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ENVIRONMENTAL QUALITY COUNCIL

EXHIBIT 3

FILE NO. 016

ENVIRONMENTAL ASSESSMENT COVER SHEET

DS-251

APPLICANT Department of State Lands

TYPE OF OPERATION Timber harvest

LOCATION HIghwood Mtns. Sec. 16, T19N, R8E, N½NE¼, Sec. 24, T19N, R8E

PERSON PREPARING EA Robert Vlahovich

( ) DRAFT EIS
(X) NO DRAFT EIS

DATE PREPARED 7/9/91 EXPECTED IMPLEMENTATION DATE 10/1/91

REVIEWED BY _____ RECOMMENDATION ( ) DRAFT EIS (X) NO DRAFT EIS

REVIEWED BY _____ RECOMMENDATION ( ) DRAFT EIS (X) NO DRAFT EIS

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ADMINISTRATOR'S SIGNATURE Gary L. Brown RECOMMENDATION ( ) DRAFT EIS (X) NO DRAFT EIS

SUMMARY OF POTENTIAL IMPACTS

PHYSICAL ENVIRONMENT	SIGNIFICANT		INSIGNIFICANT WITH MITIGATION		INSIGNIFICANT AS PROPOSED	
	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
1. TOPOGRAPHY					X	X
2. GEOLOGY; stability					X	X
3. SOILS; Quality, distribution					X	X
4. WATER; Quality, quantity, distribution					X	X
5. AIR; Quality					X	X

PHYSICAL ENVIRONMENT(cont)	SIGNIFICANT		INSIGNIFICANT WITH MITIGATION		INSIGNIFICANT AS PROPOSED	
	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM	SHORT TERM	LONG TER
6. UNIQUE, ENDANGERED, FRAGILE, or LIMITED environmental resources					X	X

BIOLOGICAL ENVIRONMENT						
1. TERRESTRIAL, AVIAN, and AQUATIC; species and habitats					X	X
2. VEGETATION; quantity, quality, species					X	X
3. AGRICULTURE; grazing, crops, production					X	X

HUMAN ENVIRONMENT						
1. SOCIAL; structures and more					X	X
2. CULTURAL; uniqueness, diversity					X	X
3. POPULATION; quantity and distribution					X	X
4. HOUSING; quantity and distribution					X	X
5. HUMAN HEALTH & SAFETY					X	X
6. COMMUNITY AND PERSONAL INCOME					X	X

HUMAN ENVIRONMENT(cont)	SIGNIFICANT		INSIGNIFICANT WITH MITIGATION		INSIGNIFICANT AS PROPOSED	
	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
7. EMPLOYMENT; quantity and distribution					X	X
8. TAX BASE; local and state revenue					X	X
9. GOVERNMENT SERVICES; demand on					X	X
10. INDUSTRIAL, COMMERCIAL and AGRICULTURAL activities					X	X
11. HISTORICAL and ARCHAEOLOGICAL					X	X
12. AESTHETICS					X	X
13. ENVIRONMENTAL PLANS and GOALS local and regional					X	X
14. DEMANDS on ENVIRONMENTAL RESOURCES of land, water, air and energy					X	X
15. TRANSPORTATION networks and traffic flows					X	X

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File (#016.4)

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Highwood Mtn. Timber Sale
Environment Analysis

I. Location & Classification

The proposed Highwood Mtn. Timber Sale is located in Section 16, T19N, R8E and the N½NE¼ Section 24, T19N, R8E, M.P.M. The sale area is on the west side of the Highwood Mountains approximately 25 air miles east, southeast of Great Falls, Montana. The gross sale area consists of two state owned tracts, Section 16, T19N, R8E is commonly known as Comers Butte and contains 640 acres. State land in Section 24, T19N, R8E is located in the South Fork of Belt Creek and totals 80 acres in the N½NE¼ of the section. Both State tracts are classified as grazing and both are part of the Public School Grant (Sch-01).

II. General Description

The Highwoods Timber Sale is located in topography typical of the lower reaches of the Highwood Mountains. Elevation of the gross sale area ranges from 4400 - 5400' MSL. This mountain and foothills topography is typified by timber covered slopes on moist sheltered aspects interspersed with meadows and open parks on drier microsites. Lower elevations to the west are typically open rangeland. Higher elevations to the north and east are typically timbered.

Soils and parent geology were documented and evaluated by Jeff Collins, Soil Scientist, Forestry Division. A copy of this report is included in the appendix. The gross sale area is located in the Belt Creek Drainage. The sale units are located along tributaries to Willow Creek on the north and the South Fork of Little Belt Creek on the south. Hydrologic concerns were documented and reviewed by Gary Frank, Hydrologist with the Forestry Division. His findings and report are included in the appendix.

The total acreage of State land by section and major type are:

	State Owned Acres	Timbered Acres	Range Acres	Other Acres
Sec. 16, T19N, R8E	640	356	278.2	5.8 (ROW)
Sec. 24, T19N, R8E (N½NE¼)	80	50	30	--

Both tracts are currently leased for grazing, (Lease #4997, John & Victorine Gliko, Lease #2634, Ken & Alvin Jarvi, respectively). State ownership is rated at 145 AUM in Section 16 and 45 AUM in Section 24. Both tracts are grazed by cattle (summer use), and the Combers Butte tract is utilized by horses intermittently year long.

Major wildlife species present include: elk (year round), mule and whitetail deer, and ruffed grouse. Numerous species of smaller non-game

animals and birds are present. No threatened or endangered species are known to utilize this area. Department of Fish, Wildlife & Parks biologists were consulted for concerns and specific recommendations for both tracts. A copy of their reports are included in the appendix.

Insect and disease problems are light to moderate throughout the gross sale area. Some pockets of root rot were noted in Section 16, T19N, R8E causing some minor mortality and volume loss. Mountain Pine Beetle hits were noted in Sec. 16 but are currently at extremely low levels. Dense continuous mature and overmature lodgepole in this section indicates a possibility of future problems with MPB. Physical damage by environmental factors is resulting in volume loss and mortality in both tracts. A recent windthrow event on Sec. 16 has resulted in a 10 acre blowdown with significant volume loss (Spring 91).

No significant archeological or historic concerns were noted during recon of either tract. Dori Passmann, Archaeologist, Lands Divisions was consulted for input and concerns. A copy of her report is included in the appendix.

No major man made structures are present on the state owned land. The general area is rural in nature with isolated farm and ranch type structures. A county road crosses Section 16, T19N, R8E.

III. Management Objectives

Management direction for State owned lands can be found in several State Statutes. Section 77-1-202 which describes the powers and duties of the Board (of Land Commissioners) states that "...the guiding rule and principle is that these lands and funds are held in trust for the support of education and for the attainment of other worthy objects helpful to the well-being of the people of this state. The Board shall administer this trust to secure the largest measure of legitimate and reasonable advantage to the State." Multiple use management for State lands is addressed in Section 77-1-203. Multiple use management is the coordinated management of all the various resources on State land in that combination best meeting the needs of the people and the trust without impairment of the productivity of the land. State land will be managed insofar as is possible to maintain or enhance multiple use values but will make the most judicious use of the land, allowing for changing needs and realizing that some land may be used for less than all of the resources. Section 77-1-601 states that "it is in the best interest and to the great advantage of the State of Montana to seek the highest development of state-owned lands...." Management options and proposals for state lands must comply with, and be evaluated in accordance with these legislated mandates.

Site specific management objectives for these two State tracts are as follows:

1. Consistent with classification as grazing and multiple use management direction, emphasis will be placed on maintenance or

improvement of grazing potential, timber potential, and watershed values.

2. Salvage blowdown and damaged timber to prevent significant economic loss to the School trust.

3. Provide income to the School Trust.

4. Reduce potential fire hazard in blowdown timber.

IV. Proposal

The proposed action is to harvest mature and overmature timber from Section 16 and 24, T19N, R8E. The gross sale area contains 406 timbered acres. The proposed action would harvest 950 MBF from 63 acres within these sections. The majority of harvested timber would be Lodgepole pine, (601 MBF), with a lesser amount of Douglas Fir, (348 MBF). Of the harvest volume approximately 22% or 217 MBF is salvage of dead and dying timber.

Access to the harvest areas will utilize 14.4 miles of existing road. Of this, 13 miles are county road, 2481' are private administered by Fred Kraftenburg, 2520' are private administered by Gerald Murphy, and 1250' are private administrated by Kenneth Jarvi. Some reconstruction and minor relocation will be necessary on the existing road on private land to allow truck traffic and improve drainage. Approximately 6600' of new road will be constructed. Of the new construction 600' are on private land administrated by Kenneth Jarvi. The remaining 6000' of new construction will be on State ownership. Right-of-way agreements for private lands involved can be found in the appendix. Specific construction and reconstruction detail can be found in the appendix.

Road management objectives are to provide safe, cost effective access for timber harvest while maintaining water quality. Road access through private land must be compatible with private landowner objectives as well as providing access for timber harvest. At the completion of harvest, roads will be closed on State ownership and will be left in a condition requiring little or no maintenance due to lack of funding for a long term maintenance program. This will include improved drainage and erosion control structures as well as seeding. Administration and control of access roads on private lands will be detailed in right-of-way agreements with involved landowners.

Timing of harvest activities will be limited to periods of dry or frozen conditions (generally May 1 through the end of Mar.) to minimize impacts to water quality from erosion and soil productivity as a result of compaction. In addition, timing of harvest and/or hauling activities will be adjusted to minimize conflicts with grazing and ranching operations on leased lands and access roads through private land. All harvesting will be complete by March 1, 1993. Post harvesting management activities such as slash burning erosion work and grass seeding may take place into 1994. A limited amount of activity may continue for several

years following harvest. The activities will include monitoring for weeds, regeneration checks etc.

The proposed action has been designed as the best alternative to meet the management objectives listed in Section III. The proposed alternative will provide the following benefits:

1. Income will be provided to the school trust.

2. Salvage harvest of dead and overmature timber at the current time will reduce potential loss of value to the State.

3. The proposal will maintain and slightly increase the grazing potential of the treated areas as well as the entire State tract.

4. Harvest will reduce barriers to livestock and wildlife created by blowdown.

5. Harvest will reduce major fuel loading and subsequent risk to the State tract and adjacent private land.

6. Regenerated timber stands will provide future timber fiber and maintain long term rotation of security cover for wildlife species.

V. Issues

Issues influencing the decision to accept the proposed action as the best alternative were determined by several methods from several sources. General, programmatic and large scale issues are determined at the State level and addressed in the form of law, Rules and Regulation, Agency Policy, management direction, and Standards and Guidelines, (See Section III).

In addition, specific issues and concerns were solicited from available experts and specialists, hydrologists, pedologists, entomologists and archeologist with the Department of State Lands were consulted. Wildlife managers and biologists with the Department of Fish, Wildlife & Parks were canvassed for issues and concerns relating to fisheries, wildlife, and recreation. Adjacent landowners were contacted by letter and phone to obtain their input and concerns. The general public was invited to comment and bring up issues through newspaper ads in the Great Falls Tribune. A specific list of persons, agencies and entities contacted is included in Appendix D.

The following is a summary listing of the important issues identified and a discussion of how the issues relate to the alternative chosen:

1. Hydrology

An evaluation of watershed values indicate two main areas of concern. These are: cumulative effects of harvesting on the watershed values and impacts to water quality from harvest activities.

An analysis by a Division Hydrologist indicate no significant cumulative impacts to watershed values utilizing the proposed alternative, (see Gary Frank's memo dated June 13, 1991 located in Appendix E).

Analysis of the water quality concerns indicate no significant impacts to water quality will occur utilizing the chosen alternative provided harvesting is conducted in compliance with BMP's. Site specific recommendations to comply with BMP's can be found in Appendix E.

2. Wildlife

Several concerns relating to wildlife were evaluated in the formulation of the proposed alternative.

Maintaining adequate security cover for wildlife was an identified concern. Further review indicates no significant impact to adequate wildlife security cover as a result of the proposed alternative.

No significant adverse impacts to small and nongame wildlife species are anticipated as a result of harvesting activities as proposed. No threatened or endangered species are know to use the area involved in the proposed alternative. In the event a threatened or endangered species is observed in the harvest area steps will be taken to insure impacts are minimized per agency policy.

Travel corridors for wildlife were evaluated. No significant adverse impacts are anticipated as a result of the proposal. Some net benefit to wildlife, (elk and deer), movement will result from reduction of blowdown timber in the Comers Butte tract.

A nesting owl in the South Fork tract was observed and noted as a concern. Further evaluation indicates no significant impacts will result from harvest activities since the proposed action will not occur until after the owls have vacated the nest.

3. Soils

Soil compaction potential was evaluated as a concern. No significant impact is expected with the proposed alternative providing BMPS adopted by the Department are complied with. Specific recommendations to implement BMP's with regard to compaction can be found in Appendix E. Also see stand prescriptions in Appendix B.

Soil disturbance and scarification are concerns related to the soils issue. No significant adverse impacts are expected with the proposed alternative if BMP's are implemented. Detailed recommendations can be found in Appendix E and Stand Prescriptions in Appendix B.

Soil productivity was addressed as a concern. No significant adverse impacts are anticipated with the proposed alternative. Recommendations and discussion can be found in Appendix E and Stand Prescriptions in Appendix B.

4. Road Access and Management

Access was a concern early on in the management planning process. Numerous alternatives were evaluated. The proposed alternative incorporated the best practical access strategy. The following is a brief discussion of the road access concern and most practical alternatives by tract: (i.) On the Comers Butte tract in Sec. 16, T19N, R8E the preferred alternative is to access harvest areas through private land on the east side of the tract. A temporary right-of-way agreement has been negotiated to allow this access. Other alternatives were less desirable generally due to high development cost necessary to comply with BMP's to reduce potential impacts to water quality, road density impacts, etc., and owner concerns in the case of private lands. The three best alternatives and major reasons for the choice of the preferred option are detailed below as examples:

Access across State land from the north, (from county road) was not the preferred option due to the high development costs associated with compliance with BMP's as described above. It would have provided a permanent route for future activities.

Access from the east along an existing road through the Kraftenburg ranch buildings and calving pen was an attractive option from a BMP and low development cost standpoint however, would have adversely impacted the landowners operations to an unacceptable degree.

The preferred option is to utilize an existing road as outlined in Appendix A. This option balances development cost, potential for adverse impact and landowner concerns.

(ii.) The preferred alternative to access the State tract in the South Fork of Belt Creek (Sec. 24, T19N, R8E), was arrived at with much similarity to the Comers tract. Again most of the access alternatives were eliminated due to high development costs necessary to meet BMP's road density and landowner concerns. The three best alternatives are detailed below with the major reasons for acceptance or rejection.

All three alternatives utilize existing road through private land owned by Gerald Murphy, (see easement in Appendix C for detail).

The first alternative involved an existing 4 x 4 tract on private land to the north of the stream on the State tract. Although the preferred alternative of the private landowner, this route would involve a deep "V" stream crossing with accompanying disturbance. Primarily, for this reason this alternative was not chosen as the preferred route.

The second alternative was to utilize existing road to the south of the tract with new construction at a slight favorable grade to the proposed units. While involving more length this option was favored due to the better grade and minimal potential for impacts. This option did not fit the landowners objectives and an easement could not be negotiated. For this reason the alternative was not chosen.

The chosen alternative utilizes an existing track to the south of the stream to access harvest units. This alternative was acceptable to the landowners operation. Although the route involves a short steep section, it is feasible. The steep section will require seeding and drainage control structures to limit potential impacts. An easement for this route has been negotiated, (see Appendix C).

5. Aesthetics

Although not formally brought up as an issue by individuals or entities contacted, the visual resource was considered in the formulation of the proposed alternative. No significant adverse impact is expected with the proposed alternative. Small size, irregular shape and screening by residual timber will prevent significant visual impact.

6. Blowdown Timber

Currently there is a significant amount of blowdown timber on the Comers Butte tract (approx. 200 MBF). Failure to salvage harvest the blowdown will result in significant dollar loss to the school trust. In addition the blowdown area represents a significant potential fire risk with fuel loadings of over 150 ton/acre. Hazard to suppression personnel and resistance to control in this area are at a high level. The blowdown also constitutes a major movement barrier to livestock and wildlife. Timing of harvest will be

affected by the length of time the blowdown will remain in a sound condition.

VI. Alternatives

Numerous alternatives were considered before the proposed alternative was chosen. The following is a brief listing of the most reasonable alternatives considered and discussion relating to acceptance or rejection.

1. No action alternative (deferment)

   This alternative was considered and actually will be the chosen alternative on 309 acres of the Comers tract and 34 acres of the South Fork tract. The no action alternative was chosen on these acres to preserve watershed values, security for wildlife, aesthetics, and possible future harvest. Some future economic values may be realized on these acres dependent on markets and changes in technology. The no action alternative was not chosen on the proposed harvest area due to the management direction as outlined in Section III (ie. no benefit to the school trust would occur. 200 MBF of blowdown timber would not be recaptured.).

2. Management Alternatives Resulting in Unevenaged Target Stands Were Considered.

   Current stand structure and economic concerns do not lend themselves well to a individual tree selection scenario. Current stand conditions are generally evenaged in nature with most timber in a mature or overmature age class. Unevenage management options could be employed in creation of multi storied stands. Exposure of sites to windthrow and other risk coupled with the small size of harvest area, isolation from other tracts and distance to market for timber make these unevenage options less desirable than an evenage management regime. For example this alternative would reduce harvest volume and corresponding income by 50%. 50% of volume would be at risk to windthrow, etc. For this reason the evenage alternative was chosen for the majority of the area. The unevenage management alternative is applicable even with associated economic disadvantages and risk of failure in some microsite situations. In these microsites the unevenage alternative was the chosen alternative. See individual stand prescriptions in Appendix B.

3. An evenage management regime was the chosen alternative for the majority of the harvest area. Current stand structure and composition lend themselves to this type of management option, (ie. evenaged mature and overmature Lodgepole Pine with a Douglas fir subcomponent). Coupled with risk exposure and economic considerations evenage management will result in the highest benefit with least cost and potential for failure while maintaining other values (see Section III). A total harvest volume of 950 MBF with corresponding income would be realized with this alternative.

The evenage alternative was not chosen for some microsite situations. In these areas a lower economic return and higher risk of failure was accepted to protect or enhance other values, (see individual Stand Prescriptions in Appendix B).

Other stand specific and site specific alternatives are documented in Stand Level Prescriptions in Appendix B.

In summary, the no action alternative was chosen for approximately 346 acres of the timbered State lands on the two tracts. An unevenage management regime was chosen for 3 acres. The evenaged management alternative was chosen for 60 acres.

The final proposal this analysis documents was determined to be the best option available consistent with management objectives as outlined in Section III. No significant adverse impacts to resources should occur as a result of implementation of the proposal. No further environmental analysis is required.

VII. Silvicultural Prescriptions

Stand level prescriptions can be found in Appendix B. The following is a brief summary of the prescriptions:

Non forested stands will be managed as per current practice for grazing value. Current carrying capacity is approximately 190 AUM for both tracts. Adjacent harvesting and road management is designed to not significantly impact grazing values.

Several stands or portions of stands are deferred from current harvest (346 acres). Some future harvest and management potential exists for these stands. In general these stands are deferred due to low economic value, high cost associated with harvesting, or protection of other values. Future conditions could warrant harvesting, conversion or other development of these areas. These areas will be monitored and re-evaluated periodically. A formal revaluation should be done when harvested areas on the same tract are scheduled for treatment (eg. regeneration survey indicates harvested area is regenerated).

Stands proposed for harvest have been divided, combined and adjusted into logical harvest units. A specific prescription for each harvest unit has been developed. The following is a brief summary by tract:

The Comers Butte tract, Section 16, T19N, R8E has 4 proposed harvest units. All units will have an evenage target stand. Harvest systems will include clearcut, light seed tree and patch clearcut. Natural regeneration will be relied on. site prep will be done in conjunction with harvest and hazard reduction. Timbered areas surrounding the proposed harvest units will be in the deferred status as described above. Precommercial and intermediate treatments are not scheduled for these units, due to economic reasons. Harvest recovery of seed tree volume is not anticipated due to low volume and distance to market.

The harvest areas will be monitored for tree regeneration, insect and disease problems and periodically for target stand development. Heavy emphasis is placed on natural regeneration with little or no intermediate treatment throughout the rotation due to economic considerations.

See individual site specific prescriptions by unit located in Appendix B.

