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DEED OF CONSERVATION EASEMENT

THIS GRANT DEED OF CONSERVATION EASEMENT by MARGUERITE T. HELLER, a single woman of POWELL COUNTY, MONTANA (hereinafter referred to as "Grantor") and THE NATURE CONSERVANCY, non-profit corporation of the District of Columbia (hereinafter referred to as the "Conservancy"),

WITNESS THAT:

WHEREAS, Grantor is the owner of certain real property in Powell County, Montana, said real property being more particularly described on Exhibit "A" attached hereto (hereinafter described and hereinafter referred to as the "Grantor's Land"); and

WHEREAS, Grantor's Land is a valuable element of the Blackfoot River System, which includes Grantor's Land, the Blackfoot River, its natural banks and channels, its waters including ground water, its tributaries, including flora, fauna and soils (all hereinafter collectively referred to as the "Blackfoot River System"): and

WHEREAS, Grantor's Land supports significant communities of native plants and provides important habitat for native wildlife; and

WHEREAS, the Grantor's Land contains frontage on the Blackfoot River and is a part of a larger ecological unit constituting the Blackfoot River System; and

WHEREAS, the protection of the ecological features and elements of the Grantor's Land is essential to the integrity of the Blackfoot River System and the flora and fauna they support; and

WHEREAS, all of these natural elements and ecological and aesthetic values are of great importance to the Grantor and to the people of the State of Montana, and are worthy of preservation; and

WHEREAS, Grantor desires and intends that the natural elements and the ecological and aesthetic features and values of those portions

of the Blackfoot River System within and upon Grantor's Land be preserved and maintained by the continuation of patterns of land use on the Grantor's Land that will not interfere with or substantially disrupt the natural elements or the workings of the Blackfoot River System, including use for residential purposes and ecological study; and

WHEREAS, Grantor, as owner in fee of Grantor's Land, owns the affirmative rights to identify, to preserve and protect in perpetuity and by mutual agreement, to enhance by restoration, the natural ecosystems, the natural elements, and processes and the great aesthetic value of those portions of the Blackfoot River System within and upon Grantor's Land; and

WHEREAS, Grantor desires and intends to transfer such rights to the Conservancy; and

WHEREAS, the Conservancy is organized to preserve and conserve natural areas and ecologically significant land for aesthetic, scientific, charitable and educational purposes; and

WHEREAS, the State of Montana has recognized the importance of private efforts toward preservation of natural systems in the state by the enactment of Section 76-6-201, et seq., Montana Code Annotated; and

WHEREAS, the Conservancy is a qualified private organization under the terms of Section 76-6-104(5) and Section 76-6-204, Montana Code Annotated;

NOW, THEREFORE, in consideration of the mutual covenants contained herein, based upon the Common Law, and further, pursuant to Section 76-6-201 et seq., Montana Code Annotated, Grantor, MARGUERITE T. HELLER, does hereby convey to THE NATURE CONSERVANCY, a non-profit

corporation of the District of Columbia, with offices at 1800 North Kent Street, Arlington, Virginia 22209, a Conservation Easement consisting of the rights hereinafter enumerated, over and across that real property situate in Powell County, Montana (referred to herein as the "Grantor's Land"), more particularly described in Exhibit "A" attached hereto and by this reference made a part hereof.

The rights conveyed by the Conservation Easement granted are the following:

1. To identify, to preserve and protect in perpetuity and to enhance by mutual agreement, the ecological and aesthetic features and the natural flora and fauna on the Grantor's Land and its water resources.

2. To enter upon the Grantor's Land to enforce the rights herein granted and to observe, study and make scientific observations of its ecosystems, upon prior written notice to Grantor, her heirs, successors or assigns, and in a manner that will not unreasonably interfere with the use of the Grantor's Land by Grantor, her heirs, successors or assigns at the time of such entry.

3. To enjoin any activity on, or use of, the Grantor's Land which is inconsistent with the Conservation Easement granted and with the Grantor's intention and to enforce the restoration of such areas or features of the Grantor's Land as may be damaged by such activities.

The Conservation Easement granted shall run with and burden title to the Grantor's Land in perpetuity, and shall bind the Grantor, her heirs, successors and assigns.

This Conservation Easement shall confine the use of the Grantor's Land to activities such as personal residence for the owner of Grantor's Land and her family, and ecological study. For purposes of this agreement, a family shall be defined as an individual or a group of two or more persons related by blood, marriage, or adoption, together with not more than two additional persons not related by blood, marriage or adoption, living together as a single housekeeping unit.

Pursuant to the terms of Section 76-6-107, Montana Code Annotated, the Grantor's Land preserved hereby as open space and natural land, may not be converted or directed to any uses other than those provided herein.

