STATISTICS ON MULTIPLE-USE MANAGEMENT DEMONSTRATION AREA

CHALLIS NATIONAL FOREST - BUREAU OF LAND MANAGEMENT

NAME OF AREA: Herd Creek Allotment

SIZE: 53,350 Acres

ELEVATION:
6,000 feet at junction of Herd Creek & East Fork
7,200 feet at Herd Lake
10,010 feet on Jerry Peak

LAND OWNERSHIP:

30,000 Acres	- USFS	-	56%
20,610 Acres	- BLM(NRL)	-	39%
2,740 Acres	- State	-	5%
53,350 Acres			100%

Jim Bennett's Private Land - 440 Acres

VEGETATION TYPES: 22,710 Acres (Total BLM & 2,100 Acres State)

13,606 Acres - Sagebrush -Grass	-	59.91%
3,072 Acres - Conifer	-	13.53%
1,136 Acres - Grass	-	5.00%
416 Acres - Wet Meadow	-	1.83%
4,480 Acres - Unsuitable for Livestock	-	19.73%
22,710 Acres		

22,710
- 4480
18230

CLIMATE: at Challis, Idaho

Precip. Ave. (Inches)	J	F	M	A	M	J	J	A	S	O	N	D	Annual
	.42	.50	.41	.52	1.02	.94	.52	.53	.68	.58	.38	.63	7.13

Annual snowfall is 21.9 inches

Temperature Maximum Summer - 101° F - Minimum Winter - -32°F
Growing Season April - August

GEOLOGY:

The lower hills are generally volanic, and the higher country is sedimentary. In geologic time there was a long era of intermittent volanic disturbance, resulting in many invasions of lava flows and deposition of volanic debris. Collectively, the resulting formations are today known as the Challis Volcanics. The Challis Volcanics occur variously as basalt, rhyolite, or combinations of tuffaceous material and volcanic debris, so that wide varieties of colors and compositions are displayed. Long periods of weathering have produced colorful talus slides so extensive in certain areas as to warrant mapping as a distinct rock type. In some areas, the talus became so extensive, it flowed down the drainages like glaciers. Such a talus flow dammed Lake Creek to form Herd Lake.

NATURAL WATER RESOURCES:

Springs, seeps, lakes and live streams. Live streams are Herd Creek, Lake Creek, McDonald Creek, Fox Creek, Sagebrush Creek, East Pass Creek, West Fork Herd Creek, East Fork Herd Creek, and Taylor Creek.

LAND USES:

Indians

Just when the American Indian first entered the area of the Herd Creek Allotment has not been determined. An archaeology survey was conducted by Idaho State University, under contract with the Salmon BLM District, in the Summer of 1966. Rock shelters that contained artifacts were inventoried along the rock bluffs on the north side of Road Creek. One campsite was inventoried in lower Herd Creek.

Trappers, Explorers, and Miners

There is no indication that explorers of the Post-Columbian period prior to 1800 entered the area. It is possible that the early trappers worked the Herd Creek area immediately after 1800, but no record has been preserved of such visits.

The earliest known visitors were mining prospectors immediately after the Civil War, however, there are no known mines being developed in the Herd Creek Allotment area. Most of the early agricultural settlers along the East Fork of the Salmon River were former miners who stayed to engage in livestock ranching. Most of the present ranches along the East Fork were patented in the first quarter of the 20th Century.

LIVESTOCK (on allotment):

1880 - 1928	-	Spring, summer, and fall grazing by cattle, sheep, and horses.
1929 - 1941	-	Use by cattle, sheep, and horses. About 7,000 AUMs yearly.
1941 - 1959	-	Use by cattle, sheep, and horses. About 6,000 AUMs yearly.
1959 - 1974	-	Mainly cattle About 3,657 AUMs yearly.

BIG GAME:

	Approximate Nos.
Deer	500
Elk	100
Antelope	20
Bear	10
Lion	4

RECREATION:

Hunting - Deer, elk, sagegrouse, bluegrouse, and chukar.

Fishing - Trout in Herd Lake. Trout in Herd Creek in the fall after Salmon spawning.

Rockhounding - Recreational activity in the lower part of the Allotment.

MINING:

None - No known mineralization.

WILDHORSES:

There is some use by wildhorses on the ridge line in the northern part of the allotment.

HERD CREEK AMP
POPULATION ESTIMATES AND TRENDS
FOR SELECTED CATEGORIES OF WILDLIFE

Category	Number	Pop. Level	Trend
Big Game			
Deer	500	down	Level to slightly down
Elk	100	up	Up
Antelope	15-20	same	level
Bear	10	same	level
Lion	4	down	level
Small Game			
Rabbit	?	down	level to slightly up
Game Birds			
Sagegrouse	70	down	slightly up
Bluegrouse	300	down	slightly up
Chukar	80	down	slightly up
***Predators**			
Coyote	25-30	down	level
Fox	20-25	down	level
Bobcat	10-15	down	level to slightly down
Furbearers			
Mink, Marten etc.	30-40	same	level
Fish			
Anadromous			
Chinook Salmon	60-80	down	down
Resident	?	same	level

*Rabbit and rodent populations are generally way down accounting for the assumption coyote and fox numbers are also down. A combination of low prey density and heavy trapping has bobcats at very reduced numbers.

HERD CREEK AMP
WILDLIFE SPECIES LIST

Mammals

		Diet
I	Shrews (Insectivora)	
	Masked Shrew - *Sorex cinereus*	Insects, sm. animals
	Vagrant Shrew - *Sorex vagrans*	Insects, misc. inverts.
	Water Shrew - *Sorex palustris*	" "
II	Bats (Chiroptera)	
	Little Brown Bat - *Myotis lucifugus*	Insects
	Small-footed Bat - *Myotis subulatus*	"
	Big Brown Bat - *Eptesicus fuscus*	" (beetles)
III	Rabbits, Hares & Pikas (Lagomorpha)	
	Black-tailed Jackrabbit - *Lepus californicus*	Grass, forbs
	White-tailed Jackrabbit - *Lepus townsendii*	" "
	Nuttall Cottontail - *Sylvilagus nuttallii*	" "
IV	Rodents (Rodentia)	
	Yellow-bellied Marmot - *Marmota flaviventer*	Grass, forbs
	Columbian Ground Squirrel - *Citellus columbianus*	" "
	Richardson Ground Squirrel - *Citellus richardsonii*	" " , meat
	Golden-mantled Ground Squirrel - *Callospermophilus lateralis*	Omnivorous
	Least Chipmunk - *Eutamias minimus*	"
	Yellow-pine Chipmunk - *Eutamias amoenus*	"
	Red Squirrel - *Tamiasciurus hudsonicus*	Seeds, eggs, fungi
	Northern Pocket Gopher - *Thomomys talpoides*	Roots, grass, forbs
	Beaver - *Castor canadensis*	Aspen, willow
	Northern Grasshopper Mouse - *Onychomys leucogaster*	Carnivorous
	Deer Mouse - *Peromyscus maniculatus*	Seeds, insects
	Bushytail Woodrat - *Neotoma cinerea*	Herbivorous
	Mountain Phenacomys - *Phenacomys intermedius*	Bark, seeds, berries
	Boreal Redback Vole - *Cleehrionomys gapperi*	Herbivorous, insects
	Meadow Vole - *Microtus pennsylvanicus*	" "
	Mountain Vole - *Microtus montanus*	" "
	Richardson Vole - *Microtus richardsoni*	" "
	Sagebrush Vole - *Lagurus curtatus*	Sagebrush
	Muskrat - *Ondatra zibethica*	Aquatic veg.
	House Mouse - *Mus musculus*	Omnivorous
	Porcupine - *Erethizon dorsatum*	Bark, buds
V	Flesh Eating Mammals (Carnivora)	
	Black Bear - *Ursus americanus*	Omnivorous
	Raccoon - *Procyon lotor*	"
	Marten - *Martes americana*	"
	Shortail Weasel - *Mustela cicognanii*	Carnivorous
	Longtail Weasel - *Mustela frenata*	"
	Mink - *Mustela vison*	"

Mammals
(Continued)

	Diet
Spotted Skunk - *Spilogale putorius*	Omnivorous
Striped Skunk - *Mephitis mephitis*	"
Badger - *Taxidea Taxus*	Carnivorous
Red Fox - *Vulpes fulva*	Omnivorous
Coyote - *Canis latrans*	"
Mountain Lion - *Felis concolor*	Carnivorous
Bobcat - *Lynx rufus*	"

VI *Hoofed Mammals (Artiodaclyla)*

Elk - *Cervus canadensis*	Grass, forb, shrub
Mule Deer - *Odocoileus hemionus*	Shrub, grass, forb
Pronghorned Antelope - *Antilocapra americana*	" " "

Birds

		Diet
I	Ciconiiformes	
	Great Blue Heron - Ardea herodias	Fish, frogs
II	Anseriformes	
	Mallard - Anas platyrhynchos	Aquatic veg., grain
	Common Golden Eye - Bucephala clangula	Aquatic veg. & animals
III	Falconiformes	
	Turkey Vulture - Cathartes aura	Carrion
	Red-tailed Hawk - Buteo jamaicensis	Carnivorous
	Golden Eagle - Aquila chrysaetos	"
	Bald Eagle - Haliaeetus leucocephalus	" (fish primarily)
	Marsh Hawk - Circus cyaneus	"
	American Kestrel - Falco sparverius	"
IV	Galliformes	
	Blue Grouse - Dendragapus obscurus	Forbs, buds, seeds, insects
	Sage Grouse - Centrocercus urophasianus	Sagebrush, forbs, insects
	Chukar - Alectoris graeca	Cheatgrass, seed, forbs, insects
V	Charadriiformes	
	Semipalmated Plover - Charadrius semipalmatus	Aquatic inverts.
	Killdeer - Charadrius vociferus	" "
	Common Snipe - Capella gallinago	" "
	Spotted Sandpiper - Actitis macularia	" "
	Wilson's Phalarope - Steganopus tricolor	" " , plankton
VI	Columbiformes	
	Mourning Dove - Zenaidura macroura	Seeds, grain, insects
VII	Strigiformes	
	Great Horned Owl - Bubo virginianus	Carnivorous
VIII	Caprimulgiformes	
	Common Nighthawk - Chordeiles minor	Insects
IX	Apodiformes	
	White-throated Swift - Aeronautes saxatalis	"
X	Coraciiformes	
	Belted Kingfisher - Megaceryle alcyon	Fish
XI	Piciformes	
	Common Flicker - Colaptes cafer	Insects, berries
	Lewis Woodpecker - Asyndesmus lewis	" "
XII	Passeriformes	
	Horned Lark - Eremophila alpestris	Insects, seeds
	Violet-green Swallow - Tachycineta thalassina	Insects

Birds
(Continued)

	Diet
XII Passeriformes (Continued)	
Tree Swallow - Iridoprocne bicolor	Insects
Cliff Swallow - Petrochelidon pyrrhonota	"
Raven - Corvus corax	Omnivorous
Crow - Corvus brachyrhynchos	"
Black-billed Magpie - Pica pica	"
Black-Capped Chickadee - Parus atricapillus	Insects, seeds, berries
Mountain Chickadee - Parus gambeli	" " "
Dipper - Cinclus mexicanus	Insects, aquatic inverts., fish
Rock Wren - Salpinctes obsoletus	Insects, spiders
Robin - Turdus migratorius	Insects, inverts., berries
Mountain Bluebird - Sialia mexicana	" " "
Bohemian Waxwing - Bombycilla garrula	Berries, insects
Cedar Waxwing - Bombycilla cedrorum	" "
Starling - Sturnus vulgaris	Omnivorous
Yellow Warbler - Dendroica petechia	Insects
Yellow-rumped Warbler - Drendroia auduboni	"
House Sparrow - Passer domesticus	Insects, seeds
Western Meadowlark - Sturnella neglecta	Insects, seeds, inverts.
Yellow-headed Blackbird - Xanthocephalus xanthocephalus	" " "
Red-winged Blackbird - Agelaius phoeniceus	" " "
Brewer's Blackbird - Euphagus cyanocephalus	" " "
Evening Grosbeak - Hesperiphona vespertina	" " sm. fruits
Vesper Sparrow - Pooecetes gramineus	Insects, seeds, sm. fruits
Sage Sparrow - Amphispiza belli	" " "
Dark-eyed Junco(Oregon) - Junco oreganus	" " "
Chipping Sparrow - Spizella passerina	" " "
Brewer's Sparrow - Spizella breweri	" " "
Song Sparrow - Melospiza melodia	" " "

Fish

I Anadromous
- Chinook Salmon - Oncorhynchus tshawytscha
- Sockeye Salmon - Oncorhynchus nerka
- Steelhead Trout - Salmo gairdneri
- Lamprey - Lampetra tridentata

II Resident
- Mountain Whitefish - Prosopium williamsoni
- Cutthroat Trout - Salmo clarki
- Rainbow Trout - Salmo gairdneri
- Brook Trout - Salvelinus fontinalis
- Dolly Varden - Salvelinus malma
- Squawfish - Ptychocheilus oregonensis
- Dace - Rhinichthys sp.
- Redside Shiner - Richardsonius balteatus
- Mountain Sucker - Pantosteus platyrhynchus
- Largescale Sucker - Catostomus macrocheiulus
- Sculpin - Cottus sp.

Reptiles & Amphibians

	Diet
I Reptiles	
Sagebrush Lizard - Sceloporus graciosus	Insects, spiders, snails
Short Horned Lizard - Phrynosoma douglassi	Ants
Western Skink - Eumeces skiltonianus	Insects, spiders, sowbugs
Rubber Boa - Charina bottae	sm. mammals, lizards
Gopher Snake - Pituophis melanoleucus	Carnivorous
Western Garter Snake - Thamnophis elegans	"
Common Garter Snake - Thamnophis sirtalis	"
Western Rattle Snake - Crotalis viridis	"
Rough Green Snake(possible) - Opheodrys aestivus	Insects, spiders
IIAmphibians	
Spotted Frog - Rana pretiosa	Insects
Leopard Frog - Rana pipiens	"
Western Toad - Bufo boreas	"
Woodhouses Toad - Bufo woodhousei	"

Freshwater Invertebrates

I Insects

A. Ephemeroptera (Mayfly)
- Iron sp.
- Ironopsis sp.
- Rhithrogena sp.
- Heptagenia sp.
- Centroptilum sp.
- Baetis sp.
- Ephemerella sp.

B. Plecoptera (stonefly)
- Nemoura sp.
- Acroneura sp.
- Paraperla sp.
- Alloperla sp.
- Peltoperla sp.
- Isogenus sp.
- Chloroperla sp.

C. Megaloptera
- Corydalus sp. (Dobson fly)

D. Neuroptera
- Sisyridae (Spongilla fly)

E. Trichoptera (Caddis fly)
- Leptocella sp.
- Limnophilus sp.
- Glossoma sp.
- Rhyacophila sp.
- Hydropsche sp.
- Arctopsche sp.
- Polycentropus sp.
- Psychomyia sp.
- Lepidostomatidae

F. Coleoptera (Beetles)
- Narpus sp.

G. Diptera (True flies)
- Dicranota sp.
- Hexatoma sp.
- Pentaneura sp.
- Tendipedidae
- Blephariceridae
- Empididdidae

II Miscellaneous
- Planaria
- Oligochaeta
- Annelida

MANAGEMENT FRAMEWORK PLAN GUIDELINES
HERD CREEK ALLOTMENT

1. Wild horses be considered in management of the Unit.

2. Conduct an intensive inventory of the allotment in order to determine any possible locations for water developments.

3. Coordinate a grazing management system on both BLM lands and U. S. Forest Service lands to improve livestock forage, watershed protection, and improve water quality for fisheries.

4. Locate sites for possible water control structures in Spring Gulch.

5. Reduce continuous excessive livestock use on stream bottoms by use of a grazing management system, to improve fisheries and wildlife values.

6. No additional roads to be constructed, there is enough access now.

7. Manage the recreation resources in the Unit to provide a maximum variety and supply of quality outdoor recreation opportunities on National Resource Lands. Primary values are fishing, hunting, sightseeing, rock-hounding, and off-road vehicle operation.

8. Off-road vehicles (ORV) are used as a sport vehicle and means of transportation for recreational purposes. At present, place no restrictions on the operation of ORV's.

9. Manage Herd Lake as a primitive use water body. No motor boats.

10. Limit access to Herd Lake by trail.

HERD CREEK ALLOTMENT EROSION CONDITION BY PLANT SUBTYPE

Information from the vegetative classification of the 1959 District Range Survey, the 1972 Phase I Soil and Watershed Survey, and a general reconnaissance in September - October 1974, was used to arrive at the following conclusions. Reference should be made to the Herd Creek Allotment Map of 1974 showing vegetative types and soil erosion class.

Soils are generally medium textured loams and silt loams at intermediate and higher elevations with silt to silty-clays at lower elevations. Productive sites have soil depths ranging from 7" to 10" with north and east exposures in the 11" category. Numerous outcroppings,bare rock and talus slides are scattered throughout the entire area with slopes ranging from 20% to 90%. The most severe rock slides east of Herd Lake still produce pockets of vegetation suitable for big game.

Transect data on nine sites indicates an average composition of 48% vegetation, 7% litter, 30% rock (small and large), and 15% bare ground.

The predominant vegetative subtype is 041 - Artr - Agsp with interspersed Poa, Festuca, Sitanion, annuals, and small shrubs. Areas delineated as grass type (see map) are composed of typical grasses mentioned above and do indicate pedestalling with sheet and rill erosion at higher elevations and small plateaus with severe gully erosion midway to the main road on lower Lake and Herd Creek. The latter erosion was very evident after a flash storm in 1973 from about the junction of Lake and Herd Creek past the Bennett ranch down stream toward the mouth of Herd Creek on the East Fork of the Salmon. Sections of road were washed out and six large drainage structures required extensive clean out and re-setting. This damage seemed indicative of the soil and vegetative structure outlined on the Herd Creek map as severe erosion class (A).