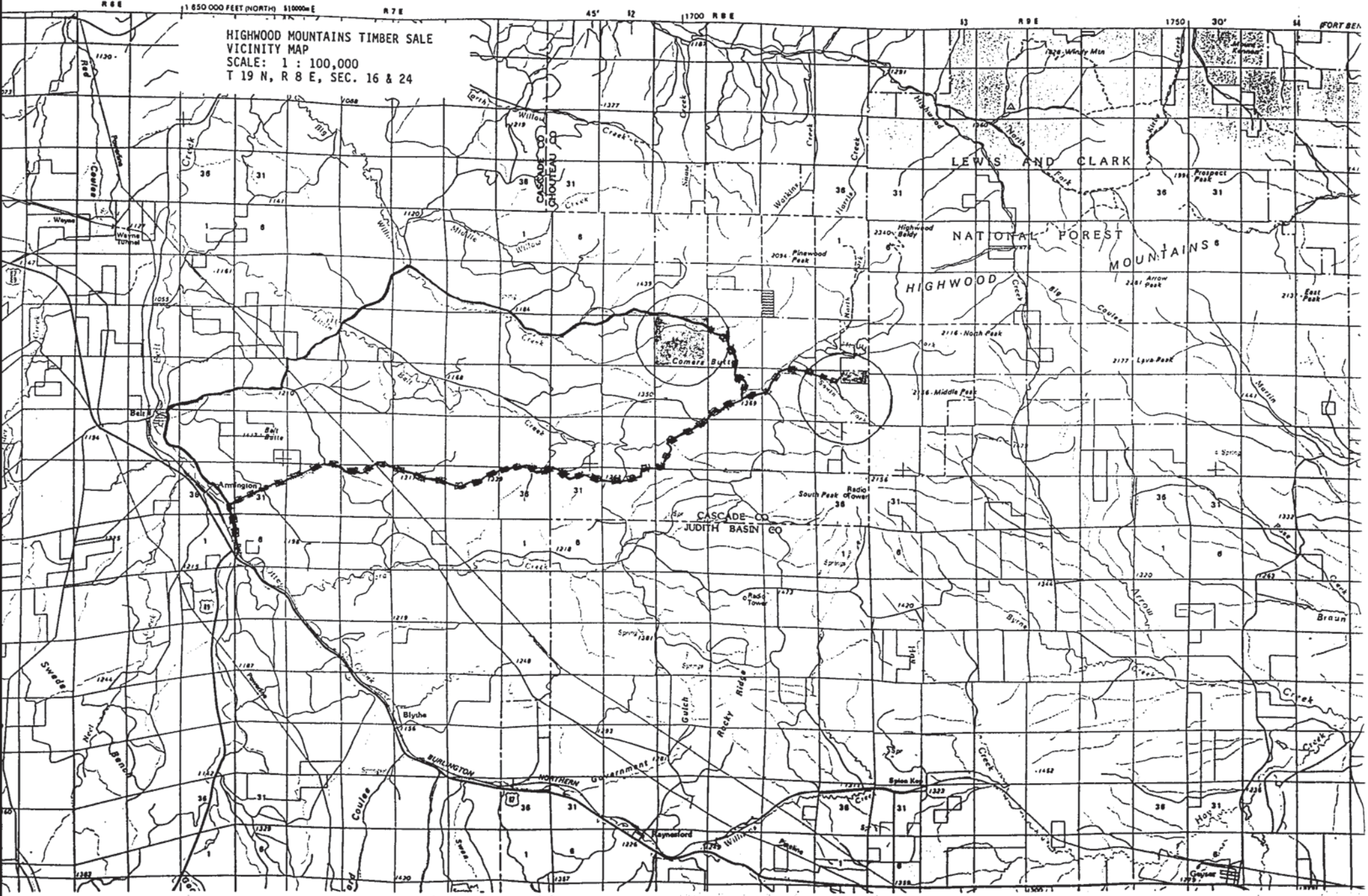
The South Fork of Belt Creek tract, Sec. 24, T9N, R8E has two harvest units. One of the units will have an evenage target stand while the second unit will be managed for an unevenaged condition (two storied). Harvest systems will include light seed tree and selection methods. In all units, natural regeneration will be relied on. Site prep will be done in conjunction with harvest and hazard reduction.

Timbered areas surrounding the harvest units will be in the deferred status as described above. Precommercial and intermediate treatments are not scheduled for these units due to economic reasons.

The harvest units will be monitored for regeneration, insect and disease damage, and periodically for target stand development.

See individual site specific prescriptions by unit located in Appendix B.

APPENDIX "A"


HIGHWOOD MOUNTAINS TIMBER SALE
VICINITY MAP
SCALE: 1 : 100,000
T 19 N, R 8 E, SEC. 16 & 24
LEWIS AND CLARK
NATIONAL FOREST
HIGHWOOD MOUNTAINS
CASCADE CO
CHOUTEAU CO
CASCADE CO
JUDITH BASIN CO
Comers Butte
Armington
Belt
Blythe
Raynesford
Spion Kop
Geyser
Highwood Baldy
Pinewood Peak
North Peak
Middle Peak
Lava Peak
Arrow Peak
Prospect Peak
East Peak
South Peak
Radio Tower
Wayne
Wayne Tunnel
BURLINGTON NORTHERN
Government
Rocky Ridge
Gulch
Swede
Coulee
Creek
Braun
Hay
Arrow
Byrne
Pine
Martin
Highwood
North Fork
Big Coulee
Willow
Middle Willow
Little Belt
Belt Butte
Swan
Pipeline
Red
Powerline
Neel
Bench
R 6 E
R 7 E
R 8 E
R 9 E
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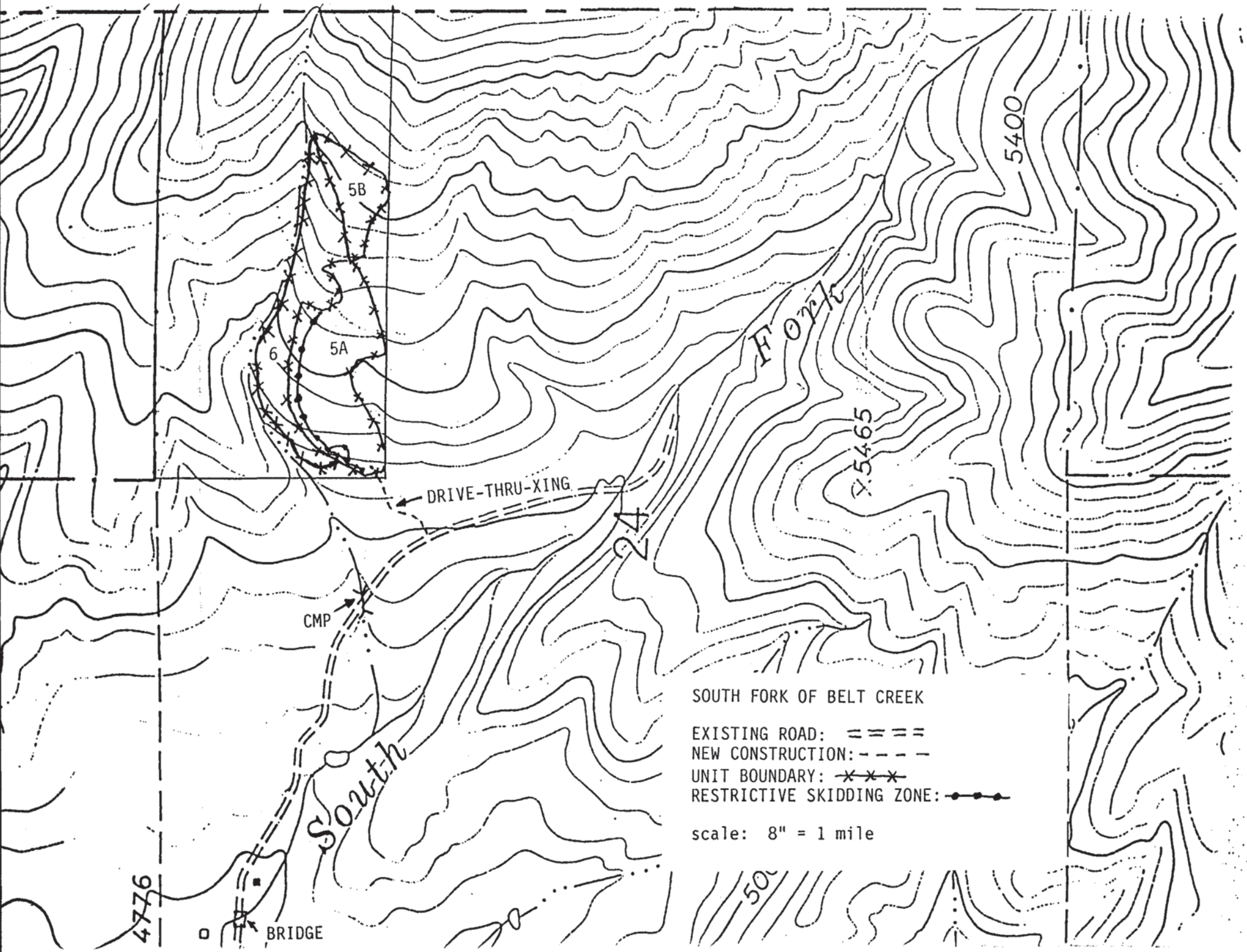
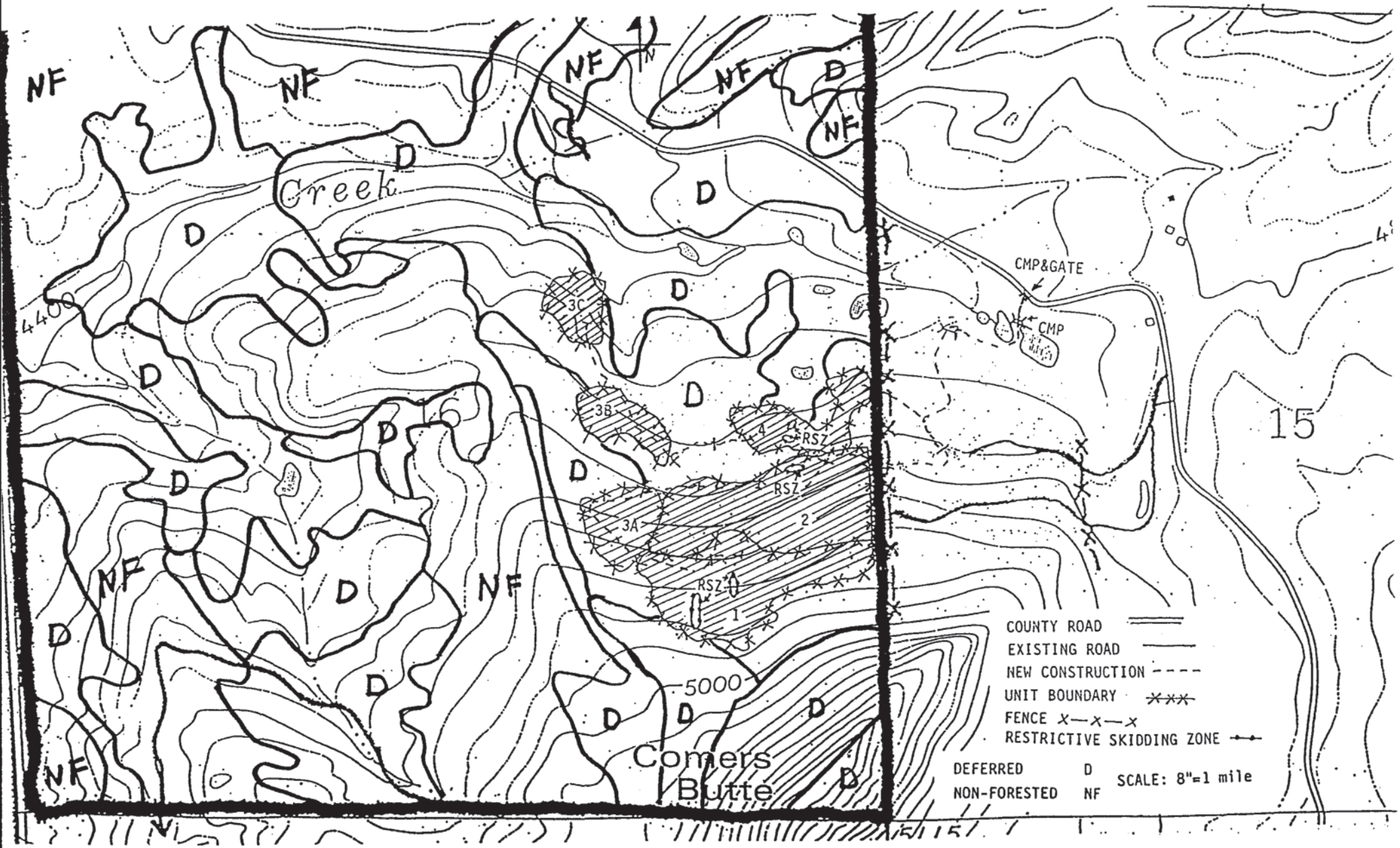
30'
1700
1750
FORT BEN


5B
5A
6
DRIVE-THRU-XING
CMP
BRIDGE
South Fork
5400
5465
4776
SOUTH FORK OF BELT CREEK
EXISTING ROAD:
NEW CONSTRUCTION:
UNIT BOUNDARY:
RESTRICTIVE SKIDDING ZONE:
scale: 8" = 1 mile


NF
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Creek
4400
3C
3B
3A
4
RSZ
2
1
5000
Comers
Butte
CMP&GATE
CMP
15
COUNTY ROAD
EXISTING ROAD
NEW CONSTRUCTION
UNIT BOUNDARY
FENCE
RESTRICTIVE SKIDDING ZONE
DEFERRED D
NON-FORESTED NF
SCALE: 8"=1 mile

APPENDIX "B"

CENTRAL LAND OFFICE
Silviculture Preparation
Field Analysis

Sec. 16 Twp. 19N Rge 8E

Acres: 14 Slope: 10-40 Benches Unit # 1

Aspect: N Elevation: 4840 - 5000

Habitat Type: Psme Libo Psme Syal

Description of Existing Stand:

Age: Dominant LPP 90-110
Codominant
Understory

Height: 70
Growth: 55-60 cu.ft./A/Yr.
I & D: MPB, Armillariella RR

Evenaged LPP with approx. 25% DF component (same age) average DBH 10". Gross volume 17 MBF/A. Similar to Unit #2. Some steep short pitches to benches running E-W approx. 45% slopes. Current stocking is 215 TPA≥ 7". Understory is primarily suppressed LPP.

Constraints:

MPB, wind exposure, RR.

Silvicultural Objectives - Target Stand:

Structure: Evenaged
Species: LPP DF
Stocking: 135 75

Evenaged LPP with DF subcomponent for species diversity. Natural regen relied on. No intermediate treatment planned.

Treatment Alternatives:

*1. Clearcut - harvest all merch. with exception of a few DF merch. to leave to feather the edge (< 2/A grouped). Fell and slash all nonmerch.
2. Selectrive harvest partial cut removing approx. 50% volume of LPP leaving remaining LPP and all DF. Would set up 2 storied stand favoring DF. Not preferred due to risk of pine beetle, root rot, windthrow and economics of harvest.
3. Shelterwood would favor DF. Not preferred due to threat of windthrow etc. as #2.

Site Preparation/Hazard Reduction:

Hazard reduction will consist of machine spot pile heavy concentrations and burn. Attempt to leave 10 to 15T material for nutrient and microsite shade. Skidding and piling will result in adequate scarification, 20-40% scarification is adequate for seedbed. Restrict piling and skidding on steep pitches (>45%) and & enhemeral swales. Directional fall, skid tree length, skid tops or lop to within 18" in these areas.
Fell and slash nonmerch as above.
Monitor regen.

CENTRAL LAND OFFICE
Silviculture Preparation
Field Analysis

Sec. 16 Twp. 19N Rge 8E

Acres: 16 Slope: 5-20 Unit # 2

Aspect: North Elevation: 4800

Habitat Type: Psme Syal

Description of Existing Stand:

Age: Dominant 90-110 LPP
Codominant
Understory

Height: 70
Growth: 55-60 cu.ft/A/yr.
I & D: Armillariella RR pockets

Current stand is blown down (1991) overmature LPP. High defect due to breakage. There is a current minor DF component (35 TPA) Stand was well stocked with 200 TPA. Little or no understory, primarily suppressed LPP. Gross volume averaged 18 MBF/A. High fuel loading will constitute considerable fire hazard when blowdown dries. Considerable barrier to movement.

Constraints: 95% + timber is blowdown, remaining standing trees heavily damaged.

Silvicultural Objectives - Target Stand:

Structure: Evenaged
Species: LPP DF
Stocking: TPA 160 50

Evenaged LPP using natural regen, minor DF component expected from adjacent seed source. No intermediate treatment planned.

Treatment Alternatives:

*1. Clearcut - harvest all merch. trees. Fell and slash damaged unmerch.
2. No action - not preferred due to high hazard and barrier. Could expect poor regen and possible acceleration of root rot problems in new stand.
3. Partial salvage - not preferred would not recapture value of damaged timber, would be difficult to control hazard, Scarification and shade unless piled and burnt.

Site Preparation/Hazard Reduction: Hazard reduction will consist of dozer pile and burn. Attempt to leave adequate material for nutrient and shade; 3" and larger approx. 10-15 T/A. Skidding and dozer piling wil result in adequate scarification. Restrict piling and skidding in ephemeral swales. Skid tops or lop to within 18". 20-40% scarification is adequate for seedbed.
Fell and slash as above all unmerch. except in ERZ.
Monitor for regen.

CENTRAL LAND OFFICE
Silviculture Preparation
Field Analysis

Sec. 16 Twp. 19N Rge 8E

Acres: 12A Slope: 20% Unit # 3 A,B,&C

Aspect: NE Elevation: 4600-4840

Habitat Type: Psme Syal

Description of Existing Stand:

Age: Dominant DF 90-110
Codominant
Understory

Height: 70
Growth: 60 cu.ft./A/yr.
I & D: Armillariella RR

Evenage pure DF. Average DBH 11", gross volume 17 MBF/A. Understory is lacking composed ofsuppressed DF. Considerable down and dead woody fuels in .25 - 3" range.

Constraints: Armillariella RR pockets, wind exposure

Silvicultural Objectives - Target Stand:

Structure: Evenage patches
Species: DF
Stocking: 210 TPA

Evenage DF with minor LPP component utilizing patch clearcut method patches will consist of 3 small patch clearcuts of 5, 4 & 3 acres respectively. Adjacent deferred stands will provide adequate natural regen. ~~No intermediate~~ treatments planned.

Treatment Alternatives:

*1. Patch Clearcut - Cuts will be 3 small patch clearcuts totaling 12 A. Adjacant deferred stands will provide adequate seed and shelter. Clearcut patches may help inhabit root rot problems.
2. Shelterwood - not preferred due to wind risk and root rot potential. Not economical to harvest shelter trees once regen established.
3. Selective cut - not preferred would not provide best economic return.

Site Preparation/Hazard Reduction: Hazard reduction will consist of dozer piling and burning. Attempt to leave approx. 10-15 T/A of > 3" material. Skidding and piling will result in adequate scarafication (20-40% is adequate for seedbed). Restrict piling and skidding in wet areas. Lop slash to within 18".

TSI:

Fall all nonmerch.
Monitor natural regeneration.

CENTRAL LAND OFFICE
Silviculture Preparation
Field Analysis

Sec. 16 Twp. 19N Rge 8E

Acres: 5 Slope: N NW Unit # 4

Aspect: N Elevation: 4720

Habitat Type: Psme Syal

Description of Existing Stand:

Age: Dominant LPP 90-110
Codominant
Understory

Height: 70
Growth: 55-60 cu.ft/A/yr.
I & D: Armillariella RR

Evenage LPP with a 20% DF subcomponent (same age). Average DBH 13" spen patches near wet areas. Average volume is lower than other commercial units due to openings and wet areas. $\bar{V}$ = 9MBF/A. The unit is similar to Unit 1 in other respects.

Constraints: RR pockets, wet areas, aspen patches.

Silvicultural Objectives - Target Stand:

Structure: Evenage
Species: LPP DF
Stocking: 125 85 TPA

Evenage LPP with DF subcomponent for species diversity. Rely on natural regen.

Treatment Alternatives: *1. Clearcut - harvest all merch. Fell and slash all non merch.
2. Selective harvest - partial cut removing approx. 50% of LPP leaving remaining LPP & DF. Would favor DF and set up 2 storied stand. Not preferred due to risk of remaining stand to windthrow and root rot as well as economic.
3. Shelterwood - would favor DF, not preferred due to risk, etc. as #2.

Site Preparation/Hazard Reduction: Hazard Reduction - machine spot pile and burn. Attempt to leave approx. 10-15 T/A of 3" and material for nutrient cycling etc. Skidding and piling will result in adequate scarification, (20-40% is adequate for seedbed). Restict skidding and piling on bench scarp and wet areas. Skidd tree length or lop to within 18" in these areas.

TSI:

Fell and slash non merch as above.
Monitor for regen.

CENTRAL LAND OFFICE
Silviculture Preparation
Field Analysis

Sec. 16 Twp. 19N Rge 8E

Acres: 309 Slope: _____ Unit # Derferred timbered acres

Aspect: _____ Elevation: _____

Habitat Type: _____

Description of Existing Stand: Complex of stands placed in deferred status. See stand level information for detail.

Age: Dominant _____
Codominant _____
Understory _____

Height: _____
Growth: _____
I & D: _____

Constraints: Limited economic value, steep areas, high watershed protection values, wildlife values, seed source for harvest areas.

Silvicultural Objectives - Target Stand: Deferred status - may be some future limited harvest potential if economic conditio change. Some permit potential may be present in areas adjacent to harvested units after regeneration has occured on harvest units.

Structure: _____
Species: _____
Stocking: _____

Treatment Alternatives:

*1. Deferred status - deferred acres will be monitored for possible future treatment.
2. Conversion to grazing - not preferred at present due to high cost and possible adverse impacts to other values.

Site Preparation/Hazard Reduction: N/A

TSI: N/A

CENTRAL LAND OFFICE
Silviculture Preparation
Field Analysis

Sec. 16 Twp. 19N Rge 8E

Acres: 278.2 Slope: variable Unit # Non Forest Acreas

Aspect: _____ Elevation: _____

Habitat Type: _____

Description of Existing Stand: Primarily grazing lands. Complex of range sites. Non forest acres.

Age: Dominant _____
Codominant _____
Understory _____

Height: _____
Growth: _____
I & D: _____

Constraints:

Silvicultural Objectives - Target Stand: Manage as per policy and procedure for grazing values.

Structure: _____
Species: _____
Stocking: _____

Treatment Alternatives: *1. Manage as per current policy and procedures for grazing.
2. Improve grazing potention - not preferred due to high costs associated with range improvement (encroachment removal).
3. Plant to timber - not economically feasible due to high cost of site prep and planting vs. foreseeable not return.

Site Preparation/Hazard Reduction: N/A

TSI: N/A

CENTRAL LAND OFFICE
Silviculture Preparation
Field Analysis

Sec. 24 Twp. 19N Rge 8E

Acres: 13 Slope: 10-30 Unit # 5 A & B

Aspect: NW Elevation: 5040-5440

Habitat Type: Psme Vagl

Description of Existing Stand:

Age: Dominant LPP 100-120
Codominant
Understory

Height: 70
Growth: 60-70 cu ft/A/yr.
I & D: minor white pocket rot

Evenaged mixed stand of LPP and DF, DF sub-component (30%) has numerous multiple tops & som white pocket rot in stems. Current stand exhibits relatively good growth with heavy stocking (350 TPA) and very little suppressed undergrowth. Seedling and sapling size is lacking.

Constraints: Small size of unit limits economic potential some pinegrass and duff layer indicates moderate scarification needed.