The following uses and practices, though not an exhaustive recital of consistent uses and practices, are consistent with this Conservation Easement, and these practices may not be precluded, prevented or limited by this Conservation Easement as interpreted in the context of historical use as above mentioned, except for the requirement of prior approval from the Conservancy as provided herein:

A. To maintain all the existing residential and related structures on the Grantor's Land, and in the event of removal or destruction of any or all of said structures, to replace them with structures of similar size, function, capacity, situation and building materials.

B. To maintain, repair and replace existing buildings, corrals and other improvements on the Grantor's Land.

C. To construct, maintain and repair one single-family, owner-occupied structure on Grantor's Land in a location to be agreed upon by the Conservancy within the 10-acre area immediately surrounding the existing house and barn, utilizing native materials, i.e. wood, stone, etc., as the principal building material, and in the event of destruction of said structure, to replace it with a structure of similar size, function, capacity, situation and building materials.

Grantor states that the following uses and practices, though not an exhaustive recital of inconsistent uses and practices, are inconsistent with the purpose of this Conservation Easement, and shall be prohibited:

(a) The change, disturbance, alteration or impairment of the natural ecological values of those portions of the Blackfoot River System within and upon Grantor's Land except as provided herein.

(b) The conversion of native vegetation to new exotic cover species.

(c) The introduction of non-native plant or animal species.

(d) The hunting of any non-game animals.

(e) Trapping for any purposes other than the control of problem animals, and then only by the use of

selective control techniques. All measures used for such control shall be limited in their effectiveness to specific animals which have caused damage to livestock or other property. Grantor retains no right to use non-selective control techniques absent the written consent of the Conservancy.

(f) The exploration for or extraction of minerals, hydrocarbons, soils or gravel or other materials on or below the surface of the Grantor's Land or any other change in the topography of Grantor's Land except as provided herein.

(g) The division, subdivision or de facto subdivision of the Grantor's Land.

(h) The construction or placement of any mobile homes, trailers, camping facilities, fences, signs, billboards or other advertising material or any other structures except as otherwise provided herein.

(i) The use of off-road vehicles.

(j) The construction of roads.

(k) The dumping or other disposal of non-compostable refuse on the Grantor's Land.

(l) The collection of firewood other than for Grantor's personal use.

(m) The installation of utility structures or lines upon or within Grantor's Land except in connection with the maintenance or replacement of structures and facilities as provided herein.

(n) The removal, destruction or cutting of trees or plants.

(o) The use of agrichemicals.

(p) The grazing of domestic animals.

Grantor further intends that should Grantor, her heirs, successors or assigns, undertake any activity in violation of the terms of this Conservation Easement, the Conservancy shall have the right to force the restoration of that portion of the Grantor's Land affected by such activity to the condition that existed prior to the undertaking of such unauthorized activity. In such case, the costs of such restoration and the Conservancy's costs of suit, including attorney's fees, shall be borne by Grantor or those of her heirs, successors or assigns against whom a judgment is entered, or, in the event that the Conservancy secures redress without a completed judicial proceeding, by Grantor or those of her heirs, successors or assigns who are otherwise determined to be responsible for the unauthorized activity. Nothing herein contained shall be construed to preclude Grantor from exhausting her legal remedies in determining whether the proposed activity to which the Conservancy has objected is inconsistent with the Conservation Easement.

Grantor agrees that any lease of any interest in Grantor's Land shall be expressly subject to the terms and conditions of this Conservation Easement, and that the terms

and conditions of this Conservation Easement shall be incorporated therein by reference as though set forth therein in full.

Grantor agrees to pay any and all real property taxes and assessments levied by competent authority on the Grantor's Land.

Grantor agrees to bear all costs of operation, upkeep and maintenance to the Grantor's Land, and does hereby indemnify the Conservancy therefrom.

Nothing herein contained shall be construed as affording the public access to any portion of the land subject to this Conservation Easement.

The Grantor acknowledges that a collection of baseline data more particularly described in Exhibit "B" attached hereto, and by this reference made a part hereof, has been completed by competent naturalists familiar with the environs, and agreed upon by the Conservancy and the Grantor. The parties acknowledge that said collection of baseline data is designed to establish the condition of the property subject to this Conservation Easement at the time of this grant.

If any provision of this Deed of Conservation Easement or the application thereof to any person or circumstance is found to be invalid, the remainder of the provisions of the Deed of Conservation Easement and the application of such provisions to persons or circumstances other than those

as to which it is found to be invalid, shall not be affected thereby.

IN WITNESS WHEREOF, the Grantor has hereunto set her hand this 3rd day of November, 1981.

Marguerite T. Heller

MARGUERITE T. HELLER

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STATE OF MONTANA)
: ss.
County of Beaverhead)

On this 3rd day of November, 1981, before me, the undersigned, a Notary Public for the State of Montana, personally appeared Margaret T. Heller, known to be the person whose name is subscribed to the within instrument, and acknowledged to me that she executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

(SEAL)

Patricia A. Yeager
NOTARY PUBLIC for the State of Montana

Residing at Dillon

My Commission expires Dec. 2, 1984

All that land in the County of Powell, State of Montana described as follows:

Section 25: S½NE¼, S½ less tract described in Book 45, at page 351, Deed Records of Powell County, Montana

EXHIBIT A

EXHIBIT "B"

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HELLER PROPERTY

An Ecological Inventory

With Recommendations for a

Conservation Easement

prepared for

The Nature Conservancy

and

Marguerite T. Heller

by

Bruce A. Bugbee

Land Use Consultant

June 27, 1980

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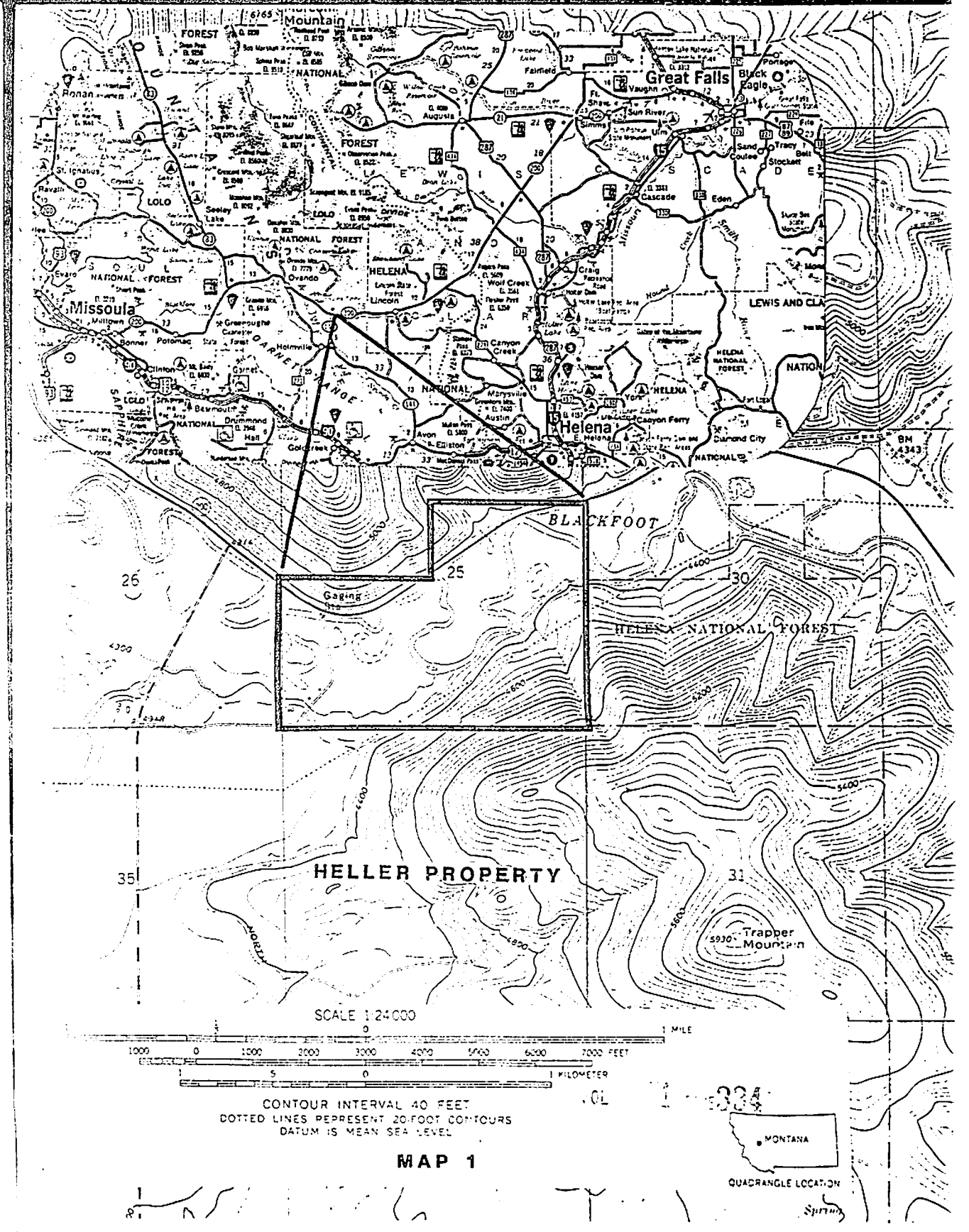
INTRODUCTION

This study has been prepared at the requestof The Nature Conservancy for Marguerite Heller. Mrs. Heller has proposed to convey a conservation easement over her property between Ovando and Lincoln, Montana to The Nature Conservancy. The Heller property is a 400 acre ranch located 16 miles west of Lincoln on the Blackfoot River in the upper portion of the Blackfoot watershed in northwestern Montana. (See Map 1.)

The Blackfoot River originates above the Heller Ranch along some 45 miles of the west slope of the Continental Divide draining about 100 square miles before reaching the ranch. The ranch marks the beginning of what is known as the Blackfoot Canyon which extends about nine miles to the east. State Highway 200 passes through the property on the north side. This highway receives heavy use from commercial trucking traffic between Missoula and Great Falls and touring traffic. State Highway 141 intersects Highway 200 about one-quarter mile west of the west border of the ranch. 141 is a by-pass route connecting the Blackfoot highway to the Missoula-Helena highway. This highway is used primarily by the local ranch population.

The United States Forest Service is the major landowner of the drainage above this point. Private landowners, and to a lesser extent the State of Montana, are the major landowners of the lower elevations of the drainage and particularly the portions of the


HELLER PROPERTY
BLACKFOOT
HELENA NATIONAL FOREST
Great Falls
Helena
Missoula
Mountain
Trapper Mountain
5930
Gaging
SCALE 1:24000
1 MILE
7000 FEET
1 KILOMETER
CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT 20-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL
MONTANA
QUADRANGLE LOCATION

MAP 1

drainage along the Blackfoot River itself. Timber harvest and recreation are the major activities pursued by residents and visitors to this area. Recreation land development is increasing in this area of the Blackfoot drainage.

The ranch is partially bordered by public lands. The Bureau of Land Management manages lands to the north and east, the Helena National Forest also to the east, and the State of Montana to the south. Private lands border portions to the southwest and northeast. The Elk Trail Ranch, presently under a conservation easement owned by The Nature Conservancy, is within one-eighth mile upstream and to the east.

The ranch historically has been used for livestock grazing, limited hay farming and selective timber harvest. There are three cabins located within the ranch boundaries. Two are located on small inclusions of other private ownership near the west border of the property. One is used seasonally, the other is occupied year-round. Mrs. Heller lives in a cabin located at the ranch center in the southwest corner of the property. The inclusions total approximately two and one-half acres. Highway 200 passes through the north portion of the property. A major transmission line passes through the south half of the property. An access road to a stream gauging station, previously located on the river, enters the property from the south. The ranch has seen very little use in recent years. Mrs. Heller

seeks to preserve the natural character of her ranch and provide a refuge for the wide diversity of wildlife which makes use of that area. The ranch includes an area very important to wintering and migrating Bald Eagles and crucial habitat for the local white-tailed deer population.

This study has been prepared to provide a basis for guiding future conservation of the ranch property. The ecosystems found within the area of the ranch have been mapped and are herein described. Comments about limits of use of these ecosystems have also been made with specific recommendations for their protection. This study is limited in scope and should be thought of as a beginning point and tool for guidance to be tempered by experience and knowledge gained in future stewardship and study of the land.

STUDY METHODS

Landforms were mapped by air photo interpretation and field reconnaissance. Air photos used were from a Montana Department of Highways flight of September 1, 1972, in black and white, with a photo scale of approximately 1:12,000. A portion of the U. S. Geological Survey Marcum Mountain Quadrangle was photographically enlarged to a scale of 1" = 500' or 1:6,000. This enlargement forms the base map for the study.

Habitat types were mapped using methods established by the U.S.D.A. Forest and Range Experiment Station, Missoula, Montana (Pfister, et al, 1977). Field mapping was conducted by Bruce Bugbee and botanist Roger Rosentretter on December 12, 1979. The habitat typing system refers to combinations of environmental factors which may be present on a given site and may be used for drawing inferences regarding climate, soils, moisture, productivity, response to disturbance and wildlife use. This system is used by the Forest Service and the Bureau of Land Management. Research and management experience gained by these agencies may be related to management decisions for the ranch in the future. A description of present vegetation is included in this text.

Wildlife use in the ranch area was surveyed by Christopher Servheen, wildlife biologist on December 8, 1979. His comments have been incorporated into this text.

The Unit Resource Analysis conducted for this general area by the Bureau of Land Management for the Hoodoo District (1972) was also examined and information drawn from the B.L.M. study has been incorporated into the text. Regional ecological information has been drawn from a publication by the U.S.D.A. Forest Service entitled "Subsection Map of Western Montana, June 1976: Bitterroot, Flathead, Kootenai and Lolo National Forests with Interpretations."

ECOSYSTEMS

Regional Overview

The Heller Ranch is located within the Rocky Mountain Forest Province--Douglas-fir Forest Section (Bailey, 1978). More particularly, the property lies with the Noncarbonate Belt Rock Mountains Subsection (U.S.F.S., 1976). This is an area of forested, steeply sloping mountains ranging from 3,000' to 8,000' above mean sea level. The climate of this region is a modified north Pacific coast type.

The present physiography of the Blackfoot drainage has resulted from the interaction of geologic structures and natural processes through time. Bedrocks in the drainage are predominately Precambrian members of the Belt Super Group. These rocks were formed more than 600 million years ago when layers of sand, silt, and clay were deposited in various alluvial environments. Throughout the next 500 million years, these deposits were deeply buried under sediments from shallow seas which covered the area periodically. While buried, these deposits were subjected to tremendous heat and pressure and changed into hard, well-consolidated quartzites, argillites, and other metasedimentary rocks.

About 100 million years ago, this area experienced a period of mountain building. Vast thicknesses of metasedimentary rock were broken up into large blocks and uplifted to form mountain ranges.

Volcanism and igneous activity were active to a limited extent and are locally evident as basalt intrusions with the metasedimentary rock.

Within this structural setting, forces of erosion and deposition have produced a diversity of landforms in the Blackfoot drainage. Running water has cut magnificent v-shaped canyons and has deposited alluvial material in the valley bottoms. Following bedrock dissection by running water, steep canyon walls were subjected to chemical and mechanical weathering. Talus slopes and cones accumulated beneath outcrops as frequent freeze-thaw cycles resulted in disintegration of exposed bedrock. Frost churning produced broad convex ridges in the lower mountains, and soil creep gradually subdued the topography in the gently rolling hills and foothills.

Nearly three million years ago, periods of glaciation began which had a major influence on the Blackfoot drainage. At least twice, huge glaciers flowed out of the higher mountains in the northern part of the drainage. These glaciers scoured upper elevations, carved U-shaped valleys, and deposited vast amounts of morainal material in the lowland basins. Kame and kettle topography and a variety of other glacial landforms are clearly visible from Highway 200 in the vicinity of Ovando and the Clearwater Junction. The present location of the Blackfoot River on the south side of the valley was probably determined by large glaciers from the north.

As glaciers receded, morainal material was redeposited by swollen rivers into outwash plains, some of which were later dissected to form benches and terraces.

During this same period, a large glacier from Canada dammed the Clark Fork River forming Glacial Lake Missoula. This lake, which fluctuated frequently in depth, flooded parts of the lower Blackfoot drainage. Lacustrine deposits, typically varved silts and clays, can still be found in many areas that were flooded by Glacial Lake Missoula as well as smaller local ice and/or debris dammed lakes.

Montane forest is typical of the watershed vegetation with lesser amounts of subalpine forest. Prairies are found in the broad valley bottoms. Mixed deciduous floodplain forests are found along stream margins. Precipitation is distributed throughout the year. Amounts of precipitation range from 15 inches in semi-arid valleys to more than 80 inches in higher mountains reflecting strong topographic influence. Topographic relief in the drainage ranges from 3,300 feet at the river mouth near Missoula to 9,000 feet along the Continental Divide. Peak river flows usually occur during the last week in May or in the first part of June as spring rains melt winter snowpack. Ice jams may cause early backwater flooding in March. Flash floods from heavy localized storms can occur in tributary watersheds from spring through the summer.

Local Ecology

The ranch area lies at an intersection of dramatically different landforms and vegetation types. (See Map 2.) To the north and south are steeply sloping mountains, Mineral Hill and Trapper Mountain, respectively. Sagebrush grassland, some of which is irrigated and farmed, dominates the broad rolling Nevada Valley to the west and Kleinschmidt Flats to the northwest. Mixed Douglas-fir and ponderosa pine forests cover the northerly mountain slopes and floodplain forest dominates the valley bottoms of the Blackfoot Canyon to the east. Sagebrush grassland also covers the south slopes of Mineral Hill to the north. A vegetation species list is included in the appendix. The ranch includes more than a mile of the Blackfoot River which meanders back and forth across a floodplain and varies a quarter to a third of a mile in width. The river itself contains a variety of habitats including deep holes, cut banks and gravel bars. Several ponds are found within the floodplain established by abandoned river channels.

The combination of landforms, vegetation types and river create extensive edges which are important to supporting diverse wildlife populations. Several types of wildlife can be found on the property including the rare Columbian Sharptail Grouse and endangered Bald Eagle.

LAND
DOUGLAS-FIR
IDAHO FESCUE WOODLAND
SAGEBRUSH-FESCUE GRASSLAND
STEEPLY
ALLUVIAL FAN
SLOPING
5000
BUREAU
500'
1000'
NORTH
SAGEBRUSH-FESCUE GRASSLAND
MOUNTAINS
FLOODPLAIN
MAP 2
RIVER
BLACKFOOT
SPRUCE-COTTONWOOD
FLOODPLAIN FOREST
STEEPLY-SLOPING-MOUNTAINS
DOUGLAS-FIR/PINEGRASS FOREST
4600
EXCLUSIONS
SAGEBRUSH-FESCUE GRASSLAND
GLACIAL OUTWASH TERRACE

The mountain slopes to the north and south of the ranch are composed primarily of Precambrian metasediments in the form of red, maroon, green and gray argillites, quartzites and shales. Soils which have developed in this bedrock are well-drained forest and grassland soils which are steeply sloping. They are generally light colored, loamy soils underlain by gravelly subsoils, with 20 inches or more to hard bedrock. Rock outcrops and stony phases are common. Southerly exposures are dominated by sagebrush-rough fescue-bluebunch wheatgrass grasslands, and northerly aspects are dominated by Douglas-fir/pinegrass habitats ranging from moist to dry phases. Douglas-fir is presently the predominant tree. Less than 60 acres of steeply sloping grassland is included within the ranch. These slopes are subject to erosion, particularly when incised for road building as is evident along Highway 200. Otherwise their use is limited by steepness, shallow and stony soils, and droughtiness, particularly on southerly exposures. The forested northerly slopes account for about 100 acres.

The remaining 230 acres are made up of alluvial bottomland covered by spruce-cottonwood floodplain forest in various stages of succession. The ranch house is located on the edge of the adjacent glacial outwash plain of the main valley.

Habitat types found within the ranch indicate the area is a transition zone from prairie to lower montane environments. The

general area has a relatively mild climate with partly cloudy conditions through most of the year. July and August are clear, warm and dry. The presence of spruce in the floodplain forest indicates that cold mountain air tends to collect in the floodplain portion of the ranch. Occasional frost occurs in the summer months. The mean monthly temperatures for June and January are probably in the range of 59-63° (F) and 17-20° (F), respectively. Average annual precipitation is probably in the range of 16-18 inches, about a third of which falls between May and August. Average annual snowfall is probably about 100 inches.

Characteristics of the microclimate for different parts of the ranch will vary widely from these characteristics. The steep slopes of the mountain sides are strongly influenced by the exposure and lack of exposure for the southerly and northerly slopes respectively. The microclimate of the floodplain area is probably strongly affected by the presence of high ground water throughout most of the year. Westerly winds are predominant with occasional easterly winds bringing cold air across the Continental Divide in midwinter, causing extreme low temperatures for brief periods of time. Winds, particularly from the east, are likely to be concentrated by passing through the canyon.

Wildlife use in the area of the ranch appears to be diverse and directly related to a history of light use of the ranch, the adjacent land management, and the presence of the state highway. The

riparian zone is essentially undisturbed except for three small irrigation canals. Black cottonwood is the dominant tree along the river. Associated with the cottonwood are small stands of Douglas-fir, spruce and juniper. The riparian undergrowth is dominated by willow, ribes species and dogwood. Higher terraces within the floodplain appear to be drier and support Douglas-fir/ snowberry habitat. All shrubs show the effects of deer browsing. There are some signs of horse use on both sides of the river, but no livestock was observed on the ranch. Soils of the floodplain are generally poorly-drained, loamy soils with mixed sandy, gravelly and cobbly subsoils. Their use is limited by high ground water conditions and seasonal flood hazard.

Observed wildlife included six Bald Eagles, one Golden Eagle, Black-Capped Chickadees, one Townsend's Solitaire, Pine Siskins, one Roughed Grouse and one red squirrel. Black bear, striped skunk, and coyote are also probably regular inhabitants. Heavy browsing of the shrubs in the riparian zone confirms the fact that this area is a very important year-round range for white-tailed deer. The north side of the river showed more deer use than the south side. This is probably due to the lack of houses and the heavy use of that side by deer from the Mineral Hill-Marcum Mountain area during the winter. Well used trails indicate the deer tend to follow a ravine down to the river which enters the ranch from the northeast.

Another indication of the density of deer in this area is the fact that 80-90 deer are killed by cars each winter in the Blackfoot Canyon portion of Highway 200. The prairie to the west and grasslands which border the ranch are considered to be Columbian Sharptail Grouse habitat. This grouse is quite rare to western Montana being found in only two locations west of the Continental Divide. Recreation subdivision development and related domestic livestock would displace the shier animals including the Bald Eagle. Domestic dogs would prey upon the deer both on and near the ranch.

The Blackfoot River itself is an important ecosystem found within this property. The overall river was ranked in 1959 by a Bureau of Sports Fisheries and Wildlife Study as a Class 2 or 'red ribbon' stream, being of statewide importance. This segment of the river is particularly productive for rainbow trout and, to a lesser extent, brown trout. The Blackfoot River is a very important river for recreational floating as well.

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SUMMARY

Large portions of the ranch remain in a substantially undisturbed state and have significant ecological and aesthetic values. The ranch contains a large segment of the Blackfoot River Floodplain ecosystem. The area provides excellent wildlife habitat particularly for migratory and wintering Bald Eagles. The ranch is also part of crucial range for white-tailed deer. The ranch has potential value for recreational subdivision and as a continuing transportation and communications corridor. Forests on the ranch have commercial values and will continue to increase in value. There is marginal potential for livestock grazing and limited hay farming.

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CONSERVATION EASEMENT RECOMMENDATIONS

The recent history of human and human related use of the Heller Ranch has preserved an important part of the natural world for present and future generations. However, the same qualities that have attracted wildlife and maintained a rich natural diversity also hold the potential for inviting their destruction in the hands of unknowing or uncaring persons. To a great extent much of the potential for destroying the natural values of this place may be achieved by legally severing use rights which, if exercised, could be destructive. Conveyance of a conservation easement to The Nature Conservancy would achieve this protection. Following are recommendations for topics to be considered in such an easement.

1. Expansion of the utility and transportation corridor and/or recreational development could have a severe impact on the ecological and open space values of the ranch.
2. Extensive timber harvest could have a major impact on wildlife values.
3. Concentrations of livestock within the ranch could have a major impact on the deer population in the area as well as have a potentially detrimental effect on groundwater and surface water quality.

4. The use of agrichemicals, if used at all, should be undertaken with extreme caution due to the immediate proximity of surface waters, seasonally high ground water and interrelationships of various wildlife species in the area.
5. Responsible recreational use of the river itself should not have a major impact on the wildlife of the area. However, permanent campsites or picnic areas should be disallowed for this area.
6. Recreational off-road vehicle use, particularly snowmobile use should be prohibited.
7. Recreational development should also be discouraged because of conflicts with wildlife use, potential groundwater pollution from sewage disposal, and potential dog/wildlife conflicts.
8. There are many opportunities for ecological study on the ranch. Such study activities, if carefully supervised, would be compatible with the conservation of the ecological qualities reviewed herein and should be encouraged.
9. A sufficient road system presently exists on the ranch and any new roads should be discouraged.
10. Surface mining should be prohibited because of the potential for conflict with area wildlife and the potential for degradation of surface and groundwater quality. Exploration for oil and gas should be prohibited as well because of the potential for

conflicts with area wildlife. It would be possible to allow slant drilling from outside the property and away from any adjacent floodplain area to extract any oil and gas from deep levels underneath the property. Any such drilling should be required to have an impermeable casing for at least the first 500 feet underneath the property. Otherwise there is a danger for groundwater and surface water contamination.

APPENDIX

HELLER PROPERTY

SPECIES LIST

TREES	COMMON NAME	
Betula occidentalis	water birch	F**
Juniperus scopulorum	Rocky Mt. juniper	F
Picea glauca	white spruce	F
Pinus contorta	lodgepole pine	M***
Pinus ponderosa	ponderosa pine	F,M
Populus tremuloides	aspen	F,M
Populus trichocarpa	cottonwood	F
Pseudotsuga menziesii	Douglas fir	F,M
SHRUBS		
Alnus sinuata	alder	F
Amelanchier alnifolia	serviceberry	M
Arctostaphylos uva-ursi	kinnikinnick	M
Berberis repens	oregon grape	M
Cornus stolonifera	dogwood	F
Elaeagnus commutata	silverberry	F
Juniperus communis var. horizontalis	creeping juniper	M
Rosa woodsii	rose	F,M
Rubus sp.	blackberry	F

* D plants found in disturbed area
** F plants found in flood plain area
*** M plants found in montane environment

SHRUBS (cont.)		
Salix sp.	willow	
Sheperdia canadensis	buffaloberry	M
Spiraea betulifolia	white spiraea	M
Symphoricarpus albus	snowberry	F,M
GRAMINOIDS		
Agropyron spicatum	bluebunch wheatgrass	M
Alopecurus pratensis	meadow foxtail	F
Avena sativa	oat	D
Bromus inermis	smooth brome	F
Bromus tectorum	cheatgrass	D
Calamagrostis rubescens	pinegrass	M
Carex geyeri	elk sedge	M
Carex rostrata	sedge	F
Dactylis glomerata	orchard grass	F,M
Festuca idahoensis	Idaho fescue	M
Festuca scabrella	rough fescue	M
Glyceria elata	mannagrass	F
Phleum pratense	timothy	F,M
Poa pratensis	bluegrass	F,M
Stipa thurberiana	Thurber's needle grass	M
Trisetum spicatum	downy-oat-grass	F,M

FORBS

Achillea millefolium	yarrow	F,M
Allium sp.	onion	M
Ambrosia sp.	ragweed	F
Anaphalis margaritacea	pearly everlasting	M
Antennaria racemosa	pussytoes	M
Aquilegia formosa	columbine	F,M
Artemisia absinthium	wormwood	F
Artemisia frigida	fringed sagebrush	M
Artemisia ludoviciana	western mugwort	F
Artemisia tridentata vaseyana	big sagebrush	M
Aster sp.	aster	F
Balsamorhiza sagittata	arrowleaf balsam root	M
Castilleja sp.	Indian-paintbrush	M
Centaurea maculosa	spotted knopweed	D
Cicuta douglasii	water-hemlock	F
Cirsium arvense	Canada thistle	D
Cirsium sp.	thistle species	D
Clematis columbiana	virgin's bower	F,M
Elodea canadensis	water weed	aquatic
Epilobium angustifolium	fireweed	D
Epilobium palustre	willow-herb	F
Equisetum arvense	field horsetail	F

FORBS (cont.)

Equisetum hyemale	scouring rush	F
Fragaria virginiana	strawberry	M
Galium sp.	bedstraw	F,M
Geranium viscosissimum	sticky geranium	M
Geum triflorum	prairie smoke	M
Heuchera sp.	alum root	M
Hyoscyamus niger	black henbane	D
Iris missouriensis	wild blueflag Iris	F
Lactuca sp.	lettuce	D
Lomatium sp.	biscut root	M
Lupinus sp.	lupine	M
Melilotus officinalis	yellow sweet clover	D,F
Mentha sp.	mint	F
Penstemon sp.	penstemon	M
Plantago lanceolata	English plantain	D
Polygonum aviculare	prostrate knotweed	D
Potentilla sp.	cinquefoil	M
Ranunculus aquatilis	water crowfoot	aquatic
Rumex crispus	curly dock	F
Sedum stenopetalum	stonecrop	M
Solidago sp.	goldenrod	M
Tanacetum vulgare	tansy	F

FORBS (cont.)		
Tragopogon miscellus	goatsbeard	D,M
Trifolium repens	white clover	F
Typha angustifolia	cat-tails	F
Urtica dioica	stinging nettle	D
Verbascum thapsus	wolly mullen	D
Vicia sp.	vetch	F
LICHENS - arboreal		
Bacidia sp.	black dot lichen	
Bryoria abbreviatta	old mans' whiskers	
Bryoria simplicior	old mans' whiskers	
Cetraria canadensis		
Cetraria chlorophylla		
Cetraria merrillii		
Cetraria platyphylla		
Hypogymnia imshaugii		
Hypogymnia physodes		
Hypogymnia tubulosa		
Lecanora sp.		
Lepraria membranacea	greenpowder lichen	
Letharia vulpina	wolf lichen	
Parmelia elegantula		
Parmelia subarifera		

LICHENS - arboreal (cont.)	
Parmelia sulcata	
Parmeliopsis ambigua	powder parmelia
Physcia adscendens	physcia
Physcia aipolia	physcia
Usnea hirta	
Usnea sp.	
LICHENS - terrestrial	
Cladonia chlorophaea	reindeer moss
Cladonia multiformis	reindeer moss
Peltigera aphthosa	dotted doglichen
Peltigera canina	doglichen
Peltigera malacea	shiny doglichen
BRYOPHYTES - mosses	
Bryum sp.	black moss
Dicranum scoparium	neddle moss
Homalothecium aeneum	branched moss
Pterigynandrum filiforme	filiform moss
Tortula ruralis	twisted moss
BASIDIOMYCETES - fungus	
Daedalea quercina	shelf fungi
Fomes annosus	root rot
Lenzites saepiaria	shelf fungi
Pleurotus ostreatus	oyster mushroom

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DEED OF CONSERVATION EASEMENT

MARGUERITE T. HELLER

-TO-

THE NATURE CONSERVANCY

December 3rd 81

10:50 A.

329 Deeds 71

Deputy

Fee $78.50

Knight & MacClay
P. O. Box 8957
Missoula, Montana 59807