Overall, 88% of the area was determined to be slight to moderate erosion classification with some sheet and rill types and 12% would include combinations of sheet, rill and gully erosion severe and approaching critical.

BLM

HERD CREEK ALLOTMENT PLANT LIST - PHENOLOGY

SCIENTIFIC NAME	COMMON NAME	SYMBOL	STARTS GROWTH	FLOWERS	SEED RIPE	RHIZOMES
GRASSES						
Agropyron smithii	Western wheatgrass	Agsm	04-15	06-20	07-20	Yes
" spicatum	Bluebunch wheatgrass	Agsp	04-15	06-20	07-20	
Bromus tectorum	Cheatgrass	Brte	04-15	05-20	06-15	
Calamagrostis rubescens	Pinegrass	Caru	04-25	06-25	07-20	
Elymus cinerus	Great Basin wild rye	Elci	04-25	06-30	08-05	Sometimes
Festuca idahoensis	Idaho fescue	Feid	04-10	06-20	07-20	
Hordeum jobatum	Foxtail barley	Hoju	04-20	06-25	07-10	
Koeleria cristata	Junegrass	Kocr	04-01	05-20	07-15	
Oryzopsis hymenoides	Indian ricegrass	Orhy	04-25	05-20	07-20	
Poa nevadensis	Nevada bluegrass	Pone-1	04-15	05-25	07-15	
" pratensis	Kentucky bluegrass	Popr	04-15	05-30	07-20	
" secunda	Sandberg bluegrass	Pose	04-01	05-15	07-05	
Sitanion hystrix	Squirreltail	Sihy	04-01	06-15	07-20	
Stipa comata	Needle-and-thread	Stco	04-15	06-25	07-20	
GRASSLIKE PLANTS						
Carex spp.	Carex					
FORBS						
Achillea millefolium lanulosa	Yarros	Ada			08-01	
Agoseris spp.	Agoseris	Agose		06-10	06-20	
Allium spp.	Wild onion	Attis	03-15	04-15	06-01	
Antennaria spp.	Pussytoes	Anten		06-10	06-20	
Astrogalus stenophyllus	Milkvetch	Asst		06-10	06-20	
Balsamorhiza sagittata	Balsamroot	Basa		06-20	07-01	
Castilleja spp.	Indian paintbrush	Caan		06-20		
Cirsium arvense	Thistle	Cirsi				
Crepis acuminata	Hawksbeard	Crac	05-01	06-20		
Erigeron spp.	Fleabane	Erige		05-30		
Eriogonum spp.	Eriogonum	Eriog				
" urightii	"	Erur		06-15		
Grindelia squarrosa	Gumweed	Grsg				
Lepidium spp.	Pepperweed	Lepid				
Leptodactylon pungens	Woolly phlox	Lepu				
Lomatium	Wild Carrot	Lodi		06-01	06-25	
Lupinus spp.	Lupine	Lupin		06-01	07-20	

SCIENTIFIC NAME	COMMON NAME	SYMBOL	STARTS GROWTH	FLOWERS	SEED RIPE	RHIZOMES
FORBS (cont.)						
Mertensia spp.	Bluebells	Merte				
Penstemon spp.	Penstemon	Penst				
Phlox spp.	Phlox	Phlox		06-15	07-25	
Ranunculus spp.	Buttercup	Racy		05-15	05-30	
Sphawralcea spp.	Globemallow	Sphe				
Taraxacum officinale	Dandelion	Taoc				
Trifolium spp.	Clover	Trifo	05-15	06-15		
Urtica dioica	Nettle	Urdi				
Verbascum thapsus	Mullein	Veth				
Viola spp.	Violet	Viola				
Wyethia amplexicaulis	Wyethia	Wyam				
Zigadenus spp.	Deathcamas	Zigad	03-15	04-15	06-01	
TREES AND SHRUBS						
Artemisia frigida	Fringed sagebrush	Arfr				
" tridentata	Big sagebrush	Artr-1	05-01	10-15		
" nova	Black sagebrush	Arno				
" spinescens	Bud sagebrush	Arsp	04-15	05-30	06-25	
" tripartita	Threetip sagebrush	Artr-2				
Atriplex confertifolia	Shadscale	Atco-1			06-25	
Betula occidentalis	Water birch	Beoc				
Ceanothus velutinus	Buckbrush	Ceve				
Cercocarpus ledifolius	Mtn. Mahogany	Cele				
Chrysothamnus spp.	Rabbitbrush	Chrys				
Cowania spp.	Cliffrose	Cowan				
Eurotia lanata	Winterfat	Eula				
Grayia spinosa	Spiny hopsage	Grsp	04-20		06-25	
Opuntia spp.	Cactus	Opunt		06-15		
Pinus contorta	Lodgepole pine	Pico				
Pinus flexilis	Limber pine	Pifl				
Populus spp.	Cottonwood - Aspen	Popul				
Prunus virginiana	Chokecherry	Prvi			07-20	
Pseudotsuga menziesii	Douglas-fir	Psme				
Rosa spp.	Rose	Rosa		07-15	08-20	
Salix spp.	Willow	Salix				
Sarcobatus vermiculatus	Greasewood	Save	05-01			
Symphoricarpos spp.	Snowberry	Symph	06-01	07-15	08-20	
Tetradymia spp.	Horsebrush	Tetr		06-25		

Herd Creek Allotment Idaho

Joint BLM-F.S

BLM

F. S
Challis N.F

Start planning Jan 1975
Fences completed 1976
Start RR 1977

3 Pastures

No	Name	Jurisdiction	
1	Herd Lake	BLM	
2, 2a	Lake Basin	FS	(2 BLM)
3	Taylor Creek		
	Low	BLM	
	High	F.S	

Size of Hand Creek Allotment

"Grazing land"

	Acres
National Forest	30,000
State	2835
BLM	15,409
	48,244

Suitable for grazing

National Forest	7,386	25%
State	"	
BLM	"	

25% of this = 12,061 acres this suitable for grazing.

Herd Creek Allotment

Range ready

Lower Herd Lake (2A) Unit	May 15-June 1
Herd Lake Unit 1	June 15
Lake Basin (2B) Unit	July 1-10
Taylor Creek Unit 3	
Low	June 10
High	July 1-10

PAGE NO.

PREPARED BY

DATE

Herd Creek Allot. Idaho

Ingrams Remarks

February 25th 1994

"Info" from Jackie Ingram (Will's wife)
"Bob Peavy with HRDC a watchdog close with, An environmentalist against livestock grazing and RR
-Is running for Lieutenant Governor in Idaho"

Joint

ALLOTMENT MANAGEMENT AND DEVELOPMENT PLAN

HERD CREEK C&H ALLOTMENT

(INCLUDES OLD HERD CREEK & TAYLOR CREEK ALLOTMENTS)

Feb. 1975

CHALLIS NATIONAL FOREST

YANKEE FORK RANGER DISTRICT

1974

HERD CREEK MANAGEMENT PLAN

Prepared by Dan Pence Date 12/2/74
District Forest Ranger

Approval
Recommended by _____ Date _____
Challis-Mackay Area Manager, B.L.M.

Approved by _____ Date _____
Salmon District Manager, B.L.M.

Approved by _____ Date _____
Eastern Idaho Area Supervisor
Idaho Department of Lands

Approved by _____ Date _____
Forest Supervisor, Challis N.F.

Reviewed by _____ Date _____
Permittee

Reviewed by _____ Date _____
Permittee

Reviewed by _____ Date _____
Permittee

Reviewed by _____ Date _____
Idaho Fish and Game Department

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I. INFORMATION

Various proposals have been made for both Herd Creek and Taylor Creek Allotments. The most feasible plan appears to be a combination of the two allotments under a rotation system. The following plan is based on this combination, which includes involved National Forest, Bureau of Land Management, and State lands.

A. History of Range Use:

1. Herd Creek: Herd Creek was grazed by cattle, sheep, and horses prior to inclusion in the National Forest system in 1928. First use of any significance apparently developed in the early 1880's when McKim Cattle Company from Mackay grazed cattle up Twin Bridges and over into Lake Basin.

The land involved has been included in several sheep and cattle allotments on the Challis and Sawtooth National Forests. Herd Creek drainage was split in two allotments shortly after being included in the National Forest system, and was managed by the Mackay and Clayton Ranger Districts. Lake Basin and lower Herd Creek were originally included in the East Fork Allotment. Upper Herd Creek was included in the Twin Bridges Allotment. Upper Meridian Creek, on the Sawtooth National Forest, was a sheep allotment that was eventually included in the Twin Bridges Allotment. Twin Bridges was a sheep allotment for some time, later received common use with both sheep and cattle, then reverted to cattle.

Lake Basin was included as common use by both cattle and sheep until 1959, when sheep use was converted to cattle. Agreement was reached in 1971 modifying old allotment boundaries so all of Herd Creek, that portion of Meridian Creek drainage north of approximately the northern unsurveyed boundary of sections 31 and 32, T8N, R19E, and section 36, T8N, R18E could be managed as one allotment. Twin Bridges drainage, and remaining portion of Meridian Creek were included in the Wildhorse Allotment for administration by the Lost River District.

Early records indicate the area has been heavily grazed. Table I shows the obligation, permitted use, and actual cattle use on National Forest land on the old Herd Creek Allotment from 1943 to 1969. Herd Creek was separated from the East Fork Allotment in 1952. It is an on-off allotment that includes B.L.M. use.

HERD CREEK ALLOTMENT (1943-1969)

(National Forest Only)

TABLE I

ALLOWED TO GRAZE AND ACTUAL USE								
YEAR	OBLIGATION		PERMITTED USE		ACTUALLY GRAZED		ACTUALLY GRAZED	
	LS C&H	AUM	LS C&H	AUM	LS C&H	AUM	LS SHEEP	AUM
1942			134	737	278	923		
1943			10	45	189	974		
1944			48	258	73	389		
1945			133	698	306	1328		
1946	320	1600	167	835	320	1150		
1947	320	1600	224	1091	345	1635		
1948	320	1440	273	1202	326	1467		
1949	244	1100	225	1013	225	940		
1950	150	600	244	1128	230	1054		
1951	150	725	207	932	207	863		
1952	150	600	231	1039	231	963		
1953	150	524	244	1098	244	1098	2043	1418
1954	150	524	239	1048	215	915	1175	768
1955	150	522	207	931	207	671	1249	466
1956	150	522	244	1098	244	976	1125	503
1957	150	522	239	1076	239	698	1366	1020
1958	150	522	244	1098	244	1017	1366	1020
1959	150	522	244	1098	244	903	1366	1020
1960	150	522	225	1013	225	848		
1961	150	522	234	1053	234	869		
1962	150	522	219	986	219	827		
1963	150	522	214	963	214	963		
1964	180	748	180	810	180	748		
1965	244	1187	244	1098	244	976		
1966	234	984	234	1053	234	936		
1967	234	890	198	891	198	831		
1968	234	890	234	890	230	920		
1969	220	767	220	767	220	990		

The 28 year average shown in Table I shows 959.7 AUM's for cattle. Tentative capacity for this unit is only 280.0, indicating some of the overgrazing problems with season long grazing. Proper use studies were taken on an irregular basis. Table II shows use for 1969 through 1973. Indicated capacity based on use indicates 684 AUM capacity, considerably more than tentative. Distribution has played a significant role in utilization. Over-use has been common in some areas, with very little use elsewhere.

Records are not available for sheep use prior to 1953, although it was significant. Lake Basin sheep use is included in Table I for 1953 through 1959, when Lake Basin was included in common use.

Table III is a summary of Range Readiness Inspections on various years from 1958 through 1972.

2. Taylor Creek: This allotment was grazed by cattle, horses, and sheep prior to its addition to the Forest in 1928. The allotment was set up as a sheep allotment from that time until 1960 when livestock use was changed to cattle. There has been no change in allotment boundaries.

Actual use for the period of 1928 to 1944 averaged 3842 sheep months per year. Actual use for the period from 1945 to 1949 was 4730 sheep months per year. In 1950, the use was 4910 sheep months for the grazing season. Use for the period of 1951 to 1959 averaged 2846 sheep months per year. The general established season for sheep use was 7/1 - 9/15.

Through sales and waivers, the operating permittee has changed several times. From the time the allotment was established until 1950, D. B. Drake used the allotment. During this time it changed from father to son. In 1951, the permit passed to Jay Beus and Associates, and continued in sheep use until 1960 when the permittee changed use to cattle. In 1964, the holdings were sold to W. K. Kershaw and cattle use continued. The ranch property sold to Cal Worthington in 1967 and to Will Ingram and Sons in 1973.

Records of past management indicate the allotment was considered over-stocked and highest use should probably be dry bands or cattle, due to the predominately grass type. Past records indicate a large descrepancy in cover and soil evaluation. Reports in 1947 indicate cover had increased in density to a great extent and was approaching a climax stage for fescue and wheat grass over much of the area. By 1951, reports indicated trend throughout used portions of the allotment was down. Past records also indicate a type of rotation program was used on the allotment and permittee cooperation was considered good.

HERD CREEK ALLOTMENT (1969-1973)

(National Forest Only)

TABLE II

PROPER USE DATA

Date	Bench Mark	Utilization	Proper Use	Remarks
9/19/73	4 Transects throughout Lake Basin & East Fork	43	35	Indicated capacity w/season long grazing is 797 AUM. Considerable trespass by Wildhorse not included.
10/2/72	Lake Basin Hell Canyon	37 25	35 35	Indicated capacity 832 AUM. Good distribution, but cattle did not enter allotment until 7/17.
8/26/71	Bull Gulch Lower Lake Basin	55 16	35 35	Cattle driven into Bull Gulch 7/27 were just drifting into Lake Basin. Capacity indicated 400 AUM.
9/14/70	N. of Little Lakes Lower Lake Basin Upper Hell Canyon Bull Gulch	35 35 44 45	35 35 35 35	Anderson's cattle in Lake Basin, Worthington cattle in Bull Gulch. Capacity indicated 706 AUM.
9/24/69	Lower Lake Basin	50	35	

HERD CREEK ALLOTMENT (1958-1972)

(National Forest Only)

TABLE III

RANGE READINESS INSPECTIONS AND DATES

SHOWING CONDITION OF FORAGE DEVELOPMENT

DATE	AREA	ELEVATION	DESCRIPTION
5/28/58	Lower Herd Creek *	6,500 ft.	Wheat grass heading out. Balsamorhiza in full bloom.
5/24/60	Lower Herd Creek	6,500 ft.	Wheat grass approaching boot stage at forks Bull Gulch. Poa headed out.
5/23/61	Lower Herd Creek	6,500 ft.	Wheat grass 4"-6" tall, starting to form heads. Idaho Fescue and Poa well advanced. Lupine starting to bloom. Range ready between June 1st and 5th.
5/28/62	Lower Herd Creek	6,500 ft.	Range on Lower Herd Creek and Bull Gulch ready to graze. Balance ready in 10 days, except Lake Basin which will be ready after July 1st.
5/22/63	Lower Herd Creek	6,500 ft.	Poa just starting. Wheat grass 3"-4" tall. Range will be ready by June 1st.
7/18/63	Lake Basin	7,500 ft.	Lupine and Balsamorhiza headed out. Some wheat grass headed, some in boot stage. Poa and Fescue headed out. Range ready to graze by August 1st.
5/27/64	Lower Herd Creek	6,500 ft.	Poa starting to head. Wheat grass 4"-6" tall.
5/25/65	Herd Creek-Bull Gulch	6,500 ft.	Wheat grass 4"-6" tall. Poa just starting to grow.
5/25/66	Lower Herd Creek	6,500 ft.	Wheat grass in boot stage. Poa headed out.

TABLE III (Continued)

DATE	AREA	ELEVATION	DESCRIPTION
5/29/67	Lower Herd Creek	6,500 ft.	Wheat grass in boot stage. Low range ready to graze.
	Lake Basin	7,500 ft.	Will not be ready to graze before July 15th.
5/23/69	Lower Herd Creek	6,500 ft.	Area should be ready about June 1st. Hold cattle out of Lake Basin until after July 1st.
1970			Permittees have been asked to hold cattle off low range for 7 days due to late spring and to stay out of Lake Basin until July 7th.
5/71			Worthington agreed cattle had used Herd Creek too early. Would not go on National Forest area until after July 15th.
5/72			Worthington agreed to change entry date to 6/15 on permit.

* Lower Herd Creek includes Pine Gulch, Bull Gulch, and Lower Herd Creek just inside Forest boundary.

Trespass horse use was a problem through 1929 and into the early 30's. Considerable trespass from adjoining cattle allotments was a problem and boundary fences were constructed.

Approximately 2,000 acres of the allotment were burned over in 1961. This area included upper Taylor Creek and the head of Sagebrush Creek. The burned area was seeded by helicopter, using crested wheat, brome, clover, orchard grass, and Timothy as a seed mixture. The seeding was fairly successful with the best results showing in the bottom of Taylor Creek and on the large bench area at the head of Sagebrush Creek. No use was made of the allotment until July of 1963 when the authorized number of cattle were allowed to graze.

B. Current Status of Permits, Importance to Permittee, and Commensurability:

Primary permittees are Gary and Tim Ingram. Their operation will generally be referred to as "Ingrams" throughout the plan. The two brothers and their father purchased involved interests in 1973. Operations have developed through consolidation of several ranch properties in the Challis and East Fork areas. They run on one other allotment on the Yankee Fork District, three on the Sawtooth N.R.A., and one allotment on the Challis District. After allotment adjustments in 1971, the Ingrams have six Forest and B.L.M. permits affected by this plan, as shown in Table IV. They also lease the five State sections involved in this plan.