Silvicultural Objectives - Target Stand:

Structure: Evenage
Species: LPP DF
Stocking: 150 150 TPA

Evenage stand of mixed LPP & DF. Rely on natura regen. Select a few superior windfirm DF seed trees to aid increase in DF component no intermediate treatment planned.

Treatment Alternatives:

*1. Light seed tree - leave approx. 2 TPA DF. Harvest all merch. fall and slash nonmerch.

2. Shelterwood - would favor DF not preferred since shelter volume would not be captured (economics will most likely proclude another entry). Shelter trees would be at risk from windthrow, etc. NW exposure is moist enough to allow regen without problems.

3. Selective method - remove 1/2 LPP volume - would setup 2 storied stand. Not preferred due to economic unfeasibility of low volume/high development cost.

Site Preparation/Hazard Reduction: Skid log length. Some scarification would be desirable (30-50% scarification adequate). Spot pile and burn slash trying to leave approx. 15 T/A for nutrient cycling and microsite shade. Leave material should be 3"+. Restrict skidding and piling near wet areas in the west end of Unit A. Lop slash to within 18".

TSI:

Fell and slash nonmerch.
Monitor

CENTRAL LAND OFFICE
Silviculture Preparation
Field Analysis

Sec. 24 Twp. 19N Rge 8E

Acres: 3 Slope: 15-30 Unit # 6

Aspect: NW Elevation: 5040 - 5440

Habitat Type: PSME/Vagl

Description of Existing Stand:

Age: Dominant LPP 100-120
Codominant
Understory

Height: 70
Growth: 60 - 75 cu.ft./A/yr.
I & D:

Evenage mixed stand of LPP and DF. DF subcomponent (30%) is same age class. Stand is heavily stocked with 350 TPA.

Constraints:

SMZ - SMZ law limits management possibilities.

Silvicultural Objectives - Target Stand: SMZ

Structure: Two storied
Species: LPP DF
Stocking: 125 90 TPA

Create approx. 30 - 40% opening to allow regen for 2 aged stand. Seperation of age classes will provide replacement shade and woody debris for stream.

I'm confident this we meet rules & regs. regarding Retention Trees

Treatment Alternatives:

*1. Selective harvest - remove 43% lodgepole and 14% DF to create 2 storied stand favoring DF. Will provide resistance to windthrow, continuous shade and replacement Woody debris to stream.
2. Patch clearcut - create small patch or strip cuts < 1/2A to allow regen for replacement shade and debris for stream, not preferred due to ambiguous (in) language of SMZ law.
3. Defer - not preferred due to absence of replacement stock for shade and woody debris replacement.

Site Preparation/Hazard Reduction: Directional fall to prevent slash accumulation near stream. Skid tree length, skid tops or lop slash to within 18" restrict skidding to line only.

TSI: Monitor for regen
Evaluate for permit potential in approx. 30-40 years for possible second selective harvest.

CENTRAL LAND OFFICE
Silviculture Preparation
Field Analysis

Sec. 24 Twp. 19N Rge 8E

Acres: 34 Slope: variable Unit # Deferred timbered acres

Aspect: _____ Elevation: _____

Habitat Type: _____

Description of Existing Stand: Complex of stands placed in deferred status. See stand level information for detail.

Age: Dominant _____
Codominant _____
Understory _____

Height: _____
Growth: _____
I & D: _____

Constraints: Limited economic value, high watershed protection values, wildlife values, seed source for harvest areas.

Silvicultural Objectives - Target Stand: Deferred status - may be same some future limited harvest potential if econmical conditions change. Some permit potential may be present in areas adjacent to harvested unit after regeneration has occurred on harvest units.

Structure: _____
Species: _____
Stocking: _____

Treatment Alternatives:
*1. Deferred status - deferred areas will be monitored for possible future treatment.
2. Conversion to grazing - not preferred at present due to high cost and possible adverse impacts to other values.

Site Preparation/Hazard Reduction: N/A

TSI: N/A

CENTRAL LAND OFFICE
Silviculture Preparation
Field Analysis

Sec. 24 Twp. 19N Rge 8E

Acres: 30 Slope: Variable Unit # Non Forest Acres

Aspect: -- Elevation: --

Habitat Type: _____

_____

Description of Existing Stand: Primarily grazing lands. Complex of range sites Non forest acres.

Age: Dominant _____
Codominant _____
Understory _____

Height: _____
Growth: _____
I & D: _____

Constraints:

_____

Silvicultural Objectives - Target Stand: Manage as per policy and procedure for grazing values.

Structure: _____
Species: _____
Stocking: _____

_____

Treatment Alternatives: *1. Manage as per current policy and procedures for grazing.
2. Improve grazing potention - not preferred due to high costs associated with range improvement (encroachment removal).
3. Plant to timber - not economically feasible due to high cost of site prep and planting vs. foreseeable not return.

_____

Site Preparation/Hazard Reduction: N/A

TSI: N/A

APPENDIX "C"

TEMPORARY RIGHT-OF-WAY AGREEMENT

Permission is hereby granted by Fred Kraftenberg, of Box 97, Belt, MT 59412 hereinafter called the "Grantor" to the Montana Department of State Lands and the purchasers of State forest products in section 16,T19N,R8E herein after called the "Grantee", to use, subject to the conditions set forth below, the following described lands: Beginning on the County road at a point mutually agreed to on 5/21/91 thence toward the existing culvert location crossing the drainage and proceeding over a small ridge and following various courses and distances along and through a previously logged area connecting with existing logging roads. The length of this segment of new road is approximately 21 chains. From the aforementioned junction with the existing logging roads following the existing roadway an additional 16 chains to the State property line.

This route was flagged with yellow flagging on 5/22/91 and is approximately as shown in blue on Exhibit "A" attached hereto.

Description:

The right-of-way covered by this agreement shall be of the minimum width necessary for roads of like standards, 30 feet in width, 15 feet on each side of the centerline, with such additional width as may be required for adequate protection of cuts and fills.

This easement covers a right-of-way an estimated 37 chains in length and is granted for the purpose of log hauling and related forest management activities.

This easement shall be in effect from the date signed until the completion of the State timber sale which is located in section 16, T19N, R8E. (The planned operating period for the sale is 7/1/91 through 12/31/92.)

The Grantor has the right to suspend the agreement upon breach of any of the conditions herein. The Grantor shall notify the Grantee in writing of the reason for suspension. If the Grantee fails to take corrective actions within a reasonable time following written notification the Grantor will have the right to terminate the agreement.

Conditions:

1. Access will be allowed year around while this agreement is in force. All use by the Grantee will be restricted to dry or frozen conditions to prevent damage to the roadway.

2. If the roadway or any other improvement is damaged due to the Grantees use, it will be repaired to presale or better conditions in a timely manner.

3. The right-of-way as shown in Exhibit "A" is the only route to be used by the Grantee. Some minor reconstruction may be needed (e.g. widening of curves, installation of drainage structures, etc.) to provide for safer travel and to protect water quality.

4. If the attached Exhibit "A" indicates an area of new road construction the standards of the new construction will be shown in Exhibit "B".

5. Any areas disturbed by the new or reconstruction will be seeded with 10 pounds per acre of grass seed the spring or fall immediately following the disturbance.

6. All gates will be left as found after each passage. The Grantor will allow the Grantee to "double lock" any locked gates so that both parties will have access.

7. No hunting by the Grantee is authorized by this temporary Right-of-Way agreement.

Liability :

The Grantee agrees to assume all risk of and indemnify and hold harmless, and at its expense, defend the Grantor from and against, any claims, loss, cost legal actions, liability or expense or account of personal injury or death of any person whomsoever, including but not limited to the grantor, or damage to or destruction of property to whomsoever belonging, including but not limited to property of the Grantor resulting partially or wholly, directly or indirectly, from the Grantees exercise of the rights herein granted, accepting only such claims, costs, damage, injury or expense which may be caused by the sole negligence of the Grantor.

This temporary Right-of-Way shall go with the property if the property should be sold during the term of the agreement. It shall be the full responsibility of the Grantor to notify potential purchasers of the Grantor's property of the existence and terms of this right-of-way agreement.

By signing below the Grantor hereby certifies that they have full legal authority to grant a temporary Right-of-Way to the Grantee.

If the Grantor fails to notify the purchasers of their property of this agreement, or if it is discovered that the Grantor does not have full legal authority to grant the right-of-way, then the Grantee may hold the Grantor liable, either fully or partially for any losses, including but not limited to wages and operating expenses incurred during the preparation of the timber sale.

It is understood and agreed that the permission granted herein is not exclusive and the Grantor reserves the right to use and grant to others the right to use the roads jointly with the Grantee.

IN WITNESS WHEREOF, this temporary Right-of-Way agreement is executed on this the 18 day of June, 1991.

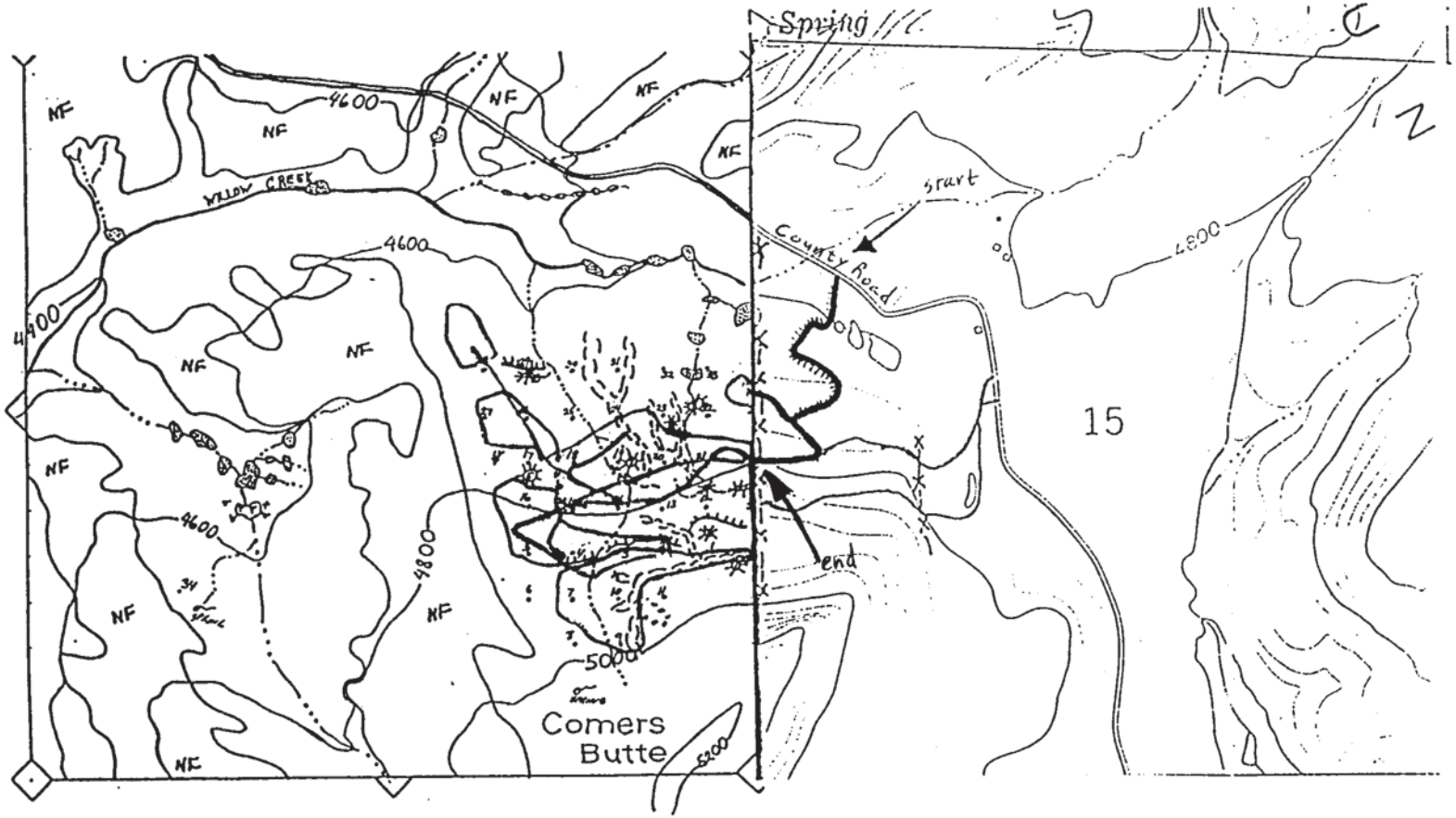
Grantor:

Fred E. Kraftenberg date 6/13/91

Grantee:

Darrel J. Bakken date 6-18-91

Dept. of State Lands



Scale: 4" ≈ 1 mile

"new" road on Fred Kraftenberg R/w

existing road on Fred Kraftenberg R/w

new road on State land

EXHIBIT

Exhibit "B"

CONSTRUCTION STANDARDS AND SPECIFICATIONS FOR SECONDARY HAUL ROADS

Alignment:

Minimum Curve Radius 50 ,
Except Switch Backs 50 ,

Gradient Maximum:

Favorable 15 %
Adverse 10 %
Short Pitches 18 %

Finished Road Surface:

On Tangents 12 ,
On Curves Up to 22 ,
when required by the Forest Officer in charge

Ditches:

Width 2 ' Depth 1 ,
or as required in this agreement

Drainage Structures:

Bridges—Native timber unless otherwise specified.

Native culverts or corrugated galvanized metal pipe as required in this agreement.

Grading:

Cut Slopes:
20% and less—1 to 1
20% to 50%—¾ to 1
50% and over—½ to 1
or as will stand when approved by Forest Officer in charge

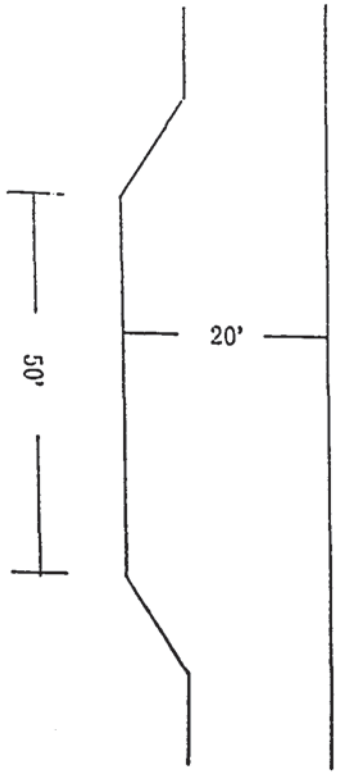
Turn-outs:

Width 20 ,
Length 50 ,
Spacing—intervisible

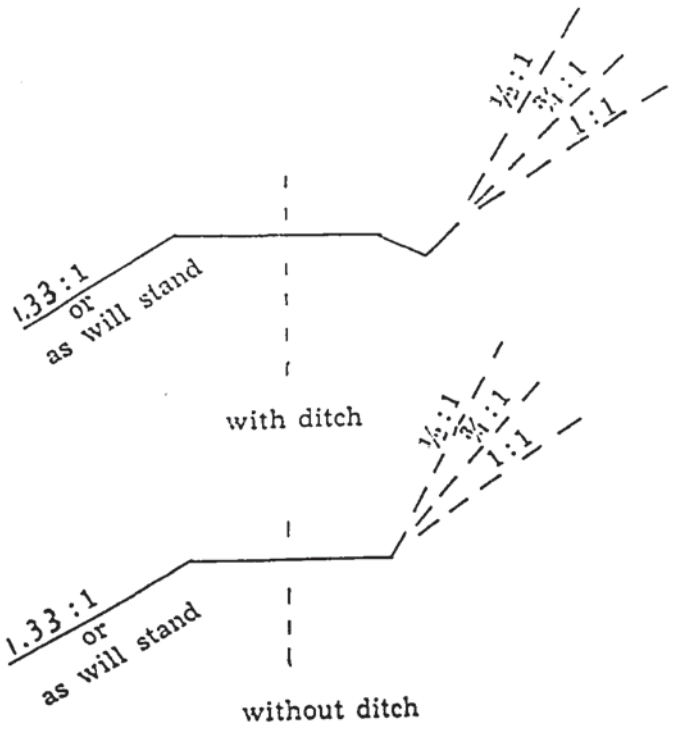
Clearing:

0-20% side slope 10 ' each side of centerline
20-40% side slope 15 ' each side of centerline
Over 40% as required and marked by Forest Officer

Typical Turn-out Construction:



Typical Cross Section



TEMPORARY RIGHT-OF-WAY AGREEMENT

Permission is hereby granted by Gerald and Evelyn Murphy, of 2327 - 15th Ave. South, #2, Great Falls, MT 59405 hereinafter called the "Grantor" to the Montana Department of State Lands and the purchasers of State forest products in N1/2NE1/4 sec. 24, T19N, R8E herein after called the "Grantee", to use, subject to the conditions set forth below, the following described lands:

Existing road location from the wood rail gate to just north of the house, then new construction, including installation of a new log sill bridge across the south fork of Little Belt creek, then intersecting the existing road again near the sawmill and proceeding along the existing trail to the pipe gate at the property line as shown in blue on exhibit A attached hereto.

Description:

The right-of-way covered by this agreement shall be of the minimum width necessary for roads of like standards, 30 feet in width, 15 feet on each side of the centerline, with such additional width as may be required for adequate protection of cuts and fills.

This easement covers a right-of-way an estimated 2440 feet in length (1980 feet existing road and 460 of new road) and is granted for the purpose of log hauling and related forest management purposes only.

This easement shall be in effect from the date signed until the completion of the State timber sale which is located in N1/2NE1/4 sec. 24,T19N, R8E. (The planned operating period for the sale is 9/1/91 through 3/1/93.)

The Grantor has the right to suspend the agreement upon breach of any of the conditions herein. The Grantor shall notify the Grantee in writing of the reason for suspension. If the Grantee fails to take corrective actions within a reasonable time following written notification the Grantor will have the right to terminate the agreement.

Conditions:

1. Access will be allowed beginning September 1, each year, for felling, decking and road work, with log hauling allowed only after the cattle are removed from the range or October 1, whichever is soonest. Access will end by March 1 each year. All use by the Grantee will be restricted to dry or frozen conditions to prevent damage to the roadway.

2. If the roadway or any other improvement is damaged due to the Grantees use, it will be repaired to presale or better conditions in a timely manner.

3. The right-of-way as shown in Exhibit "A" is the only route to be used by the Grantee. Some minor reconstruction may be needed (e.g. widening of curves, installation of drainage structures, etc.) to provide for safer travel and to protect water quality.

4. If the attached Exhibit 'A' indicates an area of new road construction the standards of the new construction will be shown in Exhibit "B".

5. Any areas disturbed by the new or reconstruction will be seeded with 10 pounds per acre of grass seed the spring or fall immediately following the disturbance. Grass species will include a mixture of Smooth Brome, Orchard Grass, Slender Wheatgrass and Timothy.

6. All gates will be left as found after each passage. The Grantor will allow the Grantee to "double lock" any locked gates so that both parties will have access.

7. No hunting by the Grantee is authorized by this temporary Right-of-Way agreement. No firearms will be allowed on the sale area.

Special Stipulations:

1. The gate cap on the wood rail gate can be removed and reinstalled to allow for clearance of logging trucks.

2. The road from the wooden gate to the house will be bladed with native fill or it may be graveled. Low hanging limbs along this route will be sawn from the trees (not broken off by trucks). No trees will be removed along this right-of-way.

3. A new bridge will be installed at the location shown on exhibit A. This bridge shall become the property of the Grantor after it is constructed. If extra fill is needed on the approaches of the bridge, the grantor will provide it from borrow sources on the grantors land. The grantee will be responsible for reclamation of any borrow source that is used.

Liability :

The Grantee agrees to assume all risk of and indemnify and hold harmless, and at its expense, defend the Grantor from and against, any claims, loss, cost legal actions, liability or expense or account of personal injury or death of any person whomsoever, including but not limited to the grantor, or damage to or destruction of property to whomsoever belonging, including but not limited to property of the Grantor resulting partially or wholly, directly or indirectly, from the Grantees exercise of the rights herein granted, accepting only such claims, costs, damage, injury or expense which may be caused by the sole negligence of the Grantor.

The estimated volume of timber to be transported over this Right-of-Way is 200 thousand board feet. (Scribner decimal C rule.)

This temporary Right-of-Way shall go with the property if the property should be sold during the term of the agreement. It shall be the full responsibility of the Grantor to notify potential purchasers of the Grantor's property of the existence and terms of this right-of-way agreement.

It is understood and agreed that the permission granted herein is not exclusive and the Grantor reserves the right to use and grant to others the right to use the roads jointly with the Grantee.

IN WITNESS WHEREOF, this temporary Right-of-Way agreement is executed on this the 30 day of July, 19 91.

