that respects the revenue	Statement of Coordination with DNRC and FWP.

	generating needs and realizes the best use, be it development or recognized conservation opportunities.	
P.3.1	Develop an educational brochure that explains active use and management of timber lands and the impacts adjacent landowners can expect. Promote the document by distributing it to home buyers in Flathead County.	"Living Near Agricultural and Silvicultural Land Uses" booklet. Similar to P.4.1. Rural Lands Policy and Regulation Advisory Committee
P.3.2	Evaluate land uses and trends in agricultural and timber lands, and present ideas through research and discuss tools that could be used to encourage suitable development.	Rural Lands Policy and Regulation Advisory Committee Neighborhood Plans.
P.3.3	Maintain flexibility of land use options to forest and agriculture land owners by focusing on mitigating the negative impacts of development.	Rural Lands Policy and Regulation Advisory Committee Overall Development Plans
P.3.4	Develop equitable and predictable impact-mitigation for converting rural timber and agriculture lands to residential real estate.	Rural Lands Policy and Regulation Advisory Committee Impact Fees Overall Development Plans
P.3.5	Identify reasonable densities for remote, rural development that do not strain the provision of services or create a public health or safety hazard.	Development Predictability Map (DPM). Neighborhood Plans. Overall Development Plans
P.3.6	Identify and maintain benefits of private forest lands, including harvesting natural resources, water quality protection, wildlife habitat and traditional recreational values and ensure that conversion of private forest lands preserves as many of these benefits	Rural Lands Policy and Regulation Advisory Committee

	as is possible.	
P.3.7	Adopt techniques that mitigate the threat to public health and safety created by various developments near the Wildland Urban Interface (WUI)	Subdivision Regulations and "Wildland Urban Interface" (WUI) Zoning Overlay Rural Lands Policy and Regulation Advisory Committee
P.3.8	Encourage federal and state agencies to actively manage timber lands to reduce fire hazard and increase positive local economic impacts of timber harvesting.	Flathead County Natural Resource Use Policy- Custom and Culture Document.
P.4.1	Develop an educational brochure that explains agriculture and agricultural practices and the impacts adjacent landowners can expect. Promote the document by distributing it to home buyers in Flathead County.	"Living Near Agricultural and Silvicultural Land Uses" booklet. Similar to P.3.1. Rural Lands Policy and Regulation Advisory Committee
P.4.2	Identify lands most suited to agriculture (appropriate soils, access to water, shape and size of parcels etc.).	Rural Lands Policy and Regulation Advisory Committee Neighborhood Plans. Overall Development Plans
P.4.3	Identify a desirable gross density for rural residential development that retains land values, preserves the agricultural character of the community and allows for efficient provision of government services (law enforcement, fire protection, transportation, etc.)	Development Predictability Map (DPM). Neighborhood Plans. Overall Development Plans
P.4.4	Identify and encourage subdivision layouts that retain value of land without negatively impacting the rural character and agricultural activities.	Rural Lands Policy and Regulation Advisory Committee Subdivision Regulations

P.4.5	Develop equitable and predictable impact-mitigation for converting agricultural lands to residential uses.	Rural Lands Policy and Regulation Advisory Committee Neighborhood Plans. Overall Development Plans Impact fees for county facilities impacted by rural development. Subdivision Regulations
P.4.6	Develop proposals for community-based incentives for farmers and forest landowners to maintain farms/forest in order to share the cost of preserving the custom, culture, and character of agriculture in Flathead County	Rural Lands Policy and Regulation Advisory Committee Neighborhood Plans. Subdivision Regulations
P.4.7	Create an agricultural/private timber lands board, with significant representation from the ag/timber community and the Flathead County Planning Board, to propose plans for conserving working farms and ranches, clean water and key wildlife habitat.	Rural Lands Policy and Regulation Advisory Committee
P.4.8	If allowable, develop and adopt a Right to Farm/Harvest Ordinance and other policies as needed to support the viability of the agriculture/forestry industry in Flathead County.	Rural Lands Policy and Regulation Advisory Committee No county ordinances dealing with this issue are authorized under statute.
P.5.3	Identify trends in industrial land uses and determine the amount of land needed in the future at a variety of growth rates. Utilize these figures when determining land use regulations.	Growth Policy Amendment- Identify trends in text of document and modify P.5.3 into a policy based on those trends. Implement with Industrial Zoning. Neighborhood Plans.

		Rural Lands Policy and Regulation Advisory Committee
P.5.4	Identify "objectionable impacts" of industrial uses and determine desirable distance thresholds and buffers from other land uses.	Growth Policy Amendment- Identify requested thresholds and modify P.5.4 into a policy. Implement with Industrial Zoning. Neighborhood Plans.
P.6.3	Provide ample commercial land designation to promote affordability.	Neighborhood Plans. Overall Development Plans Commercial Zoning Rural Lands Policy and Regulation Advisory Committee
P.7.1	Determine commercial development features that support the seven elements of the Flathead County vision detailed in Chapter 1: The Character of Flathead County.	Growth Policy Amendment Neighborhood Plans. Overall Development Plans
P.7.2	Develop regulations that promote P.7.1 and mitigate the negative impacts of commercial development.	Growth Policy Amendment and implement with Commercial Zoning
P.7.4	Identify existing areas that are suitable for impact-mitigated commercial uses.	Neighborhood Plans. Overall Development Plans Zoning Rural Lands Policy and Regulation Advisory Committee
P.7.5	Encourage commercial development that is visually and functionally desirable.	Growth Policy Amendment to define "visually and functionally desirable" then