Ralph Yates, the other permittee involved, purchased commensurate property on East Fork from George Leuzinger in 1973. He has another grazing permit on Bowery Creek and on the Sawtooth N.R.A. on upper East Fork. His grazing permits, as affected by this plan, are shown in Table IV.

Seasonal changes indicated in the above program will necessitate adjusting use on other range areas to accommodate additional early use. B.L.M. personnel did not consider these adjustments as a problem. The proposal represents approximately an eight percent decrease in AUM use for the Ingram permits. Priority should be given to restoring this decrease in any range improvement that develops.

Elevation of all base property restricts production to hay and some grain. Grazing permits on public lands allow permittees to graze cattle off the base property while raising crops, and help develop an economical operation.

Both individuals have additional B.L.M. permits, and Ingrams have leased several other State sections for grazing that are not included in this plan.

A common entry date is needed for involved permittees.

TABLE IV

GRAZING PERMITS

	ALLOTMENT	PERMITTEE	AGENCY	NUMBERS	DATES	OFF-ON %	AUM'S
CURRENT STATUS	Herd Creek	Ingrams	F.S.	304	6/16-10/15	69.7 %	1216
	Herd Lake	Ingrams	B.L.M.	132	6/16-10/15	30.3 %	528
	Lake Creek	Ingrams	B.L.M.	(436)	10/16-10/31	100 %	218
	Taylor Creek	Ingrams	F.S.	150	7/1 - 9/30	100 %	450
	Herd Creek	Ingrams	B.L.M.	(150)	5/1 - 6/30	100 %	300
	Herd Creek	Ingrams	B.L.M.	(150)	10/1 -10/31	100 %	150
	Herd Creek	Yates	F.S.	33	6/1 -10/15	66.7%	149
	Herd Creek	Yates	B.L.M.	17	6/1 -10/15	33.3%	76
	TOTAL EXISTING			636			3087*
PROPOSED PROGRAM	Herd Creek	Ingram	FS-BLM	586	6/16-10/31		2637
	Herd Creek	Yates	FS-BLM	50	6/16-10/31		225
	TOTAL PROPOSED			636			2862*

* Reduction of 225 AUM results for Ingrams. This impact develops from a shortened season on the B.L.M., specifically, the reduction of 150 head from 5/1-6/15.

C. Current Status of Management:

Cattle have been placed on lower portions of Herd Creek when this range appears ready to graze. They drift, or are herded, to higher range areas as the season progresses. Season-long use is general in favored areas. Fencing is needed to obtain adequate use of some range, and reduce pressure on other areas. High range does not appear ready until early July, and adequate fencing is needed to protect this range from early use. A rotation grazing system appears to be the best means of managing the resources represented.

A type of deferred system has been practiced on Taylor Creek since use was converted to cattle in 1960. Cattle enter through McDonald Creek one year, and through Sagebrush Creek the next. Under this system, some plants reach maturity each season. Success of this system has been fair, depending on salting and herding practices each year.

D. Condition and Trend of Range Resource and Estimated Current and Potential Grazing Capacity:

Table V indicates estimated current tentative and potential grazing capacity for National Forest lands in each proposed unit. Figures shown for B.L.M. refers to grazing related to this plan that will occur in those units.

Important consideration must be given to additional capacity for range in Herd Creek, Bull and Pine Gulches, and Sheep Creek in Taylor Creek Allotment. These drainages contain considerable acreages listed as non-range or unsuitable, that can be grazed without resource damage, especially with rotation management. These grazing areas occur as large sagebrush slopes generally right at the 30 percent limit. Basins, benches, and other breaks in topography are common. They contain good stands of bluebunch wheat grass. They were grazed successfully in 1971 with no obvious adverse effects on the slopes. Suitable stringers in related canyon bottoms did receive heavy use, but not in excess of what would be expected through season-long grazing in similar range on any allotment. Additional capacity estimates are included in Table V for these areas.

B.L.M. grazing estimates are generally based on studies dating back to the 1950's and appear high when compared to Forest Service estimates used in this plan. For planning purposes, the B.L.M. estimates are included as potential capacity, not tentative capacity. The estimate appears more realistic as potential capacity under management.

Table VI is a summary of allotment acres, showing range condition and other areas.

TABLE V

GRAZING CAPACITY ESTIMATES BY UNIT*

HERD CREEK ALLOTMENT (as proposed)

UNIT	Estimated Capacity CD/Acre		Capacity Cow Days		Tentative Capacity AUM's (NF only)	Estimated Potential W/Development AUM's	N.F. Estimated Potential Increase W/Fence AUM's	N.F. Estimated Potential Increase W/Spray AUM's	N.F. Estimated Potential Increase W/Water AUM's	Total N.F. Estimated Potential Increase W/Development AUM's
	Tentative	Potential	Tentative	Potential						
1 Pine Gulch Bull Gulch plus BLM & State	3.9	13.5	2444	11,103	81.5	370 + 1,124= (BLM & State) 1,494	173.2	86.6	28.8	288.6
2 Lake Basin West Fork plus BLM & State	3.7	13.6	15,116	55,887	503.7	1,863 + 212= (BLM & State) 2,075	906.2	453.0	-	1,359.2
3 Taylor Cr. Allotment plus BLM & State	4.5	13.4	13,953	41,100	465.1	1,334 + 300= (BLM & State) 1,634	524.0	107.0	237.6	868.8
Total Available					1,050	5,203				
Average to be Grazed Per Year					1,050	3,469				

* B.L.M. and State capacity estimates are carried as "potential" with development, since they appear significantly higher than tentative capacity figures developed by Forest Service R.E.A.

HERD CREEK ALLOTMENT (as proposed)

TABLE VI

Allotment Acreages		Unit 1	Unit 2	Unit 3	Total
Suitable Range		(630.5)	(4121.0)	(2635.0)	(7386.5)
	Good Condition	73.0	209.5	560.0	842.5
	Fair Condition	410.0	2836.5	1780.0	5026.5
	Poor Condition	147.5	1075.0	295.0	1517.5
Suitable - Not Used		32.5	125.0	255.0*	412.5
Unsuitable - Used		202.5	1906.0	1310.0**	3418.5
Unsuitable - Not Used		4697.5	1265.5	4068.0	10,031.0
Non-range		1287.5	5829.5	1635.0	8752.0
Sub-Total Acreage (National Forest)		6,850.5	13,247.0	9,903.0	30,000.5
Approximate B.L.M. Acres (Gross acres, Analysis not available for suitable acres and condition)		10,786	3060.0	1,563.0	15,409.0
Approximate State Acres (Gross acres, Analysis not available for suitable acres and condition)		1,280.0	275	1,280.0	2,835.0
TOTAL ACREAGE/UNIT		18,916.5	16,582.0	12,746.0	48,244.5

* Includes 55 acres that will not be grazed, even with improvements.

** Includes 302 acres, typed as unsuitable used during REA studies, that appear suitable under rotation grazing and have capacity considerations in potential data.

Estimated potential grazing capacity under the proposed system, after all improvements are in place, is 5239 AUM's. Since only 2/3 of the allotment is scheduled for grazing each season, only an average of 3492 AUM's will be available annually. This figure compares quite favorably with the 3087 AUM's currently permitted.

Of National Forest range involved, approximately 11 percent of the primary range is in good condition, 68 percent in fair condition, and 21 percent in poor condition. Problems related to past grazing practices are quite obvious, since almost 90 percent of this range is in less than good condition.

Range Environmental Analysis, completed in 1969 on National Forest lands, indicates a 57 percent reduction if current grazing practices were continued on the Forest portion of the allotment.

E. Existing Improvements:

All improvements on the present allotment, including State and B.L.M., are on the Taylor Creek Allotment, as shown on the attached Table VII.

F. Special Problems and Considerations:

Research* indicates that forage yield will be seriously affected if an area is grazed before key species development has reached at least the "boot stage" for grasses. Key species in this instance are bluebunch wheatgrass and Idaho fescue. Elevational differences complicate vegetative readiness within individual units, and between units. A mid-elevation point must be established in each unit to determine more accurately what the opening date should be. B.L.M. figures indicate this stage is reached about 5/15 at 7,000 feet elevation, while the Forest Service figure is 6/15. The Lake Basin portion of Unit 2 contains only higher elevation range that is normally not ready to graze before early July. The differences in vegetative readiness estimates between the two agencies will need to be resolved by on-the-ground examination. For purposes of this plan, the later date, 6/15, has been used. This date should be changed to meet vegetative development criteria, if any change is indicated.

State, B.L.M., and National Forest lands will be included in the system. Administration by the three agencies could be somewhat confusing, and must be closely coordinated.

Wildhorse range has been identified on B.L.M. lands within Unit 1 of the combined allotment. Under provisions of existing wildhorse laws, it will be very difficult to prevent wildhorse herd buildup from expanding onto this allotment. Significant impact can be expected if numbers cannot be controlled.

* Gus Hormay presentation at Challis, Idaho, October 22, 1974

HERD CREEK ALLOTMENT

TABLE VII

EXISTING IMPROVEMENTS

Name	Condition	Adequate	Location	Length	Remarks
Fox Creek - McDonald Creek Drift Fence	Poor	No	T9N, R18E Sec. 14, 15, 22	2.0 mi.	C.C.C. built - Requires major maintenance
McDonald Creek-Pine Creek Drift Fence	Poor	No	T9N, R18E Sec. 21,22	.5 mi.	C.C.C. built - Requires major maintenance
Sagebrush Creek Drift Fence	Good	Yes	T9N, R19E Sec. 29	.25 mi.	Permittee maintained
Sheep Gulch Water Development	Poor	No	T9N, R18E Sec. 26	----	Needs to be rebuilt and one mile of line added to carry water to Sec. 24, T9N, R18E
Sagebrush Creek Water Development	Poor	No	T9N, R18E Sec. 24	----	Constructed in 1939. Needs to be replaced or rebuilt.

Jim Bennetts owns land on Herd Creek and has a 27 head permit 5/1 - 9/30 (135 AUM's) on B.L.M. lands in Sheep Creek. He has no permit on National Forest lands. Some means of isolating his use will be needed, since his use does not appear to work in with this program. Bennetts indicates he believes he can develop a currently unsuitable section isolated by his private land to furnish this commitment. Bennetts' permit has not been included in this plan.

Information collected during the 1972 White Cloud - Boulder - Pioneer Mountains Comprehensive Land Use Study, identified soils along most major drainages involved as belonging to the Challis Hillslope group. As reported by investigating soils specialists and hydrologists, "Localized very serious channel erosion problems were isolated in several locations within this land group. Concentrations of domestic livestock in bottom lands (small alluvial land types) near water sources have caused channel downcutting....." This information indicates the need to locate fences, and develop other management alternatives, that will avoid creating concentration areas near stream channels whenever practical.

Herd Creek drainage contains a significant anadromous fisheries spawning area, and also provides habitat for a good trout and whitefish population. Livestock grazing has provided the major impact on water quality by man. Streambank erosion and sedimentation, originating on heavily grazed areas, has had adverse effect on aquatic habitat. McDonald Creek drains into East Fork of the Salmon River near key salmon habitat, and is also used for irrigation.

Considerable unauthorized use has developed between the Herd Creek and Twin Bridges Allotments. Cattle from both allotments drift back and forth across the dividing ridge. No effort has been made to identify impact by unauthorized animals. A cooperative agreement has been signed to cover fence construction needed to stop this use. More fencing appears necessary than is covered by this agreement to stop the drift.

Wildlife values are significant. The allotment supports a good deer population, and an increasing elk herd. Grazing pressure on key deer winter range has been high, especially on B.L.M. lands. Evidence of a historically significant bighorn sheep population is common, although no sheep are found there today. Elk calving areas have been located on the allotment. Blue grouse remain common, although their streambank habitat has been heavily grazed. Sage grouse are common in the Lake Basin area, although they do not appear to nest there. Chukar partridge are common from East Pass Creek downstream. Consideration must be given to wildlife needs in any allocation of grazing capacity that may develop above the current commitment.

Although Taylor Creek is in the best condition, it does have the lowest indicated capacity because it has the smallest area. Fitting

proposed cattle numbers into the area represented may develop problems, and should be closely monitored as the program is put into action. The Idaho Fish and Game Department has expressed some concern about the physical impact 636 cows might have in this area. According to REA data, there should be no problem.

G. Additional Existing Conditions:

Eighty-nine percent of the suitable National Forest range is in poor or fair condition. Most poor condition range is located on the old Herd Creek Allotment. Considerable improvement is needed before the range recovers to full production. Evidence on lower private range in Herd Creek indicates that it is quick to respond to management. Soils generally are of Challis Volcanic origin, and are quite fertile. Rapid response can be expected, if proper management is developed.

Administration of the allotment is by horseback. It takes up to nine hours just to ride to some points on the allotment and return, leaving little time for productive work. Proper administration is too time consuming to be effectively applied under current management. The allotment could be effectively managed in eight days each year, providing all improvements are in place and the proposed system initiated.

Walter Bodie, Idaho Fish and Game Department Regional Game Biologist, indicates that the plan's desired increase in climax grass species, in preference to such seral species as sagebrush, probably will reduce overall carrying capacity for deer, but should improve range conditions for elk and bighorn sheep. These vegetative changes should take many years, but should be anticipated.

II. MANAGEMENT GOALS

Immediate goals are to improve involved rangeland so it will support the permitted AUM's; to improve plant vigor, plant density, ground cover, and species composition; increase calf crop and beef production; provide for wildlife and fisheries; protect and improve watershed values; and provide more effective livestock management.

A. Improve Involved Rangeland so it Will Support the Permitted AUM's:

The current obligation cannot be supported under present management without serious resource damage. Permitted livestock numbers on National Forest lands represent 2460 AUM's of grazing. Indicated carrying capacity under present management is only 1050 AUM's, which represents a 57 percent reduction. Indicated annual potential under the proposed program is 3469 AUM's, adequate to support permitted use of 3087 AUM's. An immediate goal is to restore the current permitted 2862 AUM use to Ingrams' permits. The 225 AUM reduction has developed by keeping the 150 head formerly allowed in Fox Creek-McDonald Creek May 1 off of the allotment until June 16.

B. Improve Plant Vigor, Density, Species Composition, and Ground Cover:

The current grazing system has produced over-use on several favored areas. All stream bottoms and closely associated sagebrush benches in Unit 1; upper Hell Canyon, stream bottoms, the sheep driveway area, and areas immediately adjacent to water in Unit 2; and stream bottoms, favored benches, and the area adjacent to the Taylor Creek fire camp in Unit 3, all reflect this use. Season long grazing and past heavy use is causing loss of vegetation and soil. All of these areas, and associated unsuitable grazed range, can and will be grazed under the proposed rotation system, but associated rest will restore vegetation and soil conditions. Improvement of poor condition range is vitally needed.

The June 1 date on the Yates permit is generally too early for all but the lower B.L.M. range near the junction of Lake Creek and Herd Creek. June 15 will be considered as the opening date for this plan, pending additional investigation of vegetative development at mid-elevation points on individual units.

The proposed rotation grazing system is specifically designed to accomplish the above vegetative goals, since physiological needs of plants are considered.

C. Increase Calf Crop and Beef Production:

Developing the range to provide improved vegetation production and condition will result in improved livestock condition and heavier calves at the end of the grazing season. Increased calf crops generally develop under rotation systems, as opposed to season long grazing systems, due to more concentrated nature of livestock.

Expected potential under management indicates an increase in actual use may be available after full development. Generally, any increase should be given in animal numbers. Grazing prior to adequate plant development will damage range and watershed resources. Forage has generally cured sufficiently to provide little more than a subsistance ration by mid-September, which is not desirable for cow-calf operations.

Ingrams have expressed interest in trying the system utilizing the October 31 closing date, since it represents the least impact in their AUM obligation. They do recognize the impact possible on calf gains. If soils factors appear capable of supporting more cattle numbers as the program progresses, increased numbers with a shorter season may be advisable.

D. Provide for Wildlife and Fisheries:

An estimated 220 deer months use and 40 elk months use occurs on suitable livestock range on Forest lands in Unit 2, based on pellet group

counts on analysis sheets. This game use is equivalent to 59.5 AM's. A similar breakdown was not included for Taylor Creek, although it appears almost this great. Anticipated range improvement under the proposed program should more than satisfy big game requirements. Wildlife must be considered for grazing capacity above the current obligation. Improving range conditions so bighorn sheep can be re-established provides an additional goal.

Extremely vital deer winter range is present in Unit 1 and the B.L.M. portion of Unit 3. Deer remain in higher portions of all units until winter snows force them to lower sagebrush ranges. Elk, especially small groups of bulls, winter in some areas in all units. Steep, south and west facing slopes not considered suitable livestock range currently provide most big game winter range. Little livestock use is anticipated on these slopes, even under intensive management. General range improvement should relieve current pressure on some of these areas.

Sagebrush control, using 2-4D herbicide, is anticipated in Unit 3. Burning, instead of chemical treatment is anticipated in Unit 2. Much of the Lake Basin area, for example, could be burned without excessive danger that areas outside the basin would burn. There are known elk calving areas within the basin however, and control over what did or did not burn would be quite difficult. Chemical application by helicopter could be closely monitored to avoid such areas, but would affect some forb species preferred by wildlife.