Grantor:

J. Evelyn Murphy 7/24/91

Gerald and Evelyn Murphy date 7/24/91

Grantee:

David J. Bahnsen date 7-30-91

Dept. of State Lands

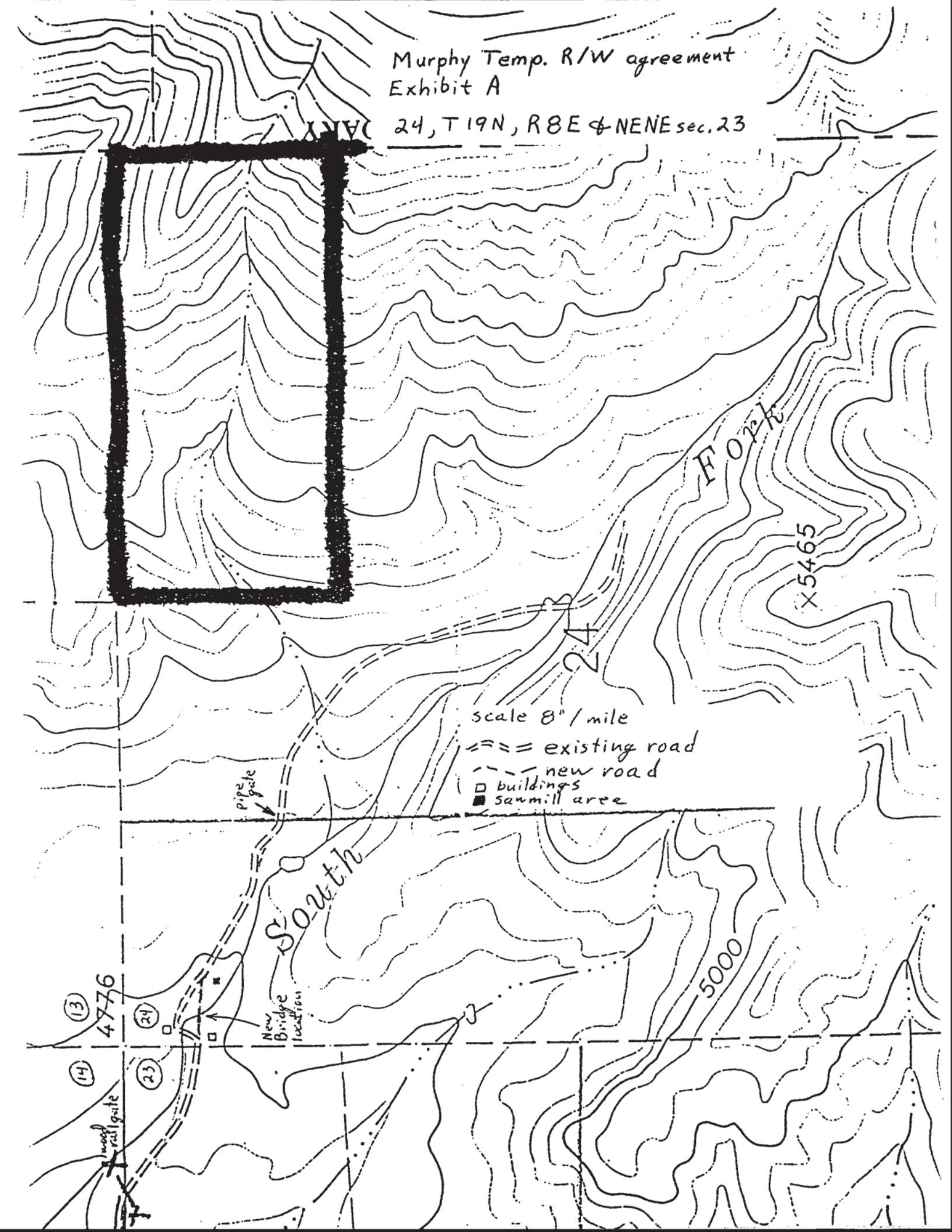

Murphy Temp. R/W agreement
Exhibit A
24, T19N, R8E & NENE sec. 23
Fork
South
24
5465
5000
4776
13
14
24
23
scale 8" / mile
existing road
new road
buildings
sawmill area
pipe gate
New Bridge location
wood rail gate

Exhibit "B"

CONSTRUCTION STANDARDS AND SPECIFICATIONS FOR SECONDARY HAUL ROADS

Alignment:

Minimum Curve Radius 55 ,
Except Switch Backs 50 ,

Gradient Maximum:

Favorable 10 %
Adverse 10 %
Short Pitches 15 %

Finished Road Surface:

On Tangents 12 ,
On Curves Up to 20 ,
when required by the Forest Officer in charge

Ditches:

Width 2 ' Depth 1 ,
or as required in this agreement

Drainage Structures:

Bridges—Native timber unless otherwise specified.

Native culverts or corrugated galvanized metal pipe as required in this agreement.

Grading:

Cut Slopes:
20% and less—1 to 1
20% to 50%—¾ to 1
50% and over—½ to 1
or as will stand when approved by Forest Officer in charge

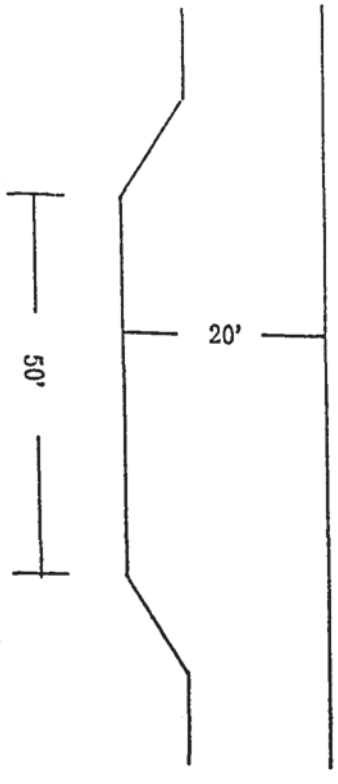
Turn-outs:

Width 20 ,
Length 50 ,
Spacing—intervisible

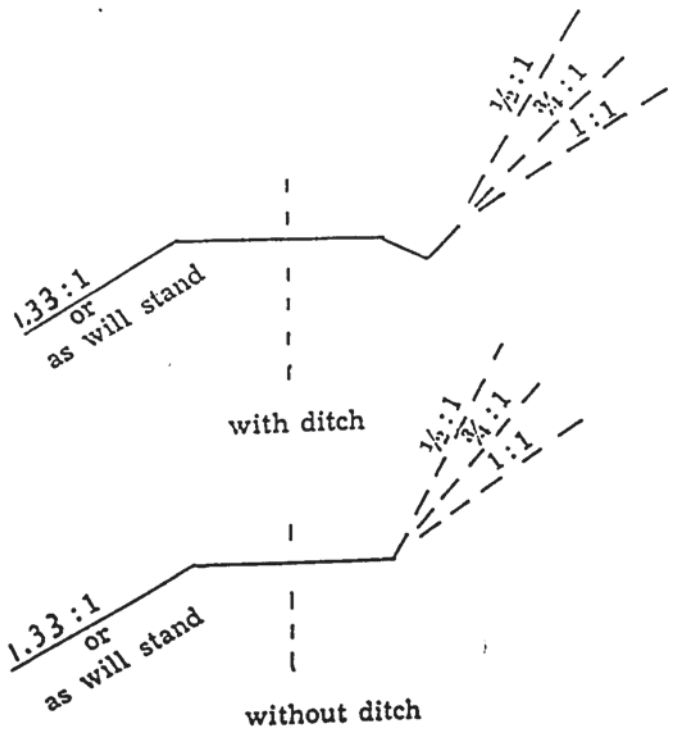
Clearing:

0-20% side slope 10 ' each side of centerline
20-40% side slope 15 ' each side of centerline
Over 40% as required and marked by Forest Officer

Typical Turn-out Construction:



Typical Cross Section



TEMPORARY RIGHT-OF-WAY AGREEMENT

Permission is hereby granted by Kenneth and Alvin Jarvi, of 131 E. 9th Ave. , Suite 98, Anchorage, AK 99501 hereinafter called the "Grantor" to the Montana Department of State Lands and the purchasers of State forest products in W1/2NE1/4 sec. 24, T19N, R2E herein after called the "Grantee", to use, subject to the conditions set forth below, the following described lands:

Existing road location from the pipe gate to shortly past the existing ford, then new construction along route option B as shown in blue on Exhibit "A" attached hereto.

Description:

The right-of-way covered by this agreement shall be of the minimum width necessary for roads of like standards, 30 feet in width, 15 feet on each side of the centerline, with such additional width as may be required for adequate protection of cuts and fills.

This easement covers a right-of-way an estimated 1600 feet total length, (1230 feet existing and 470 feet new road) and is granted for the purpose of log hauling and related forest management purposes only.

This easement shall be in effect from the date signed until the completion of the State timber sale which is located in W1/2NE1/4 sec. 24,T19N, R2E. (The planned operating period for the sale is 9/1/91 through 2/1/93.)

The Grantor has the right to suspend the agreement upon breach of any of the conditions herein. The Grantor shall notify the Grantee in writing of the reason for suspension. If the Grantee fails to take corrective actions within a reasonable time following written notification the Grantor will have the right to terminate the agreement.

Conditions:

1. Access will be allowed beginning September 1, each year, for felling, decking and road work, with log hauling allowed only after the cattle are removed from the range or October 1, whichever is soonest. Access will end by March 1 each year. All use by the Grantee will be restricted to dry or frozen conditions to prevent damage to the roadway.

2. If the roadway or any other improvement is damaged due to the Grantees use, it will be repaired to preuse or better conditions in a timely manner.

3. The right-of-way as shown in Exhibit "A" is the only route to be used by the Grantee. Some minor reconstruction may be needed (e.g. widening of curves, installation of drainage structures, etc.) to provide for safer travel and to protect water quality.

4. If the attached Exhibit "A" indicates an area of new road construction the standards of the new construction will be shown in Exhibit "B".

5. Any areas disturbed by the new or reconstruction will be seeded with 10 pounds per acre of grass seed the spring or fall immediately following the disturbance. Grass species will include a mixture of Smooth Brome, Orchard Grass, Slender Wheatgrass and Timothy.

6. All gates will be left as found after each passage. The Grantor will allow the Grantee to "double lock" any locked gates so that both parties will have access.

7. No hunting by the Grantee is authorized by this temporary Right-of-way agreement. No firearms will be allowed on the sale area.

Special Stipulations:

1. A use fee of $1.00 per 1000 board feet will be paid to the Grantor after the hauling is completed, based on the actual scale in Scribner decimal C. KJF 7-23-91 mj 8-12-91 DJF 8-16-91

2. The grantee may be held financially liable for the costs of gathering and sorting cattle which become mixed as a result of the grantee's proven failure to comply with condition number 3 above.

Liability :

The Grantee agrees to assume all risk of and indemnify and hold harmless, and at its expense, defend the Grantor from and against, any claims, loss, cost legal actions, liability or expense on account of personal injury or death of any person whomsoever, including but not limited to the grantor, or damage to or destruction of property to whomsoever belonging, including but not limited to property of the Grantor resulting partially or wholly, directly or indirectly, from the Grantees exercise of the rights herein granted, excepting only such claims, costs, damage, injury or expense which may be caused by the sole negligence of the Grantor. The contractor, employed by the grantee, will be required through the timber sale contract, to carry a minimum $1,000,000. liability insurance.

The estimated volume of timber to be transported over this Right-of-Way is 200 thousand board feet. (Scribner decimal C rule.)

This temporary Right-of-Way shall go with the property if the property should be sold during the term of the agreement. It shall be the full responsibility of the Grantor to notify potential purchasers of the Grantor's property of the existence and terms of this right-of-way agreement.

It is understood and agreed that the permission granted herein is not exclusive and the Grantor reserves the right to use and grant to others the right to use the roads jointly with the Grantee.

IN WITNESS WHEREOF, this temporary Right-of-Way agreement is executed on this the 16th day of Aug, 1991.

Grantor:

Kenneth Davis date July 23, 1991

Alvin Davis date 8/12/91

Grantee:

David J Bakelaar date 8/16/91

Dept. of State Lands

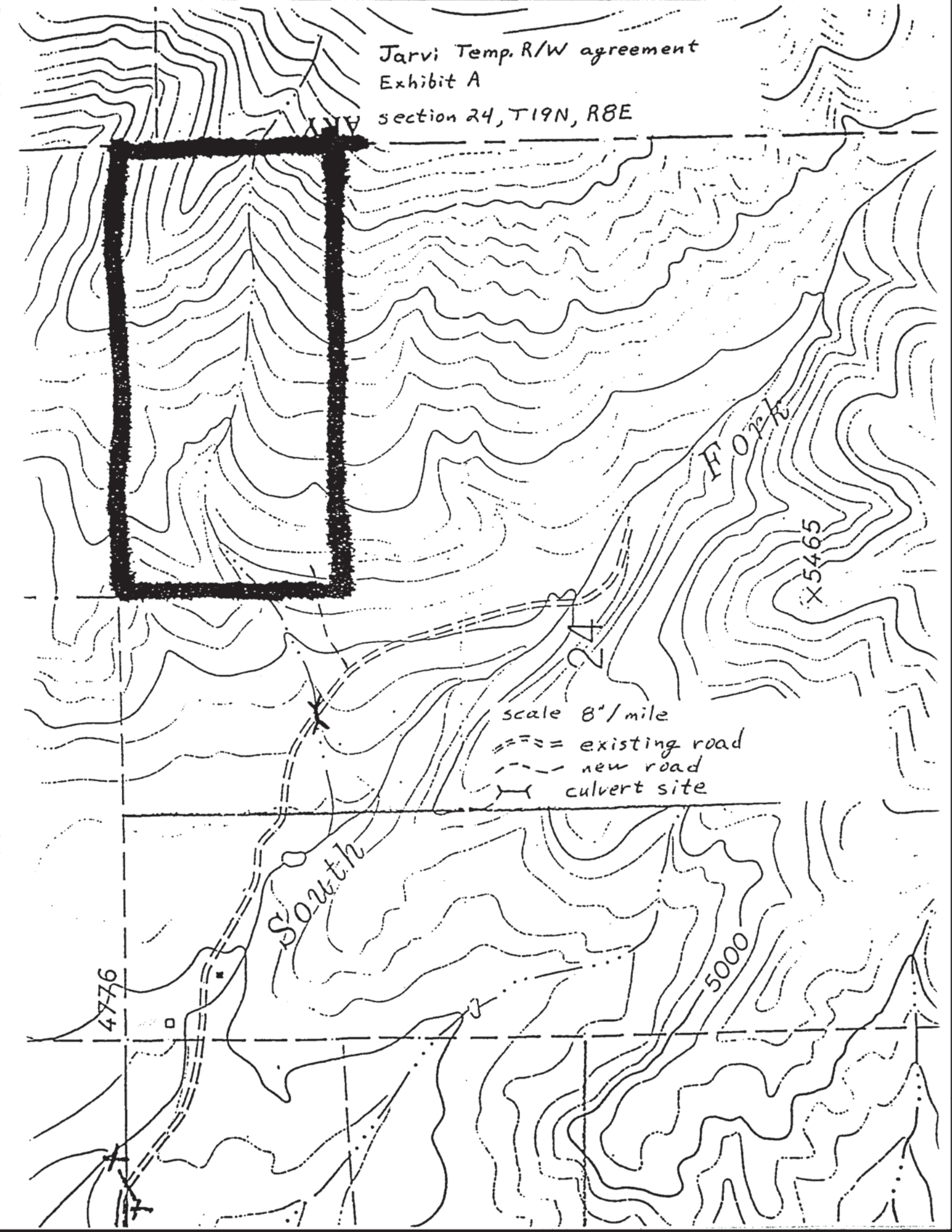

Jarvi Temp. R/W agreement
Exhibit A
section 24, T19N, R8E
Fork
X5465
24
scale 8"/mile
existing road
new road
culvert site
South
5000
4776

Exhibit "B"

CONSTRUCTION STANDARDS AND SPECIFICATIONS FOR SECONDARY HAUL ROADS

Alignment:

Minimum Curve Radius 55 ,
Except Switch Backs 50 ,

Gradient Maximum:

Favorable 15 %
Adverse 10 %
Short Pitches 18 %

Finished Road Surface:

On Tangents 12 ,
On Curves Up to 20 ,
when required by the Forest Officer in charge

Ditches:

Width 2 , Depth 1 ,
or as required in this agreement

Drainage Structures:

Bridges—Native timber unless otherwise specified.

Native culverts or corrugated galvanized metal pipe as required in this agreement.

Grading:

Cut Slopes:
20% and less—1 to 1
20% to 50%—¾ to 1
50% and over—½ to 1
or as will stand when approved by Forest Officer in charge

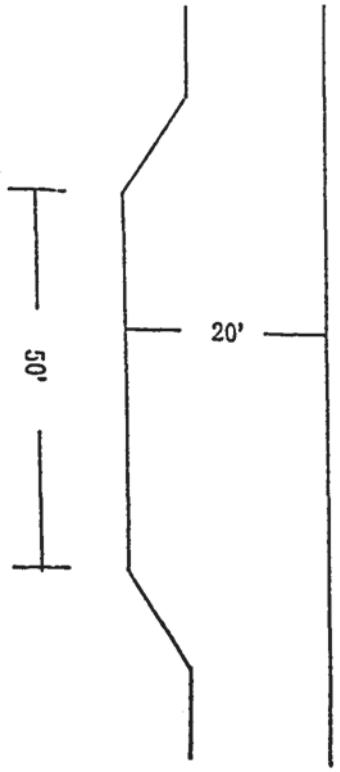
Turn-outs:

Width 20 ,
Length 50 ,
Spacing—intervisible

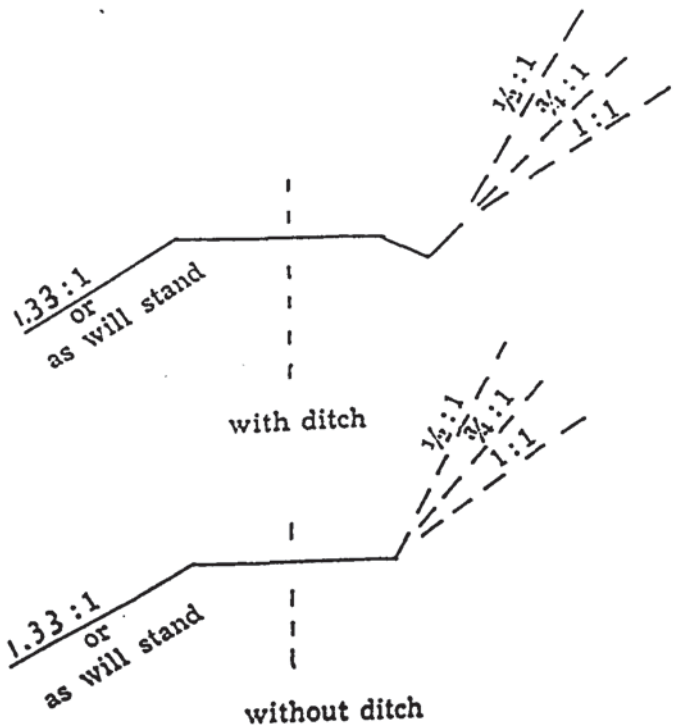
Clearing:

0-20% side slope 10 , each side of centerline
20-40% side slope 15 , each side of centerline
Over 40% as required and marked by Forest Officer

Typical Turn-out Construction:



Typical Cross Section



APPENDIX "D"

List of Agencies & Persons Contacted

1. ~~Bill Schultz~~ & Gary Frank, Hydrologists
   DSL, Division of Forestry

2. Jeff Collins, Soils Scientiest
   DSL, Division of Forestry

3. Dori Passmann, Archaeologist
   DSL, Lands Division

4. Richard Grady, Land Use Specialist
   DSL, CLO, Helena Unit

5. MT Dept. of Fish, Wildlife & Parks
   Mike Aderhold
   Dan Vincent
   Kerry Constan

6. Dale Gorman
   Lewis & Clark National Forest

7. Ken & Alvin Jarvi
   Leasee and adjacent landowner
   Right-of-Way Grantee

8. John Gliko
   Leasee and adjacent landowner

9. Gerald & Evelyn Murphy
   Adjacent Landowners
   Right-of-Way Grantee

10. Fred Kraftenberg
    Adjacent landonwer
    Right-of-Way Grantee

11. Edna Urick
    Adjacent landowner

12. Victor Smerker
    Adjacent landowner

13. Frank & Vivian Urick
    Nearby landowner

14. Carrol Power & Doris Wells
    Nearby landowner

15. Matt L. & Annie J. Nevala
Nearby landowner

16. Gilbert & Eugene Mellymaki
Nearby landowner

17. General Public
Published ads in Great Falls Tribune
May 5 & 15, 1991

APPENDIX E

June 13, 1991

562

TO: MARK D. AHNER, Manager, CLO
PAT FLOWERS, Supervisor, State Land Management
R.VLAHOVICH, S.VLAHOVICH, J.KALITOWSKI, Unit Supervisors

FROM: Gary Frank, Hydrologist GF

SUBJECT: Preliminary Input -(FY92) Central Land Office Timber Sale Plan

I reviewed the first year (FY92) of the Six Year Sale Plan for preliminary input as called for in the timber sale planning process. These comments primarily address potential for off-site impacts, such as water yield, sediment yield and cumulative effects of multiple activities. These comments do not address on site recommendations. The final recommendations and comments will be made after reviewing the sale in the field.

HELENA UNIT

SOUTH FORK LITTLE BELT CREEK - The sale area is located entirely within the S.FK Little Belt Creek drainage. The South Fork is a 3rd order perennial stream draining the southwest edge of the Highwood Mountains. Approximately 50% of the drainage is forested. Based on 1990 aerial photography, very little development has occurred in the watershed. Past harvest appear to be limited to historic forest clearing near the mouth of the watershed. The preliminary sale plans are for harvesting a single 35 acre which would produce between 300 and 500 MBF. There are no cumulative watershed effect constraints with this timber sale.

There are existing water right for domestic (surface water source) and livestock use downstream of the sale area.

COMERS BUTTE - The sale area is drained by a third order tributary to Big Willow Creek. Approximately 50% of the watershed area is forested, the remaining land area is agricultural and rangeland. Most of the timbered ground is located on Forest Service ownership in the headwaters portion of the drainage and on the states section in the lower watershed. A moderate amount of timber harvest has occurred throughout the watershed in the recent past. Timber harvest have occurred on the state section and some of the private land adjoining it. The proposed sale prescription is for both clearcut and selection harvest on a total of 154 acres. I do not anticipate any cumulative watershed effect constraints with this sale.

There are existing water rights for livestock use downstream of the sale area.

SUNSET MOUNTAIN SW - The sale area is drained by two small intermittent face drainages. Both streams are unnamed tributaries to the Middle Fork of the Dearborn River. There has been very little past development in either drainage. The sale proposal is for one harvest unit of moderate size in each of the two watershed. There are several road access options being considered with the sale. None of the current alternative involve more than a couple miles of new road construction. There are no cumulative watershed constraints with this timber sale.

There are no known water rights downstream of the sale area on either unnamed stream.

LITTLE BIRCH CREEK - The proposed sale area is actually located in the Big Birch Creek drainage. The existing access route and most of the proposed road construction is located within the Little Birch Creek Drainage. Both Little and Big Birch Creek are tributaries to the Smith River. The current harvest plan is for a single 22 acre clearcut removing an estimated 300 MBF.