		Commercial Zoning combined with Design Standards. Neighborhood Plans. Overall Development Plans Subdivision Regulations
P.8.2	Identify required criteria for various densities that support the seven elements of the public's vision outlined in Chapter 1.	Development Predictability Map Neighborhood Plans. Overall Development Plans Zoning Rural Lands Policy and Regulation Advisory Committee
P.8.3	Create maps that spatially represent the criteria identified in P.8.2.	Development Predictability Map Neighborhood Plans. Overall Development Plans Rural Lands Policy and Regulation Advisory Committee
P.8.4	Set clear standards for amending development guidelines.	Ensure that each regulatory implementation has amendment criteria.
P.9.1	Identify open spaces that serve a critical role in public and environmental health, safety and general welfare.	Growth Policy Amendment to include requested info, instead of creating a new plan. Neighborhood Plans. Overall Development Plans

		Rural Lands Policy and Regulation Advisory Committee
P.9.2	Create regulatory incentives for the preservation and protection of open spaces during the development process.	Rural Lands Policy and Regulation Advisory Committee Zoning Regulations Subdivision Regulations
P.9.3	Consider and develop specifications for various buffers to protect open spaces.	Rural Lands Policy and Regulation Advisory Committee Subdivision Regulations Zoning Regulations Floodplain Regulations Lakeshore Regulations.
P.10.3	Encourage impact-mitigated development in areas of shallow groundwater. Use test holes or bore holes and best available data to determine areas of shallow groundwater.	Water Quality/Flathead Basin Management Plan Growth Policy Amendment to define "impact-mitigated development" and "areas of shallow groundwater." Implement with subdivision regulations.
P.10.6	Develop reasonable and fair criteria for identifying and preserving structures, artifacts and areas with cultural and historical significance to the residents of Flathead County. Such criteria shall not be used to prohibit development, but rather to encourage development that incorporates and protects these areas for future generations.	Subdivision Regulations Neighborhood Plans Overall Development Plans
P.11.1	Identify critical gateway areas that provide	Growth Policy Amendment

	lasting impressions of Flathead County to both residents and visitors.	to ID requested areas. Neighborhood Plans
P.11.2	Identify impacts of development that threatens gateway areas and develop land use guidelines that mitigate these impacts without prohibiting development.	Growth Policy Amendment to ID requested impacts and implement with zoning in areas ID'd in P.11.1.
P.11.3	Determine road and recreational waterway corridors with scenic resources that are valued by both residents and visitors.	Growth Policy Amendment to ID requested areas. Neighborhood Plans
P.11.4	Create incentives for developments that consider the scenic settings, incorporate design and construction standards that harmonize and complement the local views, and where possible, provide incentives for excellent architectural design.	Zoning combined with PUD incentives. Overall Development Plans
P.11.5	Develop guidelines to ensure that lighting should not destroy the reasonable enjoyment by all residents of the night skies.	Add lighting performance standards to existing zoning regs, and zone unzoned areas.
P.12.2	Identify areas of significant mineral resource deposits and develop accurate maps reflecting these areas.	Mineral Resource Extraction Plan Neighborhood Plans Rural Lands Policy and Regulation Advisory Committee
P.12.3	Create land use policies that segregate existing and future gravel extraction operations from incompatible land uses.	Mineral Resource Extraction Plan or Neighborhood Plan, then implement with zoning. Rural Lands Policy and Regulation Advisory Committee
P.12.4	Develop policies to mitigate the impacts of	Mineral Resource

	mineral resource extraction. These may include road maintenance, dust abatement or vegetative buffers.	Extraction Plan or Neighborhood Plan, then implement with zoning.
P.13.1	Utilize future expansion plans of Glacier International Airport to create a land use designation that protects both the economic significance of the airport and the safety of neighbors and passengers.	Create the land use designation (zone) and implement it around the airport.
P.13.2	Provide predictability to landowners neighboring the airport by designating growth areas.	Use zone developed for P.13.1 to designate growth areas.
P.13.5	Coordinate and cooperate with GPI on the Glacier Park International Airport Master Plan.	Communicate with GPI on land use designation development (see P.13.1).
P.14.2	Identify all suitable solid waste disposal options available to the County and implement a strategy to assure capacity is secured to meet future demands.	Solid Waste District Strategic Plan
P.14.3	Aesthetically screen satellite refus collection sites (green boxes) and licensed junk vehicle collection sites to reduce the spread of litter and mitigate objectionable views.	Solid Waste District Strategic Plan Compliance with state law-junk vehicle program.
P.16.2	Create an affordable housing plan for the county which includes evaluating the need for a county housing committee and establishing coordination between the county and the cities of Columbia Falls, Kalispell, and Whitefish.	Affordable Housing Plan
P.16.6	Consider the advisability of adopting a building inspection procedure for new residential construction.	Building Department Feasibility Analysis
P.16.7	Identify areas suitable for quality mobile home park development.	Growth Policy text amendment to determine desirable locations for mobile homes (access, proximity to employment, commercial services, etc.)

		then zoning to promote mobile home park development in appropriate areas.
P.17.4	Develop zoning and design standards for Class A manufactured housing.	Update existing zoning.
P.17.5	Encourage the establishment of public/private partnerships as a method to offer financing to first time homebuyers.	Affordable Housing Plan
P.17.6	Establish affordable housing standards for developing infrastructure that would reduce the cost of affordable lots while maintaining the character of the projects.	Affordable Housing Plan
P.17.7	Develop criteria for developers to meet to qualify for affordable housing incentives.	Affordable Housing Plan
P.18.1	Acquire park and leisure facilities now to serve the future needs of the county, particularly water-based parks which provide public access to lakes, rivers and streams.	Parks and Recreation Master Plan.
P.18.3	Ensure existing parks and recreational facilities are operated and maintained in quality condition for use by the general public.	Parks and Recreation Master Plan to increase maintenance and acquisition efficiency.
P.18.4	Develop strategies to fund, operate, and maintain new parks and recreational facilities.	Parks and Recreation Master Plan.
P.18.5	Utilize the comprehensive Parks and Recreation Master Plan to guide the expansion of the park system to meet the needs and expectations of the growing public. Update the Parks and Recreation Master Plan at a minimum of every five years from the date of adoption, to ensure the plan is current.	Parks and Recreation Master Plan.
P.18.6	Preserve and increase recreational access to public lands and waterways by procuring	Parks and Recreation Master Plan.