Concern for elk calving areas prompted examination by Hadley Roberts, Forest Service Wildlife Biologist, in 1973. His recommendations will receive full consideration in allotment development, especially those relating to sagebrush control. Calving grounds are located in Units 2 and 3. Sagebrush control projects in Units 2 and 3 will need to be carefully monitored to avoid wildlife conflict. Large continuous spray areas must be avoided. Generally, spraying other than south facing slopes will not affect big game. Steeper pockets of north facing sagebrush will be left for sage grouse summer habitat. No winter range areas will be sprayed in consideration for all wildlife. Elk calving areas identified by Hadley Roberts will not be sprayed.

Loren Anderson, B.L.M. Game Biologist, indicates the possible need to reserve some feed for game on key wildlife winter range. The annual plan of use can be utilized to adjust grazing periods on specific range areas, if this need becomes apparent during the grazing program.

Unsuitable not grazed range within the allotment presently serves most big game wintering needs, especially on National Forest lands. Big game winter range restoration projects are indicated on some areas in Unit 1. A rotation grazing system should be of considerable benefit

to wildlife values. Improvement in range condition should eventually result in more grass and less sagebrush. This change may eventually decrease available deer feed, but will improve conditions for elk and bighorn sheep.

Streambank revegetation, channel stabilization, and reduction of sediment will benefit aquatic habitat. The stream is showing considerable adverse impact resulting from current and past grazing practices. Any improvement in range condition will directly benefit fisheries. Concern remains for deteriorated stream channel conditions. Since the soil type appears to deteriorate rapidly under livestock concentrations, every effort must be made to avoid cattle concentrations along stream channels. Results on the nearby Squaw Creek Allotment indicate shrub species, such as willow and birch, will sprout rapidly under a rotation system, and should afford better streambank protection. Fencing may be needed for some key salmon spawning areas.

E. Protect Watershed Values:

Current use is damaging watershed values over much of the allotment. A significant majority of the rangeland is in fair or poor condition. Soil loss is occurring from much of the rangeland. Inherent ability of the Challis Volcanic soils involved to resist erosion has kept this problem from becoming more significant. Improved plant cover will be of considerable benefit.

The U.S.G.S. has initiated stream sediment studies that include Herd Creek. Continuation of these studies should help monitor improvement in watershed condition.

F. Provide for More Effective Livestock Management:

Portions of the allotment require up to nine hours just to reach by horseback and return to a road for the night. Riders managing grazing livestock have little time to work with the animals after riding this far. Extensive broken nature of much of the range makes proper distribution difficult. Fall roundup is also complicated, and animals are frequently missed. Some winter losses have occurred.

Under the proposed system, animals will be concentrated in one unit at a time. The rider can work more effectively once he reaches the area being grazed. He can use time saved to check the previously grazed unit for stragglers, or salt ahead for better distribution on the next move. Most animals will be concentrated in one unit for fall removal. The chance remains that a few animals could be in other units, but the chance of missing them during roundup would be greatly reduced.

III. ANALYSIS OF THE RANGE RESOURCE

A. Site and Use Requirements and Limitations:

Elevation differences create considerable variation in plant development and needs. Low range on the B.L.M. in Units 1 and 3 normally is ready to graze by June 15. Higher range in Unit 2 is not ready before early to mid-July. Gus Hormay suggested that a low pasture be established on the B.L.M. below Spring Gulch to accomodate early use for Unit 2. This addition has been made.

Seedling establishment is needed to increase plant density. The proposed system is designed so seeds will have a chance to ripen in the second unit to be grazed each year. Research conducted by Gus Hormay indicates animals grazing after seed maturity will plant seed by trampling. Rest is scheduled the year following this grazing use, to allow seedlings a chance to become established.

B. Relationship to Associated Lands:

The proposed system will not work unless B.L.M. land and State sections are incorporated to form units. Discussions with permittees, B.L.M. Area Manager Grant Harbour, and Idaho Department of Lands District Range Manager Wayne Burkhardt, indicate they favor developing the proposed program. The B.L.M. has taken a very active interest in the plan. Gus Hormay, B.L.M. Grazing Specialist, has examined the allotment, the plan, and has conducted a public meeting concerning development of this plan.

C. Management and Development Opportunities:

Unit 1 will include primarily B.L.M. lands in the Herd Creek drainage. Forest Service lands in Bull Gulch, Pine Gulch, a small section of non-range near Jerry Peak, and the bottom of East Pass and Herd Creek will be included. Two State sections will also be included: T9N, R19E, Sec. 16 and Sec. 36. The unit can be established by construction of about 1¼ miles of fence across Herd Creek at the mouth of East Pass Creek. About two additional miles of fence will be necessary to cut off drift on the eastern rim of Lake Basin and the head of Hell Canyon. A total of 5½ miles of fencing will be needed on B.L.M. to stop drift to and from the Road Creek drainage outside the allotment. Three water developments are needed in Bull Gulch on the Forest, and three on the B.L.M.

Unit 2 will include National Forest land in East and West Forks of Herd Creek drainage, and a small section of B.L.M. land in upper Hell Canyon. Elevational differences make necessary breaking this unit into two sections to establish some early range. The low section will be B.L.M. and State range below Spring Gulch on Herd Creek. It can be established with approximately two miles of fence across B.L.M. lands just east of Spring Gulch. The State section involved includes a portion of T10N, R18E, Sec. 36. A short fence and cattleguard will be needed near the mouth of Herd Creek to keep cattle in the drainage. The rest of this

unit can be established by construction of approximately 2½ miles of division fence to prevent drift between it and the Wildhorse Allotment. A cooperative agreement exists to cover permittee construction of two miles of this fence. An additional 1500 acres of sagebrush control is needed in Lake Basin. (See map in Appendix)

Unit 3 will include B.L.M. land in Fox, McDonald, and Sheep Creeks, and State sections 16 and 36 in T9N, R18E. National Forest lands in the old Taylor Creek Allotment (McDonald, Sagebrush, and Taylor Creek drainages) will provide the major capacity for this unit. One mile of fence between Taylor Creek and the East Pass S&G Allotment, and one mile extension of an existing fence between Taylor Creek and the Pine Creek C&H Allotment would establish this unit. Sagebrush control is needed on 1,000 acres. (See map in Appendix) Six ponds and eight troughs are needed.

D. Potential Grazing Capacity:

Estimated potential grazing capacity under the proposed system after all improvements are in place is 5239 AUM's. Since only 2/3 of the allotment is scheduled for grazing each season, only an average of 3492 AUM's will be available annually. This figure compares quite favorably with the 3087 AUM's currently permitted.

Tentative grazing capacity for National Forest lands indicates a 57 percent reduction is needed under season long grazing. An assumption can be made that the indicated 57 percent reduction would also apply to State and B.L.M. lands included. The resulting capacity would greatly reduce economic values associated with livestock operations involved.

E. Relationship With Other Uses and Activities:

Enhancing range values will have considerable favorable impact on other uses and activities. These benefits are specifically covered in the Environmental Analysis Report and in Section IV, B (1) - (4), covering correlation with other resource uses and activities.

IV. ACTION PLAN

A. Selected Management Prescription:

The proposed system appears capable of meeting all management goals. Development of range resources and construction of involved improvements will proceed as indicated in Table IX, funds permitting, with year One representing the year of program initiation.

The selected rotation system is shown in Table VIII. The move proposed in year One, or the 1st year of each cycle, will be the most difficult move. In those years, cattle will

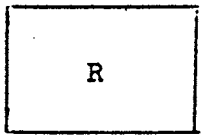
HERD CREEK ALLOTMENT

TABLE VIII

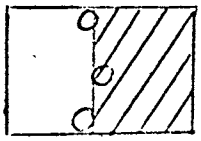
PROPOSED ROTATION SYSTEM

YEAR	UNIT 8/1		
	1	2	3
1 (75, 77)	R		
2 (78)		R	
3 (76, 79)			R
4 (same as 1)	R		

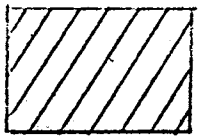
The program is repeated through future years, starting with year 4.



- Total rest season long for seedling establishment



- Graze after seed set (normally about 8/1) for planting of seed by trampling



- Graze season ~~long~~ starting 6/15

HERD CREEK ALLOTMENT

TABLE IX

PLANNED DEVELOPMENTS

Year	Constructed By	Description	Material Furnished By	Estimated Cost			
				Govt.	Permittees	Other Permittees	Tota
1	Permittees	Boundary fence between Herd Cr. & Twin Bridges 2 miles	F.S.	2500	1000	1000	450
	F.S.	Spray sagebrush on 1000 acres in Taylor Creek	F.S.	7000			700
	F.S.	Boundary fence between Taylor Cr. & East Pass S&G 1 mile	F.S.	2000			200
	B.L.M.	¼ mile fence & cattleguard	B.L.M.	1500			150
	B.L.M.	2 miles fence between Spring Gulch & Chicken Cr. (Road Creek)	B.L.M.	4000			400
2	Permittees	6 water ponds	Permittees		450		45
	F.S.	1¼ mile fence below Hell Canyon	F.S.	2500			250
	F.S.	Division fence between Units 1 & 2 from head of Lake Basin to head of Hell Canyon. 2 miles	F.S.	4000			400
	F.S.	3 water troughs in Bull Gulch	F.S.	1050			105
	F.S.	1 mile fence extension between Pine Cr. C&H and Unit 3	F.S.	2000			200
	B.L.M.	4 3/4 miles fence to divide Units 1 & 2	B.L.M.	9500			950
	B.L.M.	3 water troughs including waterline	B.L.M.	1500			150
3	F.S.	Burn sagebrush on 1500 acres in Lake Basin	F.S.	6000			600
	F.S.	8 water troughs in Unit 3	F.S.	2800	100		290
			TOTAL F.S. COST	29,850			
			TOTAL B.L.M. COST	16,500			
TOTAL PROJECT COST				46,350	1,550	1,000	48,90

enter through McDonald Creek (Unit 3), graze over into Taylor Creek, and be removed from the unit through Sagebrush Creek. They will need to be physically moved into Unit 2 at seed ripe time. The move will include trailing through Unit 1, which is scheduled for rest. Animals will need to be confined pretty much to the trail, and not be allowed to scatter and feed through the unit.

Cattle will enter Unit 1 in Herd Creek the second year. They will graze up Lake Creek and back through Pine and Bull Gulches, and should have ready access into Unit 3 via Sagebrush Creek as seed ripe time approaches. They can work up Sagebrush into Taylor Creek, and out McDonald Creek at season end.

Third year operation will see early use in the detached segment of Unit 2 in lower Herd Creek. Animals will then enter Lake Basin (Unit 2) about July 1, with animals working back into Unit 1 through Lake Creek, Bull and Pine Gulches as seed ripe develops.

The system will require a full time rider to keep animals distributed, salt in advance of move, and to move cattle into new areas as the season progresses.

Cooperative agreements, Environmental Analysis Reports, and other material not covered but necessary to initiate the program, are included in the Appendix.

This indicated direction of rotation will be followed, although which unit, or step within the rotation, will be used in the initiating year, will depend upon what improvements are in place. The year sagebrush is sprayed in Unit 3 will coincide with the year it is grazed at seed ripe. The year sagebrush is controlled in Unit 2 will coincide with the year it is to be grazed at seed set. Special plans of use may be needed to gain specific range improvement during these years.

B. Correlation With Other Uses and Activities:

1. Wildlife: The allotment provides a vast area of summer range for deer and elk. Some extremely vital winter range is provided in lower sections, especially in Units 1 and 2, B.L.M., and State range involved. These areas are grazed extremely heavy by early livestock use at present. This plan provides badly needed rest for this range. Elk winter areas have not been fully studied, but indications are lone bulls or small groups of bulls do winter on scattered ridges throughout the allotment.

   A bighorn sheep population utilized the area in the past. There would be little advantage in trying to re-establish this population now, since deer are frequently hard pressed to find feed. Once values improve on lower winter ranges, bighorn sheep may be re-introduced.

A small population of antelope can be found on the allotment occasionally, but it does not appear to represent critical range for them.

Sage grouse and Blue grouse population will benefit from improved range conditions. Care will be needed to avoid large extensive spray areas. Specific areas known to contain nests will be avoided. Blue grouse utilize berries along stream bottoms at certain periods, and such areas will be avoided during brush control projects. Controlled burning would probably have more immediate impact on these sites than closely monitored spray application.

Streambank and watershed values are suffering under current use. Hopefully, this grazing system will assist in correcting these problems, and benefit fisheries and aquatic resources. This problem should be closely monitored during the program, and if deterioration continues, an alternative means of protecting stream bottoms may be needed.

All proposed sagebrush control projects will be correlated with the Idaho Fish and Game Department.

2. Watershed: Deteriorated range conditions are reflected by range analysis, which indicates that 89 percent of the range is either in fair or poor condition. Sedimentation is quite obvious each spring in the lower stream channels, especially on main Herd Creek. The main stream and several tributaries show serious stream channel damage attributable to over grazing. Several streams have lost normal meanders, and are cutting deep channels through productive areas. The deep channels are lowering water tables, and affecting vegetation.

   Initiation of a grazing system will help correct these problems. Some areas may require additional watershed restoration work, but no such projects can be successful until the source of the problem, season long grazing, has been corrected.

3. Recreation: Recreation use has been restricted primarily to a few hunters each fall. One commercial outfitter operates a camp in Lake Basin and west into Meridian Creek. He and his guests have expressed concern over heavy grazing use in this area. Considerable recreation use does occur on lower B.L.M. lands, especially around Herd Lake. Considerable rock and Indian artifact hunting also occurs in the lower area. Recreation values will benefit from improved wildlife and watershed values.

The area offers primarily a roadless recreation experience, and should be managed as such. Any administrative access utilized during development of this plan should be closed immediately following completion of the project.

Off Road Vehicle use has not developed and should not be encouraged, because of soil types involved.

C. Required Administrative Action:

Implementation of the proposed program is dependent upon available finances. Table IX essentially covers administrative action required, once financing becomes available. Year One on the table represents the first year of financing for the program.

Additional riding for exact on-the-ground location will be needed before final fence, sagebrush control, water development, and other improvements take place. The permittees, B.L.M., State Department of Lands, Idaho Fish and Game Department, and Forest Service personnel will be included.

D. Interim Programs:

Little can be done to alter current use until some fencing is completed. Remote location makes intensive management by riding impractical. Unit 3, the old Taylor Creek Allotment, is in the best condition, but has less area and less apparent capacity than other units. A first priority should be given to sagebrush control in this unit to increase capacity and reduce grazing pressure on other key areas. The program can be initiated fairly effectively, even without all fences, once sagebrush control is completed in Unit 3. Until this sagebrush control project is completed, the allotments will be grazed as they have been in the past.

E. Review of Alternatives:

Basic alternative is to do nothing and continue current management. Based on tentative capacity, this would result in a 57 percent reduction. Objectives of the plan will not be met with this alternative.

A second alternative appears feasible. This alternative would maintain Herd Creek and Taylor Creek as separate allotments with internal fencing to create rotation systems. Approximately $28,000 worth of additional fencing would be needed. Herd Creek Allotment does not appear capable of supporting current livestock obligation even with improvement. It possibly would be reduced by at least 20%. This reduction possibly could be absorbed by increased capacity on Taylor Creek. All fences

included in the proposed program would be needed under this system, so it could be used as back-up if, for some reason, the proposed system does not attain desired objectives. The possibility of fencing Forest lands away from B.L.M. lands and managing them under separate systems is possible, but does not appear practical. The boundary was established on legal subdivisions, and does not represent a logical division from a grazing standpoint. Isolated State sections obviously should be managed with surrounding public land.

Additional range improvement work could develop more grass, and this forage could be obligated to more intense livestock grazing. Much of this improvement would have to be on key wildlife range (i.e., deer winter range and elk calving areas), and plan objectives would not be met since wildlife values would suffer.

The season of use and livestock numbers can be varied. The proposed dates are used because they appear closest to meeting both permittee needs and plan objectives at this time. The opening date should coincide with the period when bluebunch wheatgrass and Idaho fescue vegetative development reaches the "boot stage" at 7,000 foot elevation. Grazing before this period will reduce total forage production for the year involved. June 15 has been used as a tentative opening date throughout the plan, but should be changed if too early or late. Concern over the physical impact of additional numbers for a shorter period also requires further investigation. If, as the program progresses, changes in season and/or numbers appears desirable and compatible, such changes should be made.

V. FOLLOWUP SECTION

A. Examination and Studies:

Unit 2 has one Parker 3-step, Lake Basin CH-313. It was established on a sagebrush bench (S4 $\frac{48\rightarrow}{60\rightarrow}$) in T8N, R19E, Sec. 11 during REA work in 1969. A Parker 3-step, Taylor Creek CH-312) is established in Unit 3 on a sagebrush bench (S4 $\frac{75\rightarrow}{90\rightarrow}$) in T9N, R18E, Sec. 27.

Photo points will be established in one area scheduled for sagebrush control in Units 2 and 3. Photographs in spray areas will be taken the first, third, and fifth years following sagebrush control and at five year intervals thereafter.

Photo points will be established on main Herd Creek and East Pass Creek to monitor stream bank conditions. Additional contact is needed with the U.S.G.S. concerning sediment studies. These studies should be continued to monitor changes in watershed condition.

Forage production studies will be conducted in rest units each year during development and for five years following, to determine response and future management. Increases or decreases in permitted use will be based on increased forage available on the two least productive units in the rotation combination, with wildlife considerations.

Use intensity mapping will be conducted on units being grazed each year. Degree of plant development, use studies, and forage available for livestock use will determine livestock movement from unit to unit.

Additional studies and photo points will be established under advisement of Gus Hormay, Grazing Specialist for the B.L.M. These studies are specifically designed to monitor response to the grazing system.

B. Program Modification and Improvement:

Modification of this program will involve mutual agreement as to benefits derived. Success of the system will depend upon proper herding and salting practices and adherence to the approved and agreed upon management plan.