The Birch Creek watershed is only partially forested. The lower watershed is made up of private ranchland and scattered state parcels. The upper third or headwaters portion of the drainage is under Forest Service ownership. Most of the Forest Service land is a proposed wilderness area which remains undeveloped. A moderate amount of timber harvest and associated development has occurred on Forest Service ownership in the vicinity of Gipsy Lake and on private land adjoining state's sale section. The Helena National Forest is planning a timber sale in the Gipsy Lake-Duck Creek Pass area.

Bo Stewart, the hydrologist for the Helena National Forest is conducting a Cumulative Watershed Effects Analysis for the Big Birch Creek drainage. I will evaluate the results of his analysis when he has completed the project. However, I do not anticipate any cumulative watershed effects constraints with our proposal as currently planned. My preliminary recommendation is based on the following reasoning: 1) The moderate level of existing timber harvest in the drainage. 2) The headwaters, which is the greatest runoff contributing area, is a proposed wilderness area and undeveloped. 3) The small size and volume of the state's proposal. 4) Only a small percentage of the state's section is forested (approximately 50 acres).

There are existing water rights for irrigation and livestock water downstream of the sale section on Little and Big Birch Creek.

GREEN CREEK - This sale is located in the Green Creek watershed which is a tributary to the Middle Fork of the Dearborn River. The sale proposal consist of 2 partial cut or selection harvest units and one clearcut unit. A total of approximately 75 acres will be harvested with an estimated volume of 300 MBF.

The private land adjoining the proposed sale is currently being harvested and portions of it have undergone a moderate level of harvest in the recent past. The headwaters of Green Creek and the North Fork of Green Creek are under Forest Service ownership. I have requested a timber stand history retrieval from the Helena National Forest database to evaluate the extent of past Forest Service activities.

I do not anticipate any cumulative watershed effects constraints with this sale. I will evaluate the need for a more thorough watershed analysis once I receive the requested information from the Forest Service.

There are existing water rights for domestic consumption, lawn and garden, and livestock watering downstream of the sale section.

BOZEMAN UNIT

TOM MINER - A water yield analysis was completed on the basin and reported on in a memo from Bill Schultz dated January 10, 1991. The proposed timber sale is not constrained by potential cumulative watershed impacts.

SHADOAN - The Shadoan timber sale has been in the planning and negotiation process since 1978. Access problems are largely causing the delays. The Central Land Office has advised me defer any detailed analysis till access is secured.

Horseshoe Hills - The sale area is drained by an unnamed 2nd order intermittent tributary to Sixteenmile Creek. The unnamed drainage is only partially forested and has undergone little development in the recent past. Sixteenmile Creek is a large watershed with headwaters in the Big Belts and Bridger Range. It drainage area is comprised of mostly agricultural and rangeland foothills and valley bottoms. No cumulative watershed effect constraints with this sale.

There are several exiting water rights for stock watering downstream of the sale area.

DILLON UNIT

ARROWHEAD MOUNTAIN - The sale area is drained by a several first order tributaries of Tom Creek. Tom Creek is a 2nd order watershed which discharges into Upper Red Rock Lake. The Lake and lower portion of Tom Creek watershed are located on the Red Rock Lakes National Wildlife Refuge. The drainage is largely undeveloped with most of the headwaters portion of the watershed lying within the proposed Centennial Mountains Wilderness Area.

The department has received several letters from both conservation organizations and private citizens expressing concerns with the proposed sale. Several watershed issues were raised in these comments, including: 1. What are the potential impacts of the proposed timber sale on water quality in Red Rock Lakes and the Tom Creek Watershed ? 2. What is the potential for soil erosion and slope instability from the proposed road building and timber harvest ? 3. What are the potential impacts to the fisheries resource in the area ? Of particular concern are potential effects is the arctic grayling population? 4. How will the state quantify and measure potential impacts ?

I do not anticipate any cumulative watershed effects constraints with the timber sale as currently planned. Because of the publics sensitivity toward timber harvest in the area, a thorough watershed analysis should be completed to document current watershed conditions and the potential for impacts. The BLM has proposed a land exchange with the DSL that would involve the sale section. I will proceed with a detailed water yield and sediment yield analysis as soon as a decision is reached regarding the feasibility of a land exchange with the BLM.

PATCHTOP MOUNTAIN - This sale is still in the early stages of planning with only tentative harvest areas located and access is uncertain. All of area delineated as possible harvest stands are located in the Snowshoe Creek drainage. Very little of the drainage is forested and based on 1981 air photos, no significant development activities have taken place. I do not anticipate cumulative watershed effect constraints with this sale.

There are existing water rights for domestic (well) use, stockwater, and irrigation downstream of the sale area.

TEPEE CREEK - This sale is also in the preliminary stages of planning. Stands delineated as possible harvest areas are located in both the Tepee Creek and several tributaries of the West Fork Madison River. Tepee Creek is 3rd order perennial tributary to Red Rock Lakes. The Tepee Creek drainage is mostly non-forested with no harvest activities in the recent past. I do not anticipate cumulative watershed effect constraints in the Tepee Creek drainage.

The West Fork of the Madison River drains an area that is predominately Forest Service ownership. There are several completed and proposed Forest Service timber sales adjacent to the department's proposal in the West Fork. The Madison District of the Beaverhead N.F. recently completed an Environmental Assessment for the entire West Fork drainage. That EA included sediment yield analysis for several tributary streams completed by the Forest Hydrologist. A significant portion of the area delineated as possible timber harvest on state land is located in Meridian Creek. The Forest Service study concluded that sediment yields in Meridian Creek where above acceptable threshold levels.

I plan to evaluate the Forest Service analysis and the extent of Forest Service harvest in the West Fork of the Madison River. I will make recommendations concerning the potential for cumulative watershed effects as soon as I receive that information and have time to evaluate it.

There are existing water rights on file for domestic (well), livestock, and irrigation uses downstream from the proposed sale area.

OTHER SALES - I was recently informed of the possibility that the Dillon Unit would move the Hoffman Gulch and Kelly Creek Timber Sales ahead of schedule on the Six Year Timber Sale Plan. These late changes will require additional time for preliminary input due to my current workload and other scheduled priorities.

JULY 29, 1991

TO: MARK D. AHNER, MANAGER, CLO
PAT FLOWERS, SUPERVISOR, STATE LAND MANAGEMENT
BOB VLAHOVICH, MANAGER, HELENA UNIT
D.J. BAKKEN, FORESTER, HELENA UNIT

FROM: GARY FRANK, HYDROLOGIST GF

SUBJECT: COMERS BUTTE TIMBER SALE

This sale was review in the field with D.J. Bakken, John Monzie, Garry Williams, Bob Vlahovich, Jeff Collins and a representative from the Dept. of Fish, Wildlife and Parks on June 19, 1991.

WATERSHED: The sale area is drained by Big Willow Creek, a tributary of Belt Creek. Approximately 50% of the 2285 acre watershed is forested, the remaining land is agricultural and rangeland. Most of the forested land is located on Forest Service ownership in the headwaters portion of the drainage and the state section in the lower watershed. There are existing water rights for livestock use downstream of the sale area.

CUMMULATIVE EFFECTS: A minor amount of timber harvest has occurred with in the watershed in the recent past. Timber harvest have occured on both the state section and some of the private land adjoining it. The proposed timber sale includes harvesting only a small part of the forested portion of state ownership. The current proposal is for harvesting a total of approximately 60 acres using clearcut, selection and salvage prescriptions. There are no cumulative watershed effect constraints with this timber sale.

HARVEST UNITS: There were no streams (pertinent to definition contained in H.B. 731 or BMPs) identified within the sale area. Therefore, there are no SMZ requirements with the harvest units as currently planned. Several emphemeral draws where located that should be excluded from equipment operation by establishing equipment restriction zones (see map - Figure 1) . Use designated crossing for skidding if necessary.

Several potentially sensitive wet areas were located in Unit #3 during the field review. It was decided during the field review that the unit would be modified to protect these areas. The selected option was to determine the location of select groups of merchantable trees growing in areas where tracked or wheeled skidding was acceptable. Once located, these stands would be delineated into several small harvest units. This approach was opted over maintaining a single large unit with scattered volume and an array of equipment restriction zones.

ROADS: The sale will utilize both existing roads and new road construction for access and haul route. The existing roads include both a main system county road and a low standard logging road on private land. Approximately 1.25 miles of new road will be constructed on both state and private land. Site specific recommendations are as follows :

Site #1 - New road location crossing water draining low lying wet area. Install an 18" CMP. A load of gravel will be needed to provide for adequate pipe bedding and fill compaction.

Site #2 - New road location crossing low lying wet area. Use geotextile (soil stabilization fabric) and gravel to construct crossing (refer to Jeff Collin's write-up for specific design details).

Site #3 - Construct drive-thru drain dips at several locations as discussed in the field.

Use of all the proposed roads will be limited to dry seasonal use due to the utilization of drive through draw crossings and the operating limitations of Site #2.

I do not anticipate any water quality impacts with the sale as currently proposed.

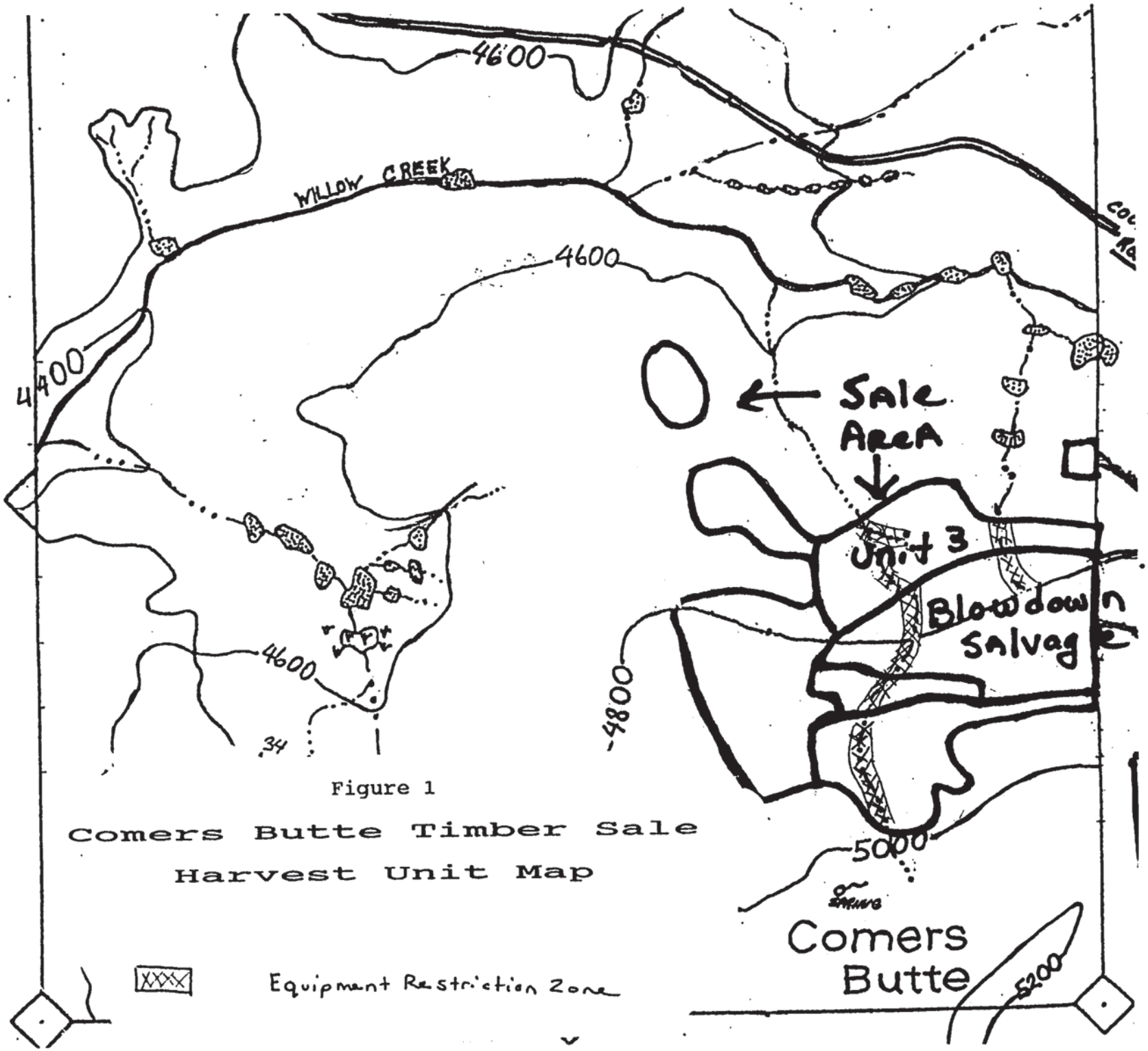


Figure 1

Comers Butte Timber Sale

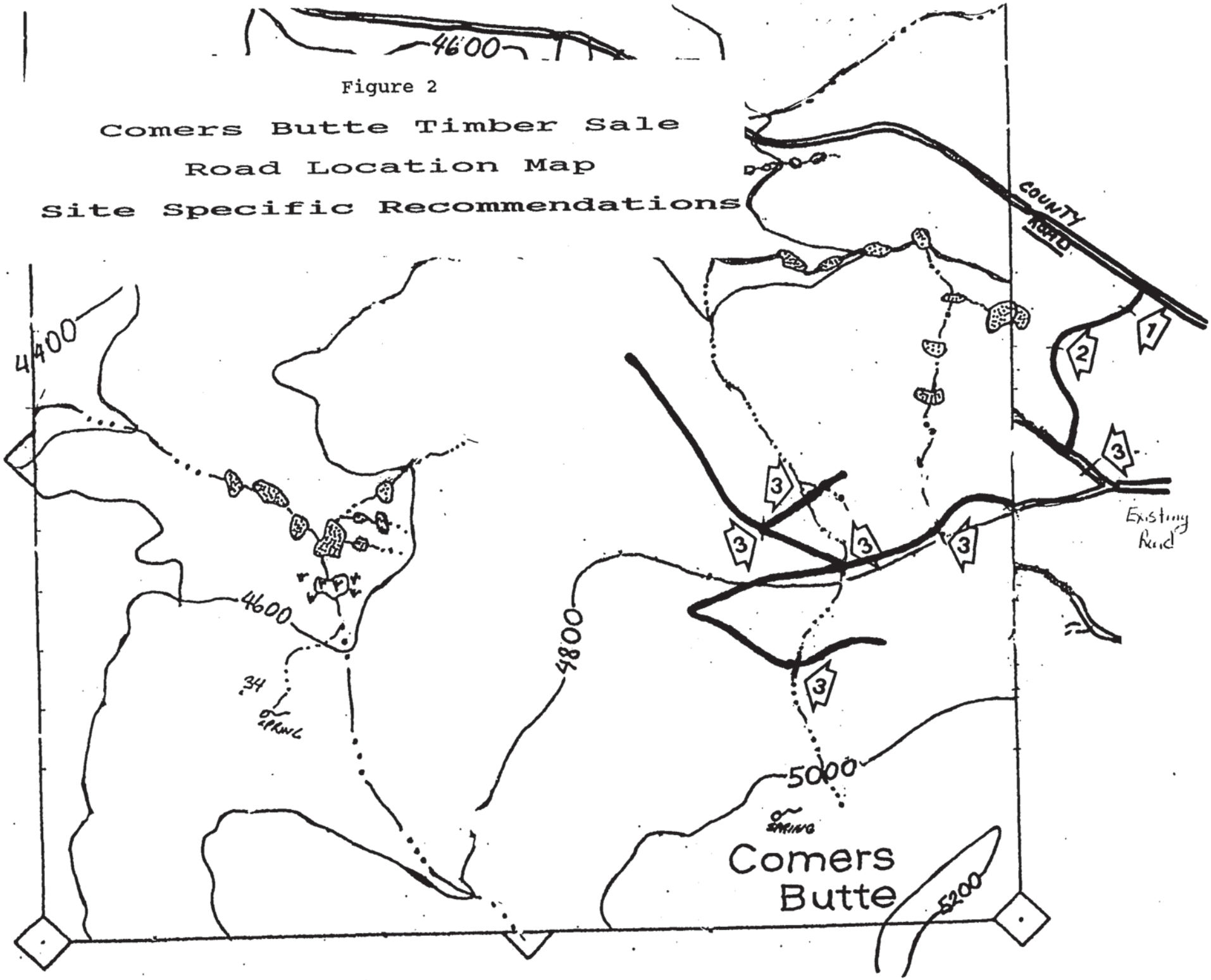
Harvest Unit Map

Figure 2

Comers Butte Timber Sale

Road Location Map

Site Specific Recommendations



AUGUST 2, 1991

562

TO: MARK D. AHNER, MANAGER, CLO
PAT FLOWERS, SUPERVISOR, STATE LAND MANAGEMENT
BOB VLAHOVICH, MANAGER, HELENA UNIT
D.J. BAKKEN, FORESTER, HELENA UNIT

FROM: GARY FRANK, HYDROLOGIST

SUBJECT: SOUTH FORK LITTLE BELT CREEK TIMBER SALE

This sale was review in the field with D.J. Bakken, John Monzie, Garry Williams, Bob Vlahovich, Jeff Collins and a representative from the Dept. of Fish, Wildlife and Parks on June 19, 1991.

WATERSHED: The sale area is located with in the South Fork of the Little Belt Creek drainage. The South Fork is a 3rd order perennial stream draining a 1444 acre watershed located in the southeast edge of the Highwood Mountains. Approximately 50% of the watershed is forested. There are existing water rights for domestic (surface water source) and livestock use downstream of the sale area.

CUMULATIVE EFFECTS: Based on both 1990 aerial photography and field review, very little development activity has occurred in the watershed. Past timber harvest appears to be limited to historic forest clearing in the lower watershed. The current proposal is for two small clearcut harvest units totaling approximately 13 acres. There are no cumulative watershed effect constraints with this timber sale.

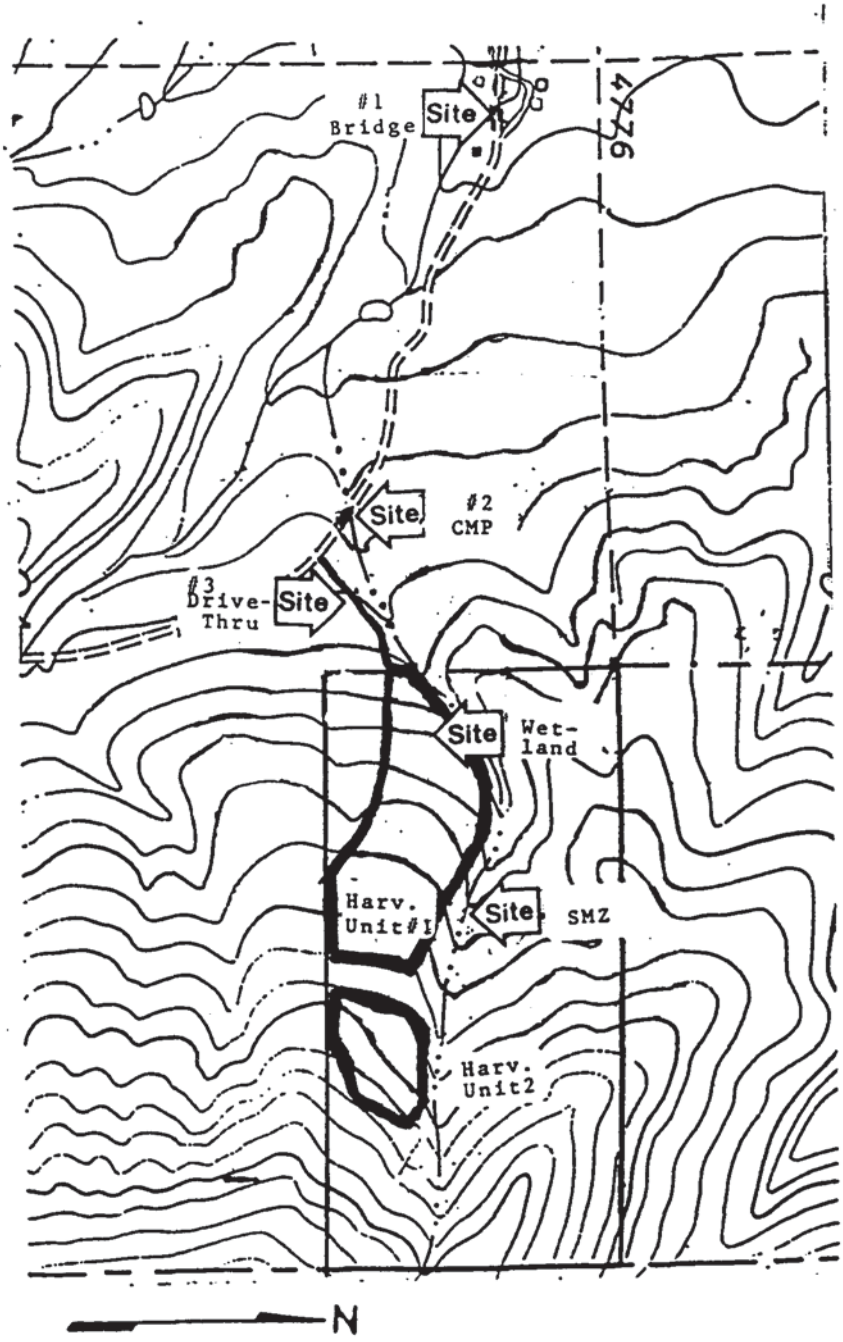
HARVEST UNITS: Both harvest units are located adjacent to an active stream channel. During the field review an equipment restriction zone was flagged for the entire length of the SMZ. SMZ width was determined in accordance with House Bill 731 and the SMZ width formula proposed in Departments draft Watershed Standards and Guidelines. The SMZ boundary for the lower portion of Harvest Unit #1 (see map - Figure 1) is located on a bench topographic feature that meets the required 50 ft. minimum SMZ width. SMZ widths were extended 50 to 100 ft. beyond the 50 ft. minimum to compensate for steeper side slopes on the upper portion of Unit #1 and Unit #2. The SMZ was also extended to restrict equipment operation near an adjacent wetland area in Unit #1 (see map).