	necessary land, easements, or rights of way.	Neighborhood Plans Overall Development Plans Official Mapping Rural Lands Policy and Regulation Advisory Committee
P.18.7	Create a committee to determine and prioritize areas for bike path easement acquisition and construction, prioritize use of funds, guide grant applications, identify roads that should have bicycle lanes, determine maintenance funding mechanisms, and set county-wide bicycle path/lane construction standards.	In general, bicycles are used in Flathead County for two purposes; recreation and transportation. Transportation Plan Parks and Recreation Master Plan.
P.19.1	Encourage parks, planning, maintenance and development coordination with other local jurisdictions, state, and federal agencies.	Parks and Recreation Master Plan. (communication during development) Neighborhood Plans Overall Development Plans Official Mapping
P.19.2	Participate with developing partnerships, community civic groups and organizations, private sector building and development industry, and others interested in parks and recreation activities.	Broad community participation in Parks and Recreation Master Plan.
P.19.4	Recognize riparian buffers for their recreational value and their ability to protect the quality of water along major streams and rivers in the County in order to enhance recreational opportunities, protect the quality of water (reduce erosion; surface runoff containing pesticides, fertilizers, etc.; stream bank depredation/defoliation; etc.) and their	Growth Policy amendment to identify riparian corridors critical to water quality, wildlife habitat and migration, and recreation access. Subdivision Regulations

	ability to protect the natural aesthetics of waterways.	
P.19.5	Develop County Parks in conjunction with public or private schools whenever possible.	Parks and Recreation Master Plan.
P.19.6	Develop standards, procedures, and requirements for the preparation, review, and adoption of neighborhood and subdivision park plans.	Parks and Recreation Master Plan. Once developed, include in Subdivision Regulations.
P.20.1	Provide for and acquire new lands and indoor/outdoor recreation and park facilities as outlined in the comprehensive Parks and Recreation Master Plan to keep pace with expanding population and demand.	Parks and Recreation Master Plan. Implement with mechanisms for purchase of park lands and construction of facilities, once priorities are established in plan.
P.21.2	Develop methods to enhance a sustainable agricultural and timber industry through community-based incentives.	Rural Lands Policy and Regulation Advisory Committee
P.21.3	Foster business development as a method to provide employment and locally produced goods and services to meet the needs and demands of local communities and to provide region specific export goods.	Economic Development Authority
P.21.4	Promote education and work force development programs to better prepare current and future generations for high quality job opportunities and to provide employers with quality and dependable workers.	Economic Development Authority
P.21.5	Utilize economic development authorities to attract relocation or startup of businesses that offer competitive wages and job opportunities for those with a range of educational backgrounds.	Flathead County Economic Development Authority

P.22.1	Identify infrastructure needs of the various business types and identify areas of the County which can best suit those needs.	Growth Policy amendment to ID needs and areas, then zoning to put those uses where the infrastructure exists to accommodate them.
P.22.4	Consider the infrastructure needs of local businesses when prioritizing development of new county facilities.	Capital Improvements Plan (CIP)
P.23.7	Develop a transportation grid system that minimizes environmental impacts to developed and natural areas.	Transportation Plan Official Map
P.23.8	Promote coordinated and cooperative transportation planning with Kalispell, Columbia Falls, Whitefish and Montana Departments of Transportation and the Department of Natural Resources and Conservation.	Transportation Plan
P.23.10	Encourage frontage roads where needed and internal vehicle circulation roads for development outside of urban areas.	Transportation Plan Official Map Neighborhood Plans Subdivision Regulations
P.23.11	Plan for and pursue opportunities for the development of additional east-west transportation corridors, especially between U.S. Highways 2, 93 and MT Highway 206.	Similar to P.24.4 Transportation Plan Official Map
P.24.1	Ensure that identified functional class, road easement width, and condition of existing transportation facilities are adequate	Transportation Plan Neighborhood Plans Overall Development Plans
P.24.5	Attempt to develop cooperative agreements with the Montana Department of Transportation and the United States Federal Highway Administration to	Transportation Plan followed by zoning reviewed by MDOT to direct various land uses to

	promote coordination of land use and transportation planning and the efficient use of transportation facilities.	areas most suited to accommodate traffic and safety concerns.
P.24.6	Develop a comprehensive countywide transportation plan to categorize current needs and to identify future needs.	Transportation Plan
P.24.7	Develop uniform system of prioritization for road improvements and maintenance.	Transportation Plan
P.24.8	Develop a Dust Abatement Program to mitigate dust impact from traffic on county roads as funding and resources allow.	Transportation Plan Impact Fees for road facilities Subdivision Regulations
P.25.2	Identify and prioritize areas for a predictable regional and interconnected bicycle path network and require pedestrian/bicycle easements on both sides of identified county roads. Encourage developments that aid and/or connect to this network.	Parks and Recreation Plan, then implement with Official Map. Tied to Subdivision Regulations
P.25.5	Determine and prioritize areas for bike path easement acquisition and construction, prioritize use of funds, guide grant applications, identify roads that should have bicycle lanes, determine maintenance funding mechanisms, and set county-wide bicycle path/lane construction standards.	Same as P.25.2 Parks and Recreation Plan, then implement with Official Map. Tied to Subdivision Regulations
P.26.4	Recommend solid waste containers in rural areas to utilize measures such as animal-proofing, and encourage public education on disposal methods to discourage the attraction of wildlife.	Flathead County Solid Waste District Strategic Plan.
P.26.5	Promote and encourage increased opportunities for community recycling through recycling pilot programs and the initiation of public-private partnerships.	Flathead County Solid Waste District Strategic Plan. Same as P.27.3