Available forage can run short on units being grazed on dry years once the system becomes established. If this occurs, it will be possible to graze one of the units scheduled for rest late in the season to supplement available forage.

Periodic review will be made of the plan by permittees and involved agencies to keep the plan up to date and make needed modifications.

VI. REFERENCE SECTION

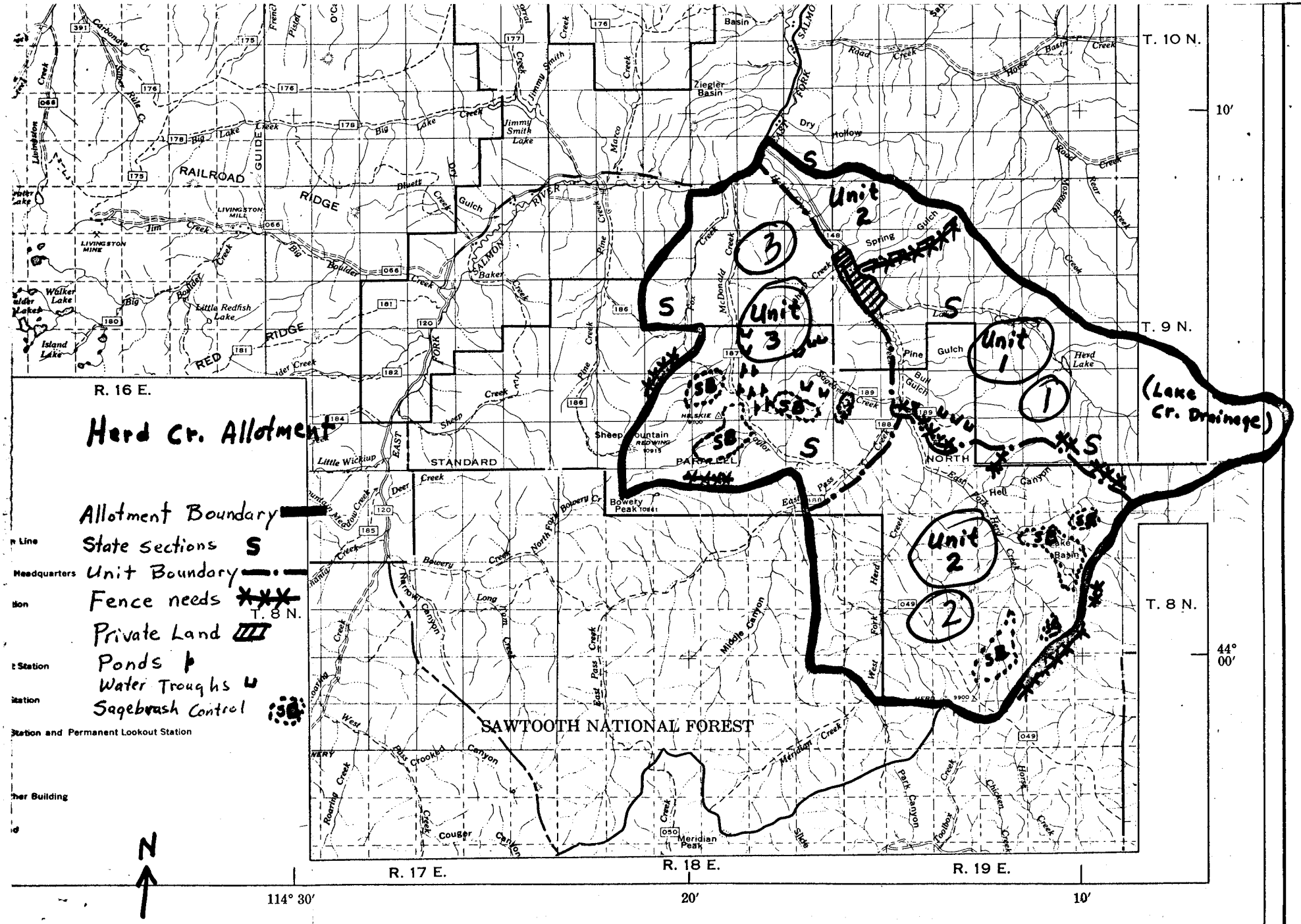
Included in this section are:

A. Allotment map

B. Environmental Analysis Report

C. Cooperative Agreements

D. Letters from agencies concerning the plan


Herd Cr. Allotment
Allotment Boundary
State Sections S
Unit Boundary
Fence needs
Private Land
Ponds
Water Troughs
Sagebrush Control
SB
Unit 1
Unit 2
Unit 3
(Lake Cr. Drainage)
SAWTOOTH NATIONAL FOREST
R. 16 E.
R. 17 E.
R. 18 E.
R. 19 E.
T. 10 N.
T. 9 N.
T. 8 N.
114° 30′
20′
10′
44° 00′
N

2230 (2240)

COOPERATIVE AGREEMENT FOR RANGE IMPROVEMENT WORK

This agreement made under authority of Secretary of Agriculture Regulation (36 CFR 231.9), Act of April 24, 1950 (16 USC 572), and Act of June 30, 1914 16 USC 498) as applicable, this 19 day of June, 19[illegible], by and between Carl Worthington of Worthington Motors and Anderson Ranches, hereafter known as the permittees, and the Supervisor of the Challis National Forest, for and in behalf of the U. S. Department of Agriculture, Forest Service, hereinafter known as the Forest Service,

Witnesseth:

WHEREAS, it is a responsibility of the Forest Service to protect, administer, and improve National Forest range lands to the extent available funds will permit; and

WHEREAS, the permittees are permitted to graze livestock on range lands of the Challis National Forest, and are interested in improving range conditions,

NOW, THEREFORE, it is mutually agreed as follows:

1. That the permittees and the Forest Service will cooperate in exchanging grazing privileges on Forest Service and BLM lands in Road Creek, Twin Bridges and Herd Creek drainages with no adjustment in each permittee's total animal months use allowed in their permits and licenses provided all suitable allotted acreage is used.

2. The consolidation of each grazing permittee's operations will be advantageous to both the Government and the permittees in improved land management.

3. With the exchange, the Twin Bridges-Meridian Creek drainages will be incorporated into the Wildhorse C&H allotment to remove an impasse to the Wildhorse allotment grazing management system and upper Herd Creek will be included in the Herd Creek allotment.

4. Worthington will adjust 71 AUM's in the Road Creek area to Anderson. (This offsets the 24 AUM's U. S. Forest Service and 47 AUM's BLM gained by Worthington's trading the Twin Bridges and Herd Creek areas.

5. That the permittees and the Forest Service will cooperate in accomplishing the following range improvement work:

Construct approximately two and one half miles (2½) of standard Forest Service fence along the ridge between Twin Bridges Creek and upper right fork of Herd Creek, Sec. 13, 23, 24, 26, T 8 N., R. 19 E. This fence will prevent cattle from mixing between the Wildhorse C&H allotment and the Herd Creek C&H allotment.

The estimated cost of this work is $3,700.

2230 (2240)
Coop. Agr.
Worthington-Anderson-F.S.

~~Work covered by this agreement shall begin within one (1) month of the above date and be completed within twelve (12) months.~~

6. That the Forest Service will contribute as its share of the cost of said improvements by providing all materials and the basic design and location for the fence. The fencing material will be delivered to the end of the road on Twin Bridges Creek and assistance will be given to getting the materials on site.

7. That the permittees will contribute all labor, supervision, tools, and equipment necessary to construct the fence to Forest Service specifications. Each permittee will contribute the labor for 50% of the total fence length and provide all labor required for maintenance of the fence.

8. Title of improvements constructed as a result of this agreement shall be in the United States.

9. The range improvements constructed or work performed at permittees' expense shall not in any way confer on the permittees the exclusive right to the use of the improvements on the land on which such practices are carried on.

10. This agreement is not assignable or transferable, except with the written consent of the Forest Officer in charge.

The permittees, in exercising the privileges granted by this agreement, shall comply with the regulations of the Department of Agriculture and all Federal, State, county and municipal laws, ordinances, or regulations which are applicable to the area of operations covered by this agreement.

11. No member of or delegate to Congress or Resident Commissioner, shall be admitted to any share or part of this agreement or to any benefit that may arise therefrom; but this provision shall and be construed to extend to this agreement if made with a corporation for its general benefit.

12. Nothing herein shall be construed as binding the Forest Service for the payment of money in excess of appropriations authorized by law.

IN WITNESS WHEREOF, the parties have hereunto subscribed their names as of the date first above written.

San Luis Bank by Dan Nelson
County Treasurer
Daniel Anderson
Permittees

U. S. Department of Agriculture
Forest Service,
By [signature]
Forest Supervisor

File (2)
Supervisor's Office
Worthington
Anderson Ranches

IN REPLY REFER TO:

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
SALMON DISTRICT OFFICE
P.O.Box 430
Salmon, Idaho 83467

RECEIVED
YANKEE FORK RANGER DISTRICT
CLAYTON, IDAHO
MAR 8 1974
NOTED ACTION
DR
Ranger
For. Tech.
Clerk
P/C for
File

March 4, 1974

Dan Pence
Yankee Fork Ranger Station
Clayton, Idaho 83227

Dear Dan:

The grazing system in your Herd Creek Plan looks like it should work real good.

There are some things that were not clear to me and I will try to discuss these.

1. Possibly we did not give you all the AUMs that Ingram is licensed on BLM. His license is:

Herd Lake	436 cattle	06/16 to 10/15	30.3% (Rest is on Forest)	=	529 AUMs
Lake Creek	436 cattle	10/16 to 10/31	100% BLM	=	218 AUMs
*Herd Creek	150 cattle	05/01 to 06/30	100% BLM	=	300 AUMs
*Herd Creek	150 cattle	10/01 to 10/31	100% BLM	=	150 AUMs
			TOTAL		1197 AUMs

2. Presently, as the Plan is written, it appears to me that there will be a reduction in BLM AUMs as follows:

436 cattle	10/16 to 10/31		=	218 AUMs
150 cattle	05/01 to 06/15		=	225 AUMs
150 cattle	10/15 to 10/31		=	75 AUMs
		TOTAL		518 AUMs

This reduction is figured on the basis that 586 cattle would be involved in the Plan. Figuring 548 cattle, as the Plan is written, would increase the reduction above 518 AUMs. I did not take the time to figure the reduction based on 548 cattle. The reduction will be okay if Ingram will agree to this knowing that Jim Bennetts and Ralph Yates are not being reduced.

*This use is up Herd Creek (BLM) onto Sagebrush Creek USFS for the summer and out Fox-McDonald (BLM), onto Taylor Creek USFS for the summer and back down Herd Creek (BLM).

3. Throughout most of the Plan I am not clear on what AUMs are BLM and what are Forest, so maybe we could make this a little more clear for me. I do not have any problem with the portion on Ralph Yates, it is just the Ingram AUMs that I cannot get straight, for instance on Page 5 the 2194 AUMs. We are not sure if this is combined Forest and BLM or just Forest. We came up with 2862 AUMs, but 2862 includes the 450 AUMs on BLM in the Fox-McDonald and Herd Creek rotation.

4. Ralph Yates is licensed in the BLM Herd Creek Unit as follows:

Herd Creek Unit	209 cattle	05/01 to 05/31	100% BLM	= 209 AUMs
Herd Creek Unit	159 cattle	06/01 to 06/15	100% BLM	= 80 AUMs
Herd Creek Unit	50 cattle	06/01 to 10/15	35% BLM (Rest USFS)	= 79 AUMs

We hope to keep 289 AUMs of Yates use to the north away from Herd Creek itself. This use would be in Dry Hollow and Road Creek. Possibly the permit is used this way now.

5. You are aware of the non-use license that Jim Bennetts has for:

27 cattle 05/01 to 09/30 = 135 AUMs

Doing something with this use may cause problems for the Plan. Jim Bennetts has indicated he wants to start making this 135 AUMs of use.

5. We will have to get together again before the Plan is finalized to make sure everyone understands it.

The Plan should work, and except for Jim Bennetts and possibly Ralph Yates, there should not be any problems.

Sincerely,

K. Grant Harbour

K. Grant Harbour
Challis-Mackay Area Manager

JOSEPH C. GREE
DI

POST OFFICE BO
600 SOUTH WALNUT ST
BOISE, IDAHO

IDAHO FISH AND GAME DEPARTMENT

March 8, 1974

NOTED ACTION

DFR
Forester
For. Tech.
Clerk
File

Dan Pence
Yankee Fork Ranger District
Clayton, Idaho 83227

Dear Dan:

I'll try to kill two birds with one stone and answer your letter concerning the deer trend count and your R-R program for the Herd Creek area.

March 25 would be the most suitable for me for the deer trend count but I believe I will have some flexibility during the week.

Concerning the rest-rotation plan for Herd Creek, I believe the plan is well thought out and will be a great improvement to the watershed. I do have some reservations in particular areas. The bottom land along Herd Creek has been beat rather heavily and a management system that will protect some of the stream bank area to enhance the fisheries and bird use is necessary. I'm not sure that rest-rotation itself will cause a significant improvement.

Rest-rotation must be considered in light of the vegetative changes that you wish to occur. If the program is successful, we can expect a reduction in the numbers and dominance of the seral species such as sagebrush, etc., and an increase in the climax grass species. Of course, this will probably be to the detriment of the deer herds and, hopefully, the betterment of conditions for elk and sheep.

The sagebrush eradication projects can only be commented on for a specific spray or burning project basis. Hopefully, we can get on the ground together to go over these. We would make one general recommendation to burn instead of spray wherever possible.

I sent a copy of your project proposal to Dr. James Peak, U. of Idaho, for his use. As you know, our Department, the U.S.F.S., and the U. of Idaho have been interested in studying the effects of a rest-rotation program on the various plant and animal communities involved. The original plan was to use graduate students in Hayden Creek on the Lemhi. Now, the idea of using Herd Creek is receiving serious consideration. We can discuss this further during the deer trend count.

Sincerely,

Walter L. Bodie

Walter L. Bodie
Regional Game Biologist

h

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
SALMON DISTRICT OFFICE
P. O. Box 430
Salmon, Idaho 83467

RECEIVED
YANKEE FORK RANGER DISTRICT
CLAYTON
SEP 26 1974

September 24, 1974

NOTED ACTION
DFR
Forester
For. Tech.
Clerk
For
File

Dan Pence
Yankee Fork Ranger Station
Clayton, Idaho 83227

Dear Sir(s) or Madam:

The Salmon Bureau of Land Management District and the Challis National Forest, with Gus Hormay's assistance, plan to establish a multiple-use land management demonstration area in the Herd Creek Allotment.

This allotment consists of approximately 30,000 acres of Forest Service lands, 19,000 acres of National Resource Lands (BLM), and 2,000 acres of State of Idaho lands. The area is located approximately 28 miles south of Challis, Idaho, and has a wide variety of resource values and uses; being important for domestic livestock grazing, wildlife, fisheries, recreation, and other values.

As this area is an important part of the National Resource Lands and Forest lands, we would like to have representatives from various agencies and groups participate in the preparation of the multiple-use plan. Therefore, we wish to invite you and a wide variety of other interests, concerned with wild land management, to participate in this planning effort October 21, 22, and 23, 1974.

The program will be conducted by Gus Hormay, who is well known and highly recognized for his contributions toward promoting proper management and use of natural range lands. Following is an outline of the program:

First Day	-	Theory of rest-rotation multiple-use land management and description of Herd Cr. area will be presented by Gus Hormay at Challis.
Second Day	-	Group to visit area and size up conditions and problems.
Third Day	-	Group will prepare a management plan for area.

It would be appreciated very much if you or your representative would participate in this program and provide information and ideas as to how the area should be managed.

Please let us know by October 7, 1974, if you plan to attend. We will then provide you with more detailed information concerning the meeting place, specific time schedule, motel accomodations, and other information.

Sincerely yours,

Harry R. Finlayson

Harry R. Finlayson
District Manager

IDAHO FISH AND GAME DEPARTMENT

JOSEPH C. GREENLEY
Director

POST OFFICE BOX 25
600 SOUTH WALNUT STREET
BOISE, IDAHO 83707

Region 6
1515 Lincoln Road
Idaho Falls, Idaho 83401
522-7783

September 27, 1974

Mr. Richard Benjamin
Forest Supervisor
Challis National Forest
Challis, Idaho 83226

Dear Dick:

Thank you for the opportunity to comment on the sagebrush manipulation projects in the East Fork Salmon River area. We appreciate your making available a helicopter seat for our biologist for an overall view of the project.

Lake Basin: This area is used by elk both during the winter and for calving. A managed burning program in this area as described by Ranger Dan Pence would not be objectionable to us. Burning in fact might improve the suitability of this area for elk and possibly for deer as well. This use was confined to the windblown ridges which are not scheduled for treatment.

McDonald-Taylor Creek Area: This area is also a bull wintering and calving area. Plans are for herbicide treatment of this area. We feel that this treatment may not be necessary. Past history indicates that the area is susceptible to natural fires. With an improvement in grasses, with a rest-rotation system, the susceptability should grow. Natural fires may be a better alternative for sagebrush treatments without the reduction in important forbs associated with herbicide treatments. We ask that you reconsider this proposal.

Sincerely,

IDAHO FISH AND GAME DEPARTMENT
Joseph C. Greenley, Director

Tom Reinecker

Tom Reinecker
Regional Supervisor

TEACHING/RESEARCH/SERVICE
Forest/Range/Wildlife
Fisheries/Utilization

University of Idaho
College of Forestry,
Wildlife and Range Sciences
Moscow, Idaho 83843

11 October 1974

Forest Supervisor
Challis National Forest
Challis, ID 83226

Dear Mr. Benjamin:

Enclosed is a draft cooperative agreement concerning our wildlife investigations in the Herd Creek area. I am forwarding a similar draft to the BLM office in Salmon for their input. At this time, I prefer to leave the budget off, since we do not have any funding except from the Cooperative Wildlife Research Unit.

