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## I. FOREWORD

In 1990, more than 60% of the freeholders within the land area bounded approximately by the Karst Ranch at the north, the Corral Restaurant and Motel on the south, the Park County line and Gallatin Range ridge on the east and the Madison County line on the west, petitioned the Board of County Commissioners of Gallatin County for the creation of a planning and zoning district, and the appointment of an Advisory Committee to prepare a proposed plan and zoning regulation for the district.

According to Montana law (Title 76, Chapter 2, Part 1, MCA), the district was created and an Advisory Committee was appointed by the Gallatin Canyon/Big Sky Zoning Commission. Members of the Advisory Committee were:

Kurt Alt (FWP)*	Shirley Luhrsen
James A. Anderson (resigned)	Donald W. McAndrew
Michael M. Ankeny**	Ken Morton
Richard A. Barton (resigned)	Bill Murdock
Carol L. Collins	Tim Ryan
Bob Dennee (USFS)*	Tom Simkins
Kevin Kelleher	Joe Sabol
John Kircher**	

\*Advisory members.

\*\*Rick Gustine and Mike Money represented John Kircher and Michael Ankeny.

This document incorporates the work of that Advisory Committee. It consulted with many land owners and residents, invited the public to attend its meetings, heard several experts in many fields of interest, held a number of informal meetings with interested residents and land owners, and frequently wrote articles about its activities for publication in the *Lone Peak Lookout* and *Big Sky Bugle*. Following a series of interim public hearings, the draft document was revised to assure consistency without significant changes to substance or basic policy content.

This draft is published for review prior to scheduled public hearings to be held by the Gallatin Canyon/Big Sky Zoning Commission. After necessary hearings, public comment, consideration and action by the Zoning Commission, it will be forwarded with recommendations to the Gallatin County Commission for final adoption; along with the proposed Zoning Regulation, Land Use Map, and Capital Improvements Policy.

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## II. REGIONAL SETTING

The Gallatin Canyon/Big Sky Planning and Zoning District is a unique place, with a tremendous variety of plants and animals. It occupies some of the most rugged and beautiful terrain in the United States.

Portions of the Madison and Gallatin Mountain Ranges are within the area. Those ranges are outstanding examples of uplifted anticlinal folds common to the Rocky Mountains. They were formed primarily through extensive compulsion and related crustal activity, and subsequent erosive action of water and ice.

The major waterways are the Gallatin River, the West Fork, and Porcupine Creek.

The region's climate is controlled primarily by its proximate location to the Continental Divide. Seasonal fluctuations involve occasionally severe winter storms, heavy spring precipitation and warm summer days.

Landscape management zones defined by the U. S. Forest Service for the Gallatin Ranger District are good indicators of ecological systems in the region. These zone associations result directly from the geomorphology, geology, exposure, climate, hydrology and soils of the area.

General profiles of these zones are described in the Multiple Land Use Management Guide for the Gallatin Ranger District (1967), as follows:

*General Forest Zone: This zone comprises the broad, mid-elevation areas above which is located the High Area Zone. This zone is generally characterized by a timber cover of lodgepole pine, Douglas fir, spruce, and alpine fir with intermediate high open ridges and intermingling parks of open grassland and sagebrush. Lodgepole pine is the predominant coniferous species type, comprising about 75% of the timber cover. The elevation varies from 5,200 to 8,500 feet.*

*Crest Zone: This zone extends upward from the General Forest Zone and lies along both the Gallatin-Yellowstone and Gallatin-Madison Divides. A good portion of this zone is characterized by high rugged peaks. The balance is high, open ridges with a scattering of alpine and sub-alpine vegetation types and thinly-timbered basins at the head of streams. This zone is an important producer of water and a regulator of stream flow. In the open basins at the heads of streams, many large snow banks form in depressions, water courses, on the north sides of steep banks and escarpments and on the lee side of windbreaks. This zone is very scenic, offering exceptionally beautiful panoramic views from the high, open ridges.*

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*Water Influence Zone: This is best described as generally following the Gallatin River and its principal tributaries, and as such, it transects other zones. The zone is usually irregular in depth, depending on the water environment and the character of the terrain and vegetation. The growing season, climatic conditions, soil characteristics, and topography are generally the same as the zone or zones through which it passes. The differences which may exist are usually caused by the proximity to water and the moisture available to shoreline vegetation.*

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### III. EXISTING LAND USES

The Gallatin Canyon\Big Sky Zoning District, because of its location and mountainous terrain and its limited population, has a distinct land use pattern.

The area is predominately forested, with the Forest Service having jurisdiction over a substantial portion of the District. This jurisdiction includes fire protection, garbage and waste disposal, the granting of grazing and logging permits, wildlife habitat management, visitor accommodations and control, and range and forest maintenance. These forest lands are utilized for timber, water, wildlife, grazing, and recreation.

The strongest defining features of the District are the steep, heavily timbered mountain slopes and the Gallatin River. The mountains constrain access, while providing ideal opportunities for recreation. The topography creates separate distinct identities for the different regions of the District.

Commercial activities in the Gallatin Canyon area are located alongside U.S. Highway 191. A substantial commercial area is located at the junction of U.S. Highway 191 and the Big Sky Spur Road. The commercial uses are mainly tourist-oriented facilities (bars, restaurants, mini-marts, fly fishing shops, antique shops, etc).

Commercial activities in the Big Sky section of the District are limited to the Meadow Village Center and another commercial area adjacent to the Big Sky Spur Road. The commercial uses are resident and tourist oriented, and include restaurants, a general store, the post office, and real estate offices.

Residential areas in the Canyon are located along U.S. 191, and also in several subdivisions located in adjacent drainages such as Beaver Creek. There has been a minimal amount of development on hillsides that overlook the Gallatin River.

Residential areas in the Big Sky area range from condominium developments to large lots with single family homes. The condominium developments are mainly located in the center of the Meadow Village, with the single family residential areas radiating out from the area.

Agricultural usage within the planning area is limited primarily to grazing activities. Most of the acreage in agricultural use produces feed for livestock. In the Canyon, this forage crop is generally used for on-site grazing practice. Both the Forest Service and private landowners issue grazing permits to allow their land to be used as pasture by others. Other than limited grazing use, there are virtually no agricultural uses within the District.

Recreational opportunities in the District are abundant. Downhill and cross country skiing are both available. There are miles of multi-use trails. Hunting, fishing, camping,

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and back-packing are enjoyed by residents and visitors alike. A golf course is popular in the summer season.

### **Housing**

The District exhibits one of the typical problems of resort communities: assuring affordable housing for seasonal and permanent employees. As more visitors arrive and as more part time residents make the District their home, housing has gotten bigger and more expensive. Year round, long time residents find that opportunities are becoming difficult for their children to stay in the District. Business owners that depend on the tourism economy have nowhere to house their employees and their families.

Ideally, employee/affordable housing should be an integral part of the community. Without the opportunity to buy property in a resort community, the work force is denied a sense of ownership and investment within the community. Workers can be transported from outside the community but then may lack community loyalty.

The Advisory Committee recognized that a range of affordable housing types are needed in the District, from seasonal employee accommodations to affordable rental units to low cost single family housing. The land use plan delineates areas for employee/affordable housing. The zoning regulation includes housing incentives.

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## IV. DISTRICT HISTORY

The District has a rich history. At various times, District residents have included Native Americans, explorers, hunters, trappers, ranchers, loggers and miners. The last of the tribal Native Americans to occupy the Gallatin Canyon were Sheepeaters; remnants of their wickiups (huts) have been estimated to be 160 years old.

Captain Clark of the Lewis and Clark expedition passed by the mouth of the Gallatin Canyon. Because of its proximity to the natural wonders of what is now Yellowstone Park, the Gallatin Canyon was used as a route by early explorers, including John Colter after he left the Lewis and Clark expedition. In the 1800s, Theodore Roosevelt organized a party to visit these Yellowstone wonders, and camped at Beaver Creek a few days to resolve logistic and personnel problems.

Hunters and trappers came during the early 1800s, taking beaver and other pelts. They were followed by miners, who fanned out from Bannock and Virginia City, to find small veins of gold along the Gallatin River tributaries. One miner, Levinski, became a legend after turning himself in to the Sheriff for killing two "claim jumpers". After being released on the ground of "self-defense", Levinski transferred his claim to a friend's wife and disappeared.

Loggers extended operations steadily southward, dragging logs by horse and mule to the river and floating them down to Salesville for cutting into lumber. A few homesteaders tried farming, and some of their irrigation ditches and rusting equipment now attest to their failure.

Beginning in the 1870s, settlers established ranches for cattle and horses. The Anxiousnais (later anglicized to Anceney) family put together the Flying D Ranch, which consisted of 400,000 acres. The Flying D was the world's largest ranch, and extended from the Gallatin River to the Madison River and to south of Helena.

Some of the ranches became dude ranches as Easterners came to view the wonders of the Wild West. Other Easterners bought ranches for their own use and to raise polo ponies. At one time, the Butler family of Chicago owned the Backward B-K (now the Lone Mountain Ranch). A prominent resident of the area, Dr. Caroline McGill, was a pathology professor from Missouri who practiced medicine in Butte. She established a patient rehabilitation center at the 320 Ranch and donated the funds necessary to build the first Ophir School. That first school was on the east side of the road, now U.S. Highway 191, just north of Porcupine Creek.

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Yellowstone National Park drew ever-increasing numbers of visitors, and railroads competed for the tourist business by extending their lines. Union Pacific, the first railroad into Montana, transported tourists by stagecoach from Monida to the west entrance. The Union Pacific lost trade to the Northern Pacific when that railroad extended a branch line from Livingston to Gardiner. The Union Pacific then extended a branch line from Ashton, Idaho, to the west entrance, where the community of West Yellowstone was established.

As part of Congressional legislation to aid construction of rail lines, the Northern Pacific was given title to forty sections of land per mile, while the Union Pacific received twenty sections per mile. The railroads received every other section of land, in a checkerboard pattern, within several miles of their rights-of-way. Many years later these lands were conveyed to timber cutting subsidiaries of the railroads. The resultant public-private checkerboard ownership pattern can be seen on Forest Service maps.

The Chicago, Milwaukee, St. Paul & Pacific Railroad also played a part in local history. The railroad built a spur line from Bozeman Hot Springs to a hotel and terminal building in Salesville. Salesville residents were persuaded to change the town name to Gallatin Gateway. Karst Ranch was contracted to provide tour bus service to West Yellowstone and through Yellowstone Park. The railroad advertised its service as "The Gallatin Gateway Route through Yellowstone". The service was begun in the Summer of 1929 and continued through the 1930s. By then automobiles were allowed into the Park and visitors were abandoning railroads.

Although logging and ranch roads had snaked their way up the Canyon to the Taylor Fork, there was no road through to West Yellowstone until the early 1900s. At that time, Gallatin County received approval from Yellowstone Park to build a road through the Park to West Yellowstone. That road became U.S. Highway 191.

What may have been the first mechanical ski lift in Montana was operated just off U.S. Highway 191. Karst Ranch operated a cable powered ski tow at the base of the mountain to the west of the Ranch. The tow served both downhill skiers and jumpers and opened in 1936. The last day of its operation was December 7, 1941. Many of the those who used the ski tow went into military service immediately and served in the armed forces in World War II.

Soldiers Chapel, located near the Big Sky Spur Road, was built to honor those whose lives had been given in defense of their country. The memorial was developed by the Story family to honor their son, Lt. Nelson Story III, and other area residents who served and died in World War II.

The Gallatin River and its tributaries gradually became famous for its trout fishing, drawing fishermen from near and far. One fisherman, a student at Montana State University, fished the West Branch and never forgot his impression of the beauty of the valley with Lone Peak as its backdrop. That impression stayed with him as he pursued a most successful career as a radio and television news commentator-- the senior member of the famous "Huntley-Brinkley" team.

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In the late 1960s, Chet Huntley's vision of a winter and summer resort began to emerge into potential reality. Led by Chrysler Realty Corporation, planning for the Big Sky Resort began. Land was acquired by purchase and trade-- the latter often in three-way agreements among Big Sky, Burlington Northern (successor to Northern Pacific Railroad) and the United States Forest Service.

**A. The Big Sky, Inc. "Master Plan"**

When Chet Huntley's dream came to fruition, Big Sky project managers prepared a "master plan". Many current property owners in the Big Sky community purchased their property with the belief that land use designations on that map were accurate and binding representations of future development.

Since that "master plan" was hung on area realtors' and developers' walls, several projects were built contrary to the land use designations on the "master plan". In 1988 and 1989, during public hearings for Pinewood Hills Subdivision conducted by the Gallatin County Commissioners, Big Sky residents realized that the 1972 "master plan" had not been officially adopted or recognized according to the procedures set forth in Montana statutes. As noted in the Foreword, the statutorily mandated process to form a planning and zoning district was begun shortly thereafter.

Many people who assisted in the creation of the planning and zoning district did so with the intent to transfer the 1972 "master plan" to this plan. The 1972 "master plan" was used as a starting point for discussions and considered when this land use plan was formulated. Other factors that were considered included development that has occurred in the Gallatin Canyon and Big Sky, Forest Service plans and existing covenants on private property.

**B. 1972 Gallatin Canyon Study**

In February of 1971, the Gallatin County Board of County Commissioners initiated a study of the Gallatin Canyon. Prepared by the Murray-McCormick Environmental Group, the report, entitled "Gallatin Canyon Report" was completed in 1972. Copies of that report were made available to the members of the 1990 Advisory Committee. That study is herein referred to as the "1972 report", and sections of it follow.

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The Advisory Committee found the 1972 report useful in providing information concerning the environment-- climate, soil, forests, surface and subsurface water and stream flow, geology, wildlife, botany, air quality, etc.-- that can be relied upon as still true. Other information, particularly demographic information, was less useful because of the great changes in land use and population that have taken place since 1972. In particular, the creation of the Big Sky Ski and Resort complex, in and around the area from Lone Peak (in Madison County) to the confluence of the West Fork of the Gallatin River and the Gallatin River, and the resulting changes in infrastructure and the influx of residents, vacationers, employees and business establishments, have largely made obsolete the demographic information in the 1972 report. For that reason, a considerable amount of updating has been done to develop this plan.

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## V. POPULATION AND DEMOGRAPHICS

1986 and 1988 Bank Feasibility Studies. In 1986, a group of interested investors received a feasibility analysis relating to the establishment of a bank in Big Sky, and that analysis was updated in 1988. Those investors established the Big Sky Western Bank, which made a copy of the analyses available to the Advisory Committee. The following information has been abstracted from those analyses:

Population. Because Big Sky is not incorporated, there is no census or other official population count, but the study attempted to establish a population of the proposed bank's "primary service area". The primary service area is somewhat larger than the District as it included: (a) Mountain Village in Madison County; (b) the Gallatin Canyon from its mouth to Karst Ranch; and (c) the Gallatin Canyon from Rainbow Ranch to the north boundary of Yellowstone National Park.

Various methods were used to estimate population; and included the number of electric utility meters in service, number of registered voters, average daily vehicle counts on certain sections of road, number of sewer hook-ups, typical wastewater flow in areas served by RID 305, number of telephone connections, and postal patronage. Based on those evaluations, the study estimated the population of the "primary service area" as follows:

<u>Year</u>	<u>Population</u>
1986	1,269
1987	1,307
1988	1,346
1989	1,386
1990	1,428
1991	1,428

The Advisory Committee has no reason to question the foregoing estimates, and considers them to be the best available at the time. However, it must be noted that: [1] the study area was somewhat larger than the District; and [2] the studies did not separate the estimated population to distinguish among permanent residents, part-time residents, seasonal residents, absentee owners and casual vacationers, although some demographic information was developed, as discussed below. Some error is inherent in those estimates.

Population Growth. Perhaps more significant to the Advisory Committee than the estimates of population were the growth factors shown in the two analyses. Examples are:

Year	Electric Meters	Registered Voters*	Vehicle Count**	Wastewater Flow	Resident Phones	Business Phones
1980				316	59	
1981	827		849		386	86
1982	851				449	80
1983	893		1,040		508	77
1984	913				600	88
1985	935		1,390		695	100
1986	963	344		137,363	731	111
1987	1,001		1,600		642	120
1988		396		199,503	685***	142

\* Includes only voters registered in Precinct 37 Big Sky

\*\* Counts taken on Spur between 191 and Meadow Village

\*\*\* Does not include unlisted telephones, which increased from 80 in 1986 to 120 in 1988.

According to the 1988 analysis; recent annual growth rates were 3.9% for electric meter installations, 14.6% for residential telephones and 17.6% for business telephones.

Demographic Information. The 1986 analysis included the results of responses to a questionnaire mailed in September, 1986, revealing the following information about those who responded:

- 77% were full-time residents; 14% were primarily summer residents; 4% were primarily winter residents, and 5% were "other". It was felt that winter residents were under represented because of the timing of the survey.
- 56% were employed full-time; 16% employed part-time or seasonally; 21% retired; and 7% "other".
- As to household income, 10% were under \$ 10,000; 19% were from \$ 10,000 to \$ 15,000; 24% were from \$ 15,000 to \$ 25,000; 20% were from \$ 25,000 to \$40,000; and 27% were over \$ 40,000.
- Mailing addresses of the 970 members of the Big Sky Owners Association are shown in the table below:

Big Sky	97
Gallatin County	68
Montana	207
Out of State	598

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States represented were:

Minnesota	112
California	66
North Dakota	54
Illinois	53
Other	313

Non-resident BSOA members indicated an average of 27 days per year residence in Big Sky and an average household income in excess of \$ 40,000.

■ The Big Sky area has over 1,000 rooms for rent. This figure includes hotel, condominium, and hostel rooms. Since the 1988 study, a new convention center in Mountain Village was opened in 1990. Growth of resort operations was reflected in the following statistics supplied by Boyne USA:

EMPLOYEE GROWTH: BOYNE USA	
Summer 1981	90 employees
Summer 1986	125 employees
Winter 1981	240 employees
Winter 1985	330 employees
Winter 1991	500+ employees

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Ski Season	Skier Days
1981/82	107,000
1982/83	131,000
1983/84	136,000
1984/85	140,000
1985/86	127,000
1986/87	Not Available
1987/88	164,000
1988/89	187,000
1989/90	213,000
1990/91	231,000

This steady growth is the result of several factors. First, there was an excellent early snow base and continuing good snow conditions throughout the 1990/91 season. Second, expert slopes were made accessible by the newly opened Challenger chairlift. Third, the Southern Comfort lift opened in late Winter, 1991. Fourth, five new runs opened on the south face of Andesite Mountain. Finally, during the summer and fall of 1991, the Ramshead double chairlift on Andesite Mountain was replaced by a high-speed quad lift called RamCharger, much enhancing the ability to serve all runs on Andesite.

■ The 1986 analysis included a survey of businesses other than those of Boyne USA, which in addition to operating the ski resort and related hotel/restaurant complex also operates several other businesses under a variety of names. Responses of 24 non-Boyne businesses revealed:

- 4% had annual sales less than \$ 10,000;
- 8% had annual sales between \$ 10,000 and \$ 25,000;
- 4% had annual sales between \$ 25,000 and \$ 50,000;
- 21% had annual sales between \$ 50,000 and \$ 100,000;
- 42% had annual sales between \$ 100,000 and \$ 500,000; and
- 21% had annual sales over \$ 500,000.

Fifty-five total businesses responding to other questions indicated that they had 289 full time and 334 part-time or seasonal employees. The smallest was a one-person operation; the largest employed 60 during the ski season. The average number of full-time employees was 5.3; the average number of part-time employees was 6.1.

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Questionnaire. The Advisory Committee developed a questionnaire to ask people within the District their opinions about a plan and zoning regulation. This questionnaire was distributed to members of the Big Sky Owners Association, was mailed to as many other residents of the District as could be ascertained, and was published in the *Lone Peak Lookout*. The questionnaire responses are summarized in Appendix "A".

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## **VI. INFRASTRUCTURE**

The infrastructure of a community includes streets, wastewater collection and treatment and water facilities, schools, police and fire protection, and medical facilities. Significant changes took place in portions of the Gallatin Canyon/Big Sky Zoning District during the past 25 years as the Big Sky Resort was built and grew. Continued growth requiring additional infrastructure is expected. In addition to normal growth requirements, changes; repairs and replacements must be made, as shown in the discussion below.

### **A. Utilities**

#### **1. Wastewater Treatment**

Current wastewater treatment in the Meadow Village area of Big Sky is provided by the Big Sky Water & Sewer District No. 363, which serves Meadow Village (including Westfork Meadows and Sweetgrass Hills), Hidden Village, and Mountain Village. Anticipated growth in the Big Sky area will require additional facilities for meeting current needs and for additional residential and commercial development.

The current wastewater collection and treatment system serves approximately 1,928 single-family equivalents (SFE) according to available information. The SFE is used as a unit of service demand which can be related to type of dwelling and occupancy loads on the wastewater system. In general, an SFE can be estimated as 2.5 persons. With that factor, the estimated population served is roughly 4,800.

The Big Sky Water & Sewer District is also obligated to provide wastewater treatment service for an additional 6,583 SFEs, according to the “Long-Term Compliance Work Plan” . Using the same assumed factor of 2.5 persons/SFE, an additional potential served population of about 16,500 can be projected, for a combined possible future population of over 21,000.

The existing collection system consists of approximately 214 inch/diameter/miles of sanitary sewer system with diameters from 6 to 24 inches. The treatment system consists of an 8.2 million gallon lined aerated pond, plus two unlined storage ponds for treated water which have a combined capacity of about 62 million gallons. The Sewer and Water District’s engineers estimate that approximately 47 to 62 million gallons per year seep out of the existing storage pond and into the groundwater.

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On July 13, 1993, the Montana Department of Health and Environmental Sciences placed a moratorium on new connections to the sewer system, and issued a Compliance Order that required the District to submit an Interim Action Work Plan and a Long-Term Compliance Plan.

The Interim Action Work Plan was submitted to the Department of Environmental Quality on November 1, 1995; and includes proposed construction of a wastewater filtration system, expansion of the irrigation system for treated wastewater on the golf course, expansion of the irrigation pump station, enlargement of the storage ponds to provide 100 million gallons of storage, and installation of a temporary irrigation system on land south of the existing golf course.

The remainder of the District uses septic systems. Development of the Gallatin Canyon area of the District is limited due to the amount of public land. However, central wastewater treatment facilities may become a necessity in the future.

## **2. Water Distribution**

Lone Mountain Springs Water Company, a subsidiary of Boyne, USA, supplies water through separate systems to Meadow Village, Mountain Village, Hidden Village, Westfork Meadows and Sweetgrass Hills. A private well drilled a few years ago, intended to be connected to one of the systems, produced only marginal quantity and quality, and has not been connected. During the Summer of 1992, one well in the system was found to be contaminated, which necessitated installing a feeder line to consolidate two of the distribution systems.

Some high density residential areas are not served by fire hydrants, and there are no hydrants serving any of the businesses along U.S. Highway 191. Reserve water storage in most areas is insufficient to meet current fire protection recommendations. Future expansion of water storage facilities is also anticipated due to both commercial and residential growth. In addition, many of the existing water lines will have to be replaced or extensively repaired due to leaks.

Areas of the Gallatin Canyon and Big Sky not served by the Water Company rely on individual wells for their water supply. It is not expected that these areas will be served by a central water system any time in the near future unless major subdivisions occur outside the Lone Mountain Springs service area.

## **3. Electric and Telephone Service**

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Electric Power is supplied by the Montana Power Company, and telephone service by the Three Rivers Cooperative. Both companies have sufficient capacity to serve the area for the foreseeable future.

## **B. Transportation**

### **1. Streets and Highways**

Only one major highway provides access to the District. U.S. Highway 191, a wonderfully scenic two lane road following the Gallatin River's twists and turns, bisects the District from north to south. It is the major route from Bozeman, Montana, to West Yellowstone and Yellowstone National Park, and is heavily traveled.

U.S. Highway 191 is used by local residents, tourists, recreational visitors, and large interstate semi-trailer and tandem trailer trucks. U.S. Highway 191 may be preferred to the interstate system because it is shorter in mileage and generally follows a "water level" route that avoids multiple crossings of the Continental Divide. These contending uses have created safety problems resulting in serious accidents.

The 191 Spur Road ( Mont 64) extends from U.S. Highway 191 through the Meadow Village area, past Westfork Meadows and Hidden Village, to Mountain Village and its ski area. Additional roads in the District serve residential subdivisions, commercial development, individual residences, ranches, timber work, and Forest Service trail heads.

In November of 1991, voters in the area established a transportation district which includes all of the Big Sky area to the Madison County line and south in Gallatin Canyon to the Corral Bar and Restaurant. The transportation district does not include the north end of the Zoning District. The northern line of the transportation district is the north side of the Big Sky Spur Road. The purpose of the transportation district is to provide a mass transit system for residents and visitors to the resort, ski hill, Bozeman, and Gallatin Field.

### **2. Air Service**

The nearest commercial air service is Gallatin Field, 45 miles north of the Spur Road, in Belgrade, Montana. Gallatin Field currently has three major commercial carriers and two regional carriers.

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West Yellowstone, 45 miles to the south, has a seasonal airport which is open from June through October and is served by a regional carrier.

**C. Public Safety**

**1. Police Protection**

Police protection for the District is provided by the Gallatin County Sheriff's Department, paid for partly by funds from Madison County and the Big Sky Resort Tax. Full time, 24-hour a day police protection will be needed as the area continues to grow.

**2. Fire Protection**

The Gallatin Canyon Rural Fire District provides fire protection for the entire Zoning District, except public lands and timber lands. The Fire District also serves Mountain Village in Madison County. The Rural Fire District is a municipal corporation, with a volunteer staff. Its major station is in Westfork Meadows, with another temporary station housing a pumper located in Mountain Village. Taxes are assessed and collected from both Counties; however, Gallatin County administers the budget and disburses funds. Additional fire equipment, more volunteers, and a second full station in Mountain Village are needed.

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### **3. Medical Services**

There is one medical office within the Zoning District. The closest hospital is forty-five miles away in Bozeman. Emergency response is provided by trained Emergency Medical Technician volunteers from the Fire District, who can transport victims in the Fire District's ambulance in life-threatening situations. Licensed ambulance service is also available from Bozeman. The Fire District has entered into emergency response protocols with skilled medical evacuation helicopter services in Idaho Falls, Idaho and Billings, Montana.

#### **D. Education**

##### **1. Schools**

The only school that serves the residents of the District is the Ophir School. After completing the eighth grade, students travel forty-five miles to Bozeman Senior High.

During the summer of 1992, the school added three new classrooms and a gymnasium in anticipation of increasing enrollment. Enrollment for the 1995/96 school year was 97 students. The school employed 13 teachers.

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## VII. PHYSICAL ENVIRONMENT

### A. Hydrologic Setting

The major drainage in the District is the Gallatin River, which bisects the Big Sky area. The Gallatin River has its headwaters within Yellowstone National Park. The Gallatin River flows in a northerly direction until it joins the Madison and Jefferson Rivers to form the headwaters of the Missouri River.

The Gallatin River watershed is generally mountainous with elevations ranging from less than 6,000 feet in the north end of the area to over 11,000 feet at Lone Mountain. The average discharge rate of the river is 756 cfs. A maximum discharge rate of 8,050 cfs was recorded on June 9, 1970. The river has a high mean flow relative to the drainage area it encompasses. The high surrounding terrain has an average snowpack up to 100 inches each year, thus increasing the volume of water in this small drainage.

### B. Climate

The location of the Continental Divide, topographic features and elevation variations become key elements in defining the climate in the Zoning District. West of the Continental Divide, the climate tends to be controlled by the flow of moist, Pacific marine air. East of the Divide, it becomes continental in nature with outbreaks of dry, often cold air from Canada, and southerly, moist air from the Gulf of Mexico. Although the District is east of the Divide, the intervening mountains serve as barriers to the Canadian air outbreaks and the flows from the Gulf of Mexico. Storms and weather fronts from the Pacific moving across the area during the winter lose much of their intensity and moisture west of the divide. As a result, flows from the Gulf of Mexico, strongest in the spring and early summer, produce most of the precipitation in the area. The cold outbreaks from Canada occasionally reach the District during the winter and provide the coldest extreme temperatures.

In mountainous regions, precipitation may vary greatly from one location to another. Higher elevations generally receive greater amounts of precipitation; although, downwind sides of mountains may be in a rain shadow with amounts sometimes less than half of those observed on the upwind side. As a result of the variation in the precipitation pattern, snowfall amounts in the area can be expected to vary greatly. Snowfall amounts can range on an average of 80 inches to over 400 inches at the higher elevations.

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Thunderstorms are relatively common in late spring and summer. They may produce locally strong winds, hail, and high precipitation amounts in short periods. During these storms, lightning caused fires can occur in forested areas.

Temperatures in the summer feature warm days and cool nights, with freezing temperatures possible at higher elevations. Winters can be quite cold with temperatures in areas subject to cold air ponding falling below -40° degrees F on occasion.

### **C. Geomorphology and Geology**

The Madison and Gallatin Ranges occupy the southeastern end of the northern Rocky Mountain Physiographic Province. In general, these ranges are broadly uplifted asymmetric anticlinal folds, bounded on their margins by prominent faults. The thin mantles of shallow Paleozoic and Mesozoic marine sediment have for the most part been eroded away, exposing precambrian crystalline basement rocks.

The Madison and Gallatin Ranges are a single structural entity. Physiographically, this uplifted block is primarily a product of the erosive action of running water and ice. The District has been bisected by the Gallatin River and its tributaries and is currently in a stage of early maturity. Tributary streams to the Gallatin River are youthful. Rapids are common along the stream courses, with incipient meanders in limited stretches of alluvial flats. The valleys are predominantly V-shaped, and lacking in broad upland divide surface.

In reviewing the history of geologic formation in the Gallatin Canyon, it became apparent that a major factor in the evolution of landforms in this area was mass gravity movements. It is estimated that 20 to 25% of the surface area has landforms determined by mass wastage. This includes features such as talus slopes, slumps, soil creep, landslides, mudflows, etc.

The Gallatin River traverses the study area with an average gradient (upstream from Gallatin Gateway) of 40 feet per mile. Generally, the Gallatin River valley is narrow, averaging less than one mile in width with rapids along much of its course.

The Uniform Building Code describes the Gallatin area as being located in seismic zone three, indicating high potential for earthquakes causing major damage. This is on a scale of 0-3. Although none of the known faults are active, the area has most recently received seismic shocks of modified Mercallin Scale intensity of VI (scale I-XII). The nearby Hebgen Earthquake of August 17, 1959, has been recorded as one of the most severe earthquakes recorded on the North American continent. It had a magnitude of about seven on the Richter Scale, which made it a fairly destructive quake.