P.26.6	Encourage safe disposal of household hazardous wastes through education and collection programs.	Flathead County Solid Waste District Strategic Plan.
P.26.8	Recommend impacts to the local community be mitigated at the time of construction, improvement, or consolidation of a green box collection facility by encouraging visual screening, safety improvements and dust mitigation measures.	Flathead County Solid Waste District Strategic Plan.
P.27.2	Perform a needs analysis to assess current and future levels of service to provide cost effective and efficient solid waste collection services within the County.	Flathead County Solid Waste District Strategic Plan.
P.27.3	Encourage county-wide recycling program(s) to reduce the rate at which landfill approaches maximum capacity.	Flathead County Solid Waste District Strategic Plan. Same as P.26.5
P.27.4	Explore new funding mechanisms for continued solid waste disposal activities as well as future expansion.	Flathead County Solid Waste District Strategic Plan.
P.28.3	Prepare a comprehensive water quality management plan for the county.	Water Quality/Flathead Basin Management Plan
P.28.4	Initiate the development of a regional wastewater treatment plan.	Wastewater Management Plan
P.28.5	Work to engage water and sewer districts in the county development processes.	Wastewater Management Plan Also continue agency referrals.
P.28.6	Encourage wastewater treatment facilities and technologies adequate to meet or exceed water quality standards.	Wastewater Management Plan- But possibly "Neither" due to water quality standards being set by other agencies independent of the land use planning process.

P.29.3	Identify wellhead protection areas for public wells and land uses in those areas should be limited as to limit the risk of drinking water contamination.	Water Quality/Flathead Basin Management Plan Zoning
P.29.4	Support land uses and subdivision activities that do not threaten drinking water sources.	Water Quality/Flathead Basin Management Plan Zoning
P.30.1	Identify areas of higher susceptibility to impacts from septic systems due to soils, depth to groundwater, proximity to sensitive surface waters, topography, and/or density of development.	Neighborhood Plans Overall Development Plans Water Quality Management Plan and zoning to implement.
P.30.2	Determine the feasibility of a countywide wastewater management plan for the maintenance and management of septic systems.	Wastewater Management Plan
P.30.3	Develop an educational brochure that explains the appropriate management of septic systems and the impacts associated with inadequate management. Promote the document by distributing it to home owners and home buyers in Flathead County.	Distribute pamphlet in FCPZ office available from MT DEQ.
P.31.3	Determine common characteristics of developments most likely to add school children to the local schools and identify incentives for projects to mitigate impacts.	Subdivision Regulations-bonus densities for subdivisions with identified characteristics that donate land to schools. Doesn't seem to violate 76-3-608 M.C.A. Possibly impact fees for school facilities, although it could be argued that impact fees are not "incentives" per se.
P.32.7	Identify target level of service (LOS) for	Emergency Service Plan(s)

	emergency 911 call processing and work to achieve and maintain that target as growth occurs. This should include security, survivability and redundancy of facilities and services.	created in conjunction with service providers.
P.33.1	Create a seamless emergency response system through a regional 911 emergency response provider network.	Emergency Service Plan(s) created in conjunction with service providers.
P.33.2	Attempt to increase the current ratio of patrol officers per 1,000 residents to meet the growing number of calls for assistance.	Emergency Service Plan(s) created in conjunction with service providers.
P.33.4	Develop a comprehensive public response plan for sheriffs and fire districts to support growth and development in the county.	Emergency Service Plan(s) created in conjunction with service providers.
P.34.1	Add appropriate agencies to the referrals during the subdivision review process.	Subdivision Regulations.
P.34.4	Establish standardized regulations for wireless and fiber optics communications infrastructure that ensure the following are maintained: public health, safety, general welfare, convenience, natural resources, and the visual environment/appearances.	Cell tower zoning and transportation planning for expansion of rights of way to accommodate fiber optic cables.
P.35.1	Establish public/private partnerships to develop a Flathead basin watershed management plan using scientific data to determine critical areas and evaluate the impacts of future development on water quantity and quality.	Water Quality/Flathead Basin Management Plan Rural Lands Policy and Regulation Advisory Committee
P.35.2	Provide improved educational information to landowners on the importance of buffers and restoration techniques to reduce nutrient loading to water resources.	Distribution of brochures available from Montana Fish, Wildlife and Parks and Department of Natural Resources and Conservation.
P.36.2	Review and revise the Lakeshore Protection regulations to include consideration of potential harm caused by	75-7-202 M.C.A. might preclude extension of Lakeshore Protection Zone-

	fertilizers and pesticides entering lakes, streams and rivers.	implementation might require legislative work.
P.36.3	Investigate the feasibility of a regional wastewater treatment system. Ensure that the regional wastewater treatment plan protects the Flathead Watershed.	Wastewater Management Plan
P.36.7	Identify critical aquifer recharge areas in Flathead County and land uses in these areas that protect water quantity and quality.	Water Quality/Flathead Basin Management Plan Possible Growth Policy Amendment to include a map of these areas. Rural Lands Policy and Regulation Advisory Committee
P.37.2	Develop and provide educational information to individuals, organizations, and neighborhood associations regarding storm water management and the importance of proper storm water management practices.	These pamphlets are already available from the MDEQ.
P.37.3	Develop best management practices (BMPs) and setback requirements for development projects that impact water bodies. This may include vegetative buffer strips along stream sides and riverbanks, and the use of sedimentation barriers.	Water Quality/Flathead Basin Management Plan Subdivision Regulations
P.38.1	Adopt FEMA maps and existing floodplain studies as they become available.	Flathead County Floodplain Regulations.
P.38.2	Review and revise floodplain regulations as necessary. Consider appropriate setback requirements from floodplain.	Flathead County Floodplain Regulations. Subdivision Regulations
P.38.4	Consider density guidelines in the floodplain regulations.	Development Predictability Map Neighborhood Plans

		Overall Development Plans Subdivision Regulations
P.39.1	Use scientific studies to identify locations of riparian areas and delineated wetlands.	Development Predictability Map Neighborhood Plans Overall Development Plans Water Quality/Flathead Basin Management Plan
P.39.3	Develop regulations that restrict development in jurisdictional wetlands and riparian areas.	When combined with 39.1, could be implemented (once identified) with overlay zones, zoning, or subdivision regulations.
P.39.4	Develop best management practices (BMP's) and setback requirements for development to mitigate adverse impacts to sensitive wetland and riparian areas.	Water Quality/Flathead Basin Management Plan Subdivision Regulations Similar 37.3 Rural Lands Policy and Regulation Advisory Committee
P.40.1	Use scientific studies to identify locations over shallow aquifers.	Water Quality/Flathead Basin Management Plan Development Predictability Map Neighborhood Plans Overall Development Plans Possible Growth Policy Amendment to include map of these areas.
P.41.1	Develop an educational brochure that	Distribute brochures in the

	explains "Living with Wildlife" concepts and the impacts landowners can expect when living in rural areas of the County. Promote the document by distributing it to home buyers and home owners in Flathead County.	FCPZ office available from Montana FWP.
P.41.3	Implement Encourage maintaining and managing riparian areas in accordance with Montana state and federal laws.[2]	
P.43.1	Implement the existing Flathead County Air Pollution Plan, adopted December 16, 1996 and revised January 17, 2008, into development standards. Any new plans should be considered for inclusion through a public process.	Subdivision Regulations Zoning performance standards.
P.43.2	Prioritize and perform road-surfacing and dust abatement projects to reduce airborne dust generated from gravel-surfaced roads.	Transportation Plan Capital Improvements Plan Impact Fees
P.45.1	Develop expedited and simplified subdivision and development review processes for lands within the jurisdiction of an approved neighborhood plan that has been reviewed for consistency with the growth policy.	Neighborhood Plans AND Zoning, subject to 76-3-608(6) M.C.A. Tied to Subdivision Regulations Overall Development Plans
P.45.2	Develop a guide to assist landowners and residents who desire a neighborhood plan to develop a plan that implements the character of the neighborhood and fulfills the needs of identified by the community.	Planning Office develops guide for distribution.
P.45.3	Ensure a clear majority of both landowners and acreage represented within the	Neighborhood Plans

[2] P.41.3 was reinstated by the Planning Board at the end of the 2010-2012 Growth Policy update process per Planning Board Resolution of July 11, 2012. Commissioners reinstated P.41.3 per Resolution 2015R. P.41.3 was therefore reinstated to Appendix C Implementation Plan. However, no implementation method was determined at that time for the revised language. This issue will be discussed during initial update process in 2013.

	established boundary of a neighborhood plan [described in Step 1 of the neighborhood planning process] are in support of a proposed neighborhood plan by following the process outlined in this chapter. Steps 1 through 6 of the neighborhood planning process provide a mechanism by which the Planning Board can recommend denial of a plan to the commissioners due to lack of support if a clear majority of landowners within the planning area boundary do not support the plan.	
P.45.4	Ensure checks and balances throughout the neighborhood planning process by establishing an option whereby a plan adopted by the County Commissioners may be repealed should written protest be submitted within 90 days following the adoption date by 40% of landowners within the neighborhood plan area whose names appear on the last completed assessment role, or by landowners representing 50% of the acreage included within the neighborhood plan boundary.	Neighborhood Plans
P.45.5	Establish a Commission-approved advisory committee for each approved neighborhood plan, comprised of landowners and residents representing diverse elements of the plan area.	Neighborhood Plans
P.46.1	Ensure previously existing neighborhood plans remain in effect until revised by the Flathead County Board of Commissioners by incorporating those existing plans into the Growth Policy as addenda deemed consistent with the existing Growth Policy.	Neighborhood Plans
P.46.2	Enable the Flathead County Planning Board and the Planning and Zoning Office to periodically review existing neighborhood plans to determine whether the County and the landowners in the neighborhood plan area should update the	Neighborhood Plans

	neighborhood plan.	
P.46.3	Initiate a neighborhood plan amendment and/or update when the County Commissioners approve a recommendation by the Flathead County Planning Board that a neighborhood plan should be updated.	Neighborhood Plans
P.46.4	Apply expedited subdivision and development review processes to existing neighborhood plan areas.	Neighborhood Plans AND Zoning, subject to 76-3-608(6) M.C.A. Subdivision Regulations Same as P.45.1 Overall Development Plans
P.47.1	Uphold the provisions of the existing interlocal agreement between Flathead County and the City of Columbia Falls.	Regular updates of interlocal agreement.
P.47.2	Maintain communication on planning issues adjacent to the interlocal agreement boundary.	Agency referral process
P.47.3	Review the provisions of the interlocal agreement for adequacy, accuracy and relevancy annually and revise as necessary.	Regular updates of interlocal agreement. Same as P.47.1
P.47.4	Encourage a statement of coordination on planning issues between the County and Columbia Falls	Prepare a statement. Similar to P.47.1 and P.47.3- an interlocal agreement is very similar to a statement of coordination.
P.48.1	Work with the City to identify areas around Kalispell appropriate for high density, urban development.	Interlocal Agreement or Zoning amendments developed with Kalispell. Development Predictability Map

P.48.2	Share plans for guiding growth away from hazardous and/or unhealthy lands.	Zoning amendments developed with Kalispell.
P.48.3	Identify areas most appropriate to be served by Kalispell or county sewer and water services. Share plans for extension of sewer and water facilities to increase the predictability of the community development process.	Kalispell/County Neighborhood Plan.
P.48.4	Work with the City to identify areas around Kalispell appropriate to preserve through open-space development design incentives or acquisition of land for natural and/or recreation areas.	Kalispell/County Neighborhood Plan.
P.48.5	Work with the City to identify areas around Kalispell likely to be annexed and appropriate for development to urban density, service and facility standards.	Kalispell/County Neighborhood Plan.
P.48.7	Encourage a statement of coordination on planning issues between the County and Kalispell.	Prepare a statement.
P.49.1	Promote representation by county officials of those residents outside the City of Whitefish, while giving consideration to both the interests of those residents as well as the growth needs of the City of Whitefish during county planning processes.	Flathead County shall administer all planning and zoning, subdivision review, lakeshore protection regulations, and floodplain regulations outside Whitefish city limits. Standard adjacent property notification as well as legal notices.
P.49.2	Request comments from the City of Whitefish agencies on subdivision, zoning and other land use issues within 2 miles of city limits and give consideration to those comments during the county review process.	Agency referral process
P.49.4	Encourage a statement of coordination on	Prepare a statement.

	planning issues between the County and Whitefish.	Similar to P.49.1 and P.49.3- an interlocal agreement is very similar to a statement of coordination.
P.50.1	Develop an intergovernmental agreement clarifying and codifying all jurisdiction, communication and coordination issues on lands within both the Flathead Indian Reservation and Flathead County as well as tribally-owned lands outside the Flathead Indian Reservation.	Intergovernmental Agreement
P.50.2	Communicate on development occurring near and/or on lands designated as culturally significant to the Confederated Salish and Kootenai Tribes.	Subdivision Regulations- require "cultural clearance" from the tribe.
P.50.3	Provide for cultural clearance of development sites in Flathead County where defined Indian artifacts are uncovered during development, as part of the intergovernmental agreement.	Subdivision Regulations- require "cultural clearance" from the tribe. Similar to P.50.2
P.51.1	Actively participate in the process of planning for federal and state lands, communicating regularly on issues of importance to Flathead County residents and providing input to state and federal agencies on the effectiveness of existing plans.	All plans once adopted by Flathead County could be considered "active participation" that communicate to the federal and state land managers the issues of importance to residents of Flathead County.
P.51.2	Regularly review and update the accuracy and relevance of the "Flathead County Natural Resource Use Policy, Custom and Culture Document."	"Flathead County Natural Resource Use Policy, Custom and Culture Document." Rural Lands Policy and Regulation Advisory Committee
P.51.3	Pursue a "statement of coordination" with state and federal land management	Statement of Coordination

	agencies, clarifying and codifying relevant jurisdictional issues including, but not limited to, fire response, fuel reduction, emergency services, road usage and access, water resources, timber, agriculture, noxious weeds and recreation access.	

NEITHER

Neither		Reason
P.2.1	Create land use regulations that are directly linked to the vision outlined in the Growth Policy.	Land use regulations are required under MT law to be linked to the growth policy. Implementation method would be "compliance with state law."
P.2.2	Regulatory and fiscal implementation of the Growth Policy should protect the public health, safety, morals, convenience, order, or general welfare in the process of community development (76-1-106, M.C.A.).	The Planning Board implements the Growth Policy and functions according to law cited. Implementation method would be "compliance with state law."
P.8.1	Create reasonable, flexible and predictable development guidelines based on accurate, fair and reasonable criteria.	This is a general statement, more of a goal than a policy.
P.12.1	Identify areas of known sand and gravel resources.	Same as P.12.2., but less specific.
P.12.8	Require compliance with existing local, state and federal laws regarding oil, gas, and mineral exploration or production.	Flathead County can only administer those laws that are within our statutory jurisdiction.
P.14.5	Consider existing adjacent or nearby private or public solid waste collection facilities during the development process.	There is only one solid waste collection facility in Flathead, and all areas of the county are served by private contract hauling per PSC requirements. Also, the policy does not give indication of what to consider, such as distance, capacity, cost, etc. of these facilities. No guidance is given by this policy.
P.15.1	Encourage housing, employment, education and recreation to attract, support and maintain young families.	This policy is too broad to be effectively implemented. Affordable housing, entry

		level professional jobs, higher education opportunities and youth-oriented recreation programs are all addressed in other more specific policies in the document.
P.15.3	Promote and respect the culture, heritage and history of Flathead County residents.	Similar to P.8.1, this is a general goal statement and does not provide specific guidance for growth issues in Flathead County. The policy is certainly an important statement, but is not implementable with specific actions.
P.16.4	Consider the locational needs of various types of housing with regard to proximity of employment, access to transportation and availability of public services.	This policy does not offer guidance. Its intent would be better understood if combined with P.16.3 to offer guidance for locating prime sites to encourage affordable housing.
P.16.5	Promote the rehabilitation of historic and/or architecturally significant structures for the purpose of conversion to housing.	Implementing this policy is not feasible in Flathead County within the foreseeable future. A fine statement and worthy policy, but actually implementing it would require oversight and "incentivizing" of the building process.
P.20.2	Maintain the current level of recreation services by providing innovative programs geared towards a diverse demographic of county residents (children, adults, seniors, etc.).	This is more accurately a goal statement, to be included in the Parks and Recreation Master Plan, followed by policies detailing how it would be accomplished.
P.21.6	Preserve the natural amenities that	This is more of a goal

	characterize the county in order to attract industries and businesses that maintain the high quality of life that attracts visitors and new residents, and sustains the tourism sector of the economy.	statement. This is a very important goal, but is too broad to be implementable.
P.23.1	Manage land use and the transportation system as a unified and coordinated system to ensure that one does not outpace the other.	This is more of a goal. The policies would be how this is to be accomplished.
P.23.9	Adopt urban road standards and designs consistent with city road standards in county areas adjacent to cities.	Not realistic to implement. If a property is adjacent to a city and the density is such that ag is appropriate, then they will likely annex to get sewer and water. Historically, there has been no county support for requiring curb, gutter, sidewalks and streetlights in projects near cities due to cost to developer.
P.25.3	Support the partnership between Eagle Transit, the State of Montana and the National Park Service to develop a joint transit system that services both Glacier National Park and the residents of Flathead County.	Not implementable in a Land Use plan.
P.31.1	Consider a school district's ability to accommodate new students as part of the proposed subdivision review process.	Possibly illegal- see 76-3-608 M.C.A. Consider removing.
P.31.2	Consider the needs for future school building sites as development occurs.	Future sites for schools should be considered WELL in advance of development, so as to fairly and predictably secure locations during the development process. Considering ANY future needs can't be done "as development occurs."
P.32.2	Support mutual aid agreements between	A land use plan cannot

	rural and municipal fire districts.	implement mutual aid agreements, nor is there a mechanism to "support mutual aid agreements."
P.39.2	Encourage educational programs on voluntary conservation strategies for private property owners.	Difficult to implement through a regulatory land use process- more of a private task for non-profits. Possibly implemented by distributing brochures in the Planning Office.
P.40.5	Develop incentives to encourage failing and polluting septic systems to be upgraded.	Failing and polluting systems are the jurisdiction of MDEQ and there is very little land use regulations or plans can do to "incentivize" replacement of these systems.
P.40.6	Encourage educational programs on septic system impacts to groundwater and surface water quality for neighborhood associations and other organizations to utilize.	FCPZ is unlikely to provide resources to encourage programs that are the primary jurisdiction of another county office/state agency. Possible partial implementation by distributing brochures in the Planning Office. Similar to P.30.3
P.49.3	Protect and preserve the many unique opportunities present in the natural and human environment.	Too vague to be implemented effectively.

PART 2: Implementation Methods

In Part 1 of this document, numerous methods for implementing policies and action items are listed. Chapter 10 of the Flathead County Growth Policy entitled "Implementation Strategy" lists many of these methods. Others are specifically authorized under Montana law and need not be specifically mentioned in the Growth Policy. Still others are proposed in Part 1 for the first time and will be appended to the Growth Policy with the adoption of this document.

For clarity and better understanding of the implementation scope of work, all implementation methods are listed below. Methods are divided into Non-Regulatory and Regulatory lists and further identified as either "Existing in Growth Policy" or "Proposed as New Implementation Method."

Non-Regulatory Implementation Method	**Authorization Status**
Neighborhood Plans[3]	Existing In Growth Policy
Overall Development Plans*	Proposed as New Implementation Method (See Part 3)
Mineral Resource Extraction Plan	Existing In Growth Policy
Growth Policy Text Amendments	Existing In Growth Policy
Parks and Recreation Master Plan.	Existing In Growth Policy
Transportation Plan	Existing In Growth Policy
Water Quality/Flathead Basin Management Plan	Existing In Growth Policy
Flathead County Natural Resource Use Policy	Existing In Growth Policy
Distribution of educational materials	Existing In Growth Policy
Rural Lands Policy and Regulation Advisory Committee	Proposed as New Implementation Method (See Part 3)
Affordable Housing Plan	Existing In Growth Policy
Building Department Feasibility Analysis	Proposed as New

[3] Although Neighborhood Plans and Overall Development Plans can be used to implement much of the Growth Policy, it is important to note that these plans individually cover limited areas of Flathead County. Some implementation requires county-wide planning, such as the Parks and Recreation Master Plan or the Wastewater Management Plan.

	Implementation Method (See Part 3)
Economic Development Authority	Existing In Growth Policy
Capital Improvements Plan	Existing In Growth Policy
Flathead County Solid Waste District Strategic Plan.	Proposed as New Implementation Method (See Part 3)
Wastewater Management Plan	Existing In Growth Policy
Emergency Service Plan(s)	Existing In Growth Policy

Regulatory Implementation Method	**Existing or Proposed Authorization**
Official Map	Existing In Growth Policy
Lakeshore Regulations.	Existing in M.C.A.
Statements of Coordination/Interlocal Agreements	Existing In Growth Policy
Road Design Manual	Proposed as New Implementation Method (See Part 3)
Impact Fees	Existing In Growth Policy
Floodplain Regulations	Existing in M.C.A.
Development Predictability Map	Existing In Growth Policy
Zoning[4]	Existing In Growth Policy
Subdivision Regulations	Existing In Growth Policy

[4] Zoning can be used as a tool to implement land use policies. Some actual "policies" (see definition in Part 1 of this document) already in the Growth Policy can be directly implemented with zoning. Some "action items" (see definition in Part 1 of this document) are implemented with additional plans that may contain new detailed policies. Those new policies can then be implemented with zoning.

PART 3: New Implementation Methods Described

Part 2 of this document introduced 5 implementation methods not currently listed in Chapter 10 of the Flathead County Growth Policy. The new implementation methods are described below and hereby appended to the Flathead County Growth Policy.

Road Design Manual

On July 2, 2007 the Flathead County Commissioners passed Resolution #2074 adopting minimum standards for design and construction of public and private roads in Flathead County. Regulatory standards were adopted to provide clear, predictable road design and construction guidance to both county agencies and private sector interests and to improve county-wide quality, consistency and safety of roads. The standards shall be revised and updated as needed.

Rural Lands Policy and Regulation Advisory Committee

The purpose of this committee is to provide landowner's perspective and technical support to the county relative to any proposal(s) that would create or amend land use policies and regulations affecting the rural landscape The role of this Committee is primarily intended to address proposed or amended county policies or regulations that would have broad application to the forest or agricultural landscape and not to individual landowner applications that do not change established county policy, rules, or regulations. The Committee should, at a minimum, consist of the Flathead County Fire Warden and one representative from each of the following groups appointed by the Commissioners: (1) Large agricultural land owner, (2) Federal or State land management agency, (3) rural residential landowner - agriculture, (4) rural residential landowner – forest land, (5) industrial forest landowner and (6) the Flathead County Planning Board. Any County agency or board considering a policy or regulation that would affect any of the landowner types listed above must consult this committee early in the process for input and review of any such proposed policy or regulation.

Flathead County Solid Waste District Strategic Plan.

The Flathead County Solid Waste District is responsible for solid waste facilities and services in Flathead County. The Flathead County Solid Waste District should create a strategic plan to guide the management of future services and facilities. The Flathead County Growth Policy outlines many objectives to be accomplished in a Solid Waste Strategic Plan and could be used as a guide during the creation of that document.

Building Department Feasibility Analysis

Rapid growth and construction in Flathead County has created challenges for ensuring the safety of residential structures in rural areas. Although many builders voluntarily meet building codes established by national organizations, residential structures in Flathead County are not inspected beyond plumbing and electrical systems for

compliance with other minimum health and safety standards. A feasibility analysis could be completed to compare and contrast the overall cost of requiring compliance with some minimum building standards and the associated benefits to public health, safety and general welfare.

Overall Development Plans

Montana law differentiates between public health, safety and general welfare impacts of minor subdivisions (5 lots or less) and major subdivisions (6 lots or more). However, no additional distinction is made for the regional impacts of large development projects with multiple phases extending over long periods of time. Flathead County is increasingly accepting applications for development projects that involve hundreds of lots/units or more, with multiple phases and proposed uses in unzoned areas. The impacts of these large developments are minimally reviewed for their regional planning significance, only for their compliance with the subdivision regulations.

Overall Development Plans (ODP) provide a mutually beneficial way for both the community and the developer to address the impacts of large developments in areas with no regulatory land use designations or accompanying performance standards. ODPs combine the regional planning elements of a neighborhood plan with the predictability and flexibility of a Planned Unit Development (PUD). Developers and property owners seeking a predictable entitlement process begin by first addressing large-scale planning issues such as arterial and collector roads, emergency service facilities, future land use designations, environmental constraints and compliance with the Neighborhood Plan (if applicable) and Growth Policy. Developers and landowners also have the option of securing additional marketability of a product by including details not normally found in subdivision regulations such as overall character of the development, building design elements, unique lighting standards, etc. The ODP also includes a proposal for detailed land use zoning throughout the project to secure a regulatory entitlement of future land uses, development standards and build-out densities. Once a plan is developed, future subdivision applications within the plan provide technical details such as lot layouts, local road layout and building sites.

ODPs are landowner initiated voluntary tools to "master plan" property for development. ODPs cannot be required as a condition to any preliminary plat application or be mandatory to any proposed application. ODP's may identify an entire tract, a portion of a tract or multiple tracts for planning; however not all contiguous ownership is required to be planned at one time if development plans are not immediately anticipated or desired for the remaining contiguous properties. Incentives must be part of any ODP process to encourage the use of this tool by a landowner. In particular, the environmental analysis included in the ODP, together with the adopted zoning, should be sufficient to waive the redundant environmental review requirements with each subdivision application. Failure by the governing body to approve an ODP application does not preclude future development options for the property. An ODP is not a Neighborhood Plan in that it is not a plan created by a community but shall, at a minimum, contain the elements required under 76-1-601 M.C.A. in order to utilize incentives enabled in state law. Detailed

guidelines for preparing Overall Development Plan applications should be appended to the Flathead County Growth Policy.

ODPs are appropriate to the following situations:

- To help implement a neighborhood plan
- To achieve long-term entitlements and future predictability of long term development objectives
- To amend any existing entitlements including zoning, land use maps, density maps or Development Predictability Maps

The ODP shall include the following basic elements:

- A conceptual lot layout at full build-out with detailed information for Phase 1
- Land use plan (uses, density, location)
- Transportation plan (road circulation, trip generation, trip destination)
- General design standards and covenants
- Open space plan
- Phasing plan
- Assessment of the natural environment (soils, topography, vegetation, habitat)
- Water availability report
- General sanitation assessment
- Wildland fire mitigation plan (if applicable)
- Infrastructure plan (utility extensions, drainage)
- Emergency services and schools impact assessment
- Wildlife impact assessment
- Proposed zoning
- 76-1-601 M.C.A. criteria for a growth policy. The extent to which the ODP addresses the criteria is at the discretion of the governing body.

PART 4: Implementation Schedule

The Flathead County Growth Policy calls for a number of specific master or management plans to be written. It is not possible to assess the importance of these plans by simple numerical prioritization alone. They involve issues that are of vital importance to the future of Flathead County. The Flathead County Commissioners and the Planning Board held a joint workshop on October 3, 2007 to discuss the relative importance of these plans. It was determined that they all will provide needed guidance in areas of critical importance. The Commissioners fully understand that importance and are committed to assuring their creation in the shortest timeframe possible, assuming adequate funding is available. The prospect of assigning responsibility for drafting the plans to existing or newly created county boards and committees will be given strong consideration.

All plans created will follow the public process outlined in Section 2 of Chapter 10 of the Flathead County Growth Policy. Planning staff would be assigned to the various bodies for the purpose of aiding and monitoring progress. All the plans will eventually be brought to the Planning Board for public hearings and possible revisions before being forwarded on to the Commissioners with a recommendation for amending to the Growth Policy. The goal is to have all plans completed within 24 months. The plans are listed below, in order of priority to implement as set by the Commissioners and Planning Board at the October 03, 2007 workshop.

Non-Regulatory Implementation Method	**Completion Goal**
Overall Development Plans	24 months
Transportation Plan	24 months
Water Quality/Flathead Basin Management Plan	24 months
Mineral Resource Extraction Plan	24 months
Affordable Housing Plan	24 months
Rural Lands Policy and Regulation Advisory Committee	24 months
Wastewater Management Plan	24 months
Parks and Recreation Master Plan.	Completed, update as needed.
Neighborhood Plans	As needed.
Growth Policy Text Amendments	As needed.
Flathead County Solid Waste District Strategic Plan.	Completed, update as needed

Distribution of educational materials	As needed.
Flathead County Natural Resource Use Policy	Completed, update as needed.
Emergency Service Plan(s)	As needed.
Economic Development Authority	As needed.
Capital Improvements Plan	Completed, update as needed.
Building Department Feasibility Analysis	As needed.

Regulatory Implementation Method	**Completion Goal**
Official Map.	24 months
Development Predictability Map.	24 months
Land Use Zoning (where health, safety, efficiency and general welfare impacts of increased development make it appropriate).	24 months
Impact Fees	24 months
Statements of Coordination/Interlocal Agreements	24 months
Subdivision Regulations	Completed, update as needed.
Floodplain Regulations	Completed, update as needed.
Road Design Manual	Completed, update as needed.