I plan to be down to Challis during the 21st of October for the discussions on this system, and hope to be able to visit with you then.

Sincerely,

James M. Peek
Associate Professor
Wildlife Resources

JMP:km

cc. Dan Pence ✓
Yankee Fork Ranger District

RECEIVED
YANKEE FORK RANGER DISTRICT
CLAYTON, IDAHO
OCT 16 1974
NOTED ACTION
DFR
Forester
For. Tech
Clerk
P/C For
File

COOPERATIVE AID

STATEMENT OF WORK

I. Purpose

A. Organizational Assignment

1. (U. S. Forest Service, Challis National Forest)
2. (Bureau of Land Management, Salmon District)
3. Idaho Fish & Game Department
4. University of Idaho, Cooperative Wildlife Research Unit

B. Objectives of Study

1. To determine range use patterns of elk and deer populations associated with the grazing system.
2. To relate range use patterns and responses of elk and deer populations to livestock grazing and associated activities.
3. To relate range use patterns of elk and deer to phenology of forage species used in each pasture.
4. To determine forage preferences of elk, deer and cattle relative to plant development, time of year, habitat type, and grazing conditions.
5. To determine whether competition between big game species and livestock exists in terms of deterioration of forage species important to one or more classes of grazers, and to develop, if necessary, additional criteria which may be used to define the extent of competition.
6. To develop criteria which may be used to judge big game

responses to a rest-rotation grazing system of the nature investigated, using simulations and modeling techniques.

7. To determine population trends and dynamics of deer and elk associated with the grazing system.
8. To evaluate responses of breeding bird populations, including native grouse, to the system.

II. THE UNIVERSITY AGREES TO:

A. Prepare, in collaboration with the U. S. Forest Service, Bureau of Land Management, and Idaho Fish & Game Department, a mutually acceptable study plan.

B. Coordinate study activities with the Challis National Forest and Bureau of Land Management, Salmon District and the Idaho Fish and Game Department, securing all necessary permits and clearances involved in conducting the study.

C. Assume liability for any damage within the study area and surrounding lands incident to performance of the work.

D. Assume primary responsibility for the conduct, measurement, analysis, and reporting of the study.

III. THE FOREST SERVICE AGREES TO:

A. Prepare, in collaboration with the University, a mutually acceptable detailed study plan for the study.

B. Cooperate in the conduct, analysis, and reporting of the study.

C. Allow personnel working under this agreement to utilize Forest Service photo and map making and reproducing services at Government costs.

D. Allow personnel working under this agreement to utilize scheduled flights of government-owned and contract aircraft to travel to and from the study area and transport equipment and supplies to and from the study area.

E. To allow project personnel to use field stations for housing and storage of equipment and supplies.

IV. IT IS MUTUALLY UNDERSTOOD AND AGREED:

A. That the completion date for this study will be December 31, 1977.

B. That neither party will publish any results without consulting the other. This is not to be construed as applying to popular publication of previously published technical matter. Publication may be joint or independent as mutually agreed upon, always giving due credit to the cooperation and recognizing within proper limits the rights of individuals doing the work. In the case of failure to agree as to manner of publication or interpretation of results, either party may publish data after due notice and submission of proposed manuscripts to the other. In such instances, the party publishing the data will give due credit to the cooperation but assume full responsibility for any statements on which there is a difference of opinion.

C. That the results of these studies may be used for theses in partial fulfillment of requirements for advanced degrees, by prior agreement with the cooperators.

D. That this agreement may be terminated by either party by giving 60 days' notice to the other in writing.

E. All provisions of the Master Memorandum are applicable to this Supplement.

May 1973

attach to appendix in Hyl G. Plan

USDA FOREST SERVICE
RESEARCH NOTE RM- 240

FOREST SERVICE
U.S. DEPARTMENT OF AGRICULTURE

ROCKY MOUNTAIN FOREST AND RANGE EXPERIMENT STATION

Sagebrush Control with Herbicide Has Little Effect on Elk Calving Behavior

A. Lorin Ward[1]

Elk did not change their calving behavior or feeding habits on a site where 96.7 percent of the big sagebrush *(Artemisia tridentata)* cover had been killed with 2 pounds acid equivalent of 2,4-D herbicide.

Oxford: 156.2:268.44. Keywords: Wildlife habitat management, herbicides (range), *Cervus canadensis, Artemisia tridentata.*

Elk (Cervus canadensis) have their calves on big sagebrush (Artemisia tridentata) sites on some ranges (Altmann 1952, Anderson 1954, Eustace 1967, King 1964, Madson 1966). It has also been reported that calving takes place in other vegetation types such as grasslands, willows, aspen, and conifers (Altmann 1952, Mackie 1970, Madson 1966, Picton 1960, Preble 1911). Many of the big sagebrush areas are heavily grazed by elk during winter and spring, and by cattle during the summer. To increase food supplies and improve range conditions for livestock, range managers often seek to kill the sagebrush on these areas. The question of how sagebrush control may affect elk calving behavior has not been answered.

Sagebrush control, an accepted range-improvement practice for many years, has been successful on 5 to 6 million acres throughout the West and in the past 30 years (Pechanec et al 1965). The USDA Forest Service and USDI Bureau of Land Management sprayed about 155,000 acres of sagebrush on lands under their administration in Wyoming from 1952 through 1964 (Kearl and Brannan 1967).

Wilbert (1963) concluded from animal sightings and pellet-group counts that sprayed sagebrush plots were more attractive to elk than unsprayed plots on the Gros Ventre elk spring range in Teton County, Wyoming. How calving might have been affected by sagebrush control was not mentioned.

The study reported here was conducted in the Dry Fork drainage of the Little Bighorn River on the Bighorn National Forest in Wyoming, from 1968-71. The objective was to determine whether sagebrush control with herbicide on relatively small areas would affect established elk calving behavior. The study area had a southwest aspect; vegetation was a mixture of forbs, grasses, and big sagebrush. Elevation of the area is 7,300 feet. Elk activity on the area was observed from the west side of Dry Fork in Bull Elk Park (fig. 1).

[1]*Principal Wildlife Biologist, Rocky Mountain Forest and Range Experiment Station, with central headquarters at Fort Collins, in cooperation with Colorado State University. Research reported here was conducted at the Station's Research Work Unit at Laramie, in cooperation with the University of Wyoming.*

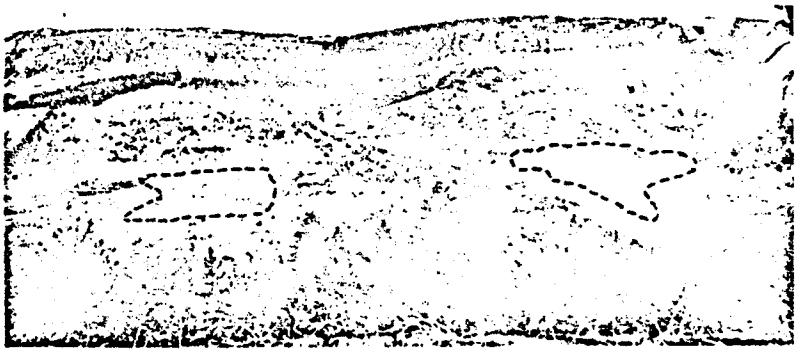


Figure 1.—
Study area on Dry Fork, Bighorn National Forest, Wyoming, looking toward sagebrush-control areas (dotted lines) with southwest aspect.

The Dry Fork flows northwest between Bull Elk Park and the study site. Elk move to this area in the spring during the calving season from the Kern's winter elk pasture on the east side of the Big Horn Mountains. The date the elk are able to get there and how long they stay depends upon the amount of snow and the weather. As the vegetation in the higher country develops, the elk move on to the west. Only a few elk are seen in this area during the summer. The main herds pass through this area in the fall on their way to the winter pasture.

Methods

Two areas, one 85 acres and another 45 acres, were sprayed by helicopter with 2 pounds acid equivalent per acre of 2,4-D herbicide after the elk calving season (mid-June) in 1969. Only the more gentle slopes and areas away from trees were sprayed. Considerable acreage of sagebrush type remained between and around the sprayed areas.

The calving sites were observed from a remote vantage point with telescopes and cameras for 2 years before spraying and 2 years after spraying.

The total number of hours that adult elk, elk calves, and mule deer were on the study area was obtained each year for the sprayed and nonsprayed areas.[2] The first pretreatment observation period (1968) began May 31, and continued until July 7. Observations the second pretreatment year (1969) covered a 10-day period from May 29 to June 8. Posttreatment data covered the period June 10 to 15, 1970, and June 3 to 11, 1971. A very heavy snowpack and a late spring in 1970 delayed elk reaching Dry Fork.

Locations of adult elk and elk calves and their grazing patterns were observed and plotted twice daily on aerial photographs. First observations began at daylight and continued for about 3 hours; the second period began at 6 p.m. At the beginning of each observation period all animals that could be seen were recorded. Their travels were followed and any new animals were added as they appeared. In many cases, elk calves could not be seen until they got to their feet when their mothers approached. The area was observed periodically during the middle of the day to record any elk activities and continued until dark. Occasionally observations were interrupted by poor visibility.

[2] *Observation data from Bull Elk Park were collected in 1968 by USDA Forest Service employees Bob Joslin, Dale Morris, and the author. In 1969, 1970, and 1971, Marvin Hawley, Bob Williams, and Mac Black of the Wyoming Game and Fish Commission worked with the author to collect the data.*

Vegetation composition was estimated before and after spraying by the step-point method (Evans and Love 1957). These data provided an estimate of the kill of big sagebrush and forbs on the treated sites.

At least 20 fresh elk fecal droppings were collected on the study area every year soon after observation data were taken. Droppings were examined by microtechniques described by Ward (1970) to identify graminoids, forbs, sagebrush, and other browse eaten by elk.

Results

Spraying significantly changed vegetation composition (percent hits):

	1969 (before spraying)	1970 (after spraying)
Graminoids	46.5	64.1
Forbs	44.2	25.6
Live shrubs		
Sagebrush	8.3	0.5
Other browse	1.0	1.1
Sagebrush cover	33.5	1.1
Dead shrubs		
Sagebrush	0.0	8.7
Other browse	0.0	0.0
Sagebrush cover	0.0	32.4

The herbicide killed 94.7 percent of the sagebrush plants, which reduced sagebrush cover 96.7 percent. After spraying, hits on graminoids increased 17.6 percent, and decreased on forbs 20.6 percent.

Food Habits

Fecal droppings at this time of the year are very soft, high in moisture content, and rapidly dispersed. The samples collected in 1970 and 1971 reflect little change in the percentage of graminoids in the diet from the pretreatment period (table 1). Although forbs in the vegeta-

Table 1.--Food habits of elk as determined by fecal analysis

Year[1]	Scats	Graminoids	Forbs	Sagebrush	Other browse
	Number	*Percent*			
1968	26	43.4	46.0	0.9	9.7
1969	20	33.0	46.0	1.0	20.0
1970	29	40.9	51.5	0.9	6.7
1971	25	34.4	56.9	0.0	8.7
Averages		37.9	50.0	0.7	11.3

[1] Area sprayed with 2,4-D in June 1969.

tion complex decreased from 44 percent before spraying to 26 percent after, the percentage of forbs identified in the feces increased an average of 8 percent following spraying. Sagebrush made up only a small percentage of the elk diet at this time of the year.

Elk Calves

The calves spent an average of 3.4 and 5.5 hours on the spray area before and after treatment, respectively (table 2), which was not significantly different at any reasonable level. During feeding periods in 1968, calves were on the area to be sprayed twice as many hours as the adjacent area. Three very young calves spent 2 entire days on one spray site, which accounted for 21 of the 48 hours of feeding period observations. In the other years calves spent about equal time on the sprayed and adjacent sagebrush areas during the feeding periods. Standing dead sagebrush had no apparent adverse effects on the use of the area by elk calves. The more hours per feeding period in 1970 was due to heavy snow cover.

During the middle of the day, older calves spent considerably more time both before and after spraying in sagebrush areas with scattered conifer and aspen trees. The calves usually accompanied their mothers into the shaded areas to ruminate, especially on warm days. However, calves less than 3 days old usually bedded down on the warm, exposed slopes during the day, apart from their mothers.

Adult Elk

The number of adult elk fluctuated considerably among years (66 to 38, table 2). Snow cover and plant development had the most influence on number of elk seen. The early seasonal development in 1969 and 1971 allowed elk to move across Dry Fork and west to the higher country. More elk were seen in Bull Elk Park these 2 years.

Our observations showed that elk graze at a slow walk. In the course of one feeding period they moved indiscriminantly over the entire study area without preference for timber or open sagebrush cover. We could not detect that their grazing habits were altered by the spray treatments. The animals did spend more time feeding where forage was most abundant and on the more gentle slopes.

The average hours of adult elk use per feeding period between sprayed and unsprayed areas in years of similar plant development and weather conditions were about the same. The late plant development in 1968 and 1970 would account for the higher average hours of elk use per feeding period on the lower areas near the spray site. Since there was considerably more acreage of unsprayed sagebrush control area within our view, it was natural that more hours of elk use were recorded on the unsprayed area, both before and after treatment. An analysis of variance showed no significant ($F = 1.066$ at 95 percent level) difference in grazing hours of use due to effects of spraying sagebrush. The

Table 2.--Recorded adult and calf elk presence and use on treated area and on adjacent sagebrush area during feeding periods, 5:30-8:30 a.m., and 6:00-9:00 p.m.

Elk presence by treatment and year	Feeding periods	Animals sighted	Total time on area--		Time per feeding period on area--		Observed time on area--	
			Treated	Sagebrush	Treated	Sagebrush	Treated	Sagebrush
CALVES ON AREA--	*Number*		*Hours*		*Hours*		*Percent*	
Before spraying:								
1968	10	6	48	24	4.8	2.4	67	33
1969	19	6	42	44	2.2	2.3	49	51
After spraying:								
1970	9	10	60	66	6.7	7.3	48	52
1971	16	9	62	66	3.8	4.2	48	52
ADULTS ON AREA--								
Before spraying:								
1968	10	66	331	476	33.1	47.6	41	59
1969	19	46	273	664	14.4	34.9	29	71
After spraying:								
1970	9	51	350	492	38.9	54.7	30	58
1971	16	38	302	703	18.9	43.9	30	70

averages of feeding for adult elk were 23.5 and 29.6 hours before and after spraying, respectively.

Adult elk spent about 2 hours feeding at each of the two feeding periods during daylight. The rest of the time was spent resting, ruminating, and playing. Since only about one-fourth of their time is spent feeding during daylight on open slopes, we found more pellet groups or fecal pies in or near the trees. Other studies (Boeker and Reynolds 1966, Pearson 1968, Reynolds 1969, Skovlin et al. 1968), have also shown fecal pellets more numerous near trees. Density and location of fecal droppings appear to be a poor index to elk feeding activity.

Other Animals

Mule deer observed on the study area for the 4 years showed about the same feeding pattern before and after sagebrush spraying. They did not travel much while feeding, and remained closer to tree cover. Deer and elk were often seen feeding within a few feet of each other.

Black bears and coyotes were also seen on the study area. Elk showed more concern over the presence of coyotes than bears. In three cases cow elk with calves moved when coyotes were seen near. When black bears passed through the study area, the elk kept track of their location, but did not move out of the bear's way or show aggression. On one occasion a black bear passed within 30 feet of five grazing bull elk.

Summary

Elk did not change their calving behavior or grazing activity patterns on a site where 96.7 percent of the big sagebrush cover was killed with 2,4-D herbicide. Analysis of fecal samples from the study site showed no large changes due to spraying in grass-forb ratios consumed. Feeding elk showed no indication they preferred to stay close to timber. Hence, it appeared that sagebrush control, if confined to limited and scattered areas, had no detrimental impact on elk during the calving period.

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Agriculture—CSU, Ft. Collins

ENVIRONMENTAL ANALYSIS REPORT

HERD CREEK CATTLE ALLOTMENT

MANAGEMENT AND DEVELOPMENT PLAN

(Includes Old Herd Creek and Taylor Creek Allotments)

Yankee Fork Ranger District

Challis National Forest

Region 4

Report Prepared by Dan Pence Date 12/2/74
District Forest Ranger

Approval of Report
Recommended by Harold Peterson Date 1/29/75
Range Staff Specialist

Approval of Report
Recommended by W. C. Craddock Date 1/6/75
Planning Coordinator

Report Approved by Richard O. Benjamin Date 2/20/75
Forest Supervisor

Report approved subject to changes discussed
in 2200 memorandum of 2/10/75
(designation) (date)

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Challis National Forest
Challis, Idaho 83226

REPLY TO: 2200 Range
(8300)

February 10, 1975

SUBJECT: Herd Creek Allotment - Environmental Analysis Report
Allotment Management and Development Plan

TO: District Ranger, Yankee Fork RD

Attached is the EAR for the Management and Development Plan for the Herd Creek Allotment. It is approved subject to the following corrections and comments.

1. Management Requirements and Constraints

#2. Change existing wording to read: "Avoid applying artificial sagebrush control treatment techniques (spraying, burning, etc.) to identified deer winter range, elk winter range, elk calving areas, or any other critical or key areas of sagebrush dependency wildlife."

#5. "Improve streambank stability." This is written more like an objective or goal rather than a requirement or constraint. In other words, the only way under the proposed plan that this will be accomplished is through the management system. You have proposed nothing specifically for streambank improvement except possibly through Management Requirement and Constraint #1. Therefore, move this requirement to "Specific Objectives" Section I. B.