ROADS: The proposed sale will utilize existing county and private roads for access and hauling. A short segment of new road will be constructed across private land. Site specific recommendations are as follows (locations are referenced on the map):

1) Bridge - A log sill bridge will be constructed on private land at a new crossing location. The proposed bridge site has been relocated from the existing ford to provide better road alignment. I have enclosed some design information for a simple log sill bridge. The approximate location for setting the sill logs was identified during the field review. The bridge should be designed to provide a minimum clear height of 3 ft.

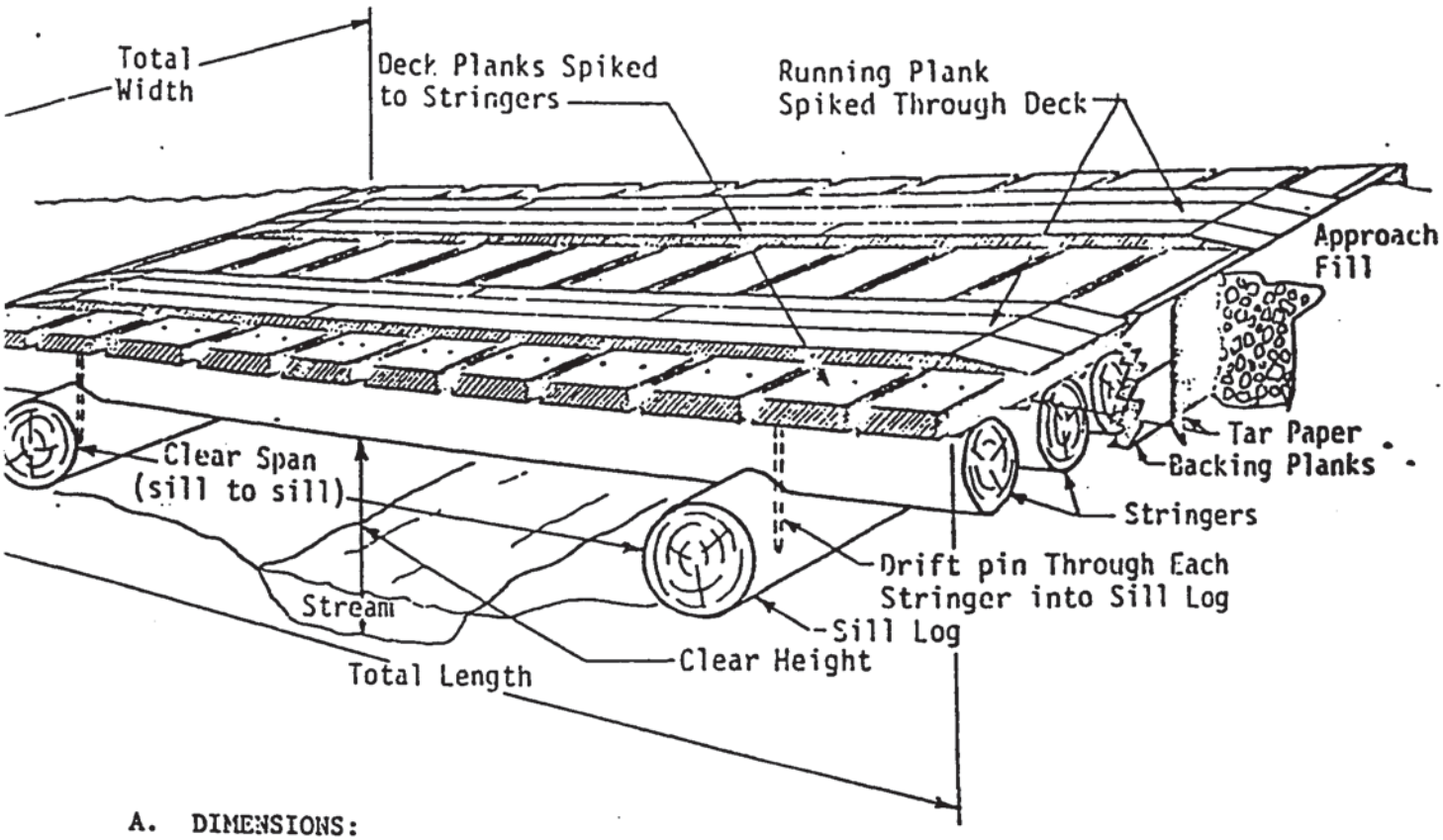
2) CMP - Use of the existing low standard road on private land will require installation of a CMP at a site that is currently utilizes unimproved crossing. There are two alternative: 1) Install a temporary 24" CMP for dry seasonal use. The pipe must be removed before spring runoff; or 2) Permanent installation of a 36" CMP.

3) Draw - Construct a drive-thru drain dip at crossing of ephemeral draw.



SINGLE LOG SILL BRIDGE

1. SINGLE LOG SILL BRIDGE: The bridge(s) required to be constructed under the terms of Section IV, Paragrpah 1, Item C, Table 4 are to be constructed and installed to the following specifications:



A. DIMENSIONS:

Road Station	Finished Size				Stringers				Sill Logs		Deck Plank Length
	Length	Width	Clear Span	Clear Height	Min. No.	Mid Span dia.(min.)	Top Dia. minimum	length	Min. Dia.	Length	
				3ft							

B. MATERIALS:

1) Stringer and sill logs: peeled Douglas-fir or larch. All sound wood free of attack by wood boring insects.

2) Planking: Douglas-fir or larch, construction grade #2 or better. Minimum dimension 3 inches x 8 inches. Running plank minimum length 12 feet.

3) Nails: Deck to stringers - 3/8"x8". Running plank to deck - 60d common nails.

4) Tar paper: 30 lb impregnated petroleum base felt paper.

CONSTRUCTION AND INSTALLATION:

1) Clearing and Excavation:

   a. Crossing of the stream channel by heavy equipment will be restricted to one crossing site. The number of crossings must be kept to an absolute minimum.

   b. Excavation of the pads for the sill logs will be accomplished by use of a backhoe, dozer backblading or by hand.

   c. The pad locations and the bridge approaches shall be stripped of all humus, topsoil and organic debris. All unstable soil in the location of the sill pads and bridge approaches shall be excavated and replaced with selected borrow. Waste material shall be disposed of in a manner and at a location as directed by the Forest Officer in charge.

2) Sill Logs:

   a. The sill logs shall be bedded to achieve the required clear span and clear height. Logs should be an equal distance from the high water edges of the stream and level to the roadway profile.

   b. Contouring and fitting of the bearing pads may be necessary to level the top of the sill logs. If the bearing material has been disturbed, it shall be compacted with a hand held mechanical compactor.

   c. Sill logs may be notched at the stringer log bearing joints not to exceed 3 inches in depth.

3) Stringer Logs:

   a. All stringer log joints are to be coved or notched and securely fastened with a drift pin of at least 3/4 inches in diameter. Holes for drift pins are to be 1/16 inch undersize and penetrate at least half the diameter of the sill log. Notching not to exceed 3" deep is permitted at the butts or tops for the bearing joints.

   b) Tops of stringer logs may be leveled by hewing. Hewing shall not exceed 3 inches depth nor extend for more than 1/4 the span length.

   c) Logs with a camber (sweep) greater than 6 inches at the midpoint deflection are not acceptable. Stringer logs with slight camber will be rotated to have the camber upward. Stringers shall also be placed with the majority of surface knots facing upward.

   d) Stringer log ends shall be cut to equal lengths and 3"x12" backing planks installed. A tar paper strip will be placed between the plank and the approach roadway fill.

4) Deck Planking:

   a) Stringer logs are to be leveled and planking firmly spiked to the logs, spiking with two spikes at each stringer joint per plank.

   b) Wood shims not less than 3" wide may be used on the top of the stringer logs to level the cross planking. Shims are to be securely fastened to the stringer log.

   c) A strip of tar paper shall be placed along the top of each stringer log prior to securing cross planking.

   d) Cross planking shall have a one to two inch spacing between planks.

5) Running Plank:

a. Running plank are to be laid parallel to the stringer logs for the entire apan of the bridge and firmly secured to the cross planking with 60d nails at staggered 16" centers. On bridge spans greater than the length of the planking material, the end joints shall be staggered.

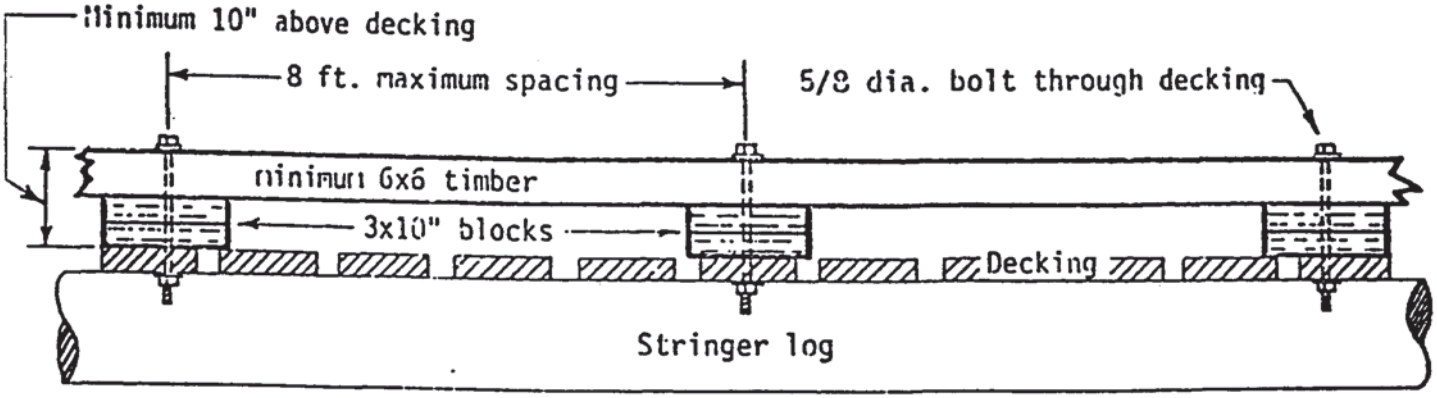
b. Running planks shall be butted tightly on sides and ends with each tread not less than 36" wide. Tread spacing will accomodate standard size vehicles and logging trucks. Running planks shall have the approach ends tapered at a 30 degree angle.

6) Wheel Guard Rails:

a. All bridges shall be constructed with wheel guard rails extending the full length of the bridge.

b. The rails shall be nominal 6"x6" minimum Douglas-fir or larch mounted on 3"x8"x8" or larger wood blocks bolted through the decking with 5/8 inch bolts.

c. The top of the rails shall be at least 10 inches above the deck. A maximum spacing of 8 feet is required between blocks.



WHEEL GUARDS FOR LOG SILL BRIDGE

7) Backfill and Approaches:

a. Backfill shall be selected borrow approved by the Forest Officer in charge and applied in layers not to exceed 12 inches per lift. Each layer shall be compacted before the next lift is applied. Compaction adjacent to the sill logs will require the use of a hand held mechanical compactor. The remainder of the approach fill may be compacted with wheeled or tracked equipment.

b. The grade of the finished road surface shall slope away from the elevation of the deck of the bridge as approved by the Forest Officer.

8) _____

_____

_____

_____

August 30, 1991 552

TO: GARRY WILLIAMS, Silviculturist, Central Land Office
ROBERT VLAHOVICH, Field Supervisor, Helena Unit
D.J. BAKKEN, Forester, Helena Unit
PAT FLOWERS, Supervisor,State Land Management Section

FROM: JEFFRY COLLINS, Soil Scientist JC

SUBJECT: COMER'S BUTTE TIMBER SALE, Section 16, T6N, R4E

The sale area is located on glacial till and residual soils weathering from volcanic bedrock. Rock where exposed is fractured and common excavation.

Loberg/Cheaddle clay loams are the dominate soil type on the forested sites. Soils are typically moderate to deep silty clay loams. Soil fertility and moisture holding capacity are good. Main soils concerns are soil displacement, compaction, and moderate/high erosion potential.

There are signs of past slope instability and wet areas on the site as evidenced by old scarps and surface creep. I surmise these features are associated with past geologic events such as faulting, because the standing trees are straight and do not show recent signs of surface movement during the life of this stand.

RECOMMENDATIONS-

Harvest units **A and B** on map will require planned skid trail systems to avoid wet ites, scarps and short steep slopes (refer to skid guide attached). Skidding plan will require careful location of landings and skid trails to minimize soil disturbance and erosion.

Prior to logging, the sale administrator, sale contractor and skidder operators should review the skidding plan, trail locations and landing locations. Equipment restriction zones (ERZ) will be marked out for marginally stable sites, slopes over 45% and wet spots. Timber within the ERZ can bull-lined by winch.

Dozer piling of slash is not recommended on slopes over 35% or wet spots/ Consider lop and scatter brush , whole tree yardin, or jackpot burning of high slash areas. Forester officer and dozer piling operator must have a pre-op meeting to check soil moisture and agree on objectives/degree of site prep.

ROADS- The proposed road construction crosses moderate to steep sideslopes of shallow soils over well fractured bedrock. New road construction will require short reaches of road geotextile and gravel over two locations of poor bearing strength at Pts **CMP 1 and Site 2** on map).

Install erosion control features following erosion index 80 or best location, breaks in grade as located by Forest Officer.

CMP # 1 Deep clay soils of low bearing strength on moist site. Bed pipe in select borrow and place geotextile with 9in. of gravel surface for about 100 ft. up grade and 50 ft. downgrade of pipe.

SITE # 2 Wet draw crossing located on best available grade and location. Agreed CMP not needed if construct drive thru crossing with geotextile and 9 in. gravel lift for roughly 150ft. All gravel to be 3" minus and installed prior to hauling.

SITE # 3 Switchback on existing road has water on road and steep grade. Widen curve, reduce grade and ditch along cut portion of switchback. (refer to diagram 4).

Slope stability can be maintained by avoiding deep road cuts and installing proper road drainage. Shape cutslopes to 1:1 ratio for slope stability.

It is important to limit operations to periods when soils are dry or frozen due to the low strength soils to reduce soil impacts and road damage to drainage features. Operation during wet periods requires a higher standard of road design.

To reduce erosion and weed establishment, seed site adapted grass promptly on roads and landings.

Skidding guide for areas of marginal slope stability at Comers' Butte

Do not excavate or run equipment on scarps and slump toes. Designate skid trails to side and water bar following use.

Waterbars installed to drain runoff away from slumps

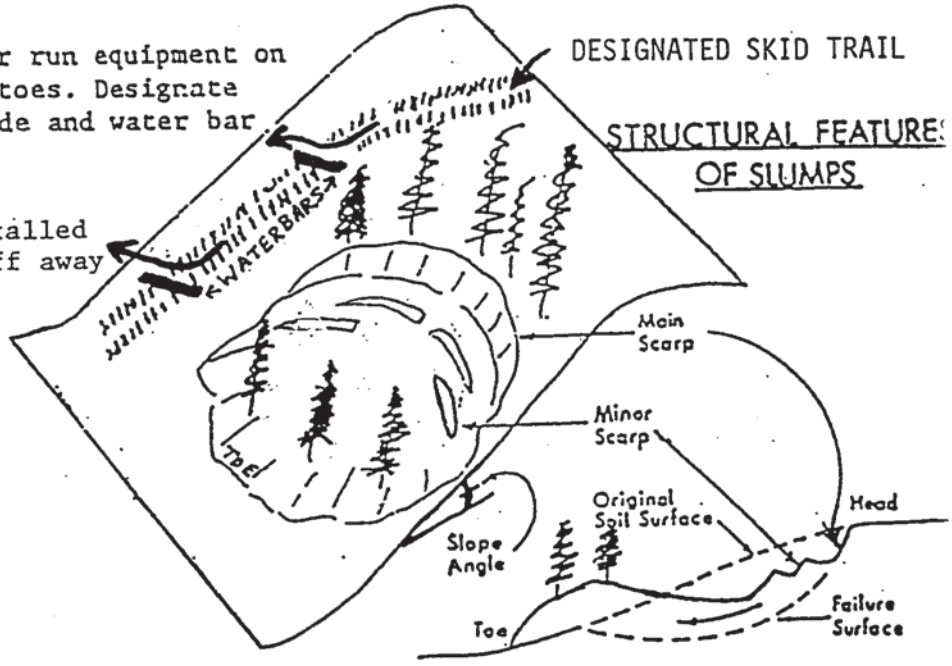
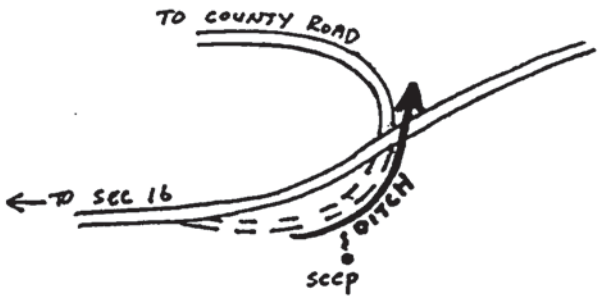
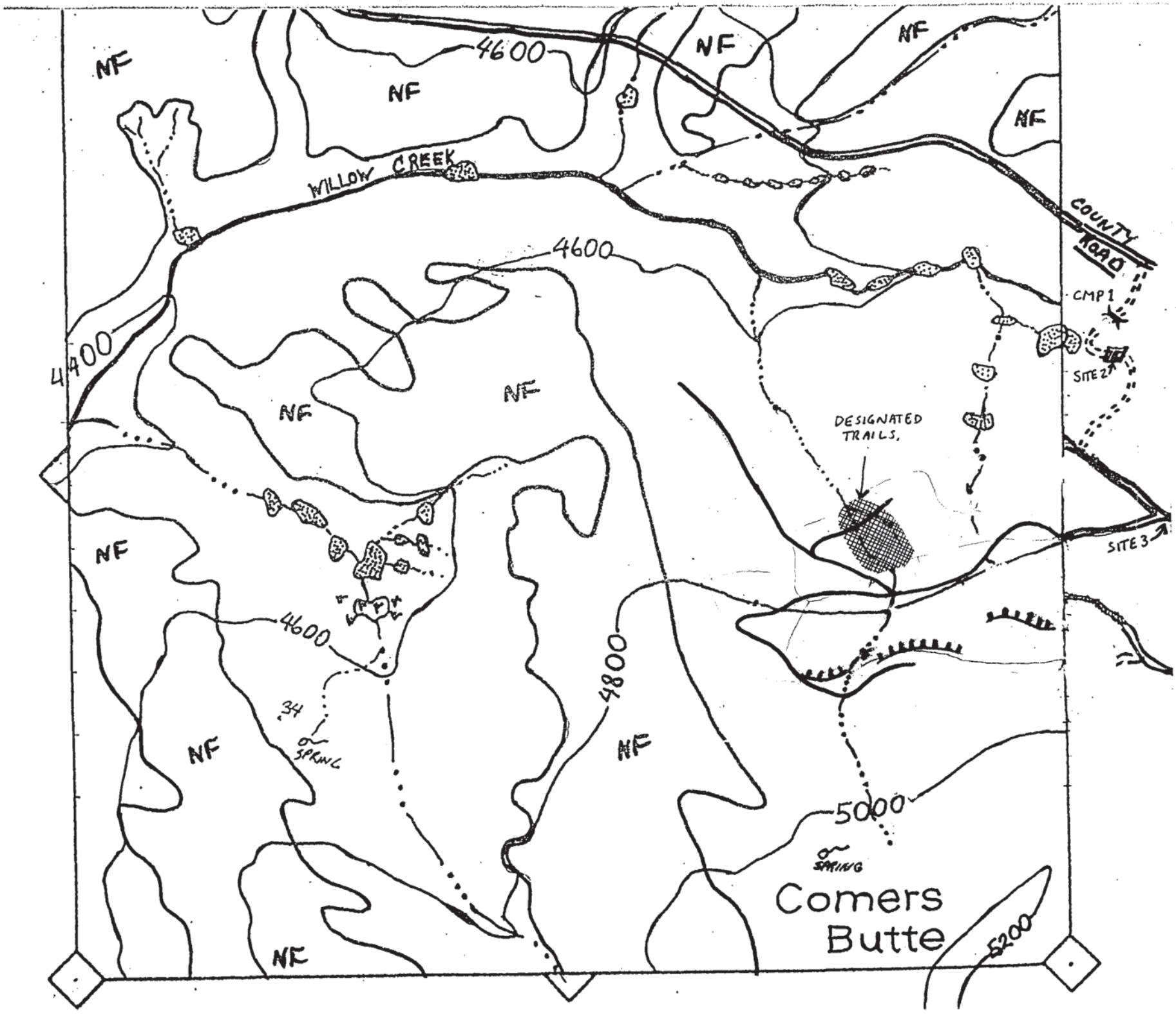


DIAGRAM 4
Detail Site #3

Minor road relocation to improve road radius and drainage




NF
4600
NF
NF
NF
NF
WILLOW CREEK
COUNTY ROAD
4600
CMP 1
4400
SITE 2
NF
NF
DESIGNATED TRAILS.
NF
SITE 3
4600
4800
34
SPRING
NF
NF
5000
SPRING
Comers Butte
5200

RV

TO: Jeff Collins, Soil Scientist
Gary Frank, Hydrologist

FROM: Bob Vlahovich, Unit Manager - Helena Unit

DATE: September 13, 1991

SUBJECT: Highwoods Timber Sale

Attached are updated sale maps of the Highwoods Sale per our phone conversation. Note: On the South Fork track Unit #6 is the SMZ and has been marked to cut as per our conservation on the field review. On the Combers tract; Unit 4 has been adjusted to leave out the area of concern we talked about on the field review. In Units #1 & #2, equipment restriction zones are marked on the ground as mapped. Steep pitches and swales are addressed in contract language and will be covered at pre Ops Meeting, skidding plan review and brush plan review.

As we discussed on the field review the best material source for the CMP's is probably the pit near Belt due to the preponderance of weeds in the closest pit.

If you have any questions on comments, give me a call.

dh

Attach.