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#### **D. Vegetative Patterns**

The principal stands of trees within the planning area are pure lodgepole pine or mixed lodgepole pine, and Engelmann spruce-subalpine fir and Douglas fir. The following sections summarize the silvics (conditions of growth) for the principal stand types.

##### **Lodgepole Pine:**

Extensive stands are found where annual precipitation is 18" or above with the best development conditions occurring in areas where precipitation reaches 21" or more. In the District, these stands are found between 5,200 and 8,500 feet; and generally grow better on northern and eastern aspects with gentle slopes or in the flatter areas. The soils of this area are generally marine clays, shale and sandstones.

The most serious insect damage to lodgepole pine has been attributed to the mountain pine beetle (*Dendroctonus ponderosae*), which generally attacks the healthier trees eight inches in diameter and larger. A second beetle of lesser significance is the lodgepole pine beetle (*Dendroctonus murrayanae*), which generally only attacks the older and weakened trees at the base.

##### **Engelmann Spruce - Subalpine Fir Association:**

Extensive stands of this association are found where annual precipitation varies from 20 to 35 inches. This association is found at elevations of from 5,000 to above 8,000 feet, with nearly pure stands of subalpine fir found in the upper reaches. Here it forms the major timberline forest where it may be found associated with white bark pine and limber pine. The lower elevation mixed stands are normally found along the colder stream valleys and in cold, moist basins. The best growth occurs on moderately well drained silt, clay loam or alluvial soils with an accessible water table. Soils wet or too dry for Engelmann spruce will frequently support subalpine fir.

Areas adjacent to the Gallatin River and the West Fork Valley are comprised of a mixture of timber and grasses with sagebrush and areas of aspens interspersed.

#### **E. Wildlife**

The Gallatin Canyon/Big Sky Zoning District encompasses year round range for some of North America's premier wildlife species. The area provides year round range for elk, moose, mule deer, whitetail deer, mountain lions, black bear and grizzly bear. The Porcupine drainage has the highest concentration of wintering elk in the upper Gallatin, which is about 45 percent of the winter population. Grizzly bear use is documented throughout the District, and the District is included in the area studied by the Interagency Grizzly Bear Management Team. Moose winter range is found throughout the District. The Porcupine drainage, because of its mix of vegetation and lack of development, has the highest winter range value for moose in the District.

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Portions of the planning district provide year round range for two native populations of bighorn sheep. From 140 to 180 bighorn sheep winter on the south and west facing aspects from near the entrance to Big Sky to Asbestos Creek. In addition, the Gallatin/Yellowstone Divide area provides spring, summer and fall habitat for a portion of the population of bighorn sheep which winters in lower Tom Miner Basin area.

The District as a whole provides important spring, summer and fall habitat for elk. These elk migrate either to the Yellowstone or Madison Valleys to winter and are not considered part of the population which migrates out of Yellowstone National Park to winter in the upper Gallatin.

The significance the Department of Fish, Wildlife and Parks attributes to the Gallatin elk herd is best described in a 1977 memo written by Arnie Foss (former Game Manager for Southwestern Montana) to then FWP Director Robert Wambach. The memo stated:

*"The management of the Gallatin elk herd has been one of the primary concerns of the Montana Fish and Game Department for the past 50 years. More time, effort and money has been devoted to this elk herd than to any other in the State. Intensive biological studies of this migratory elk herd began in 1919 and have continued to the present".*

Management of the Gallatin elk herd has been the center of many controversies, beginning as early as 1900. Controversies centered around early game law enforcement attempts, over harvest, poaching, livestock grazing, feeding, reductions within Yellowstone National Park and the carrying capacity of the winter range. The FWP publication "People and the Gallatin Elk Herd" provides a very interesting and informative account of these controversies and should be consulted for additional information.

Throughout the late 1960s and 1970s, logging was the foremost issue facing the Gallatin elk herd. In the mid-1970s, development at the Big Sky resort began to impact the elk herd. The resort has proven to be a catalyst in spawning development in the upper canyon.

In 1945, the Department of Fish, Wildlife and Parks purchased the Porcupine Wildlife Management Area (WMA), which was the first wildlife management area purchased in Southwestern Montana. In 1954, the FWP acquired the Bear Creek WMA located along the west face of the Madison Range, just northwest of the Taylor Fork drainage. Both of these areas provide important winter range for the Gallatin elk herd.

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There are four major winter elk concentration areas for the Gallatin elk herd: the Porcupine drainage, the Taylor Fork drainage, Tepee/Daily drainages and the Bear Creek drainage located along the west face of the Madison Range. The Porcupine drainage currently has the highest concentration of wintering elk in the Canyon, about 600. Much of the winter range in the Porcupine drainage is in checkerboard ownership by Big Sky Lumber and the U.S. Forest Service.

The Taylor Fork drainage not only provides important winter range but also is one of the highest density elk calving areas in the Canyon and is part of an important migratory route. In recent years, approximately 1,800 elk migrate during December from Yellowstone National Park up the Taylor Fork drainage, up the Cache Creek drainage and over the Madison/Gallatin Divide to winter on the Bear Creek area.

## **1. Winter Habitat**

As was described in Lovaas' publication, carrying capacity estimates in the Canyon have been a major focus of controversy. Estimates of potential carrying capacity in the early 1900s were in the neighborhood of 5,000+ wintering elk. However, as more information was gathered, those estimates were significantly reduced to the current management goal of around 1,400 to 1,600 wintering elk. This does not include elk from the Gallatin herd which migrate to the Madison Face to winter.

The foundation of the current population management goal is based on at least maintaining the productivity of the soil and vegetative resources and over the long term allowing for an improvement in the condition of these basic resources.

The Upper Gallatin Canyon winter range is unique in that it is a dead end wintering area. Unlike the Gallatin Valley, Madison Valley or Yellowstone Valley, once winter sets in, elk in the Upper Gallatin Canyon do not have the option of moving out into a broad open valley. They are essentially snow bound on a wintering area which stretches from Specimen Creek inside Yellowstone National Park to the Porcupine drainage near the Big Sky Resort area. There is no avenue of escape from the Canyon during winters of heavy snowfall.

Winter range in the Upper Gallatin Canyon extends from Specimen Creek within Yellowstone National Park to the Porcupine and Taylor Fork drainages on the east and west side of the Gallatin River, respectively.

Because of concerns with damage to willow and aspen stands and to minimize winter starvation losses, the herd is managed at a level in concert with winter range availability during average to more severe winters.

## **2. Population Management**

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Because the majority of this population spends the summer and fall in Yellowstone National Park, it has long been recognized by wildlife managers across the State that population control could not take place during the general big game season. The management of the Gallatin elk herd generally takes place during a late season elk hunt. These hunts are first and foremost population regulation hunts.

The current season structure starts in January and will normally run one month. However, it may in some years be extended into February. The winter range is divided into seven separate management areas based on drainages.

The December portion of the late season was recently eliminated for the following reasons:

1. Those elk which migrate the earliest usually migrate the furthest thus maintaining traditional movement patterns and insuring higher survivability.
2. In most years, migration is usually completed by January, i.e. elk are on winter range segments where they will spend the remainder of the winter period.
3. The boundary line situation is minimized since most of the elk moving north will be past the Park boundary by January.
4. Based on the above, this change allows the Department to reliably assess numbers on the different segments of the winter range and thus effectively direct hunting pressure and harvest by specific winter range area.

To reiterate, the importance of these hunts is to maintain the population at a level which is commensurate with winter range capabilities.

### **3. Summary**

The year round requirements of the Gallatin elk herd encompass most elevation and vegetation types found in the Canyon. Their specific movement patterns and habitat requirements have been more extensively documented over a longer period of time than any other elk herd in Montana and quite possibly North America.

Although most of the above deals specifically with elk, other species in the district are of equal importance. However, based on their broad habitat requirements, maintaining a healthy, high quality Gallatin elk herd and the associated habitat requirements, not the least of which is spatial, will provide quality habitat for most of the other wildlife species which require relatively open un-subdivided spaces, specifically moose, black bears, grizzly bears, mule deer, mountain lions, wolverines and other fur species.

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Feeding of big game animals is discouraged because of the increase in disease and potential disease transmission to other wildlife, domestic livestock and humans. Since the Gallatin Canyon/Big Sky Zoning District is occupied grizzly habitat and artificial feeding concentrates winter mortality, grizzly bear/human conflicts are also increased by feeding of big game animals.

Based on its wildlife and recreation resources, the Porcupine drainage represents an area in the district with significant habitat value. As of 1996, this resource was transferred to public ownership.

The lower Yellowmules/Beaver Creek area is spring, summer and fall range for the large mammals found in the District. Most of the elk which use this area winter in the Madison Valley. In order to preserve this areas' current wildlife value, it is important to leave large blocks of unsubdivided land in this part of the District.

Most of the bighorn sheep winter range, which is located west of the Gallatin River, is in public ownership. However, development of those private lands that do exist within the winter range should be done with sensitivity towards wintering bighorn sheep and winter activity associated with any development of these lands should be minimized. In order to maintain winter range values for those elk wintering west of the Gallatin River above Ophir School, open space, in addition to that provided by Montana Department of Fish, Wildlife and Parks lands, needs to be identified.

During some years, wintering conditions are severe. When this occurs, wintering ungulates are under high stress and will concentrate closer to the Gallatin River and filter in and out of the more developed areas of the District. These animals may cause property damage and may become a nuisance to residents of the District. As grizzly bear populations recover and human growth increases in the Gallatin, a rise in bear/human conflicts can be expected. Residents are encouraged to expect and be tolerant of these conditions. In short, residents should educate themselves about these issues and learn to live with wildlife.

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## VIII. COMPREHENSIVE PLAN GOALS AND STRATEGIES

The intent of this plan is to guide future growth in the District in a logical, safe and orderly manner. The following goals and strategies present a vision for the future of the District and reflect the needs and desires of the community. The goals define a “desired future” and the strategies describe actions to help achieve the goals.

### A. Public Health and Safety

Community health and safety needs include improved medical and emergency first aid and ambulance service, extension and improvement of water supply, fire protection, sewage collection and treatment, and police protection; and adequate transportation access to schools, hospitals and other emergency services.

Goal 1: Improved available medical and emergency facilities.

Strategy 1.1: Encourage full-time staffing and equipping of an emergency medical and first aid team.

Strategy 1.2: Encourage establishment of a professionally staffed medical clinic or emergency medical treatment center.

Goal 2: Improved quality, quantity and extent of water supply.

Strategy 2.1: Investigate ground water potential for supplying anticipated population growth.

Strategy 2.2: Modernize, improve and extend water supply system.

Strategy 2.3: Require all new subdivisions to prove adequacy of water supply.

Goal 3: Enhanced fire protection.

Strategy 3.1: Provide adequate reserve water supply for fire protection in all water storage and distribution systems.

Strategy 3.2: Require properly spaced fire hydrants in all subdivisions with appropriate public water systems.

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Strategy 3.3: In areas not served by hydrants, establish alternate water reserve supply sources.

Strategy 3.4: Through the review process, include covenants that require property owners to keep brush, dead trees and combustibles away from structures.

Strategy 3.5: Require new subdivisions to meet fire protection standards of Gallatin Canyon Rural Fire District.

Goal 4: Improved wastewater collection and treatment system.

Strategy 4.1: Improve present system in treatment efficiency, capacity, extension to developing areas, and treatment methods.

Strategy 4.2: Remedy leakage of treatment ponds.

Strategy 4.3: Locate and acquire additional land for increasing storage and treatment capacity.

Strategy 4.4: Require developers to prove adequacy of sewage treatment capacity.

Goal 5: Adequate police protection and highway safety.

Strategy 5.1: Support full-time around-the-clock deputy service within the community.

Strategy 5.2: Support lower speed limits and no passing zones along Highway 191.

Strategy 5.3: Support increased traffic monitoring along Highway 191.

Goal 6: Prevention of floodplain impacts on development.

Strategy 6.1: Identify existing floodplain and wetlands.

Strategy 6.2: Adopt floodplain and wetland regulations for delineated areas.

**B. Appearance and Atmosphere**

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The beauty of the natural features of the District is highly valued both by residents and visitors. Key views include the Gallatin River corridor, Lone Peak and ridge lines. The large amount of open space in the District has been identified as one of its key features.

Goal 7: Preservation of the scenic, natural environmental beauty.

Strategy 7.1: Zone for scenic easements, scenic set-asides, and highway pull-out views.

Strategy 7.2: Identify and preserve wildlife habitat.

Goal 8: Protection of significant views.

Strategy 8.1: Protect the open view and stream corridor of the Gallatin River and its tributaries.

Strategy 8.2: Protect the view of Lone Peak from Soldiers Chapel and Meadow Village.

Strategy 8.3: Develop a view protection overlay for inclusion in the Zoning Regulation.

Strategy 8.4: Require new subdivisions to be planned to take this goal into account.

Strategy 8.5: For existing subdivisions, develop setback regulations to protect views where reasonably possible.

Strategy 8.6: Protect ridgelines, especially Spanish Peaks, Madison Range and Porcupine.

Strategy 8.7: Develop hillside/ridgeline development standards for inclusion in the Zoning Regulation.

Strategy 8.8: Include building height restrictions in the Zoning

Goal 9: Protection of open spaces.

Strategy 9.1: Work toward the acquisition of open space and trails.

Strategy 9.2: Restrict development to designated areas where feasible.

Goal 10: Enhancement of the natural environment by new development.

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Strategy 10.1: Establish landscaping, fencing and design standards and sign regulations.

Strategy 10.2: Adopt architectural guidelines that help blend buildings into their surroundings.

### **C. Quality of Life**

The Gallatin Canyon/Big Sky District is a unique place and offers a special quality of life to its residents. The following goals are designed to protect the quality of life in the District.

Goal 11: Maintenance and enhancement of the Gallatin Canyon/Big Sky District as a special place to live, work and visit.

Strategy 11.1: Identify and provide locations for community facilities, such as meeting rooms, restrooms, an arts pavilion, library and religious services.

Strategy 11.2: Identify and provide for needs of various residents, such as retirees, working people, part-time recreationists, and children.

Strategy 11.3: Encourage use of planned unit developments to cluster and enhance development

Strategy 11.4: Consider both historic and current development plans.

Goal 11A: Protection and enhancement of wildlife habitat as major assets of the District.

Strategy 11A.1: Require development proposal to recognize and respect wildlife habitat in site plan submittals for land use permits.

Strategy 11A.2: Encourage all new development to set aside wildlife habitat as open space.

Strategy 11A.3: Educate residents and visitors to observe standards for compatibility between wildlife and people.

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Goal 12: An affordable housing supply adequate to meet the needs of all District residents .

Strategy 12.1: Investigate the feasibility of implementing a housing program.

Strategy 12.2: Work toward the formation of a local housing authority.

Strategy 12.3: Define affordable housing.

Strategy 12.4: Encourage provision of employee housing, including family housing.

Strategy 12.5: Include provisions for accessory apartments in the Zoning Regulation.

Strategy 12.6: Establish standards for mobile home parks in the Zoning Regulation.

Strategy 12.7: Investigate bank guaranties and grant programs available for affordable housing.

Strategy 12.8: Provide density bonus incentives for developers to make land available for affordable housing.

Goal 13: Balanced growth within the limits of the physical environment.

Strategy 13.1: Formulate allowable development densities based on natural resource protection, identified geological/soil characteristics, and projected growth.

Strategy 13.2: Plan for provision of public services and infrastructure.

Strategy 13.3: Identify types and locations of desired commercial development.

Strategy 13.4: Develop zoning regulations to control type of development, setbacks, building height, landscaping, parking, signs, access to roads and utilities, performance standards, sewers, water and floor area ratio.

Strategy 13.5: Review commercial uses for community need, and impact on traffic, water, sewer, schools and public safety.

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Strategy 13.6: Encourage commercial development to cluster and to locate next to existing commercial development.

Strategy 13.7: Establish low-impact, low-density recreation commercial zone to include accessory commercial uses.

Strategy 13.8: Allow residential development on upper stories of commercial development

#### **D. Economy**

The District is a national resource and attracts visitors from all over the world. The economy of the District is based on tourism and recreation, but other clean industries are encouraged that are compatible with the District's quality of life and other Plan goals.

Goal 14: A strong economic base, consisting of tourism, recreation and support services; plus compatible clean industries.

Strategy 14.1: Encourage development of the area as a destination vacation place.

Strategy 14.2: Promote a year-round recreation based economy.

Strategy 14.3: Encourage additional natural resource based recreation activities.

Strategy 14.4: Delineate appropriate sites for additional recreation development.

#### **E. Transportation and Trails**

Community needs which have been identified include an adequate transportation system and a trail system. The following goals and strategies respond to these needs:

Goal 15: An comprehensive transportation system serving the District

Strategy 15.1: Include a transportation section in the Capital Improvements Policy.

Strategy 15.2: Encourage a central transportation system that includes a shuttle system.

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Strategy 15.3: Identify transportation system elements, including potential connection points and right-of-way for a central system, in the Capital Improvements Policy.

Strategy 15.4: Recommend that a second access be provided for existing developments where appropriate.

Strategy 15.5: Delineate areas for motorized and non-motorized recreation.

Strategy 15.6: Designate river access points for various uses.

Strategy 15.7: Encourage provisions for horse trailers at trail heads.

Goal 16: A multi-season, trail system where permitted by land owners.

Strategy 16.1: Maintain current access to public lands; encourage new access where feasible and appropriate.

Strategy 16.2: Adopt standards in the Zoning Regulation to include trail system in accordance with the Capital Improvement Policy.

Strategy 16.3: Develop an acquisition and maintenance plan for the trail system.

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## IX. LAND USE MAP

The Land Use Map and this Plan, together, are a statement of intent for the development and preservation of land within the District. The Land Use Map must be used in conjunction with the Plan. The Map shows graphically what the community will be like in the future. The goals illustrate the values of the community. Future development proposals will be evaluated for conformance with both the Plan and the Land Use Map. Future amendments to the Plan will be evaluated for consistency with the goals and strategies contained in the Plan.

The Land Use Map is forward looking and projects land uses for the future. It is based on identified community goals, existing services and facilities, and projected needs.

The Map will have many uses. It will be used by the Zoning Commission and the County Commission to determine when development proposals are appropriate or not. Developers will use it when deciding where to propose new uses. Prospective property purchasers will rely on the Map to guide them in their deliberations. And members of the community will know how and where growth will occur.

The Land Use Map classifies all lands in the Zoning District into the broad categories explained below. Land uses are designated in a general manner-- lines do not necessarily follow property boundaries and are flexible.

### A. Land Use Categories

1. Commercial: Land use classification that permits offices and facilities for the buying and selling of retail goods and services. The zoning regulation contains further definitions, such as tourist commercial, neighborhood commercial, recreational commercial, neighborhood office, and mixed-use.

2. Natural Resources: Land which is essentially unimproved and used for the conservation of natural resources, the managed production of resources, outdoor recreation, buffer zones, view protection or public health and safety.

3. Low Density Residential: Land use characterized by a combination of open space with very low density residential development no greater than one (1) dwelling unit per twenty (20) acres. Clustered housing is encouraged to allow the maximum amount of open space to be preserved. Highly visible ridgelines and hillsides will be retained as open space within the classification. Development of land in this category is often limited by physical constraints, such as steep slopes. Development will be evaluated on an individual basis and must be compatible with environmental considerations.

4. Institutional: Includes parks, schools, and other community owned facilities.

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5. Residential: Land designated for buildings consisting only of dwelling units and accessory structures, with density greater than one (1) dwelling unit per twenty (20) acres.

6. Entry Corridor: Key trafficways and abutting land which require careful development design to conform to Plan goals and policies.

7. Mixed Use: Allows for uses not inconsistent with community needs; light industrial, including but not limited to equipment storage, rental storage units, satellite dishes and receiving equipment, gravel pits, warehouses, sewage treatment pond, cement mixing plants, bus storage and utility use. Specific use definition will be provided by zoning regulations as to siting requirements and use conditions.

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# LAND USE MAP

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## **X. TRAILS PLAN AND MAP**

A goal of this Plan is to foster the development of a Trails Plan within the District. Recreational trails are important to the community. There are many existing trails which receive year-round use by residents and visitors alike.

The Plan recognizes that such trails will require voluntary participation and cooperation by the land owners involved.

An additional goal is to implement the Trails Plan with a Trail Map delineating a trail system that connects major activity centers and provides access to public lands. Existing and proposed trails could be included.

The precise location for trails will be determined during the appropriate planning process.

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## XI. APPENDIX A: QUESTIONNAIRE RESULTS

The Gallatin Canyon/Big Sky Advisory Committee developed a questionnaire to assist the Committee in developing this Plan. The questionnaire was distributed to all members of the Big Sky Owners Association and mailed to other property owners and residents of the district. Approximately 1,500 questionnaires were mailed and approximately 425 questionnaires were returned. The results are summarized below:

### Reasons for Buying Property in the District:

REASONS	NUMBER
Recreation	94
Peace and quiet	69
Quality of Life	44
Retirement and Vacations	38
Investment	14
Like It	11
People	10
Hiking and Skiing	10
Employment	9
Open Space	6
Location	5
Plan to Build	2

### Opinions on Growth at Big Sky:

OPINION	NUMBER	PERCENT
Like	215	51%
Neutral	112	28%
Dislike	68	17%

### Level of Recreational Opportunities Provided:

LEVEL	NUMBER	PERCENT
Same	132	56%
More	101	43%
Less	4	3%

Favorite Place in the District:

PLACE	NUMBER
Meadow Village	60
Lone Mountain/Skiing	49
Big Sky	58
Gallatin River	28
Wilderness Areas	19
All of It	17
Creeks	15
Golf Course	9
Undeveloped Areas	7
Gallatin Canyon	8
Hidden Village	4
South End	5
Cross-Country Trails	4
My House	20

Location of Future Business Growth:

LOCATION	NUMBER
Concentrated (Total)	240
Meadow Village	134
Mountain Village	64
Equally Among Areas	63

LOCATION	NUMBER
Dispersed (Total)	121
Canyon	22
Spur and Village	37
All Regions	50

Amount of Services Offered at Big Sky:

SERVICES	NUMBER	PERCENT
Same	213	59%
More	139	39%
Less	9	5%

Extend Water and Sewer Lines:

EXTEND	NUMBER	PERCENT
Yes	160	53%
No	140	47%

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Location of New Lines:

LOCATION	NUMBER
New Areas	5
Meadow Village	4
Where Needed	4
Other	10

Need for Affordable Housing:

NEED	NUMBER	PERCENT
Yes	240	62%
No	53	14%
Neutral	96	25%

Preserve Wildlife Migration Areas:

PRESERVE	NUMBER	PERCENT
Yes	346	86%
No	18	5%
Neutral	37	9%

Set Aside Permanent Open Space:

SET ASIDE	NUMBER	PERCENT
Yes	392	92%
No	9	2%
Neutral	24	6%

Preserve Mountain Vistas:

PRESERVE	NUMBER	PERCENT
Yes	381	95%
No	6	1%
Neutral	15	4%

Community Center:

CENTER	NUMBER	PERCENT
Yes	198	50%
No	75	19%
Neutral	126	32%

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Prohibit Billboards and Signs:

PROHIBIT	NUMBER	PERCENT
Yes	391	96%
No	1	.05%
Neutral	14	4%

Create Sewer and Water District:

CREATE	NUMBER	PERCENT
Yes	245	63%
No	43	11%
Neutral	102	25%

Build Additional Arterial Roads:

BUILD	NUMBER	PERCENT
Yes	16	4%
No	294	74%
Neutral	90	23%

No Further Development of Recreational Facilities:

NO MORE	NUMBER	PERCENT
Agree	67	17%
Disagree	254	64%
Neutral	79	20%

No Further Development of Hotels, Motels, Restaurants, Etc:

NO MORE	NUMBER	PERCENT
Agree	75	21%
Disagree	202	57%
Neutral	75	21%

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## DEMOGRAPHICS OF QUESTIONNAIRE RESPONDENTS

### Home Ownership Status:

OWN/RENT	NUMBER	PERCENT
Own	398	98.5%
Rent	6	1.5%

### Location of Residence:

LOCATION	NUMBER	PERCENT
Meadow Village	154	35%
West Fork Meadows	50	11%
Hidden Village	50	11%
Karst Ranch Area	40	9%
Mountain Village	25	6%
Sweetgrass Hills	24	5%
Canyon South of Spur	19	4%
Spur to Meadow Village	17	4%
Rainbow Ranch Area	15	3%
Canyon - Karst to Spur	6	1%
Pinewood	2	
Lone Mountain Ranch	1	
Beaver Creek	1	
Other	35	8%

### Use of Property:

USE	NUMBER	PERCENT
Year Round	95	29%
Rental Income	58	19%
Seasonal (Total)	162	52%
Summer & Winter	124	
Holiday & Vacation	85	
Winter Only	11	

### Age of Head of Household:

AGE	NUMBER	PERCENT
0 -25	1	
26 -35	22	8%
36 - 50	30	10%
51 - 65	172	60%
65 +	60	22%

Occupations:

OCCUPATION	NUMBER	PERCENT
Retirees	89	26%
Physicians	53	16%
Lawyers	14	4%
Other Professional	89	26%
CEO	6	2%
Executives	3	1%
Business Owners	44	13%
Marketing	14	4%
Contractors	7	2%
Ranchers	6	2%
Engineers	4	1%
Homemakers	4	1%
Police/Fire	3	1%
Airline Pilots	2	1%

Type of Residential Dwelling Owned:

DWELLING	NUMBER	PERCENT
Condominium	199	51%
Single Family	189	49%
Mobile Home	1	

Value of Home:

VALUE	NUMBER	PERCENT
\$400,000 +	30	9%
\$200,000 - \$400,000	71	22%
\$100,000 - \$200,000	137	42%
\$50,000 - \$100,000	39	12%
\$30,000 - \$50,000	39	12%
Less than \$30,000	13	4%

Education Level: Head of Household:

EDUCATION	NUMBER	PERCENT
Post Graduate	161	46%
College Graduate	149	42%
Some College	25	7%
High School Graduate	17	5%

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Household Income:

INCOME	NUMBER	PERCENT
\$100,000 +	102	47%
\$80,000 - \$100,000	24	11%
\$60,000 - \$80,000	27	13%
\$40,000 - \$60,000	39	18%
\$20,000 - \$40,000	20	9%
Less than \$20,000	3	1

Household Size:

SIZE	NUMBER	PERCENT
Single	34	9%
Two Members	194	54%
Three Members	43	12%
Four Members	49	14%
Five Members	30	8%
Six Members	7	2%
Seven Members	2	.5%
Eight Members	2	.5%
Nine Members	1	

Age of Household Members:

AGE	NUMBER	PERCENT
0 - 6 Years	42	7%
7 - 12 Years	50	8%
13 - 18 Years	58	9%
19 - 25 Years	44	7%
26 - 35 Years	34	5%
36 - 50 Years	186	30%
51 - 65 Years	171	27%
65 + Years	41	7%

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## XII. APPENDIX B: RESOURCE MATERIALS

### Committee Reports and Presentations

Advisory Committee Environmental Subcommittee - "Zone Planning Study". Undated

"Ankeny Land Use Plan - Draft Summary", Undated

Big Sky Owners Association - Parks, Open Space and Trails Committee, July 20, 1992

"Conceptual Land Use Plan" - TM Land Partners, Westland Enterprises, Inc. - Simkins-Taylor Properties, August 14, 1991

### Earth Science, Conservation and Wildlife

Gallatin Valley Land Trust - Fact Sheet Index and Fact Sheets 1 to 12, presentation by Executive Director Chris Boyd

Geology of the Gallatin Canyon - Presentation by Dr. Moak, MSU, Professor of Geology

"People and the Gallatin Elk Herd" - Allan Lovaas, Montana Fish and Game Department, April, 1970

"Wildlife and Big Sky" - Proceedings of The Montana Chapter of the Wildlife Society - Harold D. Picton and James Williams, February 5-6, 1992, presentation by Harold D. Picton, MSU Department of Biology

"Wildlife Corridors" - Carol Arnold, *California Coast & Ocean*, Summer 1990

### Planning: General

"Accessory Apartments for Today's Communities" - Patrick Hare, *Planning Commissioners Journal* - Vol 1, No. 1, November/December 1991

"Managing the Planning Process" - *Small Town Planning Handbook*

"Land Use Law Workshop" - Conference, Montana Association of Planners, Buck's T-4, March 23/5, 1992

"Land Use Plan for the South Gallatin Zoning District" - Draft

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### Planning: Resort

"20th Century Architecture Finds Its Place in History: Miami Beach, Florida" - Jud Kurlanchcck and Richard Rickles, *Mountains and Shores*, Summer 1990

"Forum on Employee Housing Held in Whistler, British Columbia" - Paul McIntyre, *Mountains and Shores*, Spring 1991

"The Limits to Mountain Resort Growth" - Michael Beaudry, *Ski Area Management*, July 1991

"Mountain Resort Area Development and Management" - Doug Wittren and John Wilson, MSU Department of Earth Sciences, presentation by John Wilson, Associate Professor of Geography

"The Revolution of Telluride" - Steve Casimiro, *Powder '92*, October

### Previous Studies

"Economic Feasibility Analysis for a Commercial Bank", James L. Brock, Bozeman, MT, October 22, 1986

"Update of an Economic Feasibility Analysis for a Commercial Bank", James L. Brock, Bozeman, MT, October 5, 1988

### Transportation

"We Need your 2¢ Worth" - Montana Transportation Forum - August 1992

"Gallatin County Typical Section, Minimum Standards, Rural Subdivisions" - Rev. August 23, 1983

Presentation by Lee Alt, District Highway Engineer, Butte  
Sewage

"Memo on Utilities" Wayne O. Hill, Rural Improvement District 305, August 5, 1991

"Preliminary Prospectus RID No. 305 for Big Sky Resort Taxation Committee" - Kerin & Associates, Bozeman, MT, July 30, 1991

"Sewer and Water System Capacity" - T. Threlkeld, April 20, 1992, Presentation by Terry Threlkeld

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Westland Enterprises, Inc., et al, vs. Boyne USA, Inc., et al. - No. DV-84-100, District Court, 18th District, Gallatin County, "Findings of Fact and Conclusions of Law", August 2, 1985

Westland vs. Boyne - No 87-465, Supreme Court of Montana, Opinion, April 27, 1989

"Long Term Compliance Work Plan for Wastewater Treatment and Disposal at Big Sky, Montana", MSE-HKM, Inc., Engineers, December, 1995.

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