#4 ("Accept with grazing system any long term vegetation changes . . . . . ") and #9 ("Encourage re-introduction of bighorn sheep . . . . .) Both require very close coordination with the Idaho Fish and Game Department. It also requires a commitment from them on their game management plans. We assume the Idaho Fish and Game Department favor these two requirements.

2. Section XI - Environmental Statement Recommendation:

On the contrary, an environmental statement is necessary because of the proposed improvements in an inventoried Roadless Areas and the settlement of a prior suit requiring the Forest Service to prepare an EIS before developing any portions of inventoried Roadless Areas. This, however, is presently being done through the Pioneer Mountains Land Use Plan and Environmental Impact Statement.

Change the wording in Section XI to read, "the National Forest portion of the proposed Herd Creek Allotment is entirely within the Pioneer Mountains Planning Unit. The developments proposed in the Herd Creek plan are comprehensively covered in the Pioneer Mountains Land Use Plan and Environmental Impact Statement. After preparation of the final Environmental Impact Statement, the requirement for preparing an EIS before developing portions of any Inventoried Roadless Areas will be met. Therefore, no additional Environmental Impact Statement is required. This particular proposal does not have a major environmental impact nor is it highly controversial."

It appears to me there are some loose ends to tie up with the various agencies and users involved. Therefore, as you have suggested, we will arrange a meeting to go over the plan before implementation begins. The plan can be appropriately signed at that time.

Development of the National Forest portion of the allotment cannot begin until completion of the NEPA process on the Pioneer Mountains Planning Unit.

I would like to commend you on a well prepared EAR and Management Plan. Obviously you have spent a great deal of time putting this plan together, and have ~~a real~~ interest in the area.

Richard O. Benjamin

RICHARD O. BENJAMIN
Forest Supervisor

Enclosure

ENVIRONMENTAL ANALYSIS REPORT

HERD CREEK CATTLE ALLOTMENT

MANAGEMENT AND DEVELOPMENT PLAN

I. DESCRIPTION

A. Purpose:

Purpose of the proposal is to develop a management program capable of supporting cattle grazing on the Herd Creek Cattle Allotment, a combination of the old Herd Creek and Taylor Creek Allotments. Grazing of the Herd Creek Allotment has been recognized as being well in excess of capability to support season-long grazing. Some problems have been recognized on the Taylor Creek Allotment, although most of these problems could be solved by fencing and better distribution. A wildlife-domestic livestock grazing conflict exists especially on deer winter range on the B.L.M. Several proposals have been considered for both allotments, although excessive internal fencing appears necessary to initiate rotation grazing under a management system.

This proposal represents a combination of the two allotments, including related B.L.M. and State lands.

Without development, analysis indicates the need for a 57 percent reduction on National Forest lands within the combined allotments. Unless some form of rotation or deferred management could be developed, additional future reductions probably would result. Because several agencies are involved, the management plan includes considerable material that normally would be covered in detail by the Environmental Analysis Report. The other agencies do not have to approve the EAR, and are more directly involved in the management plan. Although it is the reverse of normal procedure, much of the material is only summarized in this report to avoid unnecessary repetition and this report is attached as an appendix to the management plan.

Improvements needed, more fully explained in the attached plan, include approximately eight miles of fence, sagebrush control on 2500 acres, six water ponds, and 11 water troughs.

B. Specific Objectives:

Specific objectives for management are to:

1. Improve involved rangeland so it will support permitted AUM's.

2. Improve plant vigor, plant density, ground cover and species composition.

3. Increase calf crop and beef production.

4. Provide for wildlife and fisheries.

5. Protect and improve watershed values.

6. Provide more effective livestock management.

The objectives are discussed in much more detail in the management plan. Range Environmental Analysis in 1969 indicated that 68 percent of the range is in only fair condition, and 21 percent in poor condition. The High percent of less than good condition range has resulted from a past history of heavy stocking, common use by both sheep and cattle, season long grazing, and poor distribution practices.

C. Multiple Use Management Zones Involved:

Most of the allotment is located within the Intermediate Zone, as shown on the Yankee Fork Ranger District Multiple Use Plan. Some areas of Crest Zone occur near Herd Peak and Sheep Mountain. Several areas of Riverbreak Zone occur within the Herd Creek drainage. Four special Management Units occur within the allotment. I-1 refers to key deer winter range values. I-16 relates to stream bottom values associated with anadromous fisheries, wildlife values, and past Indian use. Units C-6 and I-4 involve watershed problems that have developed from heavy past grazing on welded volcanic tuff soils near Herd Peak. Additional information is included in the Yankee Fork District Multiple Use Plan, and the Pioneer Mountain Land Use Plan.

D. Location and Description:

Two old National Forest cattle allotments, Taylor Creek and Herd Creek, are involved. State of Idaho and Bureau of Land Management areas are included in the Herd Creek unit. The new allotment includes primarily that portion of T8N, R19E, and R20E within the Herd Creek drainage; and that portion of T9N, R18, 19, and 20E within the Herd Creek, East Pass Creek, Taylor Creek, Sheep Creek, Sagebrush Creek and McDonald Creek drainages, and that portion of the Fox Creek drainage on the B.L.M. All lands are within the East Fork of the Salmon River drainage, Custer County, Idaho.

Suitable range is generally located on rolling rangeland of Challis volcanic origin. Geologic slumping is common, creating considerable

variation of slope on suitable range. Cattle readily graze areas exceeding the 30 percent slope commonly recognized as borderline for cattle range.

E. Size of Allotment Area:

The combined acreage of National Forest lands is 30,000 acres. State land is 2,835 acres. The Bureau of Land Management portion is approximately 15,409 acres. Total combined acreage of grazing land included in this plan is about 48,244.5 acres. Of National Forest lands involved, only 7,386 acres are recognized as suitable grazing land. No comparable breakdown is available for B.L.M. and State land. For planning purposes, the same 25 percent could be applied to these areas. Considering topography, lack of water, and other problems, percent of suitable range is probably less than for the National Forest.

F. Land Status:

30,000 acres of National Forest, 2,835 acres of State and 15,409 acres of Bureau of Land Management land are included.

G. Out-Service Involvement:

Close coordination has been, and will be, required with the B.L.M. and State in plan development, initiation, and follow-up. Harold Sherritts, Grant Harbour, and Floyd Ewing, Challis-Mackay personnel for the B.L.M., have assisted in developing the plan. Wayne Burkhart, Idaho Department of Lands, has given State input.

Idaho Fish and Game Department is concerned because of wildlife values involved. Bill Davidson, former District Wildlife Biologist, and Walt Bodie, current Zone Biologist, for Idaho Fish and Game Department, have been kept informed throughout planning phases, and their inputs have been considered.

The Cooperative Research Unit, University of Idaho, College of Forestry, Range and Wildlife Sciences, has expressed interest in studying the area. Considerable speculation exists on impact of rotation grazing systems on wildlife. This group is interested in studying the area before development, during development, and after the program is initiated to identify and quantify impacts that may occur.

Permittees have been involved in developing the plan from initial stages. Ingrams and their riders have been especially helpful in evaluating the proposed plan, as have previous riders for various owners. Ideas presented by George Schinderling, Ray Bradshaw, Lenard Bradshaw, Ray Griggs, and "Red" Ankrum, and others, all former riders, were considered.

Local sportsmen have been advised of tentative programs whenever the opportunity develops. Lon Jarvis, commercial outfitter, is aware of the proposal.

Other permittees, expecially those on Wildhorse and Pine Creek Allotments, are aware of the pending program.

Gus Hormay, B.L.M. Grazing Specialist, has spent several days on the allotment. He conducted a three day public meeting designed to gain public input into the program in October, 1974. The public meeting appeared successful, and favored the proposed plan. He has recommended one minor revision in fence location that will add approximately one mile of fence on the Forest, but will make all units have a common entry point. He also suggested setting up a division in lower Herd Creek to add low range to Unit 2.

The Idaho Range Use Coordinating Committee, composed of state grazing, wildlife, and governmental interests, conducted its summer meeting in Challis in August. Their tour included a trip to Herd Creek and a discussion of the management plan. They favored the proposed system.

H. Physical Characteristics of Basic Resources:

1. Geology and Landforms: Only Challis Volcanic geologic formations are involved. Inventory data indicates that suitable range is located on Rock Structured Challis Mountain Lands, Moderately Dissected Challis Hillslope Lands, and Rock Structured Challis Hillslope Lands. Soils and hydrologic characteristics for this group are quite complex. Generally, they are good forage producers, low to moderate in erosion potential, have fairly high surface run-off characteristics, and contain isolated areas of high slump potential. Past geologic slumping has formed numerous rolling hills, benches, and basins. Localized very serious channel erosion problems were isolated in this land group during past studies. Concentration of domestic livestock in bottom lands near streams apparently can cause channel downcutting.

2. Climate: Temperatures vary from -40° during coldest winter periods to as high as 90° with cool nights during the summer. Frosts occur at any time at higher elevations. Lower sections are semi-arid, especially on involved B.L.M. rangeland, with not over 10 inches of annual precipitation. Up to 25 inches of precipitation could be expected at higher elevations, mostly from winter snows.

3. Soils: Soils characteristics vary considerably within the Challis Volcanic types. Soils vary from heavy clays to clay loams, depending upon the component of individual parent volcanic flows. They tend to be low to moderate in erosion potential, and fairly fertile. High overland flow can develop during high intensity

summer storms or rapid spring snow melt, and considerable sediment can be delivered to stream systems.

4. Water: High quality water is produced except for sediment hazard during rapid surface run-off. An important anadromous fishery and a good resident fishery depend upon water quality. Water flows into the Salmon River system.

5. Vegetation: Tall sagebrush (Artr) - ~~bluebrush~~ bluebunch wheatgrass (Agsp) and associated communities predominate on better range. Stream banks and wet areas normally have bluegrass and sedge associated with willow, alder, and quaking aspen. Very few scattered patches of Douglas-fir are located on the allotment. Range deterioration related to heavy past use has resulted in high forb and sagebrush composition in some areas. Indian ricegrass and short-lived bluegrass species predominate on some lower range areas.

6. Wildlife and Fishery: Wildlife values are very important. This allotment supports a good deer population and an increasing elk herd. A few antelope use the Lake Basin area. The area has been historic bighorn sheep range, although no sheep remain in the area. Blue grouse, sage grouse, and chukar partridge are common. Key wildlife range has been identified. Black bear and cougar are other game animals present.

   Anadromous fish, primarily Chinook Salmon, spawn within the allotment, and in the area downstream. A fair resident fishery is present.

   A large variety of smaller birds and animals are present.

7. Scenic and Esthetic Quality: The allotment is part of an inventoried Roadless Area. Scenic values are good, but not unique. Survival training groups have identified the area as ideal for their type of training because of lack of marked trails, vegetative variation, varied wildlife values, and lack of concentrated recreation use.

II. ENVIRONMENTAL IMPACTS

A. Ecological Components:

1. Air: Degradation of air quality will result during sagebrush burning projects.

2. Soil: Poor range condition and lack of vegetation cover add to current erosion problems. The program is designed to improve vegetative cover, and should reduce erosion hazard.

3. Water: Water quality should be improved as vegetative cover reduces sediment load. Care will be needed to avoid concentrated use in stream bottoms without rest.

4. Vegetation: A specific objective of the proposal is to increase vegetative cover, composition, and vigor. Sagebrush control will increase grass composition at the expense of forbs and shrubs. Close coordination will be required to protect key wildlife areas during sagebrush control. Considerable increase in overall grass composition at the expense of sagebrush can be anticipated over a long period as range values improve.

5. Fish and Wildlife: The allotment includes some of the best variety of wildlife numbers and species on the Challis Forest. Key areas have been identified for elk calving, deer wintering, and anadromous fish spawning. An objective of the plan is to improve range conditions to benefit wildlife. Deer probably will suffer as the program advances, since grass composition should increase at the expense of sagebrush and forbs. Habitat should improve for other big game species. Streambank stabilization is included as a goal. If the streambank is not stabilized under the management system, additional protection such as fencing may be required for key spawning areas.

   Application of 2-4D herbicide by helicopter can be closely regulated to avoid key wildlife areas; however, forbs in treatment areas will also be affected by chemical application. Controlled burning can give more natural vegetative manipulation, but can not be as easily controlled. Plans are to spray difficult fire control areas in the Taylor Creek area, with special precautions to avoid key wildlife range. Sagebrush in the upper Herd Creek area will be burned.

   Key deer winter range will be included in some units, and may receive heavy use every third year. This use could create problems if it happened to coincide with a severe winter.

6. Wilderness: The National Forest portion currently is within an inventoried Roadless Area. Wilderness attributes have been analyzed during the Pioneer Mountain Land Use Plan development. The area does possess some wilderness attributes (see Pioneer Mountain Land Use Plan) but other values appear more significant. Proposed improvements should have little impact on roadless values, since no roads are planned.

B. Social and Economic Uses:

1. Outdoor Recreation: Quality of recreation experiences may be affected in the heavily used unit each year. Impact would not

appear significant except as it may affect the outfitter camp in Lake Basin. Recreation values will improve in units not grazed.

2. Natural Beauty: The area possesses good esthetic quality. An impressive quality currently present is the apparent natural vastness of such areas as Lake Basin. One factor influencing choice of the proposed plan is elimination of division fences through these areas. Concentration areas in heavily used pastures may exhibit some reduced esthetics on the year they are grazed. This apparent reduction should be offset by values in the rest pasture.

3. Wilderness: The area is not included in any existing or proposed wilderness areas. The entire National Forest area is unroaded. No roads are anticipated to facilitate proposed developments. Location of fences could affect wilderness attributes, as could sagebrush spray. The general area appears to have low to moderate wilderness value (see Pioneer Mountain Land Use Plan). The proposed developments should not reduce existing values.

4. Timber: Only a few scattered patches of timber are present. They have been given no commercial value.

5. Range: Range values are considerable, and maintaining and improving grazing resources are the basis for the plan. The range resource represents a vital part of overall ranching operations for involved permittees, as discussed in Section I, B of the Management Plan. Without management and development, a 57 percent reduction in animal use is projected. Specific goals for the program are discussed in Section II of the Management Plan and briefly in Section I, B of this report. Several alternatives have been identified (see Section V of this analysis). The proposed system appears most capable of meeting goals. An economic analysis has not been made. Review of previous allotment plans for other allotments on the Challis National Forest generally indicates that more AUM's of grazing can be supported with less development costs under this proposal than has proved economically feasible elsewhere.

C. Protection and Management:

1. Fire: Fire occurrence is not high. Ungrazed grass in the rest pasture will increase the flash fuel hazard during the rest year. Fire is anticipated to serve as a valuable sagebrush control tool. Fire could also have very serious impact on key

wildlife values in certain areas. For instance, wildfire on lower deer winter range would eliminate sagebrush browse on the area burned, and would greatly reduce winter range values.

2. Administrative Improvements: About eight miles of range fence, 2500 acres of sagebrush control, six water ponds, and 11 troughs represent the only administrative improvements proposed in this plan. Wildlife plans included in the Pioneer Mountain Land Use Plan would involve browse plantings on involved deer winter range. Under the proposed system, browse plantings could be scheduled for the rest year, and would have a better chance for survival than is presently available. Ponds should be constructed where practical, since they have less maintenance costs than troughs. A caterpillar tractor can be "walked in" to many of the water development sites.

III. ENVIRONMENTAL EFFECTS

Primary benefit is anticipated through improved vegetative condition. This benefit should result in improvement in range condition, soil condition, water quality, wildlife habitat, aquatic habitat, and esthetics.

The economic benefit derived from livestock production will be maintained.

The improvement in ability to more effectively manage livestock will have considerable environmental and economic effect.

Some impact could result to wildlife values through concentrated livestock use during the rotation system. This impact would be characteristic of any rotation grazing system, and will be studied on this allotment by the University of Idaho.

Sagebrush removal from deer winter range would have serious impact on the deer herd. No sagebrush control is desirable on such range. Reduced cover and forb composition could affect elk calving habitat if such areas were sprayed. Needs for smaller animals that could be affected by sagebrush control can be offset by spraying only small patches, which increases edge effect while maintaining vegetative diversity. Gus Hormay questioned economic advantages of sagebrush control. By appearances, several key areas, especially on lower B.L.M. range, are in very poor condition. Sagebrush control can at least temporarily bolster available forage on non-sensitive wildlife range, which will reduce grazing pressure on the poor areas, including some very key wildlife habitat. The reduced grazing pressure should help these poor condition areas respond. Research* reports indicate sagebrush probably will return to much of the treated area within 15 to 20 years. This period should be sufficient to see considerable improvement in range condition on deteriorated sites.

* See "Long Term Effects of Chemical Control of Big Sagebrush", a technical paper presented in May 1974 issue, Journal of Range Management, by John Thilenius and Gary Brown.

Fire danger will be increased in the rest unit each season by the increased presence of "flash fuels", in the form of cured grass.

New fences will add stress to wildlife migration. Proper fence design can allow unimpeded wildlife passage.

Soils studies indicate stream channel deterioration can be expected if cattle are concentrated on involved stream bottoms. Fences can be located to avoid artificial concentration areas, but some concentrated use along stream bottoms cannot be avoided. Improved vegetative condition plus establishment of trees and shrubs are anticipated under the rotation system. This improvement should help offset the concentration problem.

V. ALTERNATIVES

A. Continue Present Management:

The current allotments are seriously over-obligated under season long grazing. If present management is to continue, the first step will be to reduce permitted use by 57 percent. Cattle would continue to congregate on favored sites, and future reductions could be expected. Objectives of the management plan would not be met.

B. Maintain Herd Creek and Taylor Creek as Separate Allotments, and Develop Internal Rotation Systems:

Various options have been calculated based on this alternative. Approximately $28,000 worth of additional fencing would be required. Herd Creek Allotment does not appear capable of supporting current commitment, even with development of a system. It possibly would be reduced by at least 20%. All fences included in the proposed program would be required under this system, so it still serves as back-up if, for some reason, the proposed system does not attain desired objectives.

C. Vary the Season of Use and/or Cattle Numbers from the Proposed Plan:

Several possible modifications in entry dates and closing dates are possible. The proposed dates are used because they appear to come closest to meeting both permittee needs and plan objectives at this time. The possibility of an earlier opening date depends on when bluebunch wheatgrass and Idaho fescue is in the "boot stage" on intermediate elevation range. It quite possibly will be earlier than the 6/15 date used in this plan. Concern over the physical impact of additional numbers for a shorter period is a factor in maintaining the longer season with smaller numbers. If, as the program progresses, changes in numbers and/or season appears desirable and compatable, no reason is evident as to why this decision cannot be made at that time.

D. Conduct Additional Range Improvement Work and Allow Additional Grazing Use:

Current studies indicate that the involved range is substantially over-obligated under season-long grazing. With proposed improvement, the range appears quite capable of sustaining permitted use. Considerable additional work and expense would be necessary to actually increase capacity significantly above the proposal. Wildlife values are exceptional for the allotment. The proposed system has an objective of not conflicting with wildlife use. Most of the additional improvements would be at the expense of wildlife values, (i.e., sagebrush control on important deer winter range) and would not meet plan objectives.

E. Separate B.L.M. and National Forest Allotments:

The possibility of fencing Forest Service land away from B.L.M. lands and developing independent grazing systems is possible, but not practical. Several additional miles of fence, not always in logical locations, would be needed. Management of such systems would be difficult. The isolated State sections could not logically be grazed unless incorporated with adjoining land.

VI. RELATIONSHIP BETWEEN SHORT TERM USE OF MAN'S ENVIRONMENT AND MAINTENANCE OF LONG RANGE PRODUCTIVITY

Continued loss of soil, deterioration of range and vegetative values, and damage to fisheries and wildlife habitat would have long range impact if current uses were to continue. The proposed program is specifically designed to correct these problems.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The major anticipated impact results from the objective of improving vegetative composition and condition. Heavy sagebrush stands have developed on the allotment through overgrazing and fire control practices. Mule deer populations are dependent upon sagebrush, especially on lower winter ranges. With gradual improved vigor in grasses and forbs, sagebrush composition will suffer. The game range trend will be away from deer, and will become better suited for such species as elk or bighorn sheep. Special grazing variations, such as concentrating livestock on key deer winter range at specific times to maintain or increase sagebrush stands, would remain a viable option within this grazing plan.

Range improvements could be removed from the allotment, except for the water ponds. Sagebrush control projects will reduce browse composition of treated stands, but at least some sagebrush will remain in treated

areas. Research indicates that sagebrush control projects generally are temporary in nature, and much of the original sagebrush composition will return within 20 years.

VIII. CONSULTATION WITH OTHERS

Outside involvement has been quite involved and complex. This consultation is covered in more detail in the allotment plan. Contacts and input by various groups and individuals indicate that no controversy is anticipated, and no Environmental Impact Statement is required.

A. Bureau of Land Management:

Considerable grazing capacity will be required on included lands managed by the B.L.M. Challis-Mackay area personnel, including Harold Sherritts, Grant Harbour, and Floyd Ewing have been involved. Range Specialist Gus Hormay has had input on location of improvements, studies, rotation development, and final actions. He has also conducted a public meeting concerning the proposed plan, further adding to public input and understanding. Loren Anderson, B.L.M. Wildlife Biologist, has helped analyze wildlife needs.

B. Idaho Department of Lands:

Wayne Burkhart has reviewed the plan and added State input.

C. Idaho Fish and Game Department:

Bill Davidson, Kent Ball, and Walt Brodie have been involved in wildlife input.

D. Permittees and Riders:

Several years have gone into final plan development. During this period, the Ingrams, Cal Worthington, Ralph Yates, Hoke and Bill Johnston, Ray Griggs, "Red" Ankrum, Ray and Lenard Bradshaw, George Leuzinger, and George Schinderling have been aware of the program need, and have had various livestock moves and fence and water locations discussed with them.

E. Cooperative Research Unit, University of Idaho College of Forestry, Range and Wildlife Sciences:

A cooperative study designed to analyze the impact or effect on wildlife range values is being initiated by the University on this allotment as graduate student projects under Dr. Jim Peek.

F. Local Sportsmen:

One commercial outfitter, Lon Jarvis, has a hunting camp in Lake Basin. He has expressed concern over current grazing impact. This impact will continue on the one year out of three that Lake Basin receives heavy use. Additional contacts are indicated with the general public.

G. Other Permittees:

Permittees on adjoining Wildhorse and Pine Creek Allotments have been advised of the proposed program.

H. Idaho Range Use Coordinating Committee:

This group has visited the allotment, discussed the proposed management system, and has endorsed this plan.

IX. MANAGEMENT REQUIREMENTS AND CONSTRAINTS

1. Avoid fence locations that will develop heavy livestock concentration on stream bottoms.

2. Deer winter range, elk winter range, and elk calving areas will not be sprayed for sagebrush control.

3. Provide wildlife passage in all fence locations and construction.

4. Accept with grazing system any long term vegetative changes that may favor elk and bighorn sheep over deer as range conditions naturally improve.

5. Improve streambank stability.

6. Conduct sagebrush control projects on suitable livestock range that is not key to wildlife values as a means of increasing grass yield that can help reduce grazing pressure on more sensitive wildlife areas until they can respond to the management system.

7. Use control burning rather than herbicide application for sagebrush control when other values can be protected from damage during burning.

8. Spray sagebrush with approved 2-4D herbicide in areas in Unit 3 that could not be safely burned, being careful to hold control activity to irregular patches not exceeding 50 percent of the individual sagebrush slopes identified for treatment.

9. Encourage re-introduction of bighorn sheep as range conditions improve.

10. Analyze the grazing system to identify any wildlife-livestock conflict that may be directly attributed to the program.

11. Construct involved improvements without road access.

12. Modify season of use and livestock numbers as needed to meet management objectives while maintaining current commitments.

X. SPECIAL AND FUNCTIONAL REQUIREMENTS

1. Maintain close coordination with all cooperating agencies concerning developments, necessary plan changes, and progress.

2. Establish needed studies and photo points to monitor vegetative response and streambank stabilization.

3. Fence specifications will require minimum height of bottom wire as 16 inches and maximum height of top wire as 42 inches to facilitate wildlife passage.

XI. ENVIRONMENTAL STATEMENT RECOMMENDATION

No major controversy is anticipated. Apparent favorable environmental benefits appear to far outweigh any adverse impacts. The proposed plan should be approved and initiated as soon as funds permit. No Environmental Impact Statement appears necessary.

COMMENTS ON CHALLIS DRAFT EIS

Public Hearing, Boise Idaho
July 15, 1975

My name is Johanna Wald and I am here representing the Natural Resources Defense Council, Inc., the Ada County Fish and Game League, the Oregon Environmental Council, the Nevada Outdoor Recreation Association, the National Council of Public Land Users ~~and Izaak Walton of Oregon~~, all of whom have a direct interest in the quality of this statement and in the conditions of all the Public Lands.

At the outset, I'd like to stress that this draft is more than just a plan to manage livestock grazing in the Challis Planning Unit. In its final version, it is supposed to serve as the model for 211 more statements dealing with grazing on other Public Land areas. Its quality will have a direct bearing on the BLM's future management of all Public Lands as well as those in the Challis Unit. Because of its significance we plan to submit detailed comments on the draft. I am here to summarize our general conclusions. Frankly, our overall conclusion is that this draft, as it is currently written, simply is not an adequate EIS on grazing in the Challis Planning Unit, let alone a satisfactory model statement.

In order to understand how we reached this conclusion, I will first describe what we feel all impact statements dealing with grazing AMPs ought to contain in general. Because each will deal specifically with a proposal to graze livestock on particular areas of Public Lands, each one must supply information designed to enable both decision-makers and the public to answer three

questions. (1) Should grazing be permitted in the proposed allotments? (2) How much grazing should be permitted in each? and (3) How should the amount of grazing permitted be managed? Because answering these questions necessarily involves choosing among competing resource uses, each statement must contain an analysis of the applicable MFP because of its direct relationship to grazing decisions. Each statement must contain a detailed description of the resources involved and their current conditions. Each must also contain a detailed discussion of the environmental impacts of the proposed grazing on the resources of each area that will be grazed. The law also requires each grazing statement to contain a careful analysis of available, site-specific alternatives. Obviously, it is essential that accurate up-to-date resource data be included in each EIS and that quantitative conclusions be derived by valid methods. Grazing statements which meet these standards will provide the Bureau with the essential information it needs to fulfill its stated objective of improving the conditions of our Public Lands.

As indicated, we believe this draft falls far short of meeting these objectives. It contains three basic and pervasive defects -- each of which I will illustrate briefly. First, much of the information contained in this draft is too general both with regard to its description of the Challis Unit's resources and the impacts of grazing upon them. Some resources are describ

generally because the draft concedes that the Bureau simply doesn't have any information about them despite the fact that its been managing these lands for more than 40 years. For example, fish populations aren't known, nor are the locations of archeological sites and endangered plants.

Both soils and vegetation are described separately and in terms of broad general categories and undefined condition classes. What this statement needs, instead, for example, is precise and reliable information about specific soils and vegetative conditions in each allotment and their capability to produce additional desired growth. For without this kind of baseline data, it is impossible to make any reliable predictions about the kind and degree of improvement or deterioration any type of management will produce. Moreover, the impacts of current grazing on these resources is not described with sufficient specificity. For example, although current soil yield figures are given for the Unit as a whole, the draft does not indicate how much of the total is attributable to grazing and how much is attributable to natural or geologic factors.

The second defect is that even when the draft presents specific information it usually fails to supply an explanation of how the information was derived or an analysis of the validity of the methods used. For example, it is obviously extremely important to know how much forage is available on each allotment. The Bureau does tell us the "present available AUMs" for each allotment. However, the statement that the figure was arrived at using "present available information" (n. 2, p. 3-10) is not a description of how it was arrived at.

The third major defect is its persistent failure to document crucial assertions or to justify its critical conclusions. For example, since the draft concedes that all land is not suitable for livestock grazing (p. 2-88), it is essential that it demonstrate the suitability of the specific lands the BLM is proposing to graze. Instead of doing that, however, the draft merely asserts that all unsuitable land has been excluded. Id. This assertion simply will not replace what is required -- a careful analysis of the capability of the soils in each proposed allotment, given their current condition, to support livestock grazing at any level -- let alone the amounts currently permitted or advocated.

This is not the appropriate forum to discuss specific examples of these defects in detail. We will do so in our written comments. I want only to stress that unless these defects are corrected in the final version, rational decision-making will be virtually impossible.

I want now to turn to a discussion of the draft's inadequate treatment of its major policy conclusion -- that rest-rotation grazing should be implemented in the Challis Planning Unit and that its implementation will result in dramatic improvement in currently degraded resource conditions in 15 years. The draft deals with a proposal to increase livestock AUMs and intensities of use on lands it admits are, at best, in fair condition because of soil and vegetative losses resulting from past grazing practices. It tells us

that on at least 11 out of 16 proposed allotments total use will exceed present available forage. (Table 3- , p. 3-10). The draft concedes that, at least in the early years of this program, there will be significant adverse environmental impacts -- on the resources of the pastures grazed. The major premise of the proposal is that because the lands involved are going to receive a year of rest every 2 or 3 years from livestock; the condition of all the now-degraded resources involved will improve dramatically despite the increases in grazing use and intensities.

Now this may in fact occur and indeed it would be wonderful if it did. Unfortunately, this statement simply does not contain the kind of information necessary to evaluate this conclusion, or to even understand how the Bureau arrived at it.

In the first place, as we have repeatedly pointed out to the Bureau, rest-rotation grazing is not a panacea. It can not be applied indiscriminately to all grazing lands and will not solve all range problems. (Ratliff, Raymond, et al., Rest-Rotation Grazing at Harvey Valley (USDA Forest Service Res. Paper PSW-77), p. 23 (1972).) It is merely one of several available grazing systems and even if it is appropriate for the allotments involved, the impact statement must demonstrate this fact. Unfortunately, the draft doesn't. The final must supply specific soils, vegetative and topographic information about each allotment and explain why, in terms of that information, it believes rest-rotation grazing should be implemented.

In the second place, the draft does not contain the kind of information necessary to evaluate its conclusions. It does not even present an analysis of the results obtained from implementing rest-rotation grazing in other areas of Idaho or elsewhere so that we can compare both the resource conditions prior to its implementation and the results in those areas with the current conditions in Challis and the results that are predicted. In addition, although it concedes there will be adverse impacts of implementing rest-rotation grazing it describes them only generally. It does not quantify these impacts allotment by allotment and year by year. It also ignores the obvious fact that adverse impacts will be cumulative -- at least until improvement occurs. Unless we know, for example, how much soil is present in a given allotment now, and how much is going to be lost year by year, how can we know whether there will be enough left to support the current vegetative growth -- let alone the increased growth that's promised.

Similarly, the draft predicts highly specific benefits will occur as the result of implementing the proposed actions. Table 8-38, p. 8-142. For example, sediment loss in the Unit will be reduced by exactly 22,646 tons/year. The amount of elk winter range that is currently in poor condition will go from 228 acres to 182 acres. 4.4 miles of fish habitat currently in poor condition will be reduced to 1.4 miles in 15 years. Yet, at no point does the draft explain how these figures were arrived at. Again, without such explanations, readers cannot determine

whether or not rest-rotation grazing should be implemented.

The draft's failure to demonstrate the validity of its conclusions concerning the predicted benefits of rest-rotation grazing is particularly distressing for two additional reasons. One, although the draft concludes that rest-rotation grazing is the solution to all resource management problems in Challis, it also admits that the kind of research necessary to predict its impacts on several of the Unit's most significant resources is lacking. How can the draft predict, for example, that implementing rest-rotation grazing will enhance fishery values within 15 years in light of its concession that "research on the relationship between various grazing treatments and fish production has not been conducted" (p. 3-80) and its admission that "similar grazing systems have not been in effect long enough to predict how many grazing cycles must be completed before streambanks become stable and maintain satisfactory vegetative cover during all treatments." (p. 3-84).

The second reason why the draft's failure to justify its conclusions about the benefits of rest-rotation grazing is so distressing is that the draft contains information suggesting that the benefits may not, in fact, occur on some specific areas of the Unit. For example, it admits that because of the heavy utilization proposed for canyon bottoms and adjacent slopes,

these areas "may not be able to maintain themselves, even with a year of rest every 2 or 3 years." (p. 3-47). It also concedes that in some unidentified instances "the estimated 15 year increased production [in total ground cover] would probably not be attained within 15 years," (p. 3-15), but no action is proposed to remedy this problem.

In addition to failing to justify its conclusions concerning rest-rotation grazing, the draft also fails to consider any viable alternatives which don't involve its implementation on some allotments. Six alternatives are presented, but two of them are not realistic. Unquestionably, the Bureau is not going to eliminate livestock grazing totally on all Public Lands in the Challis Planning Unit. Nor is it going to continue its current management. That leaves only four alternatives, all of which are variations on the rest-rotation theme. Five of the proposed allotments never even have any alternative proposed for them. [redacted]) Obviously, other alternatives are available and must be considered. These include, for example, across-the-board reductions in livestock numbers to equal available forage combined with some kind of seasonal change in use.

In a way, we aren't surprised that the Bureau is proposing to implement rest-rotation grazing in Challis, since it has previously indicated its whole-hearted approval of the system despite its enormous expense and the widespread opposition of ranchers and environmentalists alike. Nevertheless, we are extremely disappointed at the superficial manner in which this

draft treats the proposal to implement that system on these particular lands and we hope that the final version will be substantially improved in this respect.

Before concluding there are several other major problems with this draft I'd like to point out very briefly. One concerns its treatment of the Challis Unit's MFP -- or rather its failure to do more than acknowledge its existence. The goals, objectives and constraints of the Challis MFP obviously have direct bearing on the grazing proposals that are the subject of this draft. In fact, the draft concedes that they do. (p.1-42) Yet none of the goals, objectives or constraints of the MFP are set forth. Without them, it is impossible to evaluate the choices between competing resource uses which the draft presents.

Second, the draft in general is disorganized, repetitive, contradictory and over written. Above all, the text seems to suffer most from the fact that the information it contains is not presented in terms of specific allotments. It would be much easier to read and understand if resources, and their current conditions, the proposed actions and their environmental impacts were each discussed allotment by allotment in the text instead of just presented in tables.

Finally, the draft's treatment of endangered and threatened species and the Bureau's responsibilities under S. 7 of the Endangered Species Act is unsatisfactory. Time constraints prevent me from elaborating on this conclusion. I therefore refer you to my recent letter to Mr. Mathews concerning

the EAR on proposed agricultural development in the Snake River Plains. It contains a discussion of the requirements of the Endangered Species Act and an analysis of how those requirements can be met.

In conclusion, I want to remind you that we do plan to submit detailed comments on the draft by August 7. I urge you not to delay beginning revising the draft, however, and I hope that the comments I've made today will help you in that effort. Too much is at stake here for the Challis Unit, for the Public Lands in general, and for the Bureau itself for any of us -- ranchers, Bureau employees, other range professionals and environmentalists alike and the public at large -- to be satisfied with this document as presently written.