SPRINGHILL DEVELOPMENT PLAN

SPRINGHILL COMMUNITY

BELGRADE, MONTANA

PREPARED BY

GALLATIN COUNTY PLANNING DEPARTMENT

AND

SPRINGHILL COMMUNITY PLANNING ADVISORY COMMITTEE

FOR

SPRINGHILL PLANNING AND ZONING COMMISSION
GALLATIN COUNTY, MONTANA

ADOPTED JULY 20, 1992

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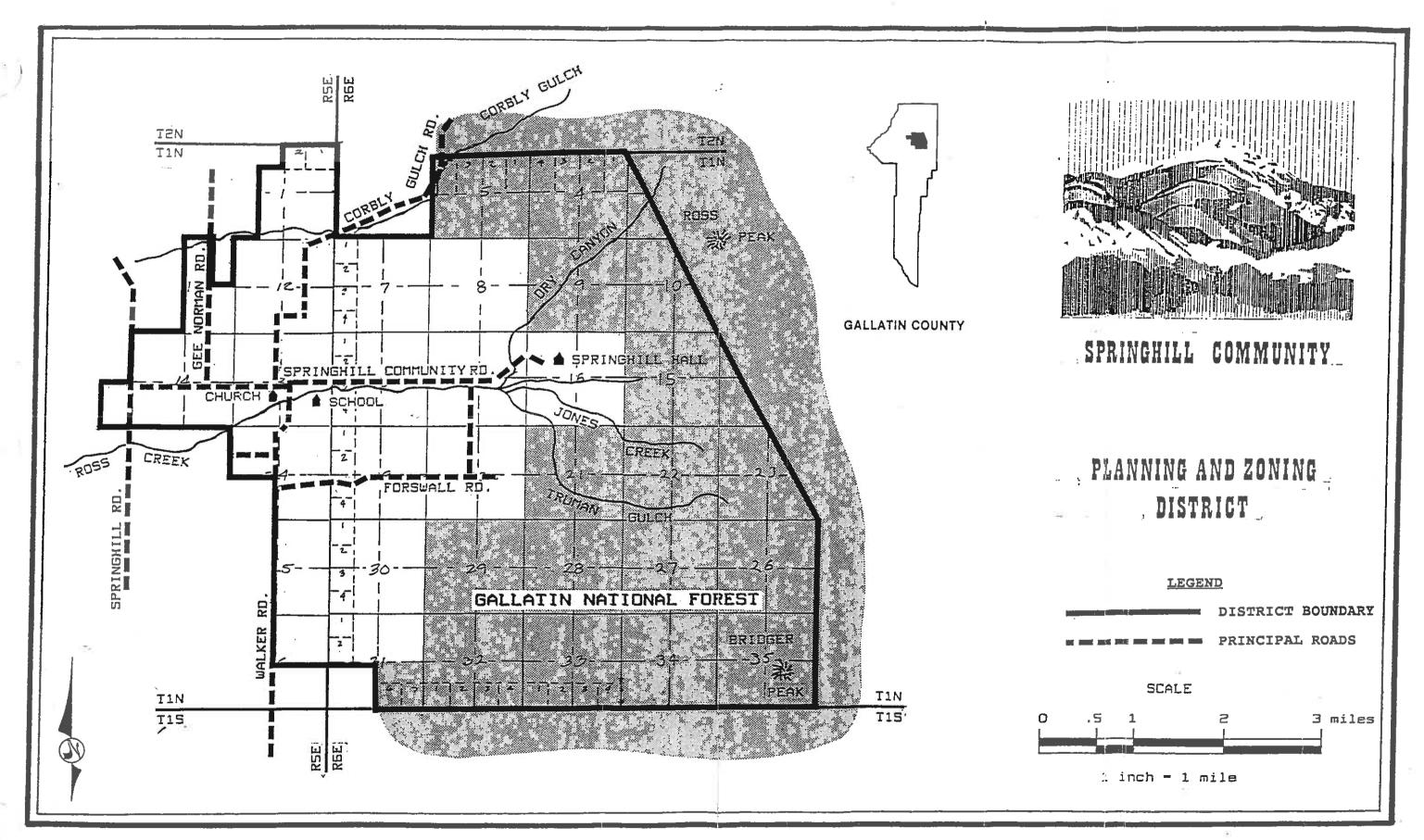
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FIGURE 6 COMPREHENSIVE PLAN MAP



SECTION 1 INTRODUCTION

The Springhill Community is located along the western front of the majestic Bridger Mountain Range. At 9000 feet, Ross Peak towers over a large area of rolling hills, meadows, woodlands, open range and crop land. Located approximately ten miles north of Bozeman, the Springhill Community is home to active farms and ranches, and to those people who enjoy rural living. The Springhill Planning and Zoning District covers approximately 29.5 square miles, 16.25 of which are public lands within the Gallatin National Forest.

Due to increased pressures for new residential development and concerns over unplanned growth within the area, Springhill Community area residents petitioned the Gallatin County Board of Commissioners in the spring of 1990 to create a County Planning and Zoning District. The Commission appointed a Citizens Advisory Committee to assess community goals and objectives, and advise the planning agency in the planning process.

The Springhill Community Plan is intended to guide future growth and development of the area, and preserve the natural and scenic qualities of its agricultural heritage. The Plan has been prepared in accordance with the State of Montana land use and planning laws. The Springhill Planning and Zoning Commission shall be guided by and give consideration to the general policy and pattern of development set out in this plan and Zoning Ordinance.

SECTION 2 AREA HISTORY

Lured by Montana Territory gold strikes in Bannack and Virginia City, settlers streamed west along the Bozeman Trail in the early 1860's. Failing to find the mother lode, some would-be prospectors returned to the fertile Gallatin Valley, encircled by mountains and well-watered by rivers and streams. Other pioneers were drawn by timber, fur, and land.

At the base of the Bridgers, below the rocky promontory of Ross Peak, a year-round spring flowed with such force that early entrepreneurs quickly grasped its potential as an unending source of power and irrigation. Even if these hills did not yield gold, there was still money to be made.

By 1865 there was a sawmill in "Spring Hill", as the small but bustling community came to be called. The spring-fed waters of Ross Creek also powered the Union Flour Mill by 1866, with production capability of sixty barrels of flour a day. The Mountain Dew Distillery, utilizing locally-grown grain, was daily producing up to seven hundred gallons of good rye whiskey, sold in government-stamped barrels to mining towns, the growing commercial center of Bozeman and local Indians.

The 1870's saw continued expansion. Springhill, incorporated and surveyed in 1870, now numbered more than fifty residents. Apple orchards and farms dotted the hills. Logs from Mill Canyon and adjacent draws fed the ever-growing demand for lumber, and a planing mill and the Sash and Door factory produced everything from boards to beds. A second flour mill was built in 1878, with flour freighted as far as Helena and Fort Ellis under government contract. A smithy, a schoolhouse that also served as a place of worship, and a post office completed the roster of community services by 1880.

This rapid growth was not to continue, however. In 1883, the railroad pushed across Bozeman Pass, just as the early settlers had once done. Springhill was located too far north to readily access this new source of cheaper transportation. By 1888, most industries had disappeared, although the old Union Flour Mill continued operation until it burned in 1930, and the saw mill did not close until 1953.

Despite the loss of industry, the farming community maintained a strong and stable base. The one-room schoolhouse built in 1889, the Presbyterian church constructed in 1906, and the Springhill Pavilion constructed in 1917, are all still in use today.

The Springhill Community remains very active in agriculture and community activities in the Gallatin Valley.

SECTION 3 COMPREHENSIVE PLAN GOALS AND OBJECTIVES

The goal of the Springhill Community Plan is to guide future growth within the district while protecting the natural beauty and rural open space character of the community. The plan is intended to aid Springhill residents, property owners, interested citizens, area business persons, agricultural enterprises, governmental agencies, county planning staff, and planning and zoning commissioners in reaching decisions on the proper use of land within the Springhill Community area.

In the course of preparing the plan, the Springhill Community Planning Advisory Committee identified community values and attitudes that resulted in the following goals and objectives:

3.1 Environmental and Natural Resource Goals

Develop a vision for the community which protects and enhances the area's natural environment. Furthermore, natural resources are to be used constructively and be based on the premise that conservation and development need not be mutually exclusive by:

- (a) Planning for growth so as to maintain the character of the rural community and it's harmony with the environment.
- (b) Protecting stream channels and riparian vegetation from unnecessary alteration or disturbance through the administration of the Montana Natural Streambed and Land Preservation Act.
- (c) Regulating development on steep slopes, wetlands and other sensitive areas.
- (d) Encouraging the preservation of natural vegetation where it's removal would cause slope failure, soil erosion, or significant visual damage.
- (e) Recommending logging guidelines designed to enhance and conserve timber resources on both public and private forest land.

3.2 Open Space Goals

Maintain the rural, agricultural, and natural and scenic qualities of the community by encouraging the retention of significant open spaces for a variety of uses, such as conservation, wildlife habitat, recreation, and historic preservation by:

- (a) Encouraging the clustering of land usage so as to protect open space.
- (b) Planning for and encouraging environmentally supportive recreational uses in recognition of the fact that the Planning District contains a high potential for recreation on both private and public lands.

3.3 Agricultural Lands Goals

Preserve suitable land areas for agricultural uses and associated land uses by:

- (a) Recognizing that productive farmland and other agricultural lands are a finite natural resource that should be protected and maintained.
- (b) Recognizing the importance of agriculture in the community in terms of it's economic, cultural and visual impacts.
- (c) Understanding that agriculture requires significant amounts of contiguous open space in which to operate as an efficient and viable economic unit.

3.4 Residential Goals

Provide opportunities and limitations for residential development which are compatible with farm and ranch activities and other land use objectives by:

- (a) Encouraging the clustering of new residential development by adopting applicable criteria in the zoning ordinance.
- (b) Fostering a strong sense of history and community among present and future residents of the area.
- (c) Developing exterior appearance standards that are designed to be compatible with the rural character of the area.

3.5 Transportation and Utility Goals

Foster the availability of efficient road systems and utility networks that are compatible with existing and future land usage, as well as being economically feasible and environmentally sound, by:

(a) Coordinating transportation and land use planning so that various land development activities are compatible with economically attainable and appropriate road systems.

3.6 Commercial and Industrial Goals

Recognize commercial and industrial development as a potential land use, and provide opportunities for an amount of development adequate to serve the needs of the community by:

- (a) Encouraging the location of commercial and industrial activities into areas which are compatible with the rural community and which will minimize impacts on the community.
- (b) Developing exterior appearance standards that are designed to be compatible with the rural character of the area.

SECTION 4 NATURAL RESOURCE INVENTORY AND PLANNING RECOMMENDATIONS

This chapter identifies and describes the natural resources within the Springhill Planning and Zoning District, hereafter also referred to as the Planning District. A brief narrative, land use recommendations, and maps where necessary have been prepared for each category. Information set forth in this chapter will provide a means to preserve the unique characteristics of the area and serve as a guideline for proper land use decisions.

4.1 Topography

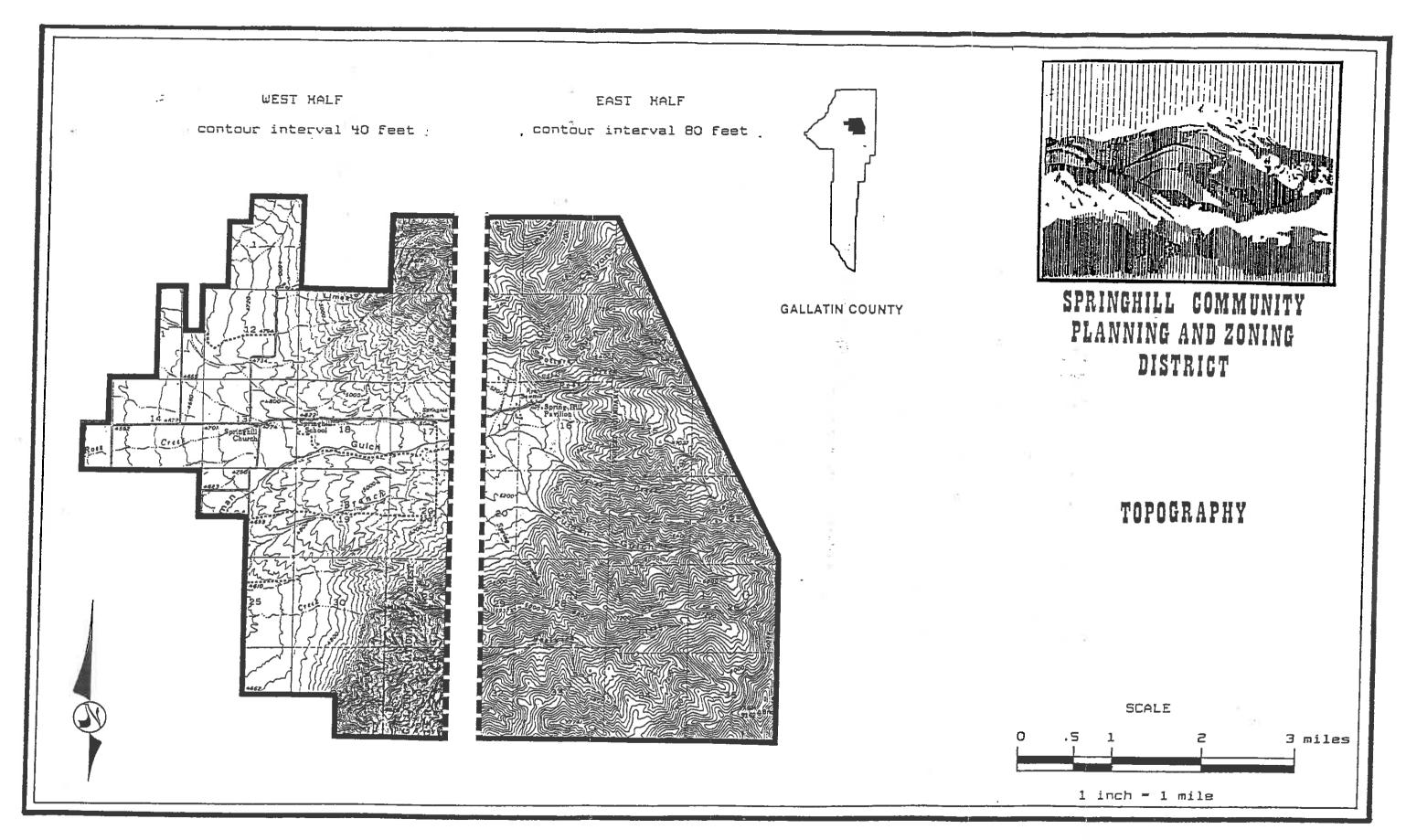
The Topography Map (Figure 2) for the Planning District depicts elevation contour lines with intervals of 40 feet (West Half) and 80 feet (East Half). The map is intended to provide data in determining slope calculations for proposed developments.

From a grand perspective, the Planning District ranges approximately six (6) miles North to South, and seven (7) miles East to West. As shown on the map, topography within the Planning District is bounded by the ridge-like Bridger Mountain Range to the East, and by alluvial plains to the West. The lowest elevation within the Planning District is approximately 4,600 feet above sea level, located near Springhill Road. The highest point is Bridger Peak at 9,100 feet, located in the Southeast corner of the Planning District. The average elevation gain from West to East is around 4,200 feet.

Slope gradients within the Planning District are among the most important factors affecting development. Increased hazards to the environment and to the beauty of the natural landscape are present when steep slopes are subject to development. Development on slopes exceeding 15% in grade is subject to excessive scarring caused by construction, extreme soil and bank erosion, decreased soil and bank stability, high velocity runoff, and creates poor visual qualities. Areas with slopes up to 25% can be satisfactorily developed provided that there are no environmental restrictions and great care is taken during construction. Generally, development is acceptable on slopes below 15% in gradient.

Recommendations:

- Development be directed to more level areas.
- 2. Development is discouraged on steep hillsides and ridgetops.
- 3. Slopes in excess of 25% be retained in their natural condition.
- 4. Roads not be constructed having grades in excess of 12%.



5. All sites disturbed by construction be reseeded.

4.2 Geology

The Geology Map (Figure 3) indicates geologic information for the Planning District. Metamorphic rocks characterize the mountainous areas of the Planning District while sedimentary alluvial fan deposits characterize the more gently sloping and flat terrain areas to the west. Faulted areas are indicated in their approximate locations on the map.

From a planning perspective, it is necessary to consider the stability of a formation and areas of significant faulting when developments are proposed. Other potential hazard zone which need to be given consideration are areas of historic instability, such as landslides and slumps.

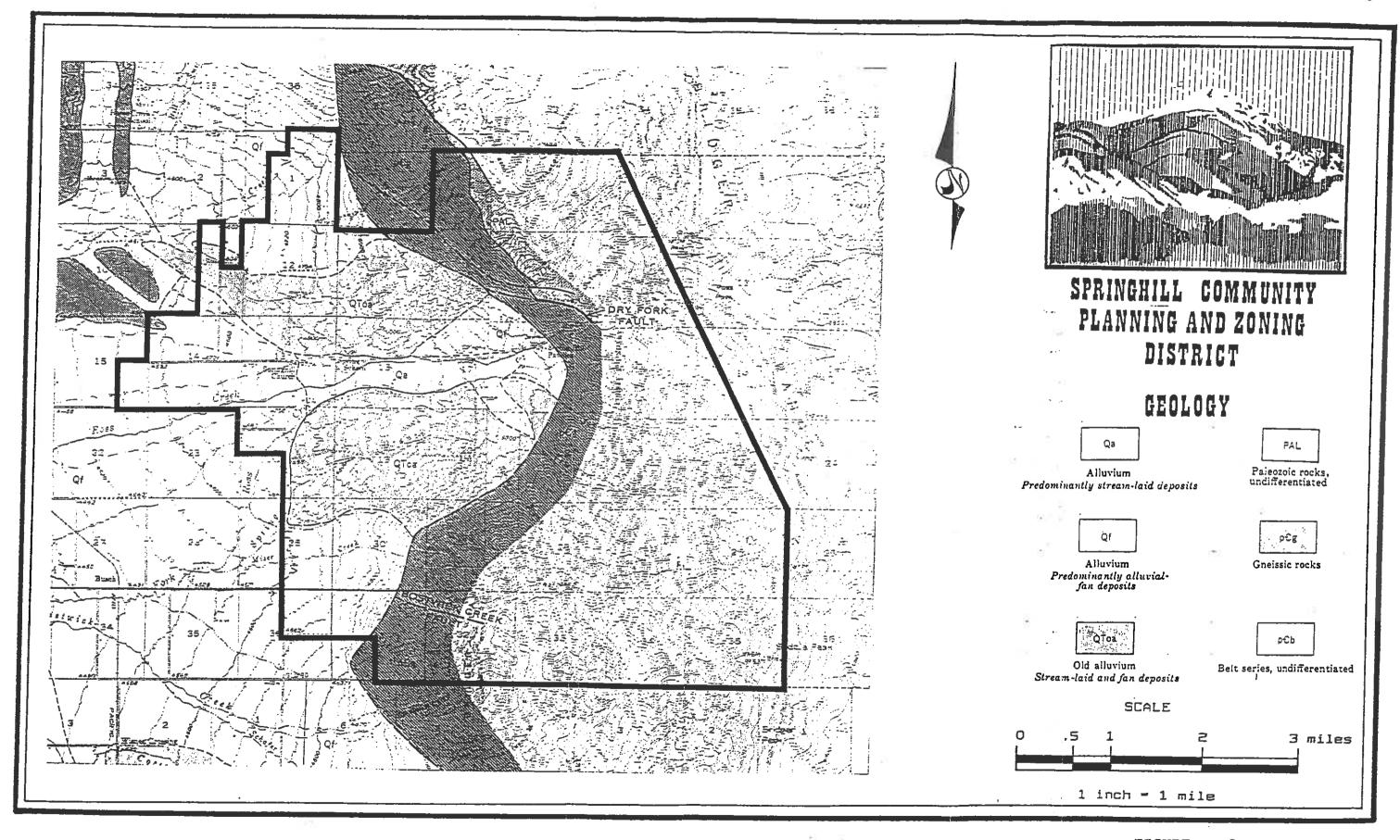
Recommendations:

- 1. Because of the diverse geologic conditions within the area, conduct specific and detailed investigations to determine the suitability of each area for any proposed development.
- 2. Avoid areas of significant faulting when siting structures such as roads, buildings, or utilities.
- 3. Avoid proposed developments in areas of active rock slides or avalanches.
- 4. Design roadways, building foundations, and other construction to recognize potential areas of land sliding and mass gravity movement.

4.3 Water

The primary waterway traversing the Planning District is Ross Creek, with its two tributaries: Truman Gulch Creek and the intermittent Jones Creek. Other intermittent streams in the area are Corbly Gulch Creek, Dry Canyon Creek, and Limestone Creek. Waterways and surface drainage from within the area empty into the East Gallatin River.

Surface waterways carry irrigation water, provide water for livestock, help recharge groundwater supply, provide convenient fishing, and are an aesthetic resource of the area. The development and utilization of surface water resources and the economic distribution within the Planning District focus on protecting existing uses and assuring adequate future supplies for agriculture, domestic, wildfire, and other beneficial uses.



Surface waterways, including irrigation canals, are most seriously threatened by erosion and sedimentation associated with construction and agricultural practices. To ensure that waterways are protected and properly maintained, setback requirements are set forth in the Springhill Zoning Ordinance.

The western, gently sloping portion of the Planning District consists of alluvial fans comprised of rock fragments in a mix of sand, silt, and clay. This geologic structure holds vast quantities of groundwater within the planning area. The fans generally contain enough water for domestic and agricultural uses.

The Planning District experiences a high level of water quality. This is attributable to pristine source conditions, light population densities, and moderate intensity of land use activity. Changes in any of these conditions pose the potential for degradation of water quality. Extreme caution must be taken to avoid pollution of the surface streams and aquifers of the region.

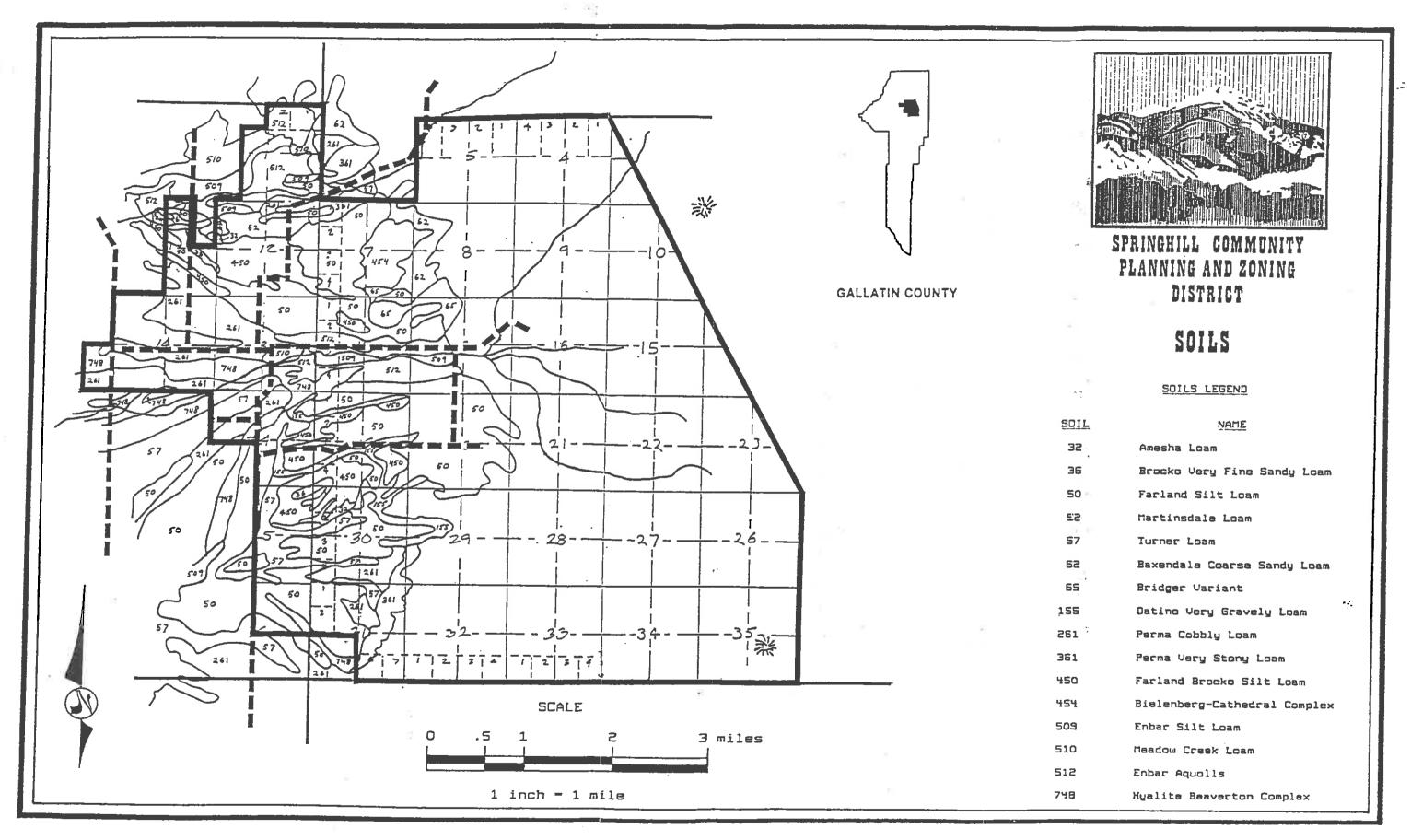
Recommendations:

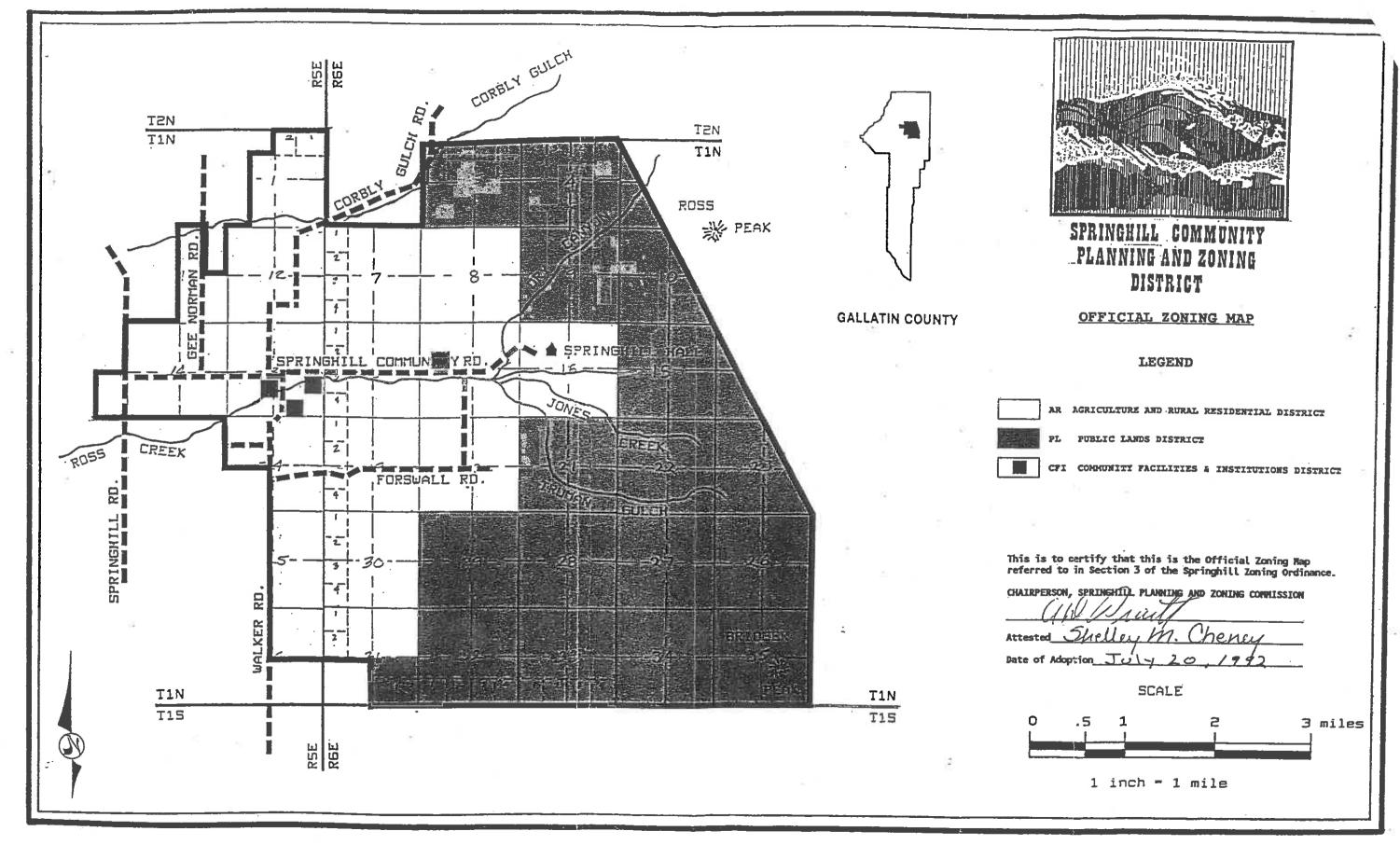
- 1. Provide setback requirements from all waterways to provide protection and proper maintenance.
- 2. Livestock confinement areas be located away from waterways.
- 3. Anyone planning to work in or near a stream contact the Gallatin Conservation District Office to obtain information for appropriate permits.
- 4. Any development be understood to be contingent upon the development of a satisfactory source of ground water on the site for domestic uses.
- 5. Disposal of liquid wastes be investigated individually for each proposed development.
- 6. Every person asserting a claim to an existing right to the use of water is required to file a statement of claim to that right on a form provided by the Montana Department of Natural Resources and Conservation (DNRC).

4.4 Soil

Soils within the Planning District support a mixture of grass, deciduous, and conifer vegetation. Forest soils characterize the higher elevations of the planning area, while rich agricultural soils make up the foothills and valley floor.

General descriptions of soils in specific areas are useful in predicting the potential problems which might be encountered during private and public construction projects.





The Soil Classifications Map (Figure 4) shows only those soils found in the lower elevations of the Planning District.

The Soil Conservation Service provides detailed descriptions of each soil series within the Planning District, and outlines selected land use limitations for each soil series. The soil land use limitations are intended to provide a guide to land use development and offer a basis for predicting possible consequences of unwise land utilization. Ultimately the homeowners, property owners, contractors and tax-payers will have to bear the cost of ignoring the natural soil limitations.

Recommendations:

- Site specific soil investigations are encouraged for any proposed development and construction.
- Employ erosion control measures in conjunction with any development and construction.
- 3. Confine development and construction to those areas having poor agricultural soils.
- 4. Retain prime agricultural soils for agricultural uses.

4.5 Vegetation/Timber

The Planning District hosts an abundance and variety of vegetative cover. Vegetation types vary due to climatic and soil differences from the valley floor to the timbered highlands.

The steeper sloping, higher elevation lands consist primarily of Lodgepole Pine and Douglas Fir, interspersed with Aspen, forest understory, and grasses.

The gently sloping hills and valley floor consist primarily of grassland communities such as dryland pasture, irrigated hayfields, croplands, native grasses, and forbs and shrubs.

The creek bottom, or riparian vegetative communities are found adjacent to creeks and areas with high water tables. Here the dominant species are Aspen, Cottonwood, Alder, and Willow. These species rapidly grade to Chokecherry, Hawthorne, and Wild Rose shrub as the availability of water diminishes.

There are no known critical plant communities within the boundaries of the Planning District.

A substantial amount of land within the Planning District consists of private and federally owned forest lands. The forested hillsides are an important visual resource to the residents of the area. Therefore, it is important that logging activities be

coordinated through the Montana Department of State Lands. Listed in Appendix A, are guidelines available for private landowners for adopting and implementing the best management practices for forestry in Montana. These guidelines were created by the Montana Department of State Lands.

Forestry practices within a Stream Side Management Zone (SMZ) are limited by state law. The land owner is responsible for complying with this mandatory law.

Recommendations:

- 1. Retain native vegetation, as it is an important visual resource.
- 2. Encourage the location and design of home sites which incorporate existing trees and other vegetation.
- Minimize the cutting of trees.
- 4. Retain vegetation so as to preserve and maintain watershed protection, soil stability, and scenic values.
- 5. Control timber cutting in accordance with the Best Management Practices for Forestry as addressed in Appendix A.

4.6 Climate

The Planning District experiences a variety of climatic conditions throughout the year. While there are no significant climatic factors that would severely limit development, storms, wind and snowfall activities must be taken into account when planning for future development uses.

In the valley floor and adjacent foothills at elevations under 6,000 feet, annual precipitation ranges from 16 to 20 inches, and increases up to 50 inches annually in those areas over 6,000 feet in elevation. The highest monthly precipitation amounts occur during late spring and early summer. This heavy precipitation is often associated with thunderstorms. At higher elevations, most precipitation occurs in the form of snow during the winter months.

Snowfall within the Planning District directly affects snow removal costs on highways, streets, and parking lots; suitability for housing developments; and wintering areas for wildlife. Average annual snowfall for the Planning District ranges from 60 inches in the lower elevations to over 200 inches of snow occurring in the higher elevations. It is important that homes, bridges, recreation facilities, and other structures be designed to withstand the heavy snow loads. To assist with the design of structures in the planning area, snow loads for a 50 year frequency have been determined from snow survey data. The Maximum Snowloads Map,

Appendix B, shows maximum ground snow loads for the Gallatin River drainage.

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

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 will occur in forested areas.

Prevailing winds are from the west and northwest. Gentle breezes occur during the summer months. High winds are most often associated with thunderstorms.

Recommendations:

- Avoid locating living facilities in low lying areas of cold air settling.
- 2. Utilize building sites on south facing slopes.
- 3. Construct buildings with appropriate snow load strength capacities.
- 4. Avoid building sites exposed to severe snow drifting.

4.7 Fish and Wildlife

A natural wonder of the Bridger Mountains is the numerous species of wildlife. Mule deer, whitetail deer, bear, elk, moose, mountain goats, and even mountain lions are found in the Planning District, along with various small animals. Deer and elk populations utilize the lower elevations of the Planning District for winter survival. Careful consideration should be given to development proposals which coexist with wildlife habitats.

A wide variety of bird species are found within the Planning District. Waterfowl include geese, blue heron, and ducks. Upland game birds include grouse, pheasant, and partridge. Eagle, hawk, and owl species are the area's birds of prey. Bird survival is sensitive to environmental changes. Destruction of both wetland and dryland vegetation could severely reduce habitat for all species within the Planning District.

Trout species are found in Ross Creek. Trout survival is dependent on the water quality of the streams. Quality fishery maintenance depends on erosion and pollution controls during and after construction.

Recommendations:

- 1. Minimize development on critical wildlife survival areas.
- 2. Maintain appropriate vegetative cover and riparian areas conducive to wildlife habitat.
- Provide bear-proof garbage facilities.

4.8 Visual Resources

The Planning District is naturally endowed with rugged mountains, rolling foothills, riparian bottom lands, coniferous forests, native grasslands and a variety of wildlife. There are, in fact, few places within the area where the landscape views are not strikingly beautiful. The individual elements most commonly cited by the area's residents are:

- 1. Views of Ross Peak and the Bridger Mountain Range;
- The rural farming landscape;
- 3. Springhill Church;
- 4. Springhill School;
- Cemetery;
- Springhill Pavilion;
- 7. Traditional farmsteads and homes;
- Ross Creek and tributaries;
- Old apple orchards;
- 10. Views of the Gallatin Valley; and
- 11. Views of the undeveloped hillsides and ridge tops:

Although these are the Planning District's most commonly remarked upon physical features, many residents have their own additional favorite areas, views, and sites.

Recommendations:

 It is recommended that the above visual resources be continually maintained in order to preserve the area's indigenous character and quality of life.

SECTION 5 CULTURAL RESOURCE INVENTORY

This chapter discusses population, land use, and ownership, and current land use pattern within the Springhill planning area. The following information provides a foundation for determining the direction of future growth, development trends, land uses, and for establishing necessary planning techniques to carry out the goals and objectives of this plan.

5.1 Population

The current population of the Planning District is estimated to be around 140 persons. Prior to 1977, the population was estimated to be around 80 persons. Since 1977, approximately 60 people have been added to the planning area. If current trends continue, by the year 2000 the population can be estimated to be 160 persons.

There are presently 51 residences within the Planning District. When looking at all potential buildable land (those area's having less than 15% slope), there is approximately 1 house for every 160 acres, and a population density around one person for every 80 acres of buildable land.

5.2 Land Use and Ownership

The Springhill Planning District is comprised of approximately 19,000 acres. Land uses within the district include forest land, the majority of which lies within the Gallatin National Forest (approximately 11,000 acres); agricultural land (approximately 7,500 acres); residential properties (approximately 450 acres); and community and commercial uses totalling around 50 acres. The Existing Land Use Pattern Map (Figure 5) shows the locations of land uses within the district.

Excluding lands managed by the U.S. Forest Service, and slopes greater than 15 percent, the planning district has approximately 9,000 acres of buildable land. There are currently 88 parcels of land within the district. The following table categorizes tracts of land within the Planning District according to parcel size and number, occupied parcels in 1992, total acres, and percent of total area within the district.

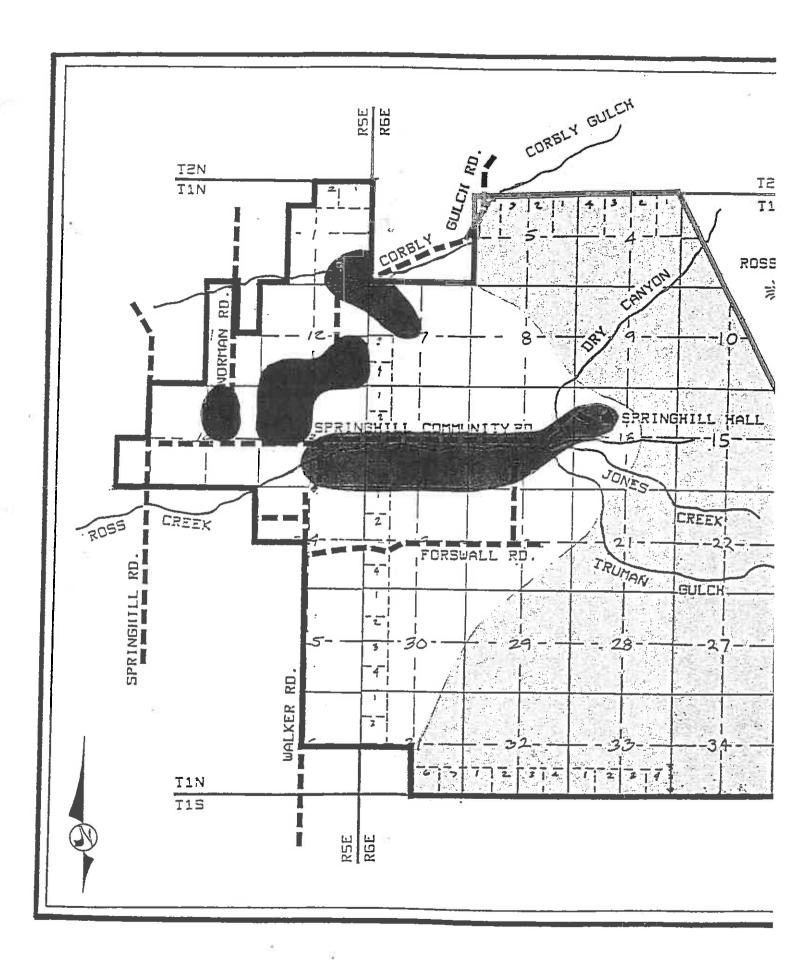
		Occupied				
	Number of	Parcels	Total	% of		
Parcel Size	Parcels	<u>In 1992</u>	Acres	Total		
20 acres or less	25	15	266	3		
21 - 40 acres	28	6	663	7		
41 - 80 acres	11	1	826	8		
Greater than 81 acres	24	15	7248	82		
Total	88	37	9003	100		

As shown in the table, approximately 90 percent of the total buildable land area within the district is comprised of parcels greater than forty (40) acres in size.

In 1992, more residents occupied tracts of forty (40) acres or less than tracts of more than forty (40) acres (21 versus 16).

5.3 Rural Cultural Landscape

The Springhill Community and the Gallatin Valley have a rich agricultural heritage. The farming and cultural traditions are reflected in the farmsteads and community structures. The Springhill Community landscape clearly represents the pattern of agricultural settlement and the evolution of community cultural values. Conservation of the agricultural landscape encourages and fosters a rural lifestyle and sense of community important to the residents of the area. It is a viable land use for those who desire such a life style.



SECTION 6 DEVELOPMENT PLAN

The objective of the Development Plan is to guide future growth and development within the Planning District. The Plan is intended to establish the foundation for policy guidelines which will determine the natural and cultural landscape in the years to come.

In working with the Development Plan, it must be emphasized that legal restrictions are placed on county government through state statutes for the use of zoning and enabling legislation. The zoning statute used to develop this plan does not provide for specific environmental protection measures. In fact, it prohibits the regulation of lands used for grazing, horticulture, agriculture, or for the growing of timber. Nonetheless, it is important to carry out to the fullest extent the provisions of state law for zoning and for protecting agricultural interests, even as they extend to development.

Elements of the Development Plan include Benefits from Open Space Land Use Planning, Agriculture and Open Space Land Uses, Residential Development, Transfer of Development Rights, Commercial Development, Public Lands and Recreation, Road Network and Comprehensive Plan map.

6.1 Benefits From Open Space Land Use Planning

Conserving agricultural lands and open space benefit the public interest in numerous ways.

Agricultural and open space land use planning protects the rural environment, including mountain sides, steep slopes, forests, wildlife habitats, riparian areas, etc., from the impact of development. It also serves as a "clean air shed" to clean the atmosphere, as well as a mechanism to protect the quantity and quality of water resources. Additionally, it provides productive, privately maintained agricultural open space with environmental benefits that include rural aesthetics and air and water quality.

The provision of public facilities and services associated with haphazard, or "leapfrog" subdivisions, costs money. With limited fiscal resources, it is important that non-renewable land resources be conserved, thereby encouraging orderly growth and development around existing urbanized areas. Growth and development may be guided in terms of location and density through an agricultural and open space land use plan. Public costs and urban sprawl are thereby reduced, while protecting a viable industry.

More efficient utilization of transportation facilities and reduced costs are made possible if a compact growth pattern is implemented. A dispersed pattern of growth away from population and service centers encourages automobile travel, thus increasing energy demands and travel time.

In conclusion, the above paragraphs show that there is a very important public interest that is served in the protection of land suitable for agriculture and open space. Land uses, as expressed in the following sub-chapters, are designed to protect that public interest in a general sense, as well as to specifically enhance the quality of life in the Springhill Community.

6.2 Agriculture and Open Space Land Uses

The intent of the Springhill Community Plan is to maintain the rural, agricultural, and scenic qualities of the community by encouraging the retention of agricultural lands and significant open areas. Agricultural and open space goals have been established to maintain suitable land areas for agricultural uses and other environmentally supportive purposes.

A substantial portion of the open spaces within the Planning District is comprised of forest-covered mountain sides and rolling agricultural farm lands. The Plan recognizes good agricultural lands as being finite in supply, and therefore establishes as a premise that productive farm and ranch lands be protected and maintained. The plan also recognizes the importance of agriculture and open spaces in the community in terms of their economic, cultural, and visual impact.

People who reside in the Planning District either make their living in agriculture or were attracted to the area because of the rural atmosphere. As previously mentioned, the protection of agriculture and the rural lifestyle of the Planning District are goals that have been established in the Plan.

To maintain and encourage agricultural land uses, open space, and rural atmosphere, an agricultural and open space land use plan has been established.

The Development Plan and Zoning Ordinance provide appropriate methods to meet the goals of the Springhill Community residents. The methods are based on the importance of agriculture, open space, and rural lifestyles within the planning district. Methods are available for guiding the partial development of agricultural lands. Infill development is encouraged, thereby preserving larger agricultural land parcels and open space.

6.3 Residential Development

It is the intent of the Springhill Community Plan to protect the natural features and open space within the planning district by establishing siting criteria for the location of residential structures and future subdivisions. The location of residential construction and development should avoid productive agricultural land, exposed hill tops, ridges, and creek banks. Development and construction should take place adjacent to existing homes and roads, on marginal agricultural lands, where soils are suitable for septic systems, and in areas least likely to disrupt scenic vistas as seen from the public roadways. Proposed building locations should complement the physical landscape and existing vegetation whenever possible.

Residential and accessory structures are recommended to adhere to design standards as outlined in the Springhill Community Design Manual.

Residents within the Planning District must be willing to accept the impacts associated with normal farming and ranching practices, and related business.

6.4 Transfer of Development Rights

Transferring development rights from one parcel to another is permitted within the planning district. If a landowner chooses not to develop his property, he may transfer his allowable development rights to another property owner who wishes to develop his property. By the same method, a property owner may acquire additional development rights to develop his property. The Zoning Ordinance designates the appropriate zone classifications and allowable development rights for the entire planning district.

6.5 Commercial Development

Non-agricultural commercial development is not expected to occur in the planning district due to low population densities, limited circulation, and distance from Bozeman and Belgrade. The Zoning Ordinance provides for limited commercial uses on a conditional approval basis.

6.6 Public Lands and Recreation

As mentioned earlier in the plan, approximately 11,000 acres within the planning district are public lands managed by the U.S. Forest Service, and are included in the Gallatin National Forest Plan and Management Area Map. Each management area has a multiple use prescription which consists of goals, management practices, standards and guidelines for that area. Additional information pertaining to ownership adjustments, access and easements, non-recreating special use grants, roads and trails, and other standards

and guidelines can be found in the Gallatin Forest Plan. The Springhill Community Plan and Zoning Ordinance identify Gallatin National Forest lands as being used for open space, forestry, and recreational purposes.

Recreational opportunities within the Planning District include, but are not limited to, fishing, hunting, camping, picnicking, horseback riding, bicycling, snowmobiling, cross-country skiing, and hiking.

An important goal of the Springhill residents is to ensure that recreational opportunities on public and private lands are environmentally pleasing and do not result in excessive noise, traffic, dust or visual blight. The following recommendations for recreational land uses have been established:

- 1. Maintain access roads to Forest Service trail heads.
- Work with Forest Service to control noxious weeds in recreation areas.
- 3. Maintain and not increase accesses to Forest Service lands.
- 4. Work with the Forest Service to provide signs designating areas of public access, separate from private lands.
- Discourage recreational uses that adversely impact normal farming and ranching practices.

6.7 Road Network

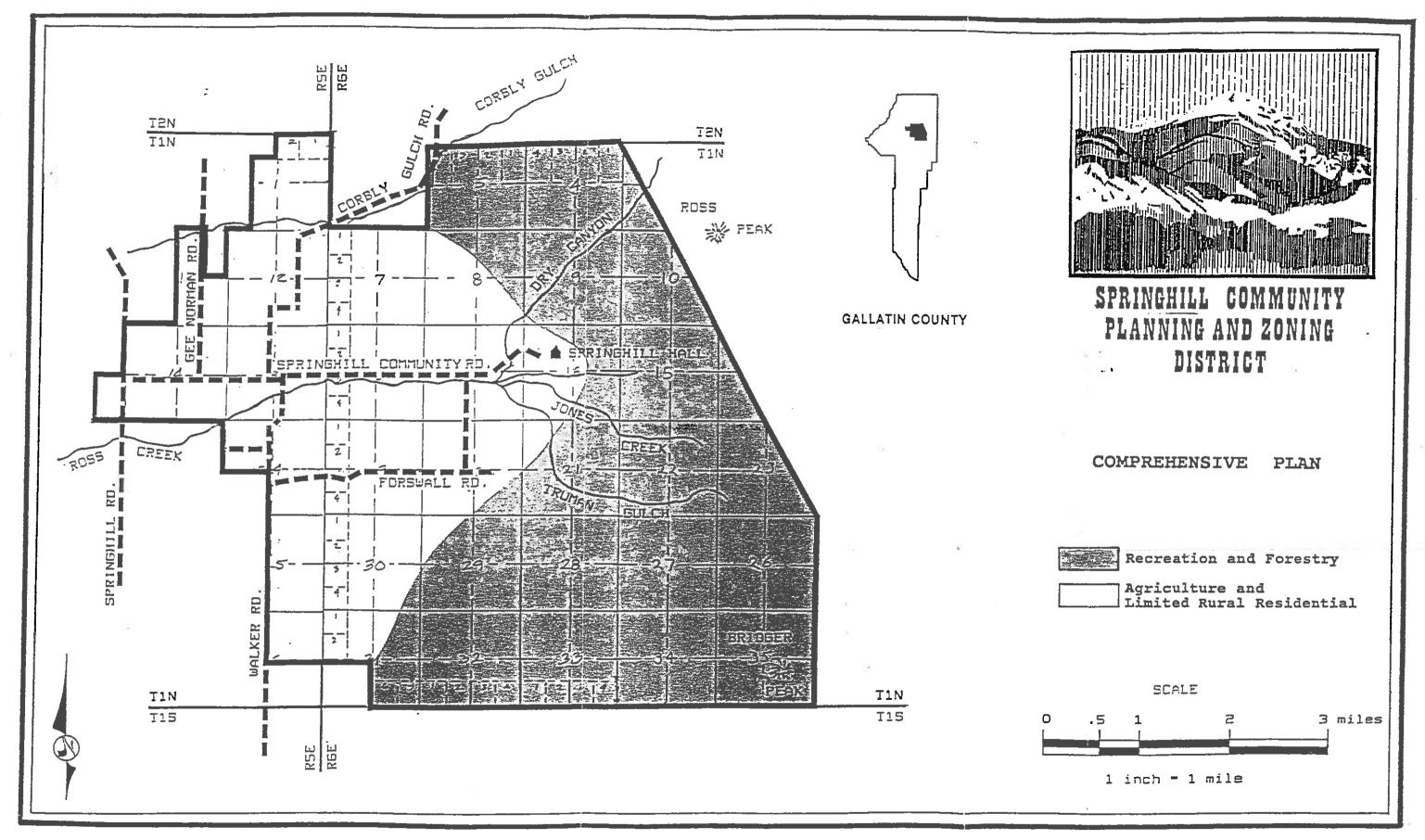
The major north-south road servicing the Planning District is Springhill Road. Other north-south roads include Walker, Gee Norman, and Corbly Gulch Roads, all of which are unpaved.

Springhill Community Road is the major east-west road servicing the planning area. Other east-west roads include Springhill Community Road east of the Springhill Presbyterian Church, McGuire Road, and Forswall Road, all of which are unpaved.

The Planning District has a limited public road circulation network. This is a contributing factor for the low population densities in the district. The intent of this Plan in regards to roads is to not increase the number of principal roads in order to preserve the rural character of the area, and to discourage the development of new roads in environmentally sensitive areas and good agricultural lands. The following recommendations for roads have been established:

1. All public roads to be constructed to county road standards.

- Control soil erosion and provide adequate drainage along roads.
- 3. Reseed exposed soil embankments along roads.
- 4. Maintain safe sight distances at all intersections and blind curves.



SECTION 7 PUBLIC SERVICES

7.1 Law Enforcement

Police protection within the Planning District is provided by the Gallatin County Sheriff's Office, operating from their headquarters in Bozeman.

7.2 Medical Emergency

911 emergency service is available in Gallatin County. Emergency calls are taken by either the Gallatin County Sheriff's Office or the Belgrade Police Department.

7.3 Fire Protection

Privately owned land within the Planning District is protected by the Springhill Fire Company, with mutual assistance from surrounding fire districts.

7.4 Educational Facilities

The boundaries of the Planning District coincide with those of School District No. 20. The Springhill Community School provides classes from first through the eighth grade. Bus service is provided to the Belgrade Schools for Junior High and Senior High School students.

7.5 Road Maintenance

County roads which were created by petition within the Planning District are maintained by the Gallatin County Road Department.

7.6 Additional Services

Other governmental services provided by Gallatin County include the typical activities of health, public works, weed control, recording, taxation and property assessment, planning and zoning regulation.

SECTION 8 AMENDMENTS

The Springhill Community Plan may be amended whenever the public interest and the general welfare require such amendment, according to the following procedure:

- 1. Upon the petition of one or more land owners of property affected by the proposed amendment, which petition shall be signed by petitioning land owners and filed with the Gallatin County Planning Office and accompanied by a fee of \$125.00 payable to the County of Gallatin, no part of which shall be returnable to the petitioner or,
- 2. Upon resolution initiated by the Springhill Planning and Zoning Commission.

NOTICE OF HEARING: Whenever an application for a plan amendment is filed, a public hearing thereon shall be held within sixty (60) calendar days after the filing of the application. At least fifteen (15) days before the hearing, the Planning and Zoning Commission shall:

- Mail notice to all persons owning property adjacent to the exterior boundaries of the area occupied or to be occupied by the use for which the permit is sought, and
- 2. Give notice by publishing notice of hearing in the newspaper of general circulation in Gallatin County.
- 3. Notice shall be posted in at least three (3) public places within the area affected.

<u>DECISION</u>: After completion of the public hearing, the Springhill Planning and Zoning Commission shall make its decision in writing, including findings of fact.

SECTION 9 ADOPTION

This Plan was adopted on July 20, 1992

DATED THIS 20 th day of JULY, 1992 SPRINGHILL PLANNING AND ZONING COMMISSION

A.D. Pruitt, Chairperson

Jane Jelinski, Member

Deb Berglund, Member

Shelly Cheney, Member

ABSENT
Arletta Derleth, Member

SECTION 10 APPENDICES

- A. Best Management Practices for Forestry
- B. Maximum Snowloads Map
- C. Agencies for Additional Information

APPENDIX A

BEST MANAGEMENT PRACTICES FOR FORESTRY IN MONTANA

ROADS

1. LOCATION

- Minimize the number of roads constructed in a watershed through comprehensive road planning, recognizing intermingled ownership and foreseeable future uses. Use existing roads where practical.
- 2. Fit the road to the topography. Locate roads on natural benches and stable soil types to minimize the area of road disturbance.
- 3. Locate roads on well drained soils and rock formations that tend to dip into the slope. Avoid slide-prone areas characterized by seeps, steep slopes, highly weathered bedrock, clay beds, concave slopes, hummocky topography, and rock layers that dip parallel to the slope.
- 4. Avoid high erosion hazard sites, such as steep narrow canyons, slide areas, slumps, swamps, wet meadows, or natural drainage channels. Where there is potential for material to enter a stream, obtain approval of the Conservation District and/or the Water Quality Bureau under applicable laws (i.e., 310 Permit, Turbidity Authorization).
- 5. Locate roads a safe distance from streams when roads are running parallel to stream channels. Provide an adequate Stream Management Zone (SMZ) in order to catch sediment and prevent its entry into the stream.
- 6. Minimize the number to stream crossings.
- 7. Cross streams at right angles to the main channel if practical.
- 8. Choose a stable stream crossing site and adjust the road grade to reach the site if possible.
- 9. Avoid unimproved stream crossings. Where a culvert or bridge is not feasible, locate drive-throughs on a stable, rocky portion of the stream channel.

- 10. A 310 Permit (Natural Streambed and Land Preservation Act of 1975) is required before disturbance is allowed within the area between the normal high water mark of perennial streams.
- 11. Avoid long, sustained, steep road grades. Where unavoidable, establish effective water bars and sediment diversions.
- 12. Vary road grades to reduce concentrated flow in road drainage ditches and culverts and to reduce erosion on cut and fill slopes and road surface.
- 13. When locating roads, provide access to suitable log landing areas (flatter, well drained) in order to reduce soil disturbance.

2. DESIGN

- 1. Incorporate preventative action into transportation plans. Minimize disturbance. Use available information to help identify erodible soils, unstable areas, and road surface materials.
- 2. Plan roads to minimum standard necessary to accommodate anticipated use and equipment. When using existing roads, avoid reconstruction unless absolutely necessary. The need for higher standard roads can be alleviated through better road use management.
- 3. Construct cut and fill slopes at stable angles.
- 4. Use plans that balance cuts and fills or use full bench construction (no fill slope) where stable fill construction is not possible. Haul excess material to a safe disposal site and include these waste areas in soil stabilization planning for the road.
- 5. Contour and roll road grades for minimal disruption of drainage patterns.

3. DRAINAGE

- Design water crossing structures at points where it is necessary to cross stream courses. Provide for adequate fish passage, minimum impact on water quality, and at a minimum, the 25 year frequency runoff. Get a 310 permit for perennial stream crossings.
- 2. Install culverts to conform to the natural stream bed and slope. Place culverts slightly below normal stream grade to avoid culvert outfall barriers.

- 3. Design culvert installations to prevent erosion of fill. Compact the fill material to prevent seepage and failure. Armor the inlet and/or outlet with rock or other suitable material where needed.
- Provide adequate drainage for the road surface. Use outsloped roads, insloped road with ditches and crossdrains, or drain dips. Dips should be constructed deep enough into the subgrade that traffic will not obliterate them.
- 5. Plan ditch gradients steep enough, generally greater than 2%, but less than 8%, to prevent sediment deposition and ditch erosion. Gradient depends on parent material.
- 6. Design the spacing of road drainage facilities based on geologic type, soil erosion class, and road grade.
- 7. Where possible, install ditch relief culverts at the gradient of the original ground slope; otherwise anchor downspouts to carry water safely across the fill slope.
- 8. Skew relief culverts 20 to 30 degrees toward the inflow from the ditch to provide better inlet efficiency.
- 9. Provide energy dissipators where necessary about downstream end of ditch relief culverts to reduce the erosion energy of the emerging water.
- 10. Protect the upstream end of crossdrain culverts from plugging with sediment and debris. Prevent downslope movement of sediment by using sediment catch basins, drop inlets, changes in road grade, headwalls, and recessed cut slopes.
- 11. Install culverts to assure protection from crushing due to traffic. Use 1 foot minimum cover for CMP's 15 to 36 inches in diameter, and a cover of one-third diameter for larger CMP's.
- 12. Use CMP's with a minimum diameter of 15 inches to avoid plugging.
- 13. Install road drainage facilities above stream crossings so water may be routed through a SMZ before entering stream.

4 CONSTRUCTION

 Place debris, overburden, and other waster materials associated with construction activities in a location to avoid entry into streams.

- 2. Minimize stream channel disturbances and related sediment problems during construction of roads and installation of stream crossing structures. Do not place easily eroded material into live streams. Remove material stockpiled on a floodplain before rising water reaches the stockpile. Locate bypass roads to have minimal disturbance on the stream course. limit construction activity to specific times to protect beneficial water uses.
- 3. Minimize earth moving activities when soils appear excessively wet. Do not disturb roadside vegetation more than necessary to maintain slope stability and to serve traffic needs.
- 4. Clear all vegetative material before constructing the fill portion of the road prism.
- 5. On potentially erodible fill slopes, windrow slash at the toe of the fill slopes to trap sediment, particularly near stream crossings and on erodible fill slopes.
- 6. Stabilize erodible, exposed soils by seeding, compacting, riprapping, benching, mulching, or other suitable means prior to fall or spring runoff.
- 7. Keep slope stabilization, erosion and sediment control work as current as possible with road construction.
- 8. Install drainage structures concurrent with construction of new roads and always prior to fall or spring runoff.
- 9. Complete or stabilize road sections within the same operating season
- 10. Minimize sediment production from borrow pits and gravel sources through proper location, development, and reclamation.

5. MAINTENANCE

- Grade road surfaces as often as necessary to maintain a stable running surface to retain the original surface drainage.
- Avoid cutting the toe of stable cut slopes when grading roads or pulling ditches.
- 3. When plowing snow for winter timber harvest, provide breaks in snow berm to allow road drainage.

- 4. Keep erosion control measures functional through periodic inspection and maintenance.
- 5. Haul all excess material removed by maintenance operations to safe disposal sites. Apply stabilization measures to these sites to prevent erosion. Avoid side casting material where it will enter a stream or be available to erode directly into a stream.
- 6. Leave closed roads in a condition that provides adequate drainage without further maintenance.
- 7. Restrict the use of roads during wet periods and spring breakup period if damage to road drainage features resulting in increased sedimentation is likely to occur.

TIMBER HARVESTING AND REFORESTATION

1. HARVEST DESIGN

- Consider the following during development of timber harvest systems:
 - a. Soil characteristics and erosion hazard identification.
 - b. Rainfall characteristics.
 - c. Topography.
 - d. Plant cover (forest type understory, silvics).
 - e. Critical components (aspect, water courses, landform, etc.).
 - f. Silvicultural objectives.
 - g. Existing watershed condition.
 - h. Potential effects of multiple resource management activities on beneficial water uses.
 - i. Compliance with Montana Water Quality Act, State Water Quality Standards and Public Water Supply Act. Manage community and non-community public water supply watersheds to comply with State Water Quality Standards. The Public Water Supply Act (75-6--101-MCA) requires approval of plans and specifications for road and other disturbance from the Water Quality Bureau for activities planned for public water supply watersheds.
- 2. Leave streamside management zones (SMZs) (see definition) on both sides of perennial streams and intermittent streams with a well defined channel. This zone provides shading, soil stabilization, and sediment and water filtering effects:

- 3. Use the logging system that best fits the topography, soil type, and season, while minimizing soil disturbance and economically accomplishing silvicultural objectives. Consider the potential for erosion prior to tractor skidding on slopes greater than 40%.
- 4. Design and locate skid trails and skidding operations to minimize soil disturbance. The use of designated skid trails is one means of limiting site disturbance and soil compaction.
- 5. Locate skid trails to avoid concentrating runoff and provide breaks in grade.
- 6. Locate skid trails and landings away from natural drainage systems and divert runoff to stable areas.
- 7. Use the economically feasible yarding system which will minimize road densities.

2. HARVESTING ACTIVITIES

- 1. Avoid falling trees or leaving slash in streams or water bodies.
- 2. Limb or top trees where debris cannot fall or be dragged into the stream.
- 3. Ground skidding through any perennial stream is not allowed except by permit from the Conservation District (Natural Streambed and Land Preservation Act of 1975 310 permit).
- 4. Minimize operation of wheeled or tracked equipment within the streamside management zones (SMZ) of stream courses designated for protection. Do not operate equipment on stream banks.
- 5. End-line logs out of streamside areas when ground skidding systems are employed.
- 6. Logs will be fully suspended when line skidding across a stream and immediately above streambanks.
- 7. Remove debris entering any stream concurrently with the yarding operation and before removal of equipment from the project site. Accomplish debris removal so the natural streambed conditions are not disturbed. Leave natural occurring downfall material providing fish habitat.

- 8. Avoid equipment operation in wetlands, bogs, and wet meadows except on designated roads. Use end-lining and directional falling for harvest operations in these areas.
- 9. Repair damage to a stream course caused by logging operations, including damage to banks and channel, to be reasonable condition as possible without causing additional damage to the stream channel.
- 10. Tractor skid when compaction, displacement, and erosion will be minimized.
- 11. Install necessary water bars on tractor skid trails prior to expected periods of heavy runoff. Appropriate spacing between bars is determined by the soil type and slope of the skid trail. Timely implementation is important.
- 12. Construct drainage structures on skid trails to prevent water and sediment from being channeled directly into stream courses.
- 13. Construct water bars and/or seed skid trails and landings, where natural revegetation is inadequate to prevent accelerated erosion, before the next growing season. A light ground cover of slash or straw will help retard erosion.
- 14. Avoid skidding with the blade lowered.
- 15. Suspend the head end of the log whenever possible.
- 16. Minimize the size and number of landings to that necessary for safe, economical operation.
- 17. Avoid decking logs within the high water mark of any stream.
- 18. Provide suitable delivery, storage, and disposal for all fuels, shop debris, waste oil, etc.

3. SLASH TREATMENT AND SITE PREPARATION

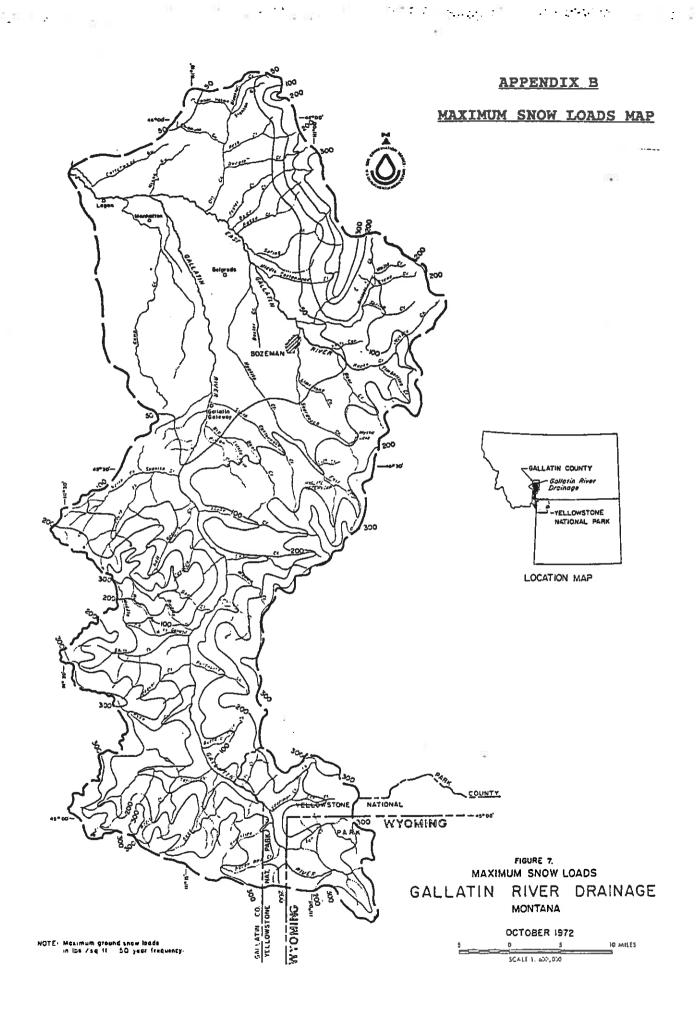
- Rapid reforestation of harvested areas is encouraged to re-establish protective vegetation.
- 2. Use brush blades on cats when piling slash. Avoid use of dozers with angle blades. Site preparation equipment producing irregular surfaces is preferred. Care should be taken to avoid severe disruption of the surface soil horizon.

- 3. Minimize or eliminate elongated exposure of soils up and down the slope during mechanical scarification.
- 4. Scarify the slope to the extent necessary to meet reforestation objective of the site. Low slash and small growth should be left to slow surface runoff, return soil nutrients and provide shade for seedlings.
- 5. Carry out brush piling and scarification when soils are dry enough to minimize compaction and displacement.
- 6. Carry out scarification on steep slopes in a manner that minimizes erosion. Broadcast burning and/or herbicide application is a preferred means for site preparation on slopes greater than 40%.
- 7. Maintain an SMZ between site preparation or slash disposal areas and streams.
- 8. Scarify landings and temporary roads on completion of use.
- 9. Do not apply chemical vegetation control treatments to water bodies. Provide suitable buffer strips between chemical mixing and application areas and all water bodies.
- 10. Apply pesticide and dispose of containers according to label and EPA registration directions. Make contingency plans to follow in case of accidental spills. Mixing and disposal of chemical should be supervised by a licensed applicator.
- 11. Limit water quality impacts of prescribed fire: construct water bars in firelines; reduce fuel loadings in drainage channels; maintain the streamside management zone; avoid intense fires unless needed to meet silvicultural goals.

FIRE SUPPRESSION

- 1. Minimize watershed damage from fire suppression by avoiding heavy equipment operation on fragile soils and steep slopes.
- 2. Stabilize suppression damage where erosion potential has increased. Treatments include installing water bars, seeding, planting, fertilizing, spreading slash or mulch on bare soil, repairing road drainage facilities, and clearing stream channels of debris.

- 3. Conduct burn area surveys where necessary to assess the need for rehabilitation of watershed damage. Rehabilitation measures may include: seeding, fertilizing, fencing, clearing debris from stream channels, constructing trash racks, channel stabilization structures and debris retention structures.
- 4. Consider the impacts of sewage disposal when establishing locations for fire camps, logging camps, or other similar facilities.



APPENDIX C

AGENCIES FOR ADDITIONAL INFORMATION

Bozeman Chamber of Commerce 1205 East Main Bozeman MT 59715

Bureau of Land Management Montana State Office 222 North 32nd Street PO Box 36800 Billings MT 59207

Department of Fish, Wildlife and Parks 1400 South 19th Bozeman MT 59715

Department of Natural Resources and Conservation Water Rights Bureau 1201 East Main Bozeman MT 59715

Gallatin County Office of Subdivision Review PO Box 1905 Gallatin County Courthouse Bozeman MT 59715

Gallatin National Forest Federal Building Bozeman MT 59715

Bozeman Ranger District 601 Nikles Bozeman MT 59715

Soil Conservation District 601 Nikles Bozeman MT 59715

State Department of Commerce Cogswell Building, Roon C-211 Helena MT 59620

Department of Health and Environmental Sciences Water Quality Bureau Cogswell Building, Room A 2 Helena MT 59620 Montana Department of State Lands 611 North Wallace Bozeman MT 59715

Montana Department of Highways 907 North Rouse Bozeman MT 59715