TO: Jeff Collins, Soil Scientist

FROM: Bob Vlahovich, Unit Manager - Helena Unit RV

DATE: October 2, 1991

SUBJECT: Combers Butte Haul Road

In working up road costs for the Highwoods sale, costs for CMP 1 and Site 2 discussed in your memo of August 30, 1991 came out quite high. This was primarily due to the length you recommended, (150'), be treated with geotextile and gravel at these sites. In view of the low volume to be hauled, temporary nature of the road and operating season being limited to dry or frozen conditions it seems best to minimize costs to that absolutely necessary to protect the two crossing sites. I am proposing we reduce this treatment to 40' at CMP 1 and 50' at Site 2. Coupled with the dry or frozen operating limits this should be adequate. Over the long term this may also allow a better chance at revegetating the roadway on private ground after our use.

Get back with me if you see any major problem with this proposal.

dh

October 17, 1991 552

TO: ROBERT VLAHOVICH, Field Supervisor, Helena Unit
D.J. BAKKEN, Forester, Helena Unit
PAT FLOWERS, Supervisor,State Land Management Section

FROM: JEFF COLLINS, Soil Scientist

SUBJECT: HIGHWOOD'S TIMBER SALE, Section 16, T6N, R4E

Bob; thanks for the plan update on the Highwoods sale. The total distance of roughy 150 ft. of gravel and geotextile was an estimate for CMP 1 and crossing 2. Based on your site review, if you feel the shorter distances are adequate, OK! The emphasis is to gravel across the wet sites of clayey soils.

The culvert and gravel should be applied in summer/fall prior to frozen conditions. Reducing the distance of gravel may also limit the season of use some, since these sites tend to remain moist.

I am concerned about the short steep pitches and wet spots in portions of units 2 and 4. I am not sure we can protect these spots by contract clauses without equipment restriction zones or designating the skid trail locations. Past experiences have shown that sites like unit 1 and 2 will require above average sale admin. time.

SOUTH FORK OF BELT CREEK, Section 24, T6N, R4E

The revised sale boundaries look good with the appropriate SMZ buffer in Unit 6.

Prior to logging, the sale administrator, sale contractor and skidder operators must review the skidding plan, trail locations and landing locations. Specific areas to avoid, such as slopes over 45% should be stressed during the pre-operation meeting.

Dispersed skidding and dozer piling of slash is not recommended on slopes over 35%. Consider lop and scatter brush or whole tree yarding in high slash ares.

ROADS- Use existing roads with some new road construction and a log sill bridge. Native material is adequate for construction of bridge approach fills and bedding of culvert.

It is important to limit operations to periods when soils are dry or frozen due to the low strength soils to reduce soil impacts and road damage.

Site adapted grass seed should be applied promptly on roads and landings.

Montana Department of Fish, Wildlife & Parks

P.O. Box 6610
Great Falls, MT 59406

August 30, 1991

Bob Valhovich
Department of State Lands
8001 N. Montana
Helena, MT 59601

RE: Comers Butte and Vicinity Timber Sale

Dear Bob,

We apologize for the tardy response to the Comers Butte timber sale. We were sure we responded, however we can't find a response in our files.

Frank Feist, our management biologist for the Comers Butte area, was briefed on the sale by me. He has no objections to your proposed timber sale.

Please contact me if I can provide any more help.

Sincerely,

Kerry Constan

KERRY CONSTAN
Asst Regional Wildlife Manager

KC/EH

Montana Department of Fish, Wildlife & Parks

4600 Giant Springs Road
P.O. Box 6610
Great Falls, MT 59406

July 12, 1991

D.J. Bakken
Department of State Lands
8001 N. Montana Ave.
Helena, MT 59601

Dear Mr. Bakken:

Thank you for allowing us to participate during the field trip on June 19.

We have reviewed your tentative logging plans for the Comers Butte and South Fork Belt Creek areas of the Highwood Mountains. A question remains as to your plans for road management on private and state lands after the sale has been completed.

We would appreciate reviewing your final proposal when it has been completed.

Sincerely,

Mike Aderhold

MIKE ADERHOLD
Region 4 Supervisor

FF/FS

Montana Department of Fish, Wildlife & Parks

4600 Giant Springs Road
P. O. Box 6609
Great Falls, MT 59406
April 19, 1990

Department of State Lands
8001 North Montana Avenue
Helena, Montana 59620

ATTENTION: Garry Williams

RE: Potential Timber Sales for FY92, Comers Butte and Crown Butte, and FY95, Stickney Creek

Dear Garry:

We have the following general comments concerning proposed timber sales on State owned lands in Cascade and Lewis & Clark Counties.

T19N, R8E, S 16 & 36 Comers Butte:
Section 16 (Comers Butte) is an island of wildlife habitat which receives some year long elk use. The area provides excellent mule and white-tailed deer as well as ruffed grouse habitat. 1991
Section 36 (South Peak) is important year-long elk, mule deer and blue grouse habitat. ← no way - too steep

T16N, R6E, S 16 (Crown Butte):
This area lies within the headwaters of Belt Creek near the Sluice Boxes State Natural Area. Logging activity could impact water quality, fishing and scenic recreational values of this area. 1991

T15N, R2W, S 10, 14, 16 (Stickney Creek):
This area is summer and fall elk habitat. The fact that considerable logging has been done on surrounding privately owned land makes these State sections especially valuable for elk. 1995

Thank you for notifying us concerning these proposed sales. We look forward to working with you as your plans develop and plan on us participating in the field reviews.

Sincerely,

Dan Vincent
Regional Supervisor

DPV/FF/ez

Montana Department of Fish, Wildlife & Parks

P.O. Box 6610
Great Falls, MT 59406

April 1, 1991

Mr. David J. Bakken
Department of State Lands
8001 North Montana Avenue
Helena, Montana 59601

Dear Mr. Bakken:

Thank you for keeping us informed on your proposed logging activities. When you have a definite proposal for the South Fork of Little Belt Creek, we would be interested in reviewing the project.

Sincerely,

Mike Aderhold by kyc

MIKE ADERHOLD
Regional Supervisor

MA/KC/eh

DEPARTMENT OF STATE LANDS

FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

CAPITOL STATION

STATE OF MONTANA

Central Land Office: Helena, MT (406) 444-3633
Eastern Land Office: Miles City, MT (406) 232-2034
Northeastern Land Office: Lewistown, MT (406) 538-5989

Northwestern Land Office: Kalispell, MT (406) 752-7994
Southern Land Office: Billings, MT (406) 259-3264
Southwestern Land Office: Missoula, MT (406) 542-4200

8001 North Mont. Ave.
Helena, MT 59601
March 19, 1991

Dale Gorman, Forest Supervisor
Lewis & Clark National Forest
1101 - 15th St. North
Box 869
Great Falls, MT 59403

Dear Mr. Gorman:

The Dept. of State Lands is currently reviewing timber management options in the following sections.

N½NE¼ Sec. 24-T19N-R8E
Sec. 16, T19N - R8E

These sections are located near Lewis & Clark National Forest lands. To better plan our activities, I would appreciate your responses to the following questions:

1. Is the Lewis & Clark Forest planning any management activities 1) for this area in general, and 2) in the Little Belt Creek or Big Willow Creek drainages in particular?

2. Have any of your recently completed projects encountered cumulative effect problems relating to watershed or wildlife cover?

3. Do you have any specific concerns regarding a possible timber harvest on these state tracts?

4. Are you aware of any special interest groups, active in this area who I should also contact?

I will be examining these parcels more closely in the coming months. I would appreciate your response by May 31, 1991.

Sincerely,

D.J. BAKKEN
Unit Forester
Helena Unit

"AN EQUAL OPPORTUNITY EMPLOYER"

DEPARTMENT OF STATE LANDS

STAN STEPHENS, GOVERNOR

CAPITOL STATION

STATE OF MONTANA

(406) 444-2074

1625 ELEVENTH AVENUE
HELENA, MONTANA 59620

December 10, 1991

MEMORANDUM

TO: Robert Vlahovich, Helena Unit Manager, CLO

FROM: Dori Passmann, Archaeologist, Land Management Section

RE: Comers Butte Timber Sale
E½ 16-19N-8E

No cultural properties are recorded within your project area. Though sites are likely in this section, the small scope of this sale does not warrant an inventory. I do request that field personnel continue to be on the alert for sites. This sale has archaeological clearance.

Please let me know if I can be of further assistance.

/ns

DEPARTMENT OF STATE LANDS

FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

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8001 North Mont. Ave.
Helena, MT 59601

April 18, 1991

Frank & Vivian Urick
Box 17
Belt, MT 59412

Dear Mr. & Mrs. Urick:

The Department of State Lands is currently looking at Section 16, T19N, R8E (Comers Butte) to determine forest management options. Last week we did some mapping and cruising in this section. There are some potentially commercial stands of timber on this section. I am pursuing a Temporary Right-of-Way Agreement with Fred Kraftenberg to access this section from the east.

I have already been in contact with the State's leasee, John Gliko and the Department of Fish, Wildlife & Parks. As nearby landowners, you may have some comments or concerns regarding a proposed timber sale. If you do, please contact me by May 31, 1991. I hope to do the sale planning and layout in June and I can best incorporate your concerns into the plan if received by the above date.

Last week, I noticed an existing access road leaving the south side of this section. At this time I do not anticipate needing the use of this road. If our plans should change, I would, of course, need to setup a Temporary Right-of-Way Agreement with you.

If you have questions or comments, please contact me. I can be reached most easily by mail at the above address, or you may call me at 1-800-821-6415 or 444-3633.

Sincerely,

D.J. BAKKEN
Unit Forester
Helena Unit

dh

Encl.

AN EQUAL OPPORTUNITY EMPLOYER

NOTICE-NOTICE
The Department of State Lands is hereby requesting comment from interested parties, in compliance with the Montana Environmental Policy Act, regarding forest management actions, including possible timber harvest activities, on the following State School Trust Lands within Cascade County.
N½NE¼, Section 24 and Section 16 T19N, R8E M.P.M.
Comments may be sent to, and further information may be obtained by contacting the:
Department of State Lands, 8001 N. Montana Ave., Helena, MT 59601
Comments will be accepted until June 15, 1991.
(500465) 5/5; 15.

AFFIDAVIT OF PUBLICATION

Brenda J. Johnston being first duly sworn deposes and says that GREAT FALLS TRIBUNE COMPANY is a corporation duly incorported under the laws of the State of Minnesota, that the said GREAT FALLS TRIBUNE COMPANY is the printer and publisher of the GREAT FALLS TRIBUNE, a daily newspaper of general circulation, published and printed in the City of Great Falls, in the County of Cascade, State of Montana, and that the deponent is the principal clerk of said GREAT FALLS TRIBUNE COMPANY, printer of the GREAT FALLS TRIBUNE, and that the advertisement hereto annexed

Notice-Notice

has been correctly published Two times in the regular and entire issue of said paper on the following dates:

5th, 15th day of May 19 91
____ day of ____ 19 ____
____ day of ____ 19 ____
____ day of ____ 19 ____
____ day of ____ 19 ____
____ day of ____ 19 ____

Brenda J. Johnston

STATE OF MONTANA, County of Cascade } ss.

On this 17th day of May, 19 91, before me the under signed, a Notary Public for the State of Montana, personally appeared Brenda J. Johnston, known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same.

In witness whereof, I have hereunto set my hand and affixed my Notarial Seal the day and year first above written.

Yvette K Clausen

Notary Public for the State of Montana, residing at Great Falls, Montana, My commission expires: 6-26-92

DEPARTMENT OF STATE LANDS

FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

CAPITOL STATION

STATE OF MONTANA

Central Land Office: Helena, MT (406) 444-3633
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Southwestern Land Office: Missoula, MT (406) 542-4200

8001 North Mont. Ave.
Helena, MT 59601

April 18, 1991

Victor Smerker
911 - 4th Ave. South
Great Falls, MT 59401

Dear Mr. Smerker:

The Department of State Lands is currently looking at Section 16, T19N, R8E (Comers Butte) to determine forest management options. Last week we did some mapping and cruising in this section. There are some potentially commercial stands of timber on this section. I am pursuing a Temporary Right-of-Way Agreement with Fred Kraftenberg to access this section from the east.

I have already been in contact with the State's leasee, John Gliko and the Department of Fish, Wildlife & Parks. As nearby landowners, you may have some comments or concerns regarding a proposed timber sale. If you do, please contact me by May 31, 1991. I hope to do the sale planning and layout in June and I can best incorporate your concerns into the plan if received by the above date.

Last week, I noticed an existing access road leaving the south side of this section. At this time I do not anticipate needing the use of this road. If our plans should change, I would, of course, need to setup a Temporary Right-of-Way Agreement with you.

If you have questions or comments, please contact me. I can be reached most easily by mail at the above address, or you may call me at 1-800-821-6415 or 444-3633.

Sincerely,

D.J. BAKKEN
Unit Forester
Helena Unit

dh

Encl.

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over

5/28/91 received a call from Victor Smerker - he said that he has a small patch of timber adjacent to Comers Section He may be interested in having a joint sale if things work out - or possibly sell after the fact to the purchaser of the state timber - if the price is right. - had no adverse concerns. He would like us to keep him informed as our plans develope.

DF

DJ

DEPARTMENT OF STATE LANDS

FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

CAPITOL STATION

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8001 North Mont. Ave.
Helena, MT 59601
June 4, 1991

Victor Smerker
911 - 4th Ave. South
Great Falls, MT 59401

Dear Mr. Smerker:

Thank you for your call last week. The enclosed map shows the timbered areas on the State section and on your adjacent land.

As our plans sit now, we will be entering Area 1 to salvage blowdown timber (yellow), and to harvest in other patches of mature timber. We do not plan to build roadover to Area 2 where your patch of timber is. This will decrease our chance of having a joint sale. You will still have the option to sell your timber to the person that logs our sale however.

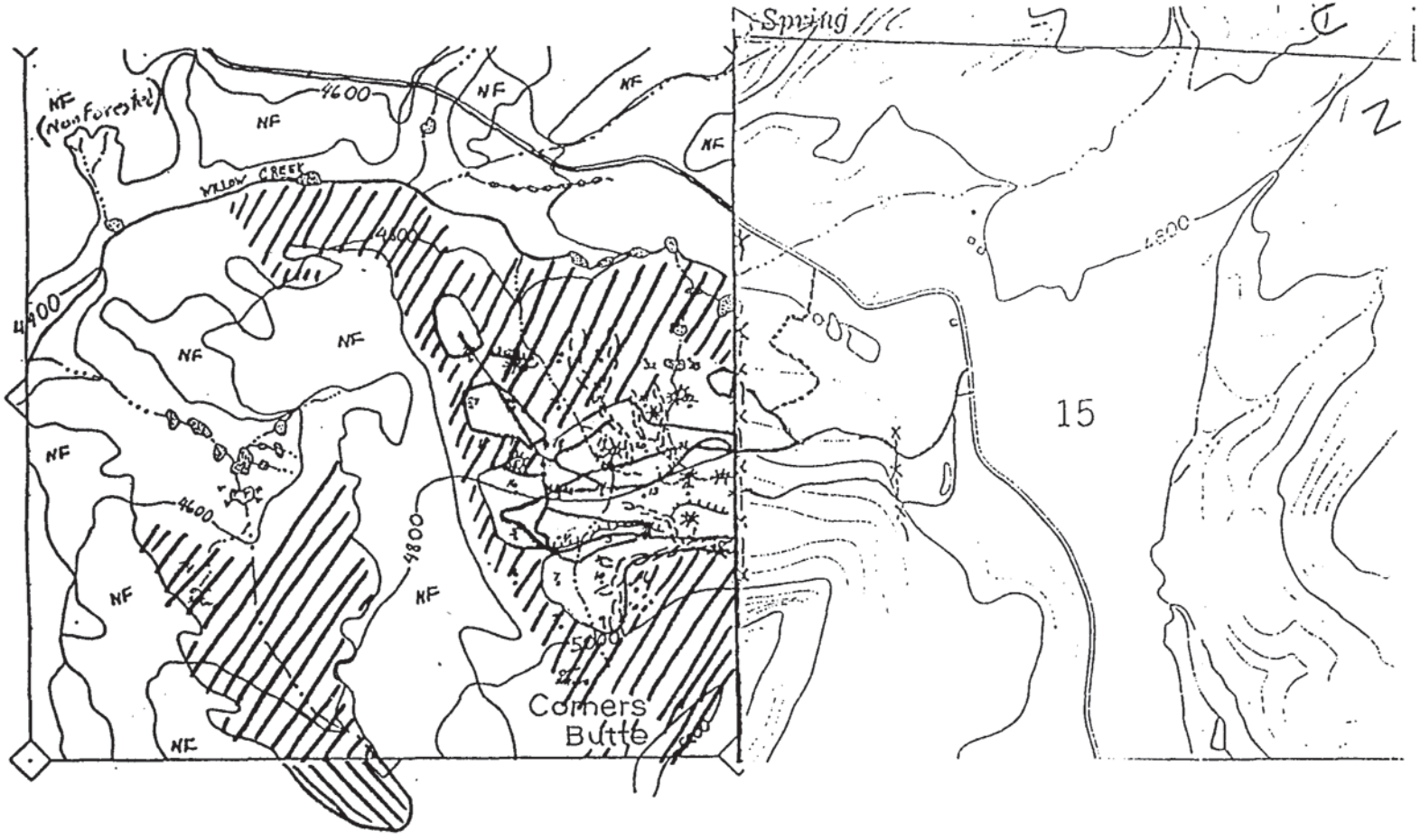
If you are interested in selling your timber then I will be sure to mention that fact to the person or corporation which eventually buys our sale. If we have any change to our existing plans, I will let you know.

Sincerely,

D.J. BAKKEN
Unit Forester
Helena Unit

dh

AN EQUAL OPPORTUNITY EMPLOYER



~ planned road access

//// areas of conifer (lodgepole pine, Douglas-fir, and mixures) timber on State land

\\\\ conifer timber (mostly Douglas-fir) on Victor Smerker property

Scale: 4" x 1 mile

DJ

DEPARTMENT OF STATE LANDS

FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

CAPITOL STATION

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3001 North Mont. Ave.
Helena, MT 59601
March 19, 1991

Ken & Alvin Jarvi
101 E. 9th Ave., Suite 9B
Anchorage, AK 99501

Dear Ken & Alvin:

You are the leasees of a state tract in the N½NE¼, Sec. 24, T19N, R8E M.P.M. (see map). The department is going to examine this parcel to determine if there are any forest management needs.

Our forest inventory shows 35 acres of commercial sawtimber land, 15 acres of non-commercial forest land and 30 acres of open rangeland. The commercial timberland currently supports a stand of mixed Lodgepole pine and Douglas-fir sawtimber, age 90 - 100 years.

In order to integrate any possible forest management plans with your lease, I would appreciate your response to the following questions:

1. Is this parcel part of a larger scale Grazing Management Plan on your ownership?

2. What season(s) of the year do you graze this tract?

3. Are there any noxious weeds on your lease (to your knowledge)? If yes, are you currently managing them?

4. Do you allow public access, (for hunting or etc.) on your lease?

5) Do you have any specific concerns regarding a possible timber harvest on this tract?

I will be examining this parcel more closely in the coming months. Your responses to these questions may help us plan our future actions. I would appreciate your response by May 31, 1991.

Sincerely,

David J. Bakken

D.J. BAKKEN
Unit Forester
Helena Unit

AN EQUAL OPPORTUNITY EMPLOYER

DEPARTMENT OF STATE LANDS

FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

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8001 North Mont. Ave.
Helena, MT 59601

April 19, 1991

Carroll Power & Doris Wells
183 Navajo
Globe, AZ 85501

Dear Mr. Power & Ms. Doris Wells:

The Department of State Lands is currently looking at the N½NE¼ Section 24, T19N, R8E to determine forest management and harvesting options. I am currently pursuing Temporary Right-of-Way Agreements with Gerald Murphy and Ken and Alvin Jarvi.

As nearby landowners you may have some comments or concerns regarding a proposed timber sale. If you do, please contact me by May 31, 1991. I hope to do the sale planning and layout work in June and I can best incorporate your concerns into the plan if received by the above date.

I can be reached most easily by mail at the above address or you may call me at 1-800-821-6415 or 444-3633.

Sincerely,

D.J. BAKKEN
Unit Forester
Helena Unit

AN EQUAL OPPORTUNITY EMPLOYER

May 25, 1991

Mr. D. J. Bakken
Unit Forester
Dept. of State Lands
8001 North Montana Ave.
Helena, MT 59601

Dear Mr. Bakken —

After fully considering your letter of April 19 [illegible] regarding N½NE¼ Section 24 [illegible] management & harvesting options [illegible] answer that I can passively give you as NO! The right-of-way, no harvesting, no management — regardless of what you have or have not worked out with the neighbors.

I hope I have stated this clear enough for you to understand & I do hope the postal service delivers this before May 31.

Sincerely,
Dave L. Wells

4446 Arab
Houston, Tx 77074

DJ

DEPARTMENT OF STATE LANDS

FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

CAPITOL STATION

STATE OF MONTANA

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8001 North Mont. Ave.
Helena, MT 59601
June 1, 1991

Doris D. Wells
8496 Ariel
Houston, TX 77074

Dear Doris:

We have received your comments requesting no management of State Land in Section 24 - T19N,R8E. We will certainly consider your comments in any management decision concerning the state land involved. It would be helpful to us however, if you could elaborate on your reason for no management and no timber harvesting on this tract. As you are aware most of the state land in the State of Montana was granted to the state from the Federal Government for specific purposes. In this case to be held in trust for the support of common schools. The land is to be managed with multiple use in mind to provide income to the school trust fund. Historically we have had numerous activities on this tract. A blanket strategy of no management would be contradictory to the Enabling Act., the intent of Laws governing the Administration of State Lands, and the rules and policys of the Dept. of State Lands.

If you should have additional comments regarding this tract or want to express specific items or issues that concern you as a neighboring landowner please contact us at the above address by June 19, 1991. If we do not receive additional comments we will consider your comments as stated, preferring a no timber harvest option on this tract.

Sincerely;

D. J. BAKKEN
Unit Forester
Helena Unit

jm

AN EQUAL OPPORTUNITY EMPLOYER

DEPARTMENT OF STATE LANDS

FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

CAPITOL STATION

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2001 North Mont. Ave.
Helena, MT 59601

April 18, 1991

Edna Urick
Box 325
Belt, MT 59412

Dear Ms. Urick:

The Department of State Lands is currently looking at Section 16, T19N, R8E (Comers Butte) to determine forest management options. Last week we did some mapping and cruising in this section. There are some potentially commercial stands of timber on this section. I am pursuing a Temporary Right-of-Way Agreement with Fred Kraftenberg to access this section from the east.

I have already been in contact with the State's leasee, John Gliko and the Department of Fish, Wildlife & Parks. As nearby landowners, you may have some comments or concerns regarding a proposed timber sale. If you do, please contact me by May 31, 1991. I hope to do the sale planning and layout in June and I can best incorporate your concerns into the plan if received by the above date.

Last week, I noticed an existing access road leaving the south side of this section. At this time I do not anticipate needing the use of this road. If our plans should change, I would, of course, need to setup a Temporary Right-of-Way Agreement with you.

If you have questions or comments, please contact me. I can be reached most easily by mail at the above address, or you may call me at 1-800-821-6415 or 444-3633.

Sincerely,

D.J. BAKKEN
Unit Forester
Helena Unit

dh

Encl.

AN EQUAL OPPORTUNITY EMPLOYER

D.J. Bakken
Unit Forester, Helena Unit
8001 North Montana Ave.
Helena, MT 59601

Dear Mr. Bakken:

This is in regards to your letter dated April 18, 1991 concerning a proposed timber sale on State land in section 16, T19N, R8E, PMM.

Following are my comments concerning this proposed timber sale:

1. In your letter you requested comments relative to the proposed timber sale yet very little to no specific information was provided in your letter . Before someone can knowledgeably comment on a proposed action, they must have the details of that proposed action. Was an environmental document of some sort written for this proposal? I believe this is required in order for you to be in compliance with the Montana Environmental Policy Act. If so I would like a copy for review and reference purposes.

2. You state in your letter that in the process of harvesting the timber on section 16, you may need to cross my land. There is a rather primitive road, a 4x4 trail, which does cross my property and provides access to the south boundary of section 16. This is used by the grazing lessee with my permission for only livestock management purposes. There is no other commercial use allowed. Any use of that road for timber hauling would require the purchase of a temporary easement by your agency. If it was decided by me to allow access, any road construction and related surface disturbance would have to be done in accordance with strict specifications to minimize soil erosion and noxious weed infestation. Culverts in natural drainages, dips in the road to allow excess water to be dispersed, grass reseeding for rehabilitation, three years of spraying for noxious weeds, etc. are likely to be required.

3. I oppose any clearcutting of timber on the aforementioned section 16. Only the selective cutting of mature trees can be supported by me. The devastation which occurs as a result of intensive harvest on these small isolated tracts of timber does considerable damage to the watershed and often regeneration is very slow. This area is not noted for its growth and harvest of commercial timber. Actually commercial timber is found only in

isolated spots, usually on north slopes, and requires many years to mature. Consequently because of these marginal growing conditions, special care must be taken so as to not upset the balance of the ecosystem to the extent that a permanent change or a temporary change of long duration occurs. This is very important because this section of land provides important habitat for deer, elk, and other non-game animals. Equally important is that the timber on the subject land is vital for security cover for the small herd of elk that inhabit the area. Selective cutting of only mature trees allows for continued security cover and little change in the habitat required by deer and elk.

4. These comments are to be considered a protest to your proposed action. As an adjacent landowner, what happens on that section of land is of interest to me. Until my concerns are adequately addressed I am opposed to this proposed timber sale.

Sincerely,

Mrs Edna Brick

cc: Dennis Casey
Dept. of State Lands
Capitol Station
Helena, MT 59620

CF

DEPARTMENT OF STATE LANDS

FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

CAPITOL STATION

STATE OF MONTANA

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Southwestern Land Office: Missoula, MT (406) 542-4200

8001 North Mont. Ave.
Helena, MT 59601
May 31, 1991

Edna Urick
Box 325
Belt, MT 59412

Dear Mrs. Urick:

I am writing in response to your letter which you gave me on 5/24/91. We discussed most of this on that day, but I wanted to provide you with a written response anyway. As we discussed, we have just begun looking at the various forest management options which are available on the Comers Butte section (Sec 16 - T19N,R8E). Initial reconnaissance showed several stands of mature timber on this section. Since that time, there has been an extensive area of blowdown.

The Montana Environmental Policy Act (MEPA) does require written documentation in the form of either an environmental assessment (EA) or an environmental impact statement (EIS). The purpose of these documents is to record the final proposal and the various alternatives, comments, benefits, and potential impacts which we sift through in order to arrive at a proposal. The Montana Department of State Lands is required by law to manage for multiple use of its resources. Consequently, we evaluate all areas for wildlife needs, fisheries and water quality concerns, grazing uses, timber production etc.

Throughout this summer I hope to evaluate all of these concerns so that I can develop a proposal which will have no significant impact to any of these resources. I also want to consider other concerns which you, or the other people in the area have. But, I obviously cannot consider other concerns in the planning process unless I know what they are. This was the purpose of my earlier letter.

In my letter dated 4/18 I mentioned possible use of an access road through your property. The preferred access to this section is via existing roads on Fred Kraftenberg's property. I think that Mr. Kraftenberg and I are in agreement on this access route. Consequently, we no longer need to consider access through your land.

In your letter you specifically opposed clearcutting, and supported only the "selective cutting of mature trees." Forests are constantly changing ecosystems. The different tree species present in the forest regenerate, grow, die and respond to changes each in their own specific way. These "silvicultural" traits usually dictate to the forest manager a variety of

treatment options. The Forester must then consider the concerns and management objectives for the area when choosing a harvest system or when choosing not to harvest. The harvesting method(s) chosen will depend on silvicultural needs combined with ecological concerns, management objectives and environmental and economic constraints.

All harvesting operations cause change in the existing forest. The change is definitely not permanent, but given our life expectancy it may be perceived as having a long duration. We can be sure that we will not live to see the next 100 year old stand of trees which will regenerate from a current harvest. However, if properly done, the change is no more devastating than natures recycling of the forest through wildfire, or blowdown. The advantage to our society is that through managed logging we can control the location, timing and extent of the change, thereby preventing adverse impacts to watershed and wildlife resources, wile still utilizing the resource.

Regarding the growth and yield potential which you mentioned in your letter, I can only speak to the conditions on the state sections which I have personally examined. The cruising which we did a month or so ago showed that nearly all of the conifer trees on the Comers Butte section are 100-120 years old. Forest growth in these stands is very similar to stands of equal age on the same habitat types found throughout Montana, east of the continental divide. I suspect that the Highwood Mtns have not been extensively harvested in recent decades not because of poor timber growth, but because the high cost of transporting the logs long distances to a sawmill. There has however been a history of forest product harvesting, albeit in small in conspicuous amounts, in this area. For example, our records show that there have been ten post and pole permits from 1937 through 1965 on the Comers Butte section .

On either the 18th or 19th of June, this year, I hope to show the Comers Butte section to the Department of State Lands Hydrologist and Soils scientist. I also hope to include a wildlife biologist from the Dept. of Fish Wildlife and Parks on this tour. Through this review process I hope to obtain specific comments which will help me develop a proposal. I will certainly contact you at that time. Hopefully, I can incorporate your concerns (wildlife security, harvesting strategies, watershed protection) into a draft proposal to which, you will have no objection.

Sincerely;

Darrell J Bakken

D. J. BAKKEN
Unit Forester
Helena Unit

cc: Dennis Casey

jm

Dear Mr. Bakken,

I am sorry I am so late thanking you and the two men who changed my tire. I appreciate their kindness very much.

I thank you for sending a copy of my letter, and for taking our concerns into consideration.

May God be with you all and bless and guide you. He has been good to give us such a wonderful country and we must take care of it. Thank you again

Edna Ulrick

DEPARTMENT OF STATE LANDS

FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

CAPITOL STATION

STATE OF MONTANA

Central Land Office: Helena, MT (406) 444-3633
Eastern Land Office: Miles City, MT (406) 232-2034
Northeastern Land Office: Lewistown, MT (406) 538-5989

Northwestern Land Office: Kalispell, MT (406) 752-7994
Southern Land Office: Billings, MT (406) 259-3264
Southwestern Land Office: Missoula, MT (406) 542-4200

8001 North Mont. Ave.
Helena, MT 59601

April 19, 1991

Gilbert & Eugene Myllymaki
NW 4969 Hoblitt Lane
Florence, MT 59833

Dear Gilbert & Eugene:

The Department of State Lands is currently looking at the N½NE¼ Section 24, T19N, R8E to determine forest management and harvesting options. I am currently pursuing Temporary Right-of-Way Agreements with Gerald Murphy and Ken and Alvin Jarvi.

As nearby landowners you may have some comments or concerns regarding a proposed timber sale. If you do, please contact me by May 31, 1991. I hope to do the sale planning and layout work in June and I can best incorporate your concerns into the plan if received by the above date.

I can be reached most easily by mail at the above address or you may call me at 1-800-821-6415 or 444-3633.

Sincerely,

D.J. BAKKEN
Unit Forester
Helena Unit

AN EQUAL OPPORTUNITY EMPLOYER

DEPARTMENT OF STATE LANDS

FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

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Southwestern Land Office: Missoula, MT (406) 542-4200

3001 North Mont. Ave.
Helena, MT 59601

April 19, 1991

Matt & Annie Nevala
1008 Willow Creek Rd.
Belt, MT 59412

Dear Mr. & Mrs. Nevala:

The Department of State Lands is currently looking at the N½NE¼ Section 24, T19N, R8E to determine forest management and harvesting options. I am currently pursuing Temporary Right-of-Way Agreements with Gerald Murphy and Ken and Alvin Jarvi.

As nearby landowners you may have some comments or concerns regarding a proposed timber sale. If you do, please contact me by May 31, 1991. I hope to do the sale planning and layout work in June and I can best incorporate your concerns into the plan if received by the above date.

I can be reached most easily by mail at the above address or you may call me at 1-800-821-6415 or 444-3633.

Sincerely,

D.J. BARKEN
Unit Forester
Helena Unit

AN EQUAL OPPORTUNITY EMPLOYER

DEPARTMENT OF STATE LANDS
FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

CAPITOL STATION

STATE OF MONTANA

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Southwestern Land Office: Missoula, MT (406) 542-4200

3001 No. Mont. Ave.
Helena, MT 59601

April 18, 1991

John Gliko
865 Willow Creek Rd.
Belt, MT 59412

Dear John:

Last week we spent three days mapping and cruising the timber stands on your state lease in Section 16, T19N, R8E. We delineated five (5) potentially commercial stands of timber and several noncommercial stands (steep terrain, aspen and/or mixed aspen and Douglas fir). The enclosed maps show the stands.

My initial proposals are for the following stands:

Stand 1: Pure lodgepole pine, clearcut, natural regeneration to Lodgepole pine, leave pockets of timber around wallow areas.

Stand 2: Pure Douglas-fir, shelterwood harvest, natural regeneration to Douglas-fir, leave pockets around wallow areas.

Stand 5: Mixed Douglas fir and some aspen, root rot in Douglas-fir, confine harvest to Douglas-fir areas may need planting to alternate species due to root rot.

Stand 3: Mixed aspen, Douglas-fir and Lodgepole pine, harvest some patches of fir or pine on ridges, avoid disturbance to aspen areas in order to avoid encroachment of aspen stands. Leave most or all of the northwest finger of this stand. Harvest only in conifer pockets on small ridges depending on available access.

Stand 6: Pure Douglas-fir, root rot, some previous harvesting, could possibly treat this stand like Stand 2 or possibly defer harvest to maintain wildlife hiding cover.

AN EQUAL OPPORTUNITY EMPLOYER

Considering all of the new spring snow, it will probably be mid-May before we return. My plans would be to use flagging tape to mark these possible units on-the-ground and to locate roads. I would like to show these plans to you at that time. I will let you know when our next trip is planned.

Sincerely,

D.J. BAKKEN
Unit Forester
Helena Unit

dh

Encl.

COPY

DEPARTMENT OF STATE LANDS

FIELD OPERATIONS DIVISION

STAN STEPHENS, GOVERNOR

CAPITOL STATION

STATE OF MONTANA

Central Land Office: Helena, MT (406) 444-3633
Eastern Land Office: Miles City, MT (406) 232-2034
Northeastern Land Office: Lewistown, MT (406) 538-5589

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Southwestern Land Office: Missoula, MT (406) 542-4200

8001 North Mont. Ave.
Helena, MT 59601
May 31, 1991

John Gliko
865 Willow Creek Road
Belt, MT 59412

Dear John:

Enclosed is a map showing tentative harvest areas on the Comers Butte section. The red line on the map is the tentative road location. This is flagged with yellow flagging in the woods. The colored areas are tentative units. The yellow area is the big blowdown area. The orange and pink areas are pure lodgepole pine stands. These are shown separate because of a steep short hill which geographical separates the two areas. The green area is nearly pure Douglas-fir and the blue area is mixed lodgepole pine, Douglas-fir, and aspen with scattered blowdown.

Most of the unit boundaries are flagged in blue in the woods. The exception is some of the boundaries between the blowdown and standing timber. This boundary is obvious as is so we did not flag it.

I'll be back on June 18 or 19 to show these tentative plans to our hydrologist and soil scientist. You can also attend this tour.

Sincerely;

D. J. BAKKEN
Unit Forester
Helena Unit

Encl.

jm

10-24-90 -- D. J. Bakken

I received a call from John Gliko, leasee of Comer's Butte section regarding the planned sale. Mr. Gliko had several concerns.

1. Creation of roads, eventual use by folks after we are gone, traffic may keep cattle pushed down toward low ground, thereby causing problems with rang utilization.

   R) Roads could be closed - even obliterated so that they are not drivable.

   Another option not discussed is to close access points to leave outsloped road surfaces for aid to cattle dispersion.

2. Elk use - 20-30 head, calf out here and many remain year around. Does not have any objection to hunting once cattle are out.

   R) I have contacted biologist from FWP and will work with them for more information. Agreed on importance of protection during calving season.

3. Logging practices on neighbor to east (Fred Kraftenberg) his was clearcut and all that came back was aspen -- too thick to ride a horse through.

   R) Our plan was not to clearcut the entire patch. The isolated patches on westside of section would not be touched at all. Stream zone would not be harvested, plan to reserve pockets around the numerous sumps and wallows. The area of mixed aspen and douglas fir would be mostly deferred where aspen is a major component.

   We also discussed our need for more information to make plans and how we are holding back due to distance of travel from Helena.

   We discussed difficulty of laying in a road system that avoided swale areas, the marginal economics of sales located so far from a market.

   Gliko grazes are roughly May - Oct. depending on weather. I suggested no activity during elk calving - preferably no activity during his grazing and restriction to one season of operations.

   I told him that it would probably be spring before we did anymore field work. He would like to go with us one day next spring to discuss our plans on the ground.

John Gliko
865 Willow Creek Rd.
Belt, MT 59412
Phone: 738-4484

I told him that we did want to look at the site more and that we would like to harvest any timber we could that would not cause adverse impacts to other uses. Also, if the road system, hauling, etc. was to costly (deficit sale) we would defer but that market was best now as it has been and this was our best chance. John agreed that this was a good approach and looked forward to seeing us in the spring.

APPENDIX "F"

Cascade Co.

REVEGETATION PLAN FOR WEED MANAGEMENT

Montana Department of State Lands - Forestry Division

The Department of State lands (DSL) management objective on forested State lands is to secure the largest measure of legitimate and reasonable advantage to the school trust in the long run, while protecting the natural environment. Various silvicultural treatments are used to meet this objective. Those treatments are targeted primarily at timber production but they also affect competing vegetation, including noxious weeds. Thus, sound silviculture is the foundation of DSL's revegetation plan for weed management on State forest lands. The specific practices comprising the State's weed management efforts on State forest land are:

1. DSL will prescribe silvicultural practices intended to provide for prompt and successful tree regeneration, and maintenance of vigorous stands of timber;
2. Certified weed-free grass seed mixtures will be applied to all newly constructed and most reconstructed road cuts and fills, and road surfaces following road construction. Seed will be applied as soon as possible after construction or reconstruction and prior to spring run-off. Areas to be seeded will include all slash burn sites within a close proximity to roads and trails. In most cases it is best to reseed the disturbed areas as soon as possible and allow the burn pile areas to revegetate naturally. Grand fir, cedar and subalpine fir habitat types may not require seeding following reconstruction, because of rapid regeneration of native vegetation on these sites. The mix of plant species to be seeded will be based on site specific conditions. The mix will usually include some combination

of the following species: pubescent wheatgrass, crested wheatgrass, slender wheatgrass, intermediate wheatgrass, Siberian wheatgrass, hard fescue, sheep fescue, tall fescue, smooth brome, mountain brome, yellow sweet clover, white clover, alsike clover, orchard grass, Canada bluegrass, creeping foxtail, red top.

3. Road closures may be used whenever possible to prevent the transference of noxious weed seed by the recreating public;
4. Minimize brush piling and scarification efforts when noxious weeds are in seed set stage;
5. DSL's personnel are or will be trained in the identification and control of noxious weeds;
6. DSL will cooperate with county weed control boards, Conservation Districts special weed districts, adjacent private landowners, leasees, and public agencies to control the spread of noxious weeds. This may include ccoperating on a herbicide spraying program.

DSL views the establishment and spread of noxious weeds as an important management concern. We expect the prevention and control measures outlined here to adequately address this concern.

Signed: Jody R Cox

Cascade County Weed Board

Date: 1-13-89

Signed: Larry J. Wilson

Area Silviculturist
Dept. of State Lands
Central Land Office

Date: 1/25/89

APPENDIX "G"

Montana Department of Fish, Wildlife & Parks

October 14, 1991

Mr. Darrel J. Bakken
Forester - Helena Unit
Department of State Lands
8001 N. Montana Avenue
Helena, MT 59601

SUBJECT: Permit No.: DSL-50-91, R-4 Waterbody: Big Willow Creek
Proj. Name: Culvert Replace Water Code: 17-0688

Dear Mr. Bakken:

Relative to the Montana Stream Preservation Act, the Department has completed our review of your proposed project to replace a culvert on Big Willow Creek. Your project has been approved with the following special conditions:

1. Culvert replacement must be done when streamflow is minimal or when creek is dry - no work to be done during spring runoff. All in-stream work shall be completed as quickly as possible to avoid unnecessary impacts to the stream;

2. Use clean gravel for fill material, protect upstream and downstream faces of fill with rock;

3. Extra precautions shall be taken to preserve existing riparian vegetation;

4. All construction activities performed in the stream and immediate vicinity shall be conducted in a manner to reduce in-stream turbidity along with minimizing disturbances to the streambed and/or streambank;

5. All streambank and adjacent areas disturbed by the construction activity shall be protected with temporary erosion control measures during the construction activities. These areas shall be reclaimed with long-term erosion control measures and revegetated immediately after construction;

6. The use of machinery in the watercourse shall be avoided unless absolutely necessary. To prevent leaks of petroleum products into waterways, no defective equipment shall be operated in the watercourse or adjacent areas capable of contributing surface flow to the watercourse;

7. Any excess material generated from this project must be disposed of above the ordinary high water mark and not in an area classified as a wetland;

8. Clearing of vegetation will be limited to that which is absolutely necessary for construction of the project;

NOTE: This permit is valid for **one year** from the date of receipt.

___ This project will cause a significant increase in turbidity, therefore, the Department of Health and Environmental Sciences, Water Quality Bureau, should be contacted for an exemption from the surface water quality standards (3-A Authorization).

_X_ This project will <u>not</u> cause significant turbidity and a 3-A Authorization will not be required.

Sincerely,

Stephen A. Leathe

Stephen A. Leathe,
Regional Fisheries Manager

c: Ken Chrest

Big Willow #17-0688
proj # DSL-50-91, R-4
culvert Replacement

FWP Use Only
_____ Form Letter to Applicant
Water Code: 17-6982 S.F. L.
Appl. No. DSL-51-91, R-4

STREAM PRESERVATION ACT PERMIT APPLICATION

"Notice of Construction"
(Please Print or Type)

Address: *(see reverse side)*

To: **MONTANA DEPARTMENT OF FISH, WILDLIFE & PARKS**

Region #4 Great Falls Attn: Fish Manager
P.O. Box 6609
4600 Giant Springs Rd.
Great Falls, MT 59406

SPONSORING AGENCY: Dept. of STate Lands
Address: 8001 No. Mont. Ave.
Helena, MT 59601

Contact Person: D.J. Bakken
Title: Unit Forester
Telephone: 444-3633

Official In Charge: Robert Vlahovich
Title: Unit Manager
Telephone: 444-3633

PROJECT IDENTIFICATION: Project Name: Highwood Timber Sale
Project No. _____ Waterbody: Big Willow Creek & South Fork Little Belt Creek

Location: Township 19N Range 8E Section 15&24 County: Cascade
Location to Nearest Town: Approximately 13 miles east of Belt, MT

Project Features:

1 Bridge	2 Culvert	___ Other
___ Work Bridge and Removal	___ Dredging	
	___ Hydraulic Structure	
___ Bridge Demolition	___ Channel Change	
___ Core Drill	___ Bank Stabilization	

Project Scheduling: Contract Letting 11 / 1 / 91
Construction Period 11 / 1 / 91 to 7 / 1 / 92

Allow sixty (60) days for application processing. A set of preliminary plans or sketches of the proposed project **must** accompany this application. (NOTE: Dept. of Hwy. sponsored projects require **two** sets of plans sent with this form to Helena FWP address.)

___ Plans X Sketches X Other Map with locations

Signature *Date*

Distribution: *White/Yellow – Region* *Pink – Applicant*
Form: 124SPA 5/89

Montana Department of Fish, Wildlife & Parks

October 14, 1991

Mr. Darrel J. Bakken
Forester - Helena Unit
Department of State Lands
8001 N. Montana Avenue
Helena, MT 59601

SUBJECT: Permit No.: DSL-51-91, R-4 Waterbody: SF Little Belt Cr.
Proj. Name: Bridge & Culvert Water Code: 17-6982

Dear Mr. Bakken:

Relative to the Montana Stream Preservation Act, the Department has completed our review of your proposed projects to install a bridge on the South Fork of Little Belt Creek and a culvert on one of its intermittent tributaries. