

STATE OF MONTANA

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DEPARTMENT OF  
FISH AND GAME

Helena, Montana 59601  
January 9, 1976

JAN 13 1976

ENVIRONMENTAL QUALITY

Gentlemen:

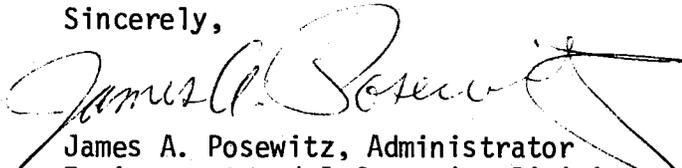
Enclosed for your information and review is a draft environmental impact statement prepared in compliance with the Montana Environmental Policy Act and the national environmental policy act.

This environmental impact statement addresses itself specifically to the acquisition of the Mt. Haggin ranch property near Anaconda, Montana.

If you have any comments or corrections to make in this draft statement, please have those comments to us no later than February 10, 1976.

We would like to thank you for taking the time to review this statement and prepare any comments you feel are necessary.

Sincerely,

  
James A. Posewitz, Administrator  
Environment and Information Division

JAP/sd

Enc

Note: A public meeting will be held in the lobby of the Marcus Daly Hotel, 200 Main, Anaconda, Montana, at 8:00 p.m. on Monday, February 2, 1976, at which time comments will also be received.

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ENVIRONMENTAL QUALITY

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ENVIRONMENTAL IMPACT STATEMENT

(DRAFT)

for the

ACQUISITION

of the

MOUNT HAGGIN RANCH

Prepared by

Montana Department of Fish and Game

Helena, Montana

January 9, 1976

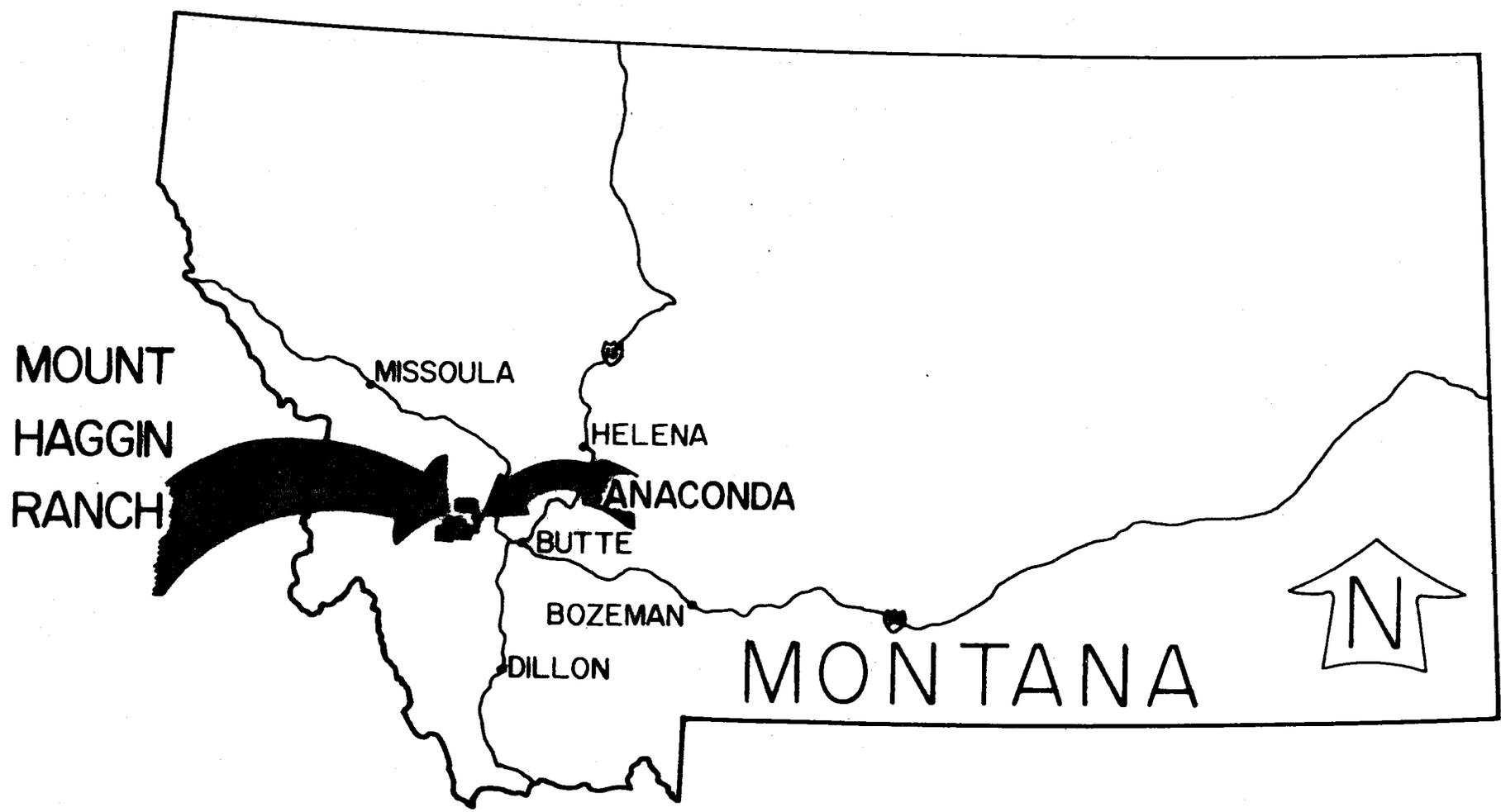
### SUMMARY

The proposed action is the acquisition of 115,000 acres of the Mount Haggin Ranch (156,000 total acres) through efforts of the Nature Conservancy, the Bureau of Outdoor Recreation, the U. S. Forest Service, and Montana Department of Fish and Game. Acquisition acreage per agency (located mostly in Deer Lodge County, Montana, but also in Silver Bow, Powell and Granite Counties) is 55,000 acres for the Montana Department of Fish and Game and 60,000 acres for the U. S. Forest Service (Deer Lodge and Beaverhead National Forests).

Primary consideration for agencies' purchase is providing and maintaining quality dispersed outdoor recreation, although the Forest Service will conduct comprehensive multiple use planning for their acquisitions. A substantial portion of the Forest Service parcels will be considered for inclusion into the Anaconda-Pintlar Wilderness. Purchase lands contain quality and abundant populations of big game and aquatic life, which are a valuable resource to the area and receive significant use.

The primary impacts will be the loss of personal and property taxes to Deer Lodge, Granite, Powell and Silver Bow Counties (approximately \$34,000/year) and loss of personal income of approximately \$16,000/year (loss of 4-5 seasonal agricultural jobs).

The primary benefits from the acquisition are guaranteeing access to lands which are valuable for game and aquatic habitat and populations, and related amenities with dispersed outdoor recreation. These benefits have not only social value for the surrounding areas, but for persons from a wide population, as this region becomes increasingly more important for its natural environmental amenities.



LOCATOR MAP — MOUNT HAGGIN RANCH ACQUISITION

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ENVIRONMENTAL IMPACT STATEMENT  
Mount Haggin Acquisition

I. DESCRIPTION OF THE PROPOSED ACTION

A. Approximately 115,000 acres of the 156,000 acre Mount Haggin Ranch will be purchased in two phases through the cooperative efforts of The Nature Conservancy, the Bureau of Outdoor Recreation, the U. S. Forest Service, and the Montana Department of Fish and Game. (See Map 1.) The Montana Department of Fish and Game will acquire 55,000 acres and the U. S. Forest Service will acquire 60,000 acres.

1. Phase one will consist of the purchase by and donation to the Department of Fish and Game of the east portion of the Continental Divide Unit and the purchase of Parcel B of the Continental Divide Unit by the U. S. Forest Service. Financial assistance for the Fish and Game purchase will come from the Secretary of the Interior's Contingency Reserve in the Land and Water Conservation Fund which will be used to match state funds and donated value. The funds for the U. S. Forest Service purchase will come from a special appropriation through the Land and Water Conservation Fund. Phase one will take place immediately.

At this time, The Nature Conservancy will also secure a five-year option for the purchase/donation of the remainder of the Continental Divide Unit (Parcel A) and the Lost Creek Unit.

2. Phase two will bring the remainder of the Continental Divide Unit (Parcel A) and the Lost Creek Unit into public ownership within five years as funding permits. Both parcels will be acquired by the U. S. Forest Service. Parcel A will be donated by the present landowner since it lies outside forest boundaries and the Lost Creek Unit will be acquired by purchase.

Each agency will administer and manage independently those lands which it acquires. However, coordination and communication between agencies will assure complimentary management practices.

- B. The land acquired will be managed by the U. S. Forest Service and the Montana Department of Fish and Game with the following objectives in mind.

U. S. Forest Service Management Objectives

1. Short-term management objectives of the proposed Forest Service lands will recognize the significant potential and variety of recreation of the area and protect these values until multiple-use planning is completed.

The Forest Service (Deerlodge National Forest) will base its long-term management objectives on completion of the multiple-use plans for the Mount Haggin parcels A and B and the Lost Creek Unit. Multiple-use planning involves Forest Service studies and public opinion and participation in decisions of long-range uses for the acquisition lands.

The Forest Service recognizes the roadless and essentially roadless condition of portions of the area and the proximity of these areas to the adjacent Anaconda-Pintlar Wilderness and the Storm Lake Roadless Area.

Activities such as road maintenance and dispersed recreation management will protect existing facilities and control current uses.

If needed to protect wildlife or other resource values, offroad vehicle controls and road management will be implemented as an interim measure until multiple-use management further defines these needs. Public involvement would precede such controls.

Multiple-use planning will constitute studies of the following categories as to existing conditions and future uses: roadless area management, road maintenance, trail maintenance, marking and posting property lines, minerals management, special use management, recreation management, fire management, watershed management, and right-of-way review. The multiple-use plan could change in the future, as conditions warrant.

#### Montana Fish and Game Management Objectives

2. The Department of Fish and Game administered lands will be managed for dispersed outdoor recreation. Special attention will be given to improving the proposed purchase lands and the returning of these lands to a more natural environment.

Only limited recreational improvements will be constructed. They will consist of a few access points, trail heads, and possibly limited foot and vehicle trail improvements. Also, limited erosion control measures will be employed where needed.

Detailed studies of the needs of people and the site will be undertaken to determine the extent and location of such improvements.

Promiscuous roads and trails will be closed when studies have identified those which are surplus to people's needs or detrimental to the area.

Game habitat will be enhanced and maintained by appropriate management procedures, and domestic stock grazing will be considered where (1) studies show such use is not in competition with game populations or recreational use, or (2) where regulated grazing systems will promote desired plant succession for good wildlife and forest management.

Timber harvesting will continue until the existing agreement has expired or is renegotiated. This will occur no later than 1988. After that time, timber harvest will be permitted where it will promote desirable plant succession.

#### Mutual Objectives

3. Both agencies will perpetuate and enhance those recreational opportunities consistent with the ability of the resource to support such use without degradation. These will include, but are not limited to: mountaineering,

backpacking, hiking, ski touring, snowmobiling, hunting, fishing, camping, picnicking, nature study, scenery, wildlife, and scenery photography. Both agencies' management will be contingent upon the presence and continuance of the timber contract held by Louisiana Pacific. (See II. D. 5. b.)

These activities provided more than 18,000 user days of recreation in 1974. Use is expected to increase if the area comes into public ownership. Accurate projections of this increase are difficult to estimate but are computed for some activities in Section III. C. 6. Recreation.

### C. Description of Remaining Property

After the proposed acquisition by the Montana Department of Fish and Game and the U. S. Forest Service, there will remain 41,000 acres in the Mount Haggin Livestock Company's possession. These remaining lands are the Willow Glen Unit (to the south) and Warm Springs Unit (to the north). (See Map 1.) Collectively, the units contain almost 21,000 acres of productive agricultural land which can be run as a complete productive cattle ranch and farm unit. The remaining lands in the units (20,000 acres) are in poor condition, having been damaged by emissions from the smelter at Anaconda. This damage is evident on the southern portion of the Warm Springs Unit and the northern portion of the Willow Glen Unit. Productivity is slowly returning to some of the land as heavy metal concentrations are leached from the soil. Little land of timber value will remain in the ownership of Mount Haggin Ranch.

## II. DESCRIPTION OF THE EXISTING ENVIRONMENT

### Location

The 156,000-acre Mount Haggin Ranch is located in southwestern Montana near the town of Anaconda. The ranch is almost entirely in Deer Lodge County except for small encroachments into surrounding counties as follows: 960 acres in the south end of Powell County, 4,000 acres in the southeast corner of Granite County, and 9,900 acres along the west boundary of Silver Bow County. (See Map 1.)

The proposed acquisition is divided into two properties, one north and the other south of the town of Anaconda. Both properties are in the mountainous terrain and are divided by the Deer Lodge Valley which is comprised of land devoted to urban or built up areas, transportation and utilities networks and agriculture (see Map 1). The Lost Creek Unit (surrounding Lost Creek State Recreation Area north of Anaconda) lies within the Deerlodge National Forest and contains approximately 25,500 acres. The Continental Divide Unit is south of Anaconda, beginning in the foothills on the north side of the Continental Divide, crossing the Divide to the foothills of the Beaverhead National Forest on the south. On the west the unit begins at the Anaconda-Pintlar Wilderness and extends to the Deerlodge National Forest on the east. The unit contains approximately 89,500 acres.

## A. Physical Environment

### Visual Setting

The proposed acquisition contains high mountain peaks and ridges of bare granite or limestone rising to elevations of over 10,000 feet mean sea level along the Continental Divide. The mountains contain high valleys of meadows, lakes and streams, and the slopes are timber covered. The vegetation of the high country ranges from whitebark pine, alpine fir and spruce forests on the slopes to grass and forbs in the meadows. The lower elevations contain lodgepole pine and Douglas fir forests.

The foothills are covered with grasslands and dissected by numerous perennial and intermittent streams. The populated and agricultural areas in the valley bottom along Warm Springs Creek are not included in the proposed acquisition.

### 1. Geology and Minerals

#### a. Lost Creek Unit

The mountains in the west of this unit are made up of sedimentary rocks of limestone, sandstone and quartzite, while the eastern mountains are igneous granite. Numerous faults and igneous intrusions occur in the sedimentary formations of the eastern mountains.

#### b. Continental Divide Unit

The mountains are of sedimentary limestone, sandstone and quartzite except in the southeast where volcanic basalts occur. Igneous granite intrusions and faulting occur throughout the area. The valleys are made up of alluvial gravels, clays and silt of recent geologic origin.

The mineral rights to about 62 percent of the property are retained by the U.S. Government. The remainder are held by the Anaconda Company or to a very limited extent, other private entities (Map 2). There are no known mineral deposits in the area; however, commercial extraction of gold is taking place to the west and tungsten and gold extraction is ongoing in the southwest. Silica mining has occurred near the north edge of the Lost Creek Unit. The proposed acquisition has been extensively prospected in the past, but no known activity is presently taking place. In any case, the proposed action will not change the status of the existing mineral rights. (See Map 2.)

### 2. Ground Water

Ground water consists of springs and seeps occurring mainly in gravels which yield very limited supplies. The quality of the ground water is high with approximately 40 parts per million total dissolved solids (tds) in springs and seeps in mountains to 700 parts per million (ppm) total dissolved solids for water bearing gravels of the alluvial valleys (up to 2,000 ppm tds is considered suitable for drinking).

### 3. Surface Water

Surface water consists of over 20 mountain lakes, numerous ponds, 155.5 miles of trout streams, springs and intermittent streams (see Map 1). The surface water is generally of high quality. But, in some locations, sedimentation caused by placering, road building, overgrazing or other lack of vegetative cover is a problem. These, however, are few and isolated instances.

### 4. Soils

Soil types on the ranch vary from wet alluvial types on a small portion of the Warm Springs Unit to alpine mountain types in the Continental Divide Unit (see Map 3).

These soils support irrigated and dry crops on low lands and grazing and forestry activities on slopes (see Map 4).

In the vicinity of the smelter at Anaconda (Lower Continental Divide Unit and Lost Creek Unit) soils have been contaminated with heavy metal concentrations. Although the Mount Haggin land north of the smelter is virtually sterile, the remaining affected lands have been slowly recovering from the damage. The actual proposed purchase areas did have some peripheral damage but are returning to productivity. Sulfur dioxide gas emissions (which combine with rain water to form sulfuric acid) have caused some leaching of nutrients from the soil in Lower Lost Creek Unit. The proposed acquisition lands received minimal damage and are returning to productivity.

### 5. Air Quality

Emission measurements were taken in the valley and do not reflect the conditions on the proposed purchase lands as neither the Lost Creek Unit nor the Continental Divide Unit is "downwind" from Anaconda's stack, and both units are far enough away so that these emissions have not been a significant problem in recent years. The lower reaches of Lost Creek foothills do receive some emission from inversions in the valley. Even in the early years of massive air pollution, the damage to soils and plants was much less severe on the proposed acquisition than in the valley near the smelter. The area proposed for purchase is recovering from that past pollution.

Prevailing winds in the Deer Lodge valley at Anaconda at stack height (Anaconda Smelter) are from southwest in fall and winter, and are variable but predominantly from southwest in spring and summer.<sup>1</sup> Inversions occur approximately 40 percent of the time as an annual average, and therefore, the Deer Lodge valley has a high potential for air pollution.

The main source of pollution in the valley at Anaconda is from the smelter which discharges sulfur dioxide at the rate of 722 tons per day, and particulates consisting of zinc, arsenic, lead, copper and various sulfates at the rate of 31 tons per day.

<sup>1</sup> James W. Gechaus, "An Air Quality Study in the Deer Lodge Valley 1971-1973." Montana Department of Health and Environmental Sciences, Air Quality Bureau, June, 1974.

The sulfur dioxide emissions are usually within the State and Federal standards but exceed those standards occasionally for short periods of time. The conditions are improving and will continue to improve as new control equipment is installed. Particulate pollution frequently exceeds the standards but the new bag house which is under construction will remove 99 percent of the particulate emissions.

## 6. Climate

Precipitation varies from more than 50 inches annually in the high alpine areas to less than 20 inches in the east slope valleys. The temperatures range from a maximum of 90° F. in the lower valleys to minus 65° F. at the higher elevations. Spring and early summer are usually cloudy and cool with frequent showers, while summer skies are usually clear with frequent thundershowers. June is normally the wettest month and February is the driest.

## 7. Vegetation (See Map 4 )

### a. Vegetative Types

Vegetative types within both units are essentially typical of high western mountain regions. Some of the Continental Divide Unit is above timberline with mountain tops and rocky ridges supporting only sparse alpine vegetation. Lower elevations of both units support extensive stands of timber with lodgepole pine and Douglas fir being the predominant species. Whitebark pine, alpine larch, spruce and aspen are also common. The understory consists of a variety of browse species, forbs, grasses and sedges. Mountain parks and meadows are dispersed throughout the timber stands. Fescues, bluegrass and bluebunch wheatgrass are the predominant species. The Lost Creek Unit supports extensive stands of native bunchgrasses on lowlying open ridges.

### b. Vegetation Modifications

Extensive logging took place in the early 1900's, and second growth stands of Douglas fir and lodgepole with grass and browse understory now predominate. Also, vegetation on portions of both units has been modified as a result of sulfur dioxide and heavy metal contamination from the smelter and extensive logging of lowlying areas. During the past 15 years, the control of emissions has allowed for some recovery. Pioneer species such as aspen and open stands of second growth lodgepole and Douglas fir have begun to reclaim these areas.

## 8. Wildlife (See Map 5 )

### a. Game Animals

#### (1) Lost Creek Unit

Due to great diversity in habitat types, this unit supports a variety of game species, including elk, mule deer, bighorn sheep and moose. All of these species utilize portions of

NAME	PRECIP.	LANDSCAPE DESCRIPTION	GEOLOGY	DOMINANT SUBGROUPS	DOMINANT FAMILIES	AVERAGE SLOPE	COMPACTED SOIL EROSION HAZARD	LOW ORDER STREAM DENSITY	SEDIMENT RISK
Alluvial land A	10-20"	Floodplains & low terraces	Undifferentiated	Ustic torrifuvents Typic ustifluvents	Fine loamy, fine, sandy, sandy skeletal	0-10%	Slight to moderate	Slight	Slight
Wet alluvial land A1	10-20"	Floodplains & low terraces	Undifferentiated	Aquic ustifluvents typic haplaquepts	Fine loamy/sandy skeletal	0-5%	Slight	Slight	Slight
Sub-humid mountains M2A	20-35"	Mid-elevation mountains with smooth slopes	Consolidated, non-carbonate rocks	Typic and andic cryorthents and cryochrepts	Steep and very steep loamy skeletal	25-30%	Moderate	Slight	Slight
Sub-humid mountain, non-calcareous rocks M3A	15-60"	Low-mid elevation erosional mountains	Argillites, Quartzites, Granites	Typic and andic cryochrepts, Udic ustochrepts	Steep and very steep loamy skeletal	15-60%	Slight	Slight	Slight
Sub-humid mountains, calcareous rocks M3B	15-40"	Low-mid elevation erosional mountains	Calcareous rocks	Typic and andic cryochrepts, typic ustochrepts	Steep and very steep loamy skeletal	15-60%	Slight	Slight	Slight
Sub-humid, granite mountains M3C	18-50"	Low-mid elevation structural mountains	Granite rocks "Grussic"	Andic cryochrepts, Udic ustochrepts	Steep and very steep, loamy skeletal	15-60%	Moderate	Slight	Moderate
Dissected pediments F3A	14-20"	Sloping - rolling high terraces and benches	Undifferentiated	Argic and Calcic cryoborolls, Udic haploborolls	Sloping - steep, fine, fine-loamy and loamy skeletal	5-30%	Moderate to severe	Slight to moderate	Slight

the unit year-round with elk and mule deer migrating from high alpine summer range to lower grass covered ridges and brushy draws in the winter.

The middle and lower bunchgrass ranges of the Lost Creek Unit provide key winter range for resident elk and bighorn sheep. Pockets of chokecherry, mountain maple and service-berry enhance the winter range for these species and provide an important winter food source for resident mule deer.

Bighorn sheep occur in the high country during the summer and move to lower elevations in winter. A mountain goat population inhabits the steep, rocky terrain in the Lost Creek drainage throughout the year, and moose utilize the high marshy meadows and willow bottoms. Black bear and mountain lion also occur in the area.

## (2) Continental Divide Unit

Elk, mule deer, mountain goats and moose are common to this unit. The elk utilize the high western portions during the summer and pass through the middle and eastern portions during migration to wintering areas.

Within the mid-elevation portions of this unit are found key calving grounds. During the spring of the year, open stands of timber interspersed with mountain meadows are utilized by the large Fleecer Mountain elk herd. During the summer months, elk utilize the high eastern portions of this unit, and both elk and mule deer traverse it during the spring and fall migrations.

Mule deer migrate through the lower areas to and from winter range and inhabit the middle and higher elevations during the summer. Moose are found in this unit along willow bottoms and adjacent forests in winter and in high marshy meadow areas and forests during other seasons of the year. The high western portions provide year-round habitat for mountain goats. Black bear and mountain lion also occur in the area.

### b. Game Birds

Both units support the three common species of mountain grouse: blue, Franklin's and ruffed. The blue grouse are predominantly in the higher regions and on the lower ridges and slopes during the spring. Franklin's grouse occur in the forest areas while ruffed grouse are more common along the streams in the middle and lower elevations.

### c. Non-game Wildlife

A great variety of non-game animals and birds inhabit both units. An abundance of rodents and other small mammals support larger predatory species.

A large variety of birds, both resident and migratory, utilize the diverse habitat types in these units.

The sandhill crane nests in the southwest portion of the Continental Divide Unit.

Fur bearers which occur on the proposed acquisition include marten, mink, beaver, muskrat, bobcat, coyote and fox.

d. Endangered or Threatened Species

The units formerly provided habitat for grizzly bear and wolf. However, these species do not presently occur, nor are there any other endangered or threatened species present.

9. Fish

The more than 20 high mountain lakes and 155.5 miles of streams in both units provide habitat for a number of game fish species.

Cutthroat, rainbow and brook trout are the predominant species and are found throughout both units. Dolly Varden are also common but are primarily confined to lower reaches of larger streams. Smaller tributary streams in the upper drainages are utilized as spawning grounds by migratory trout populations. A few of the larger drainages provide habitat for limited mountain whitefish populations.

Fish distribution by species is as follows:

DRAINAGE

Deep Creek	- 8 mi.	- cutthroat and rainbow, arctic greyling, mountain whitefish, brook
Sullivan Creek	- 9 mi.	- no information
French Gulch	- 4.5 mi.	- rainbow, brook, cutthroat
California Creek	- 7 mi.	- cutthroat
American Creek	- 6 mi.	- cutthroat
Seymour Creek	- 5 mi.	- brook, cutthroat
E. Fork-Lamarche Creek	- 2 mi.	- brook, cutthroat
Six Creek	- 4 mi.	- no information
Ten Mile Lakes		- native cutthroat have been caught and observed
Lost Creek	- 11 mi.	- cutthroat, rainbow, brook, Dolly Varden
Tributaries	- 9 mi.	- utilized for spawning and rearing
Mill Creek )		
Willow Creek)	- 47 mi.	- cutthroat, brook, Dolly Varden
Clear Creek )		
Tributaries	- 43 mi.	- utilized for spawning and rearing
TOTAL	155.5 miles	of streams

Fishing is fair to good in the lower reaches of all streams. Flows are two to four cubic feet per second.

No information is available on the lakes and ponds, except for evidence of cutthroat in Mill Lake.

## B. Human Environment

### 1. Land Use (See Map 4 )

As of 1970, the major use of land in Deer Lodge County was for agricultural purposes, comprising over 60 percent of the land area. Mount Haggin encompasses 45.5 percent of the agricultural land in the County. Agricultural land is defined as crop, pasture, range and forest land.<sup>1</sup> The purchase area of Mount Haggin is 74 percent of the ranch or 34 percent of the land defined as "agricultural" for Deer Lodge County.

Most of the remaining land area is federal non-cropland, filling 33.5 percent of the County, with the remainder in urban-built-up, small water areas, and other uses.

#### a. Subdivision Activity

Subdivision activity in Deer Lodge County was minimal in 1974 as only 34.923 acres were filed in the Clerk and Records Office, while none were filed in the first half of 1975.<sup>2</sup>

The future of subdivision activity likely will be second home and recreational development, which could have significant impacts on roads, sewage, utilities, schools, access and recreational factors.

Mount Haggin lands have not been subdivided and are currently zoned agricultural and timber uses under the Deer Lodge County Comprehensive Plan.

#### b. Utility Systems

No major utility networks cross either unit. A major power transmission line corridor through the valley roughly near I-90 is being studied presently. It will not cross the proposed acquisition and no corridors or services being studied or suggested leave the valley in this area.

One small telephone line and a local electrical distribution line cross the Continental Divide Unit near the highway right-of-way. These lines serve ranch facilities and residences between the Big Hole and Deer Lodge Valleys.

Numerous power, gas and water lines are located near the town of Anaconda and the smelter. These services are off the proposed project.

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<sup>1</sup>Montana Data Book, Montana Department of Planning and Economic Development, 1970.

<sup>2</sup>Telephone conversation, Deer Lodge County, Clerk and Records Office, July 1, 1975.

### c. Transportation Systems

The primary carrier of Montana's east-west traffic, I-90, passes east of the ranch between Butte and Deerlodge. Highway 10A serves east-west traffic to and from Anaconda, receiving heavy use from daily commuter traffic. Both roads average approximately 3,500 vehicles daily, indicative of the heavy traffic flow through this area.

There are two county roads serving the units. Traffic up Lost Creek is from residents along the drainage and heavy seasonal traffic from visitors to Lost Creek State Recreation Area. This road is paved until near the park where it is gravel.

Secondary Highway 274 crosses the Continental Divide Unit from Anaconda (on the north) to the Big Hole Valley (on the south). It is a paved road receiving major use in the summer and fall and is plowed for snow in the winter months. Numerous unimproved roads and trails radiate from Highway 274, especially at the lower elevations.

The town of Anaconda is served by passenger bus transportation directly and by Amtrak rail service and Western and Northwest Airlines at Butte, 30 miles to the east. Numerous truck lines and the Burlington Northern, Milwaukee and Union Pacific Railroads carry freight to and from the area. The Butte, Anaconda and Pacific Railroad carries ore concentrate from the copper mines in Butte to the Anaconda Company smelter at Anaconda.

### 2. Population Distribution

As of the 1970 census, Deer Lodge County had a population of 15,652 persons, 9,771 of whom lived in the county seat, Anaconda.

Population Trends for Anaconda, Deer Lodge County, and Montana, 1940, 1950, 1960 and 1970, and Associated Percent Change

	<u>1940</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>
Anaconda	11,004	11,254	12,054	9,771
Percent Change	2.3%	7.1%	-18.9%	
Deer Lodge County	13,627	16,553	18,640	15,652
Percent Change	21.5%	12.6%	-16.0%	
State	559,681	591,024	674,467	694,409
Percent Change	5.6%	14.2%	2.9%	

Source: U.S. Bureau of Census, Census of Population, Selected Years 1940, 1950, 1960 and 1970

Following population increases in the 40's and 50's there was from 1960 to 1970 a decrease of approximately 3,000 persons in the County, of which the town of Anaconda accounted for 2,300. From all indications, this decrease in population was a result of the strike at the Anaconda facilities in 1967-68. Due to its long duration (18 months) many people left the vicinity.

According to population estimates, Deer Lodge County grew by 148 persons (to 15,800) between 1970 and 1973.<sup>1</sup> The resident population of Anaconda and Deer Lodge County is directly related to Anaconda Company's facilities, hence fluctuations in the copper market will have definite effects on the population.

The area within a 100-mile radius of the proposed acquisition had a population greater than 200,000 people according to the 1970 census, up from 198,000 in 1960. This area includes the Cities of Missoula, Bozeman, Butte and Helena, in which a large percentage of Montana's people reside.

State Comprehensive Outdoor Recreation Plan figures for 1971 (Region 12) indicated that the top preference for recreation was "natural undeveloped environmental areas" followed by "general outdoor recreation areas." A large percentage of present outdoor recreational use is by residents of the region.

### 3. Income

Although slightly below the State average,<sup>2</sup> Deer Lodge County has a higher average income than the surrounding area due to the presence of the Anaconda Company's smelter works in the town of Anaconda (Chart 1-1).

From 1968 to 1972, Deer Lodge County's average income was slightly less than the State average, presently lagging by approximately \$500 per worker. Current fluctuations in the copper industry will have considerable effects on the income of the county.

Data from the Employment Security Division of the Department of Labor showed a slightly different economic picture than the R.E.I.S. file showed. This information is based on employment covered by unemployment insurance and hence does not include most agricultural employment. Employees in Deer Lodge County covered by unemployment insurance have had a larger average income than the State since 1969 (see Chart 1-2). The increase in 1973 is due to construction employment engaged in building the Arbitor Plant and making modifications at the Anaconda Company facilities. This employment continued through 1974, with completion in early 1975.

### 4. Employment

Getting substantiable data on employment by type in Deer Lodge County is difficult because of disclosure problems in the presentation of results. Federal law will not allow the disclosure of employment or income data in instances where one firm makes up the entire classification. This is the case in Deer Lodge County where the Anaconda Company controls mining and manufacturing. Hence, one must interpolate figures to gain an approximate understanding of employment by type.

<sup>1</sup>Bureau of Census, Current Population Reports, Population Estimates, July 1, 1972 and 1973.

<sup>2</sup>R.E.I.S. Files, Department of Community Affairs, State of Montana, Helena, Montana.

CHART 1-1

Total Average Income, Deer Lodge County, and  
Montana, 1968, 1969, 1970, 1971 and 1972

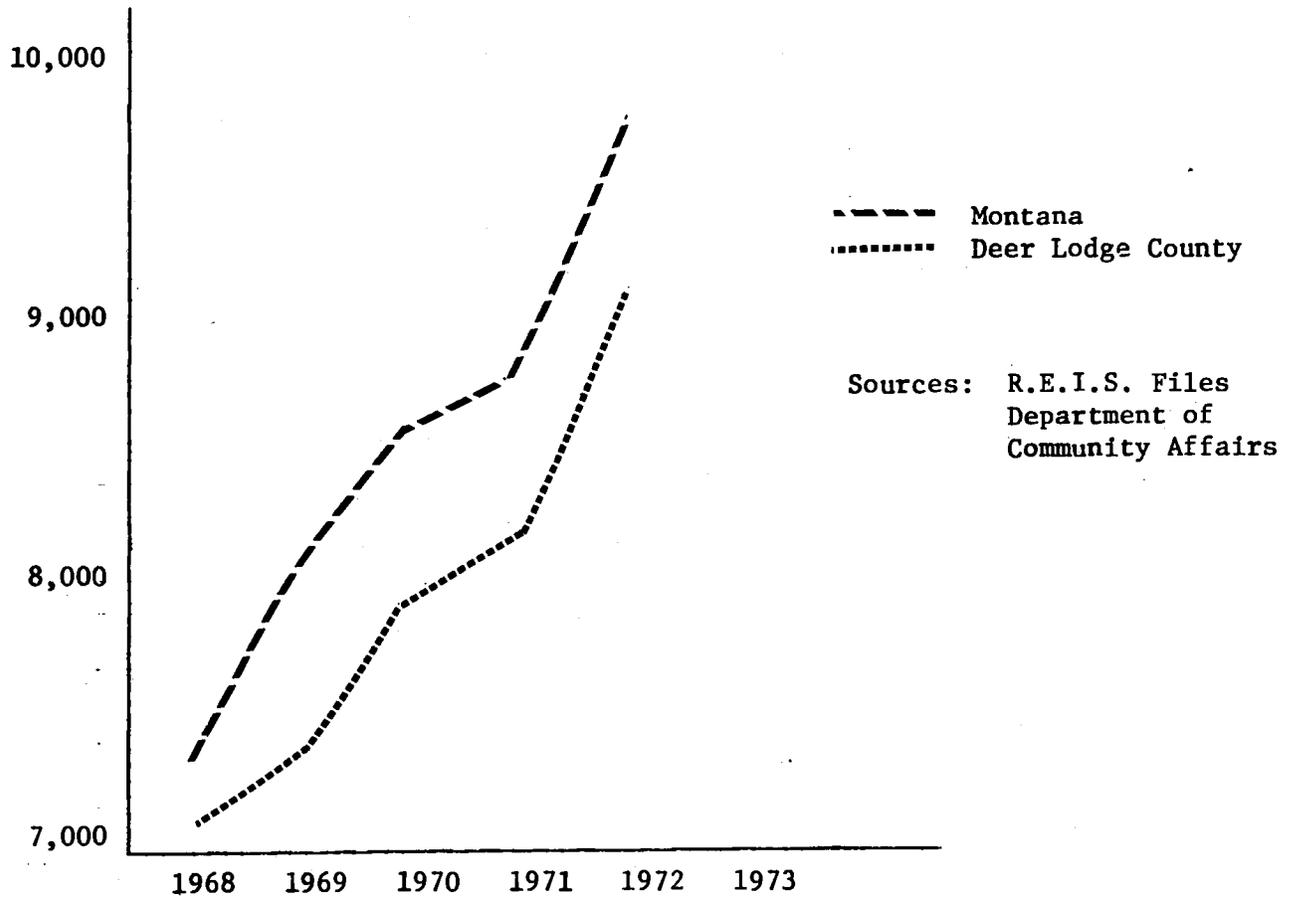
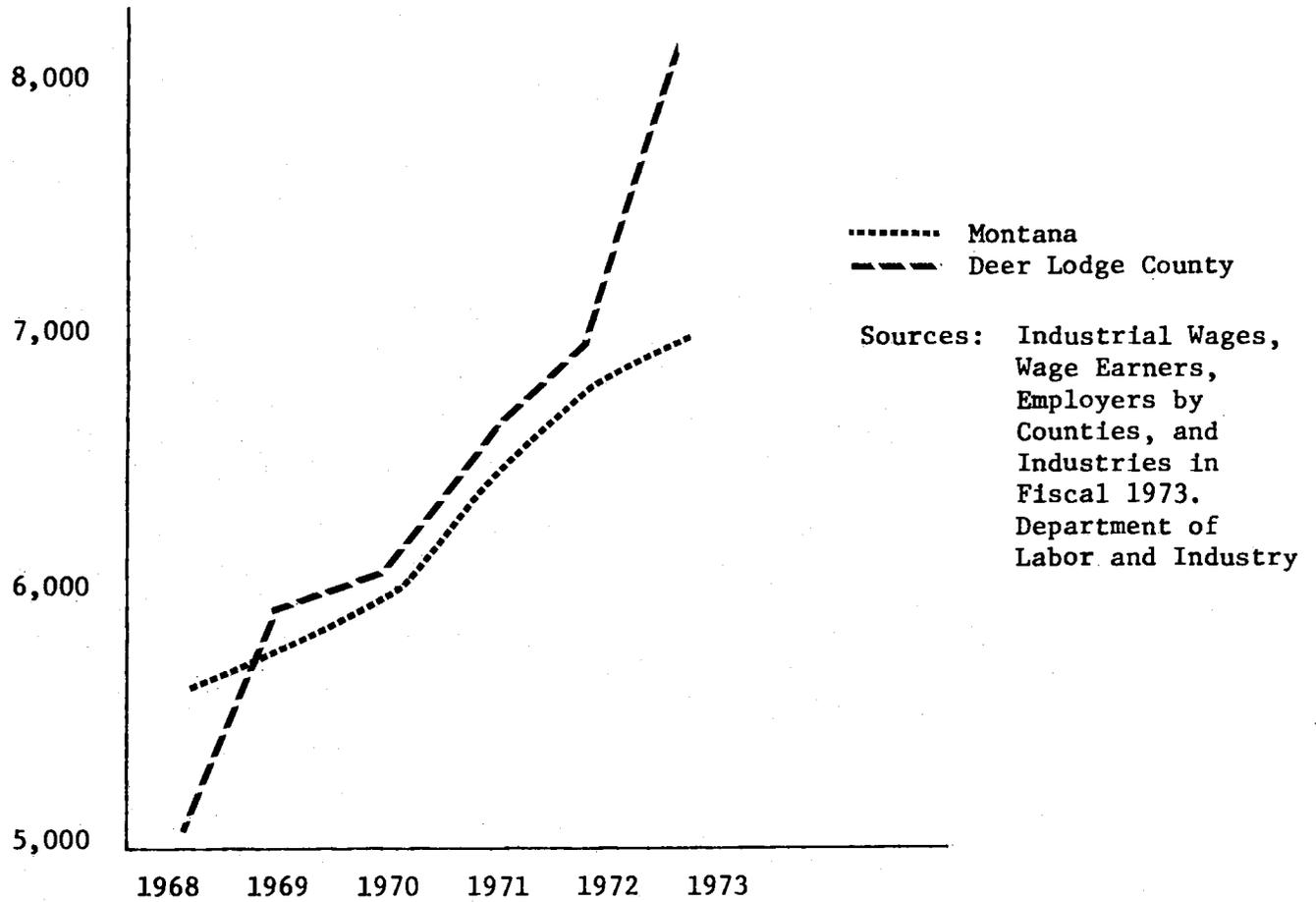


CHART 1-2

Average Income From Employees Covered By  
Unemployment Insurance



Government is the largest employer in Deer Lodge County. This employment type is extraordinarily high due to the presence of Warm Springs State Hospital and Galen State Hospital. As would be expected, manufacturing was second, receiving over 25 percent of the county employment (see Chart 1-3). Services, trade, transportation, communication and public utilities follow in respective order. Gross employment has increased from 5,460 persons in 1968 to 6,253 persons in 1972.<sup>1</sup>

As of the latter part of July 1975, the Anaconda Company was closing down its Arbitor Plant in Anaconda affecting 100 workers. Only a skeleton crew will be retained at the plant. The company will attempt to absorb as many as possible into the smelter operations. However, if the scheduled employment plan is followed, there may be some lay-offs by the end of the year.

Unemployment figures for the Butte-Anaconda Labor Market Area in April 1975 are up 2.9 percent from April 1974 rates. Figures for the Anaconda area seem to be slightly lower for the same time period. Closure of the Arbitor Plant will have a significant impact on the local community, increasing unemployment rates for the Anaconda area.

Employment information for the timber industry in Deer Lodge County is not available. However, an indication of present trends in the industry is the announced closure of Louisiana-Pacific's sawmill in Phillipsburg, Montana, located in Granite County. Louisiana-Pacific plans to retain all workers who are willing to relocate to other Louisiana-Pacific facilities.

## 5. Ranch Economics

### a. Employment and Uses

From November 1972 to 1974, when the agreement terminated, Ankony Angus held a contract with Mount Haggin Ranch for the grazing of cattle. They paid \$300,000 a year for grazing rights to the property.

Animal populations for 1971 to 1974 are as follows:

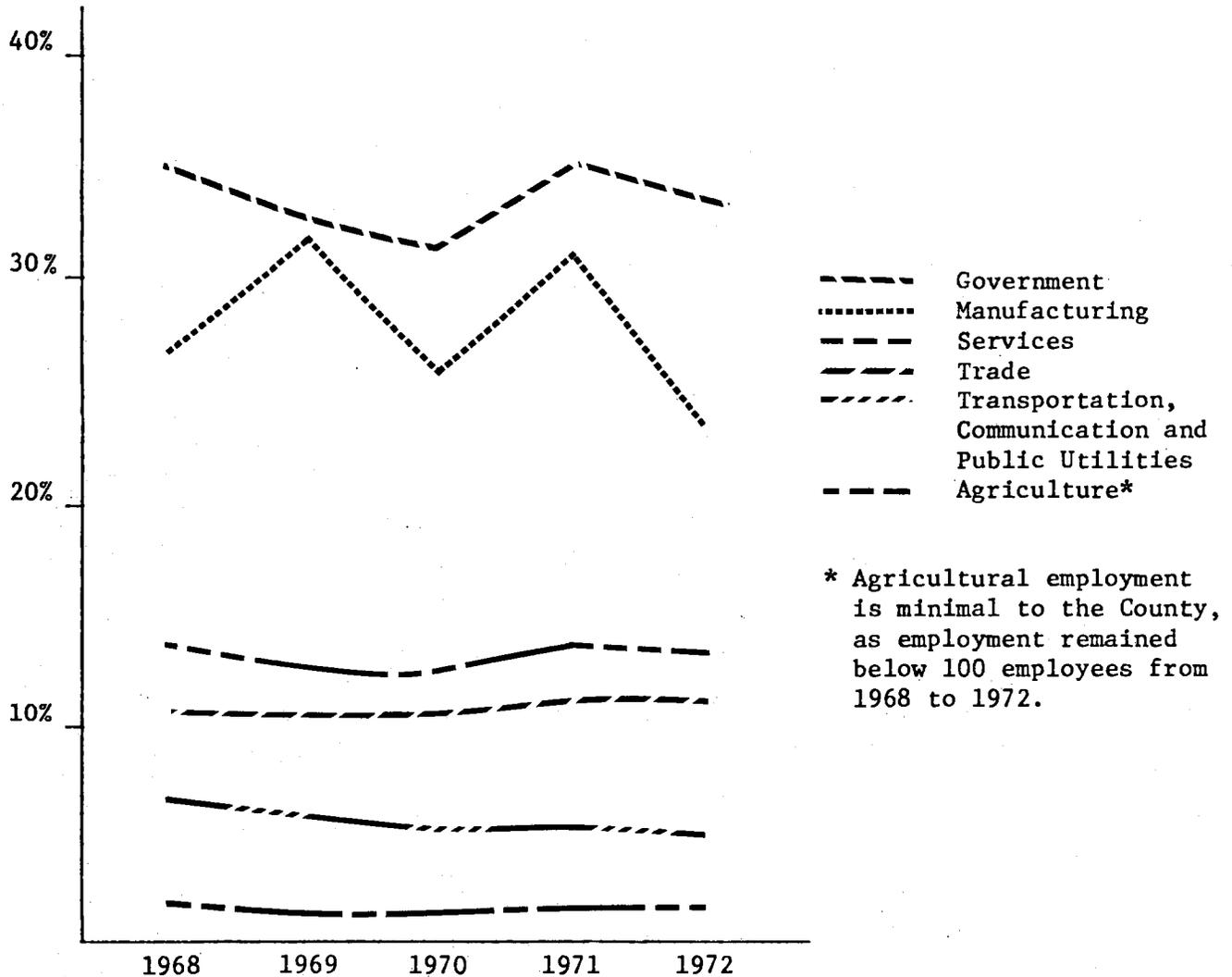
	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Cows	220	1976	5181	6916
Sheep	800	105	815	854
Horses	16	10	13	25

Ankony Angus has since terminated the lease leaving only Mount Haggin Livestock Company animals on the ranch. Currently, sheep and cattle are being grazed on the ranch, although the number presently being grazed is considerably reduced due to the uncertain future of the ranch.

<sup>1</sup>Telephone conversation, Montana Employment Service, Anaconda, Montana, July 24, 1975.

CHART 1-3

Employment by Type, Wage and Salary  
 Employment, Deer Lodge County, 1968, 1969,  
 1970, 1971 and 1972, Top Five Industries



Source: R.E.I.S. Files, Department of Community Affairs, State of Montana, Helena, Montana, and Industrial Wages, Wage Earnings, Employers by Counties and Industries in Fiscal 1968, 1969, 1970, 1971 and 1972, Employment Security Division.

Note: R.E.I.S. Files, except manufacturing in 1968, deleted mining and manufacturing, for disclosure purposes. Data from Employment Security Division was substituted in for the deleted items, making the new totals within 99.3, 98.8, 97.6, 108.1 and 98.7 percent, respectively. The difference due to different specifications and other classification.

Full capacity operation involves running 6,000 annual animal units on the ranch. Lower portions of the ranch are predominantly used for crop and hay production while mid- and high-elevation lands are spring, summer and fall range.

Employment figures associated with capacity operation are presented below.

#### Ranching Operation

- 6 people for 5 months
- 10 people for 4 months
- 8 people for 3 months

#### Farming

- 2 people for 6 months
- 15 people for 3 months

The total employment budget for above employees would be \$80,000 per year (1975 dollars). The secondary (income) impact on the surrounding area would be \$192,800 in income (based upon household income multiplier of 3.41).<sup>1</sup> See Appendix A for qualification of multiplier.

#### b. Timber

Current timber activity on the ranch is by Louisiana Pacific, which bought out Northern Timber and Northern's contract with Mount Haggin. As of this writing, 9,310 acres have been cut, harvesting almost 35,000,000 board feet (Map 6). An average of 3,744 board feet per acre have been harvested from the ranch.

Louisiana-Pacific has an agreement with Mount Haggin Ranch which allows them to cut all timber 4" in diameter and over anywhere on the ranch. This agreement expires in 1988. The agreement will remain in effect after the purchase of the property unless renegotiated or bought by the new owners.

Remaining saw and pulp timber on the ranch is estimated to be 143,626 thousand board feet, based upon data supplied by Louisiana-

<sup>1</sup> Multiplier-measurement of the number of times one dollar is spent in an economy. For example, say the local services multiplier is 1.64, or that \$1.00 spent on food will eventually create \$1.64 in the local income.

1

Pacific Corporation. Forty percent or 57,450 thousand board feet of the commercial timber are proposed to be purchased by the Forest Service, with the remaining sixty percent or 86,176 thousand board feet to go to the Montana Department of Fish and Game. A crew of 50 persons per year for 13 years would realistically be needed to remove the remaining commercial timber, receiving a payroll slightly over \$484,000 per year (approximately \$9,700/year/person).

An estimated 11,050 thousand board feet per year will have to be cut to remove timber of commercial value in the remaining contract time. As a basis of comparison, these quantities average slightly over one-third the yearly capacity of Louisiana-Pacific's mill at Deerlodge employing approximately 70 people per year.

c. Taxes

Personal and property taxes paid from the operation of Mount Haggin Ranch were \$100,757.71 in 1974. This includes \$43,415.71 property taxation and \$57,342.00 for personal taxes. Property taxes were paid to Deer Lodge, Granite, Powell and Silver Bow Counties. Deer Lodge received \$40,160.30 (97.5 percent), Silver Bow - \$2,016.83 (4.6 percent), Granite - \$947.58 (2.2 percent) and Powell - \$291.00 (0.7 percent) in 1974.

Deer Lodge County personal and property taxes paid by Mount Haggin Ranch for 1970 to 1974 and Ankony Angus for 1972 to 1974 are below (Mount Haggin taxes include personal and property taxes while the figures for Ankony Angus are for personal taxes).

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Mount Haggin	\$69,337.06	\$51,029.27	\$48,333.98	\$38,184.37	\$41,975.84
A. Angus	-	-	3,118.55	29,685.30	55,526.46
	\$69,337.06	\$51,029.27	\$51,452.53	\$67,869.87	\$97,502.30

Rates and number of cows grazed are responsible for the tax increase for Ankony Angus from 1973 to 1974. In 1974, Mount Haggin taxes amounted to one-half of one percent of the total Deer Lodge taxes of \$19,730,221.

6. Recreation

The following section presents several discussions and sets of figures to describe the dispersed recreation in the area adjacent to and on Mount Haggin Ranch. Data ranges from broad groups to big game hunting

<sup>1</sup> Deerlodge National Forest estimated remaining saw and pulp timber on the ranch to be 132,430 thousand board feet, which they estimated to be within 25+ percent reliability. The 132,430 mbf figure adequately represents the timber resource as it now exists on Mount Haggin Ranch.

to dispersed use on the ranch. It is an important area for hunting, fishing and other dispersed recreation. Economic valuation of big game hunting is quantified, underlining the local economic importance of hunting to the area.

Estimates of hunting use for districts 212, 213, 214 and 319 are presented below. This area runs from Drummond on the north to Divide on the south; from Deerlodge on the east to Philipsburg on the west. Represented is a land area of 1,474,560 acres, of which Mount Haggin encompasses 156,000 acres or 10.5 percent of the area.

a. Big Game Hunting (1973 Department of Fish and Game Data)

Mountain Goats	45 permits.
Moose	35 permits
Elk	
Hunters	5,274
Hunter Days	26,745
Harvest	738
Deer	
Hunters	5,249
Hunter Days	25,827
Harvest	1,374

b. Upland Bird Hunting. No estimates of use or harvest are available.

Lost Creek State Recreation Area is surrounded by the Lost Creek Unit of the proposed acquisition. It is a day use and camping area located in a deep limestone canyon. In addition to the beautiful and rugged canyon, Lost Creek Falls is a popular feature.

Deer Lodge, Beaverhead National Forest and Lost Creek Recreation Area user days (12-hour days) for Mount Haggin for 1974 are estimated below by the U.S. Forest Service.

	<u>Lost Creek</u>	<u>West of Divide/ off Highway 274</u>	<u>East of Divide/ off Highway 274</u>
General small game	50	200	100
Bird hunting	175	200	200
Camping	800	20	0
Picnicking	1,500	300	20
Lake fishing	0	200	0
Stream fishing	200	900	200
Snowmobiling	200	2,000	2,000
Horse riding	100	300	400
Cross country	50	100	50
Hiking	200	200	50
Cycling	250	250	50
Garrity Cave	100	0	0
4-wheel driving	300	200	300
Gathering forest products	300	200	300
	<u>4,225</u>	<u>5,000</u>	<u>3,670</u>

Note: Calculated from traffic counts and random site observations.

The Anaconda-Pintlar Wilderness Area borders the proposed Continental Divide Unit to the west. While total visitor use is still relatively small (wilderness experience requires great dispersion among recreationists) visitor days have increased since 1970.

<u>Year</u>	<u>Visitor Days</u>	<u>Change from Previous Year</u>
1970	18,500	
1971	21,700	+17%
1972	24,700	+14%
1973	26,300	+ 6%

During August 1973, the wilderness was closed because of fire danger.

Source: U.S. Forest Service, Deerlodge and Beaverhead National Forests. Based upon registration and samplings.

Big game (deer, elk and out-of-State hunters) license sales for the impact area are increased significantly from 1970 to 1973, as indicated below.

#### Big Game License Sales

	<u>1970</u>	<u>1973</u>	<u>Percentage Change</u>
Deer Lodge County	4,572	5,423	19% increase
Silver Bow County	12,161	15,521	28% increase
Powell County	2,695	3,024	12% increase
Granite County	1,327	1,495	13% increase
Beaverhead County	5,783	9,443	81% increase

Source: Montana Fish and Game Department, Yearly License Sales Data

Indicative of the increasing interest in big game hunting in the immediate Mount Haggin area is the number of licenses bought in Deer Lodge and Silver Bow Counties. License sales increased 25 percent for both counties in the three-year span, as more people seek a big game hunting experience. Fleece is extremely important to local hunters, as will be the addition of Mount Haggin lands to these publicly owned and managed game areas.

The Forest Service has computed 24,343 hunter days on and around the proposed acquisition in 1974. The 1974 big game hunting figures by site are as follows:

<u>Area</u>	<u>Hunter Days</u>
(1) Game Range (Fleecer)	865
(2) Charcoal Mountain	2,044
(3) Jerry Creek	2,927
(4) Johnson Creek	2,688
(5) Bear Creek	1,060
(6) Moose Creek	386
(7) Willow Creek	120
(8) Gregson Creek	2,152
(9) Silver Bow	1,580
(10) Buxton	921
(11) Divide Creek	6,125
(12) La Marche Creek	532
(13) Seymour Creek	1,821
(14) Upper Seymour Creek	60
(15) Mule Ranch	30
(16) Ten Mile	532
(17) Lost Creek	500
TOTAL	<u>24,343</u>

Observation of the user access points shows that Mount Haggin Ranch occupies an important position not only for animal habitat, but also for hunting (see Map 5). Access to the ranch lands has been permitted, subject to approval by the landowner, although the last few years have seen some closure for cattle and property protection. The majority of hunting in this region is for elk, with deer as a secondary incentive followed by specialized hunting for goats, sheep and moose.

Estimated local expenditures for hunting in the above region (see table above) for 1974 were \$550,600, based upon \$22.62/day/hunter based upon figures calculated for hunting in Gallatin Canyon.<sup>1</sup> These areas are similar in quality of hunting, proximity to urban areas, and each must be viewed as a total game region rather than just individual drainages.

The \$22.62 figure is used for moose, sheep and goat hunting although the figure considerably underestimates the expenditures for this specialized hunting.

Considering the economic value of meat harvested (1971 Gallatin Study estimated a value of \$225/elk), plus expenditures for other recreational activities, the economic impact of hunting is substantial to the local area.

There are also significant expenditures made by other recreationists who use the area (12,895 user days estimated for 1974). No attempt has been made to quantify the economic effects of these expenditures because there is insufficient research available to establish these

<sup>1</sup>Harold Picton, "Human-Wildlife Interactions in the West Gallatin Area, Montana," Dept. of Zoology and Entomology, Montana State University, Bozeman, Dec. 1972.

values. However, it would amount to at least \$100,000 annually using the lowest available parameters.

#### 7. Historical and Archaeological

There exist remains of flumes and rollers which carried fuelwood, and remains of old mining cabins. However, the significance of these sites is unknown at this time.

### III. ENVIRONMENTAL IMPACT OF PROPOSED ACTION

#### A. Physical Environment

##### Visual Setting

The aesthetics of the lower regions of each property will be improved with the closing and revegetation, with appropriate species, of some of the numerous roads and trails. But the numbers, locations and lengths of road thus affected cannot be determined until studies are performed.

Better vegetative cover will result where range management allows over-grazed areas to recover, and the timber industry related activities will be greatly curtailed, if not eliminated when the existing agreement terminates. This, too, will enhance the natural environment by eliminating the associated road and noise intrusions as well as the erosion and other problems common to logging operations. Then, of course, the scars from the actual harvests will no longer be created and those already there will heal.

Public littering and the potential for fire will increase with increased use of the area.

##### 1. Geology and Minerals

No environmental impact will result from the proposed action. Because the area has been heavily prospected in the past and no development resulted, it is not expected to occur in the foreseeable future. However, the acquisition of this property would not preclude exploration or development as mineral rights are not a part of the acquisition.

##### 2. Ground Water

No appreciable effect expected; what little effect there is should be beneficial. Allowing the logged areas to regenerate and the ground cover to proliferate should create a better watershed that will retain snow cover longer. The result should be improved (though probably not significantly) ground water supplies.

##### 3. Surface Water

In no case will the surface water resources be degraded. In some isolated cases where over-grazing, roads or logging or old mining activities have caused erosion and sedimentation, some limited reclamation may be attempted. The objective would be to improve the stability of affected streams. However, in most cases, sound game and habitat management practices will allow natural recovery of the problem areas. The results should be continued long-range improvements to the surface water resources.

#### 4. Soils

Beneficial effects would be realized by the reduced erosion which would result from revegetation of roads and trails, logged or over-grazed areas. These would be small in scale and mainly natural revegetation which would occur because of improved management practices.

Heavy metal contamination of soils from previous smelter operations at Anaconda will persist, but concentrations in the topsoil should gradually decrease by leaching and plant growth.

Increased public use will cause soil compaction, dust and possible erosion at access points and trailheads. Proper design and regulation of use at these sites will help to minimize the impacts.

#### 5. Air Quality

The increase in traffic in the Deer Lodge Valley will be accompanied by a slight increase in the potential for air pollution especially during inversion periods.

Air quality will not be significantly adversely affected and could be slightly improved with the elimination or reduction of dust caused by timber industry activities (when the timber agreement has expired).

#### 6. Climate

No effect anticipated.

#### 7. Vegetation

The general condition of the grasses and browse should improve where over-grazing has caused degradation in the past. However, this has not been a widespread problem so dramatic changes will not occur. Long-term improvements are expected in the areas affected by the historic fume damage and the heavy mineral contamination of the soil from the reduction works at Anaconda. This recovery will occur naturally and gradually, but careful management of game species and domestic stock grazing will speed the recovery. It is expected that the diversity of plant species will increase as soil contamination is reduced by natural processes. Some of the forage which was formerly used by livestock will be partially consumed by game herds which will, in turn, be harvested by hunters. Unused forage will provide litter to improve plant diversity, range conditions, lessen surface water runoff and erosion and improve water percolation and ground water supply. However, this build-up of litter will increase the potential for fire.

## 8. Wildlife

Enhancement of the basic vegetation resource, especially on winter range areas, will benefit all wildlife populations.

Closer surveillance and control of off-road vehicle use will minimize winter range disturbance to game animals.

Established game management procedures, including inventory, vegetative analysis and controlled harvest, will assure the maintenance of healthy, productive game populations. Small game and non-game animals and birds will also benefit from the management procedures to be implemented.

## 9. Fish (Lost Creek and Continental Divide Units)

Enhancement of the vegetation resource will benefit the fisheries habitat through watershed protection and maintenance of stream flow regimes.

Curtailement of logging, closure of roads, control of off-road traffic, and road improvement should aid in improving sedimentation and other fish habitat problems.

Established fisheries management procedures will assure the continuance of healthy, wild trout populations. Those sections of streams disturbed through past mining and logging activities can be manipulated to accelerate natural healing.

## B. Human Environment

### 1. Land Use

Mount Haggin Ranch is such a large size that the proposed acquisition by the Department of Fish and Game and the U.S. Forest Service will substantially change land use patterns in Deer Lodge County. This change will increase public ownership from 34 percent to 58 percent of the total land area in the county. Use of the lands will change as cattle will no longer be grazed as intensively as they could be under private ownership.

#### a. Subdivision Activities

The purchase of the Mount Haggin property will preclude subdivision of the purchased area on the ranch. But, the ranch purchase and subsequent creation of public open space could stimulate subdivision, especially for second homes, in the surrounding area.

#### b. Transportation Systems

More traffic on roads crossing or leading to the area will cause an increased need for road maintenance.

Major work on roads would be necessary if any significant subdivision activity occurs in the surrounding area. This could eventually mean paving roads and much higher maintenance costs to keep existing roads in operable condition because of increased traffic use.

c. Utility System

The need for additional utility systems could be created if subdivision activity is stimulated by the purchase.

2. Population Distribution

The decade from 1960 to 1970 saw the population within 100 miles increase 22,000 people or 11 percent. Transient populations will increase as use is shifted to and increases on the proposed acquisition lands.

The proposed acquisition will have minimal effect upon the resident population unless significant second home subdivision occurs.

3. Income

Fish and Game and Forest Service acquisition will mean a loss of \$22,500 in personal employment income on Mount Haggin Ranch. (See III. B. 4, below.) This will result from reductions in the carrying capacity of the ranch from 6,000 to 3,750 animal units or by 37.5 percent. Income will be lost to the local economy from decreased purchases by the smaller Mount Haggin Ranch operations. An accurate measure of this loss is difficult because range operations are being purchased, leaving the labor and capital intensive operations intact.

It will probably be necessary to the Department of Fish and Game and the U. S. Forest Service to each hire one full-time person to handle new job loads resulting from the proposed acquisition. These jobs will pay approximately \$12,500 each or \$25,000 total. Additionally, summer help will be required by the Forest Service for the transition period from short-term to long-term management objectives requiring approximately five people for three-month seasonal work for three summers and summer help managing the area after planning (based upon budget requirements). These jobs would pay an average total of \$12,000 per season. Application of local income multipliers to income losses and gains realizes a larger loss than gain, since the multiplier for livestock industry is still 3.41, whereas government employment is 1.60. Therefore, the net personal income loss is approximately \$16,000 to the local area. This is the maximum estimate of secondary income loss to the local community which would likely disappear with season occupation by the Forest Service and the Department of Fish and Game.

4. Employment

Ranch agricultural employment loss will be:

- 4 people for 5 months
- 5 people for 4 months
- 4 people for 3 months

These people will be from the ranch portion of the operations, since the farming unit will remain intact.

Forest Service and Fish and Game new employment due to the Mount Haggin acquisition will be:

- 2 full-time persons
- 5 people for 3 months (3 years)

These full-time persons will be permanent additions to the respective agencies, providing stable incomes.

Seasonal employment will result from both agency's operations, although it is presently impossible to quantify such employment.

#### 5. Ranch Economics

Acquisition will mean a potential tax loss of \$44,120.80 in Deer Lodge County from personal and property taxes. This represents a personal tax loss of \$19,743.15 and a property tax loss of \$24,377.65 (based upon 1974 appraisals and schedules). Property tax loss will be \$947.58 in Granite County, \$291.06 in Powell County and \$1,344.55 in Silver-bow County, for a total potential tax loss of \$46,703.99 from the acquisition.

The magnitude of the personal tax loss is based upon a remaining carrying capacity (on the unpurchased portion of the ranch) (see Map 1) of 3,750 animal units and an existing carrying capacity of 6,000 animal units. Six thousand animal units were felt by the operators and managers of the ranch to be the optimum carrying capacity of the ranch, although this is fewer than the number of animal units occupying the ranch in 1974 before Ankony Angus discontinued its operations.

Property taxes on the lands to be purchased by the U. S. Forest Service amounted to \$15,448.07 in 1974. Tax revenue to be lost because of the Forest Service purchase breaks down to \$14,209.43 in Deer Lodge, \$947.58 in Granite and \$291.06 in Powell Counties. Property taxes on lands proposed for purchase by the Montana Department of Fish and Game were \$11,512.77 in 1974, of which \$10,168.22 was paid to Deer Lodge County and \$1,344.55 to Silver Bow County. (See Appendix C for summary of taxes paid and lost.)

Twenty-five percent of receipts to the Forest Service from Louisiana-Pacific logging operations/contract will go to the respective counties in Deer Lodge and Beaverhead National Forests (IV. E.). Louisiana-Pacific pays an annual minimum fee of \$50,000 to Mount Haggin for timber harvest.

## 6. Recreation

The preservation and enhancement of outdoor recreation activities will be a beneficial impact.

Recreational use on the proposed acquisition will increase for several reasons. (See Appendix B.)

### a. Increased Potential User Population

The population within a 100 mile radius increased over 22,000 people from 1960 to 1970, or 11 percent. The need for recreational opportunities will increase in proportion to the population.

### b. Redistribution of Hunter Pressure from the Fleecer Area

In the last few years, hunting pressure has increased in the Fleecer Area to such an extent that hunters are either moving to other localities or are not pursuing their sport.

The redistribution of hunters from the Fleecer Area to Mount Haggin should stimulate renewed interest in local hunting and provide for a more quality experience in the region. As a result, the hunter days for the area should increase.

### c. Increased Productivity

Improved wildlife habitat will result from decreased competition from intensive private cattle grazing. The Continental Divide Unit is potentially excellent wildlife habitat which, when not also supporting domestic stock to capacity, will carry proportionately more game animals. Restricted cattle grazing, regulated to promote wildlife habitat, should result in a more natural distribution and movement of wildlife.

### d. Public access will be guaranteed.

### e. There are presently no adequate measures to ascertain the value for the existence of large ecological units such as Mount Haggin. However, it should be recognized that such areas do have value to even those that do not use them.

## 7. Historical and Archaeological

Any recognized historical or archaeological sites will receive protection under appropriate state or federal laws.

IV. MITIGATING MEASURES INCLUDED IN THE PROPOSED ACTION

- A. If the Montana Department of Fish and Game or the U.S. Forest Service decide it is necessary for habitat maintenance or improvement, they will use Horney Rest-Rotation grazing and timbering on the ranch. Personal taxes would be paid on grazing animals based upon length of time they were on the ranch. Removal of timber would provide jobs and revenue to local businesses and to the U. S. Forest Service 25 percent fund.
- B. Control of access and some types of use such as snowmobiles, trail bikes and all-terrain vehicles will help to offset damage to terrain that the anticipated increased public use will bring. Roads and trails which are to be used will be maintained to minimize erosion.
- C. Litter containers at developed areas and educational signing to "Pack Out What One Packs In" will help offset the increased littering which will result from increased public use.
- D. The Montana Department of Fish and Game will pay Deer Lodge County \$10,168.22 per year and Silver Bow County \$1,344.55 per year (total \$11,512.77 per year) in lieu of property taxes (based upon 1974 valuations and assessments).
- E. Twenty-five percent of all income received from the Deerlodge and Beaverhead National Forests each year is paid to the counties in which the Forests are situated. The basis for payment to the counties by the Forest Service is the percentage of the total Forest occupying each respective county. Tax losses to Deer Lodge County will be mitigated by a larger percentage of county land held in Deerlodge and Beaverhead National Forests (Deer Lodge County's percentage of Deerlodge National Forest will increase from 1.76 percent to 5.76 percent; its percentage of Beaverhead National Forest will increase from 4.71 to 4.94 percent). For example, based upon 1974 Forest revenues of \$466,607.85 and \$73,812.00, respectively, additional revenue to Deer Lodge County would have been \$18,569.70 and \$169.77 from Deerlodge and Beaverhead National Forests, respectively.<sup>1</sup> Shown below are the percentage changes which will result from the Mount Haggin acquisition.

	<u>Present</u>	<u>New</u>
Deerlodge National Forest		
Silver Bow County	3.08%	2.96%
Deer Lodge County	1.76%	5.75%
Granite County	33.03%	31.86%
Jefferson County	8.16%	7.84%
Powell County	47.38%	45.37%
Madison County	6.59%	6.31%
	<u>100.00%</u>	<u>100.00%</u>

<sup>1</sup> The increase of National Forest land in Deer Lodge County will mean that the other counties in the Forests will receive less money from the 25 percent fund.

	<u>Present</u>	<u>New</u>
Beaverhead National Forest		
Madison County	28.56%	28.49%
Beaverhead County	64.89%	64.73%
Silver Bow County	1.84%	1.84%
Deer Lodge County	4.71%	4.94%
	<u>100.00%</u>	<u>100.00%</u>

- F. Receipts to the U.S. Forest Service from Louisiana-Pacific logging operations on U.S. Forest Service purchase lands will be included in the Forest Service 25 percent fund (minimum Louisiana-Pacific payment of \$50,000 per year to Mount Haggin). This will be a short-term mitigation only until the contract expires in 1988.
- G. Loss to the local area from purchases for operation and maintenance of the purchased area by Mount Haggin Ranch will be partially offset by purchases by the Forest Service and the Department of Fish and Game. In some instances, government purchases may exceed ranch supplies and materials. It is impossible to quantify these losses or benefits, although they are felt to closely approximate each other.
- H. The Montana Department of Fish and Game and U.S. Forest Service land use planning processes will identify problem areas and will integrate mitigation measures where possible.
- I. Permanent employment by the Montana Department of Fish and Game and the U.S. Forest Service, and summer employment by the U.S. Forest Service, will reduce primary and secondary income loss to the local area to \$16,000.

## V. ADVERSE EFFECTS WHICH CANNOT BE AVOIDED

Some of the effects of this project are adverse. At this time, they are unavoidable. These effects are:

- Regardless of controls exercised, some damage to soil and vegetation will occur due to increased use.
- Litter will probably continue to be a problem and could be expected to increase with use despite public education campaigns, use of litter barrels and enforcement.
- Loss of property tax revenues on lands to be purchased by U.S. Forest Service will amount to \$14,209.49 per year in Deer Lodge County, \$948.58 per year in Granite County, and \$291.00 per year in Powell County (\$15,448.07 total per year). The decrease in taxes represents 0.17 percent of Deer Lodge County tax revenues in 1974 (17/100ths of one percent).
- Potential personal property tax lost to Deer Lodge County for 2,250 animal units is \$19,743.15 at 1974 valuations and assessments.
- Approximately four to five seasonal agricultural jobs will be lost from the local economy.
- Total personal income loss to the local economy will be approximately \$16,000 (based upon no additional summer employment by the Department of Fish and Game in connection with the Mount Haggin acquisition).
- Potential for man caused fires due to increased recreational use will be greater.
- Air quality could be degraded due to dust and exhaust pollution from increased auto use by recreationists.
- Increased road maintenance and traffic congestion may result from public visitation.
- Long-term decrease in 25 percent Forest Service funds available to counties in Deer Lodge and Beaverhead Forests, except for Deer Lodge County.

VI. RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Present uses of the proposed acquisition are for agricultural and timber purposes, and for hunting, fishing and dispersed recreation. The proposed project insures that recreationists will have regulated access to the area and that wildlife could increase to the capacity of its habitat. For the most part, the ranch is open to recreationists, although the last few years have seen some closure for livestock and property protection.

Purchase by private interests would quite probably mean restriction on access to recreationists. There is no guarantee that the land will not be completely closed, that second home development will not occur, or that large commercial recreation development will not occur. Hence, the land could easily be converted, quite irrevocably, from open space.

Purchase by Fish and Game and the Forest Service will reduce the land available for private ranch operation. There may be livestock grazing on purchased lands, although not under the present arrangement. Any livestock grazing will be under a rigidly controlled system, specifically Horman Rest-Rotation System.

The ability of land to retain open space in a fairly natural state and to sustain animal habitats will be insured for the distant future by the acquisition. Therefore, short-term recreational/open space requirements as well as game habitat and future needs for such characteristics will be met.

Purchase of Mount Haggin lands for public ownership will preclude most agricultural use on those lands. Direct occupation income will be lost, as will secondary money to the local community. Personal property taxes will be lost due to livestock decreases as will property taxes for lands acquired by the Forest Service.

Offsetting these short-term losses will be jobs created by Fish and Game and Forest Service operations.

Management by public agencies will allow watershed restoration and reforestation of the areas to be harvested during the existing timber agreement.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

The implementation of this project permanently commits the land to public ownership and outdoor recreation use. Granting of monies from the Land and Water Conservation Fund requires that no change in land use may occur without the consent of the Secretary of the Interior.

As provided in Section 6(f) of the Land and Water Conservation Act:

No property acquired or developed with assistance under this section shall, without the approval of the Secretary, be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive state-wide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonable equivalent usefulness and location.

The commitment of financial resources to acquire the land can be considered irreversible and irretrievable, and the State will have a continued financial responsibility for the operation and maintenance of the proposed acquisition.

## VIII. ALTERNATIVES TO THE PROPOSED ACTION

### A. No Action

If the Forest Service and the Montana Department of Fish and Game do not purchase the subject land, it will be sold to the private sector. The impacts from this alternative range from a fully productive livestock operation to recreational/second home development. The major potential impact from livestock operation of the ranch would occur if access to ranch lands were limited or terminated. Closing of access and heavy grazing could be very detrimental to game productivity and dispersed use recreation.

The purchase may instead change the land use to a recreation or second home retreat type of development. The impacts on the natural environment would be extensive to game productivity, to open space, to fishing and to dispersed recreation. Developments of this type would have significant adverse effects on the local economy. Even though the tax base and local income would be increased, so the cost of services would also be increased. Experience in other areas shows costs to exceed benefits.

### B. No Montana Department of Fish and Game Action

The Forest Service could purchase parcels A and B of the Continental Divide Unit and the Lost Creek Unit. The impacts which would occur from this action range between no acquisition and total purchase by both parties.

Forest Service acquisition would have minimal effect on the agricultural potential of the remaining piece of land. The purchase land is heavily forested and therefore the agricultural capacity would remain the same. However, the proposed management of the game animals in the area would be foregone because most of the intermediate and winter range for elk and mule deer and the key moose range would remain in private ownership. Also, access from the east into the National Forest lands, including the Anaconda-Pintlar Wilderness Area would be foregone.

### C. No Forest Service Action

It is unlikely that the Fish and Game Department would purchase the Continental Divide parcel if the Forest Service acquisition did not occur. Fish and Game purchase of the Continental Divide parcel would acquire a piece of land which would be virtually impossible to manage for game purposes, due to the private ownership of units A and B. The high country in units A and B would be essentially useless to a private entity due to lack of access. Also the roadless area which will be studied for inclusion into the adjacent wilderness would be foregone along with the important wilderness buffer zone.

Quite probably Fish and Game would seek acquisition of the Lost Creek Unit since it is contiguous with Forest Service lands. This acquisition would have little effect on the agricultural potential of the ranch or the local tax base.

#### D. Acquire Less Land

The land proposed for acquisition is important for the proper management of animal and land resources both on the property and on adjacent public lands. The acquisition of less winter range for game animals would result in conflicts with the adjacent property owners due to the migration of the animals onto lands which are being used for wintering cattle. The area to the south of the Continental Divide is important moose habitat and the loss of this land would result in a decrease in the hunting potential. The size of the proposed acquisition alone is an important value which assures the user "elbow room," open space and solitude if desired.

Due to proximity of public lands, allowing the high country to go into private ownership is a prime invitation for recreational subdivision to occur. Historically, purchases of public land, surrounded by private ownership, have led to recreational subdivision.

The acquisition has been planned so that land which is retained in private ownership is the prime agricultural land.

#### E. Acquire More Land

The acquisition of more of the ranch would not increase the recreation experience to any great extent. The land in the Continental Divide Unit which is not proposed for acquisition is low valley land which has value for agricultural use and is not a high quality recreation resource or high quality wildlife habitat. Some portions of this parcel received soil damage from the smelter operations and are in the process of returning to productivity. Purchase of this parcel would decrease the carrying capacity of the ranch by more than 20 percent, further affecting the employment and tax base of the county. There is some low land near Warm Springs which could be managed as waterfowl habitat. This was not included in the proposed purchase because of its high agricultural value.

The Willow Glen parcel is prime agricultural land, representing 40 percent of the total carrying capacity of the ranch. Retention of this area in private ownership would lessen the impact on local employment and the county tax base.

#### F. Acquisition of Other Lands

##### 1. Department of Fish and Game

Such an action would preclude the donation and matching contingency money and thereby the amount of money the State would have to

spend to gain comparable land elsewhere. While it is possible that the Department of the Interior would approve contingency monies for a project elsewhere, it is unlikely that the million dollar donation would be present in any other area.

## 2. U.S. Forest Service

This acquisition represents a unique opportunity for which special Federal appropriations legislation has been drafted. This money will not be available to the Forest Service for other property.

## G. Management Alternatives

The U.S. Forest Service will study the Continental Divide portion of their proposed acquisition for inclusion in the adjacent Anaconda-Pintlar Wilderness Area. The Lost Creek Unit will be studied for specific management of the area. However, legislative constraints deem that the land will be used primarily for recreation. A management unit plan will be written and be accompanied by an environmental impact statement and presented for public and agency comment.

The Department of Fish and Game will study the area to determine the optimum balance between (1) game habitat/dispersed recreation and (2) developed recreation sites. Legislative constraints and department objectives place the providing of outdoor recreation as the primary objective.

## APPENDIX A

### Income Multipliers

The use of general income multipliers for specific segments of the economy should be qualified for two reasons:

1. Given the close proximity of the ranch to Butte, some secondary spending is going to take place there, taking sales away from the local Anaconda area. This will act to decrease the local secondary impact from employment on the ranch.
2. Secondary income losses do not necessarily mean losses of employment. For instance, these losses of income can mean existing firms would operate at less than full capacity, or that some income loss may be property income such as rent income, interest income and profit income.

## APPENDIX B

User figures from game ranges similar to Mount Haggin indicate that use increased substantially when these lands were taken over by the Fish and Game Department. The following areas were analyzed as to users and game conditions to attempt to shed some light on the Mount Haggin acquisition: (1) Blackfoot - Clearwater Game Range, (2) Beartooth Ranch Game Range and (3) Sun River Game Range.

### Blackfoot - Clearwater Game Range

When contacted, the manager of the Blackfoot - Clearwater Game Range stated that hunting pressure increased substantially after Fish and Game took over the area. He felt that the major factor for the increase was access to lands to hunt, that formerly the area had been closed to recreational pursuits.

Interestingly, recreational uses other than hunting also have become more important for users of the area (camping, picnicking, hiking and sightseeing).

### Beartooth Ranch Game Range

Before purchase by the Fish and Game Department access was available through permission from the ranch. Again, once allowed access all uses of the area increased tremendously (hunting, camping, picnicking, sightseeing, etc.).

The game habitat has improved greatly, resulting in larger populations of elk, deer and sheep.

### Sun River Game Range

The resident game population was a depressed population due to deteriorated forage. Since that time, hunting has increased subject to yearly fluctuations in the weather. Interestingly, other recreational uses of the area have increased considerably in the last few years.

Mount Haggin Ranch proposed acquisition lands are themselves quite similar to the other game ranges. Mount Haggin lands are generally more accessible to the public, although lately some parts of the ranch have been closed. An important consideration for the purchase of Mount Haggin Ranch is for the insurance that game habitat and populations will be maintained and enhanced. But what has proved to be of equal importance at other ranges is other uses of the area for camping, sightseeing, hiking, picnicking, cross-country skiing, etc.

APPENDIX C

To better understand the taxes paid before and taxes lost because of the Mount Haggin acquisition, they are presented in ledger form as follows:

Total personal and property taxes		
<u>paid from ranch operation, 1974</u>		<u>\$100,757.71</u>
Personal taxes paid by Mt. Haggin		
and Ankony Angus	\$57,342.00	
Property taxes paid by Mt. Haggin		
Deer Lodge County	\$40,160.30	
Silverbow County	2,016.83	
Granite County	947.58	
Powell County	<u>291.00</u>	
	\$43,415.71	
Total personal and property taxes		<u>\$100,757.71</u>

Personal property taxes by county

Deer Lodge County		
Mt. Haggin	\$41,975.84	
Ankony Angus	<u>55,526.46</u>	
Deer Lodge County	\$97,502.30	
Silverbow-Mt. Haggin property	2,016.83	
Granite-Mt. Haggin property	947.58	
Powell-Mt. Haggin property	<u>291.00</u>	
		<u>\$100,757.71</u>

Total tax loss from acquisition . . . . . \$46,703.99

Total personal taxes lost . . . . . \$19,743.15

Property taxes lost

    Forest Service acquisition

Deer Lodge	\$14,209.49
Granite	947.58
Powell	<u>291.06</u>
	\$15,448.07

    Fish and Game acquisition

Deer Lodge	\$10,168.22
Silverbow	<u>1,344.55</u>
	\$11,512.77

Total property taxes lost . . . . . \$26,960.84

\$46,703.99

Personal and property tax loss by county

Deer Lodge	\$44,120.80
Silverbow	1,344.55
Powell	291.06
Granite	<u>947.58</u>
Total tax loss from acquisition	<u>\$46,703.99</u>

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Lost Creek

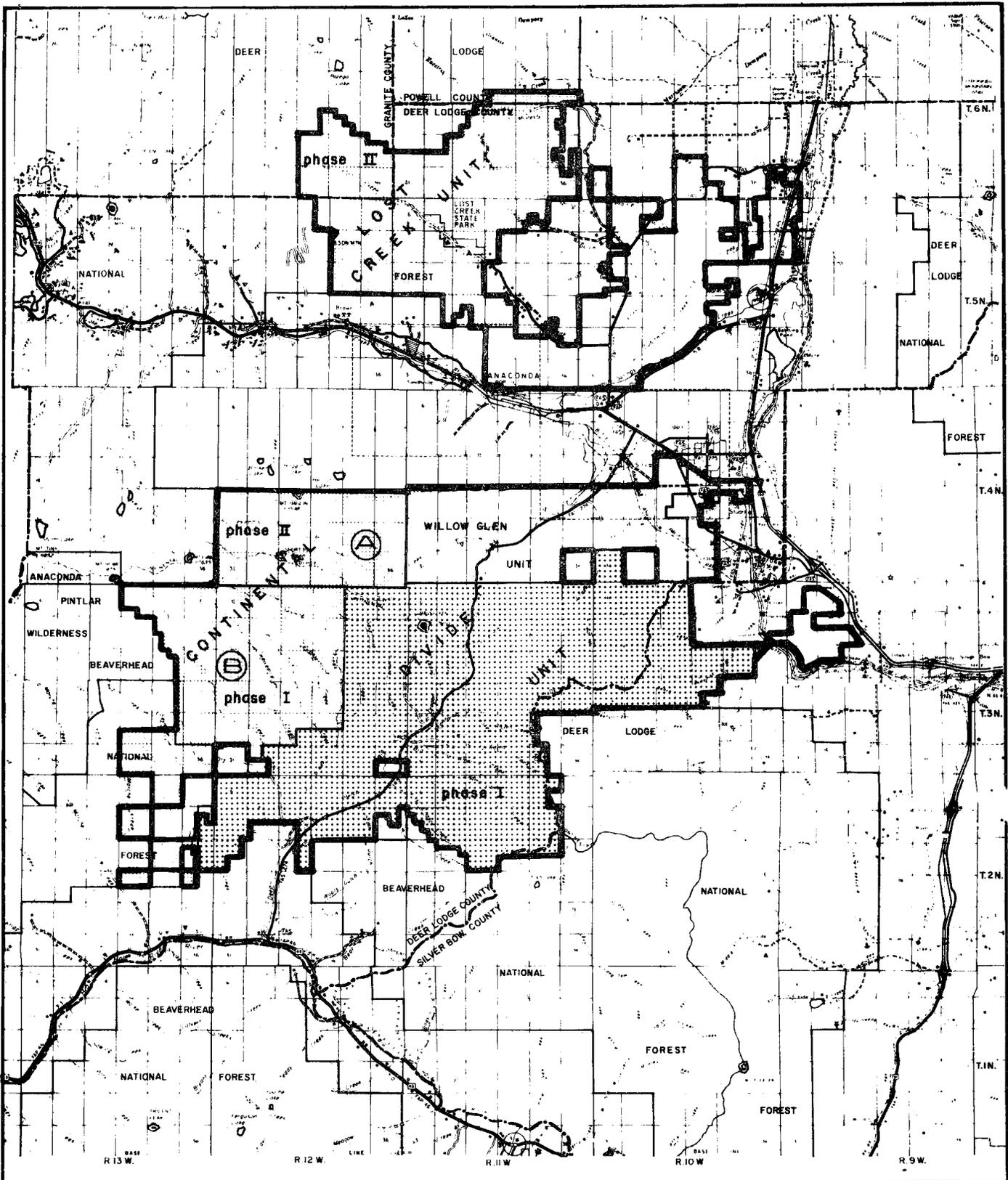
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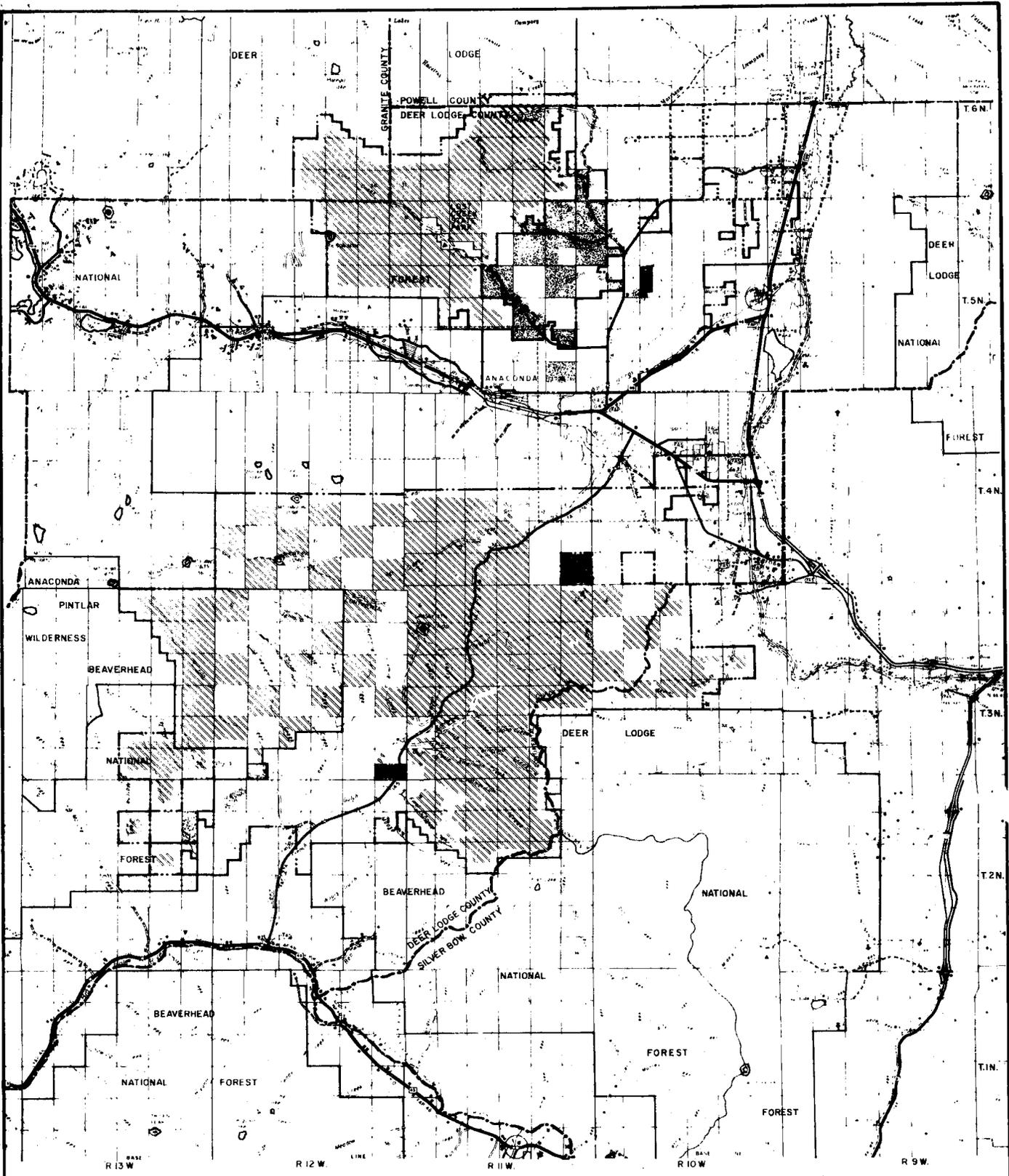
**LEGEND**

-  montana dept. of fish & game
-  u.s. forest service parcel
-  parcel
-  not included



scale: 1/2" = 1 mile

STATE OF MONTANA DEPARTMENT OF FISH AND GAME RECREATION AND PARKS DIVISION
<b>Mount Haggin Ranch          Proposed Acquisition          By Phase &amp; Agency</b>
r. lewis
SHEET 1 OF 6



**Legend**

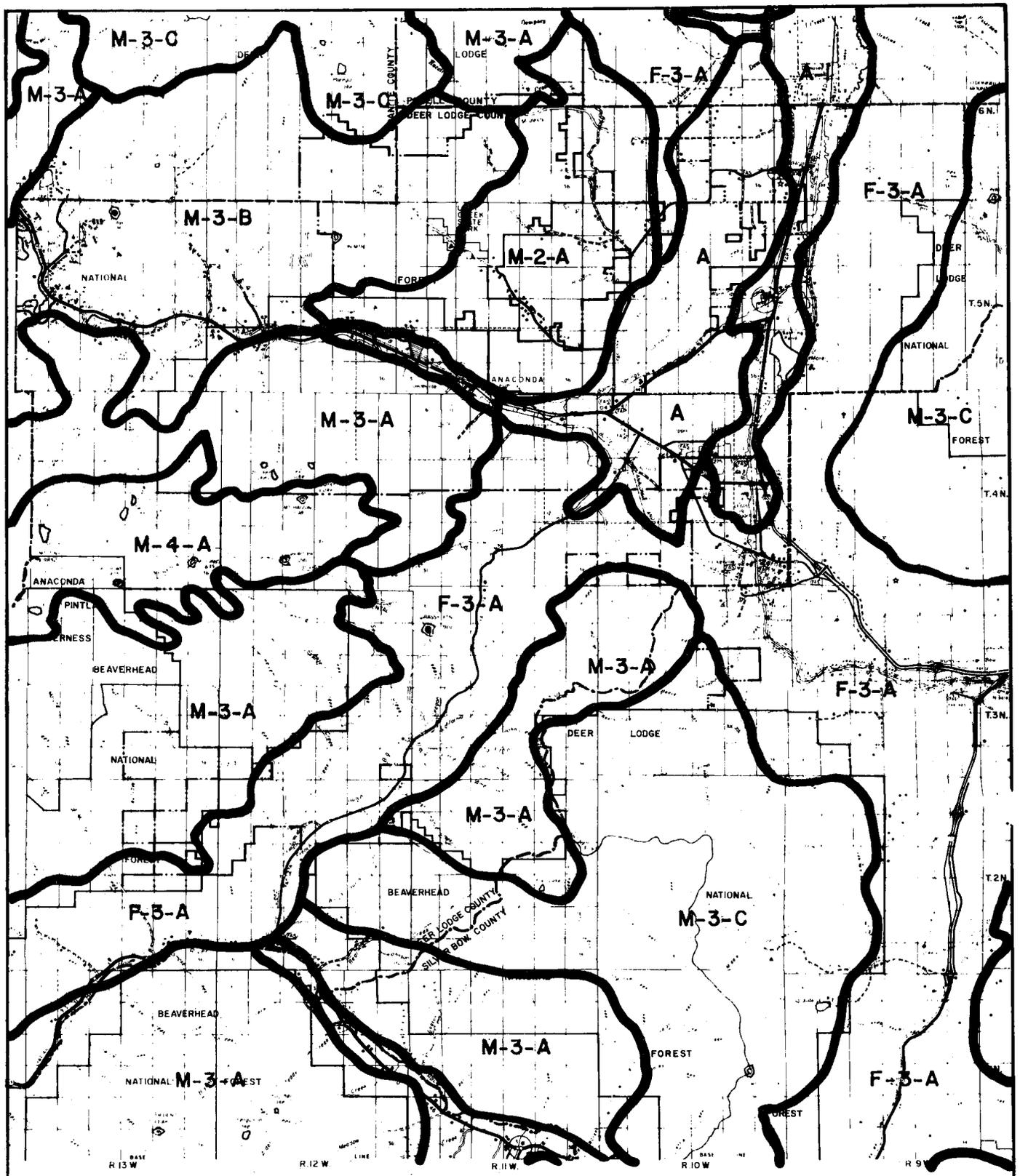
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- minerals reserved by U. S.
- private inholdings
- b. l. m. ownership
- state ownership
- anaconda co. ownership  
(within ranch boundary only)

  
 N  
 scale: 1/2" = 1 mile

STATE OF MONTANA  
 DEPARTMENT OF FISH AND GAME  
 RECREATION AND PARKS DIVISION

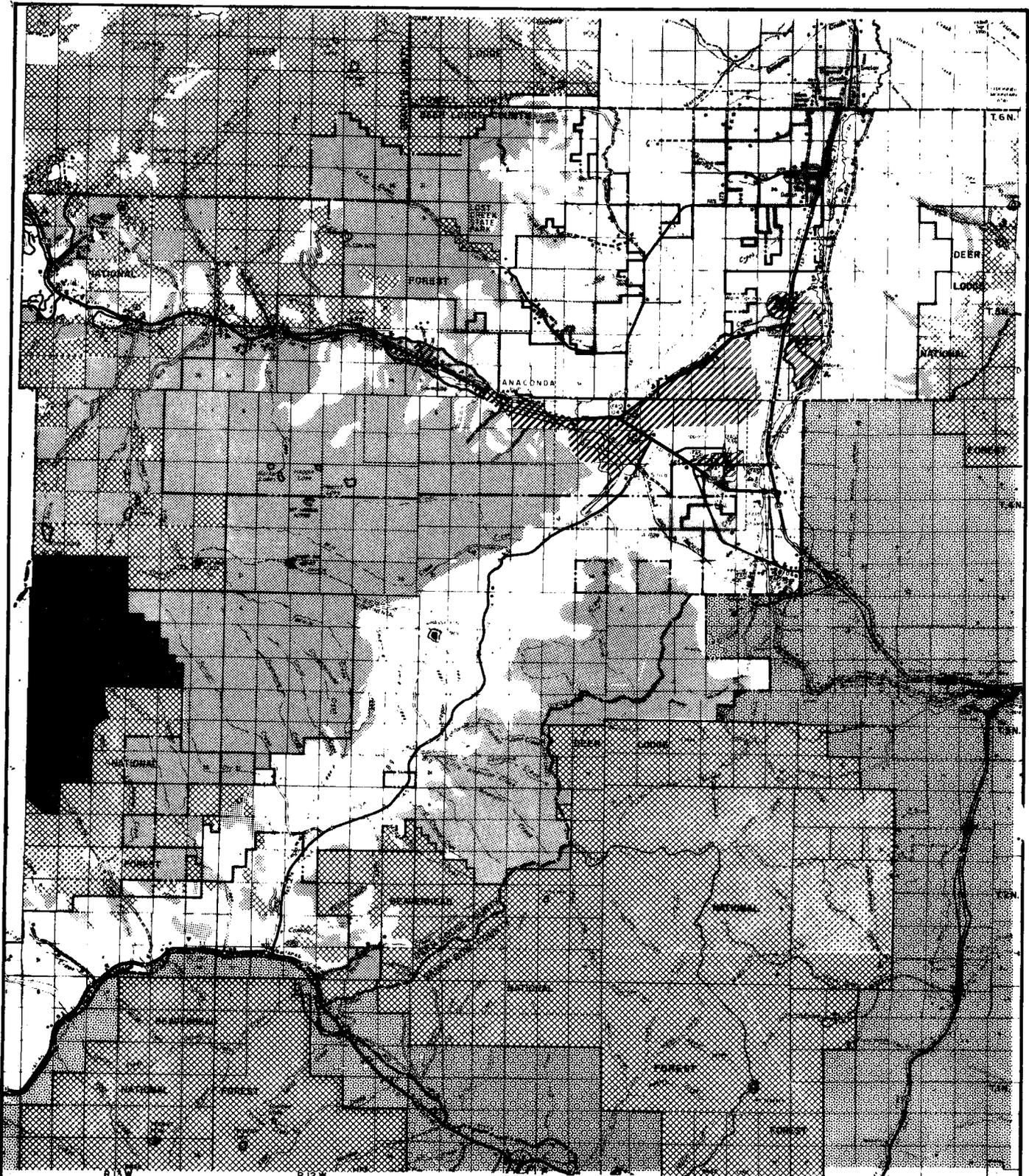
**mount haggin ranch  
 mineral ownership map  
 (proposed acquisition only)**

e. walchuk    6 / 75    SHEET 2 OF 6



scale: 1/2" = 1 mile

STATE OF MONTANA DEPARTMENT OF FISH AND GAME RECREATION AND PARKS DIVISION	
<b>mount haggin ranch soils map</b>	
e. walchuk	6/75
SHEET 3 OF 6	



**LEGEND**

- State and private woodland
- B. L. M. and public woodland
- State and private range
- B. L. M. and public range
- Cropland
- Wilderness area
- Intensively developed areas
- Unclassified areas



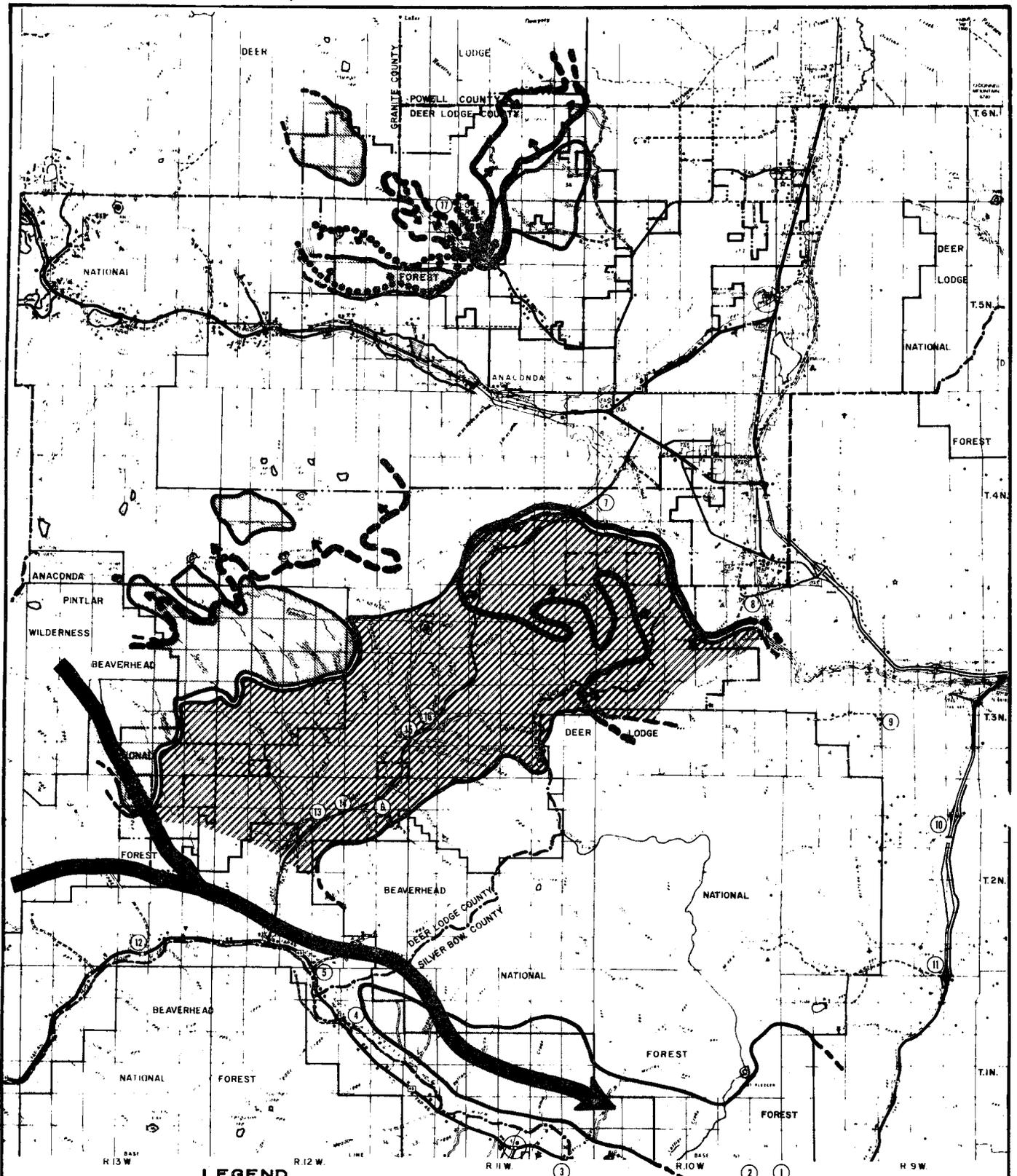
scale: 1/2" = 1 mile

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mount haggin ranch  
land use map

e. walchuk 6/75

SHEET 4 OF 6



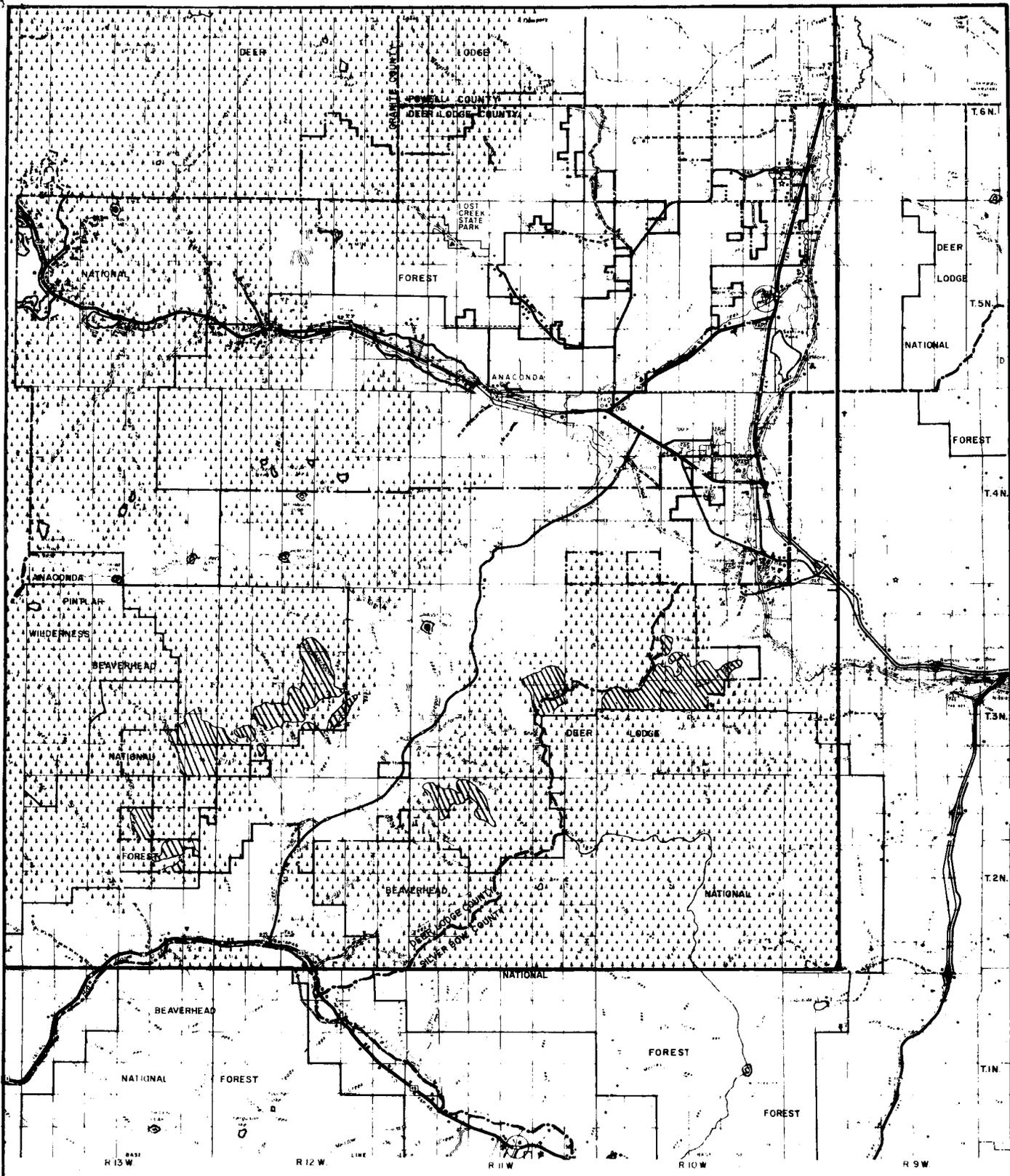
**LEGEND**

- Elk & Mule Deer Winter Range ..... 
- Elk & Mule Deer Intermediate Range ..... 
- Elk Summer Range ..... 
- Mountain Goat Range ..... 
- Bighorn Sheep Range ..... 
- Mule Deer Winter Range ..... 
- Fleecer Winter Range (Elk) ..... 
- General Elk Migration Routes ..... 
- Hunter Access Points ..... 



scale: 1/2" = 1 mile

STATE OF MONTANA DEPARTMENT OF FISH AND GAME RECREATION AND PARKS DIVISION	
<b>mount haggin ranch wildlife habitat map</b>	
e. walchuk 6/75	SHEET 5 OF 6



 HARVESTED UNDER EXISTING AGREEMENT  
 TIMBER  
 GRASSLAND

scale: 1/2" = 1 mile

STATE OF MONTANA  
 DEPARTMENT OF FISH AND GAME  
 RECREATION AND PARKS DIVISION

**mount haggin ranch**  
**existing timber**

7/5/75

SHEET 6 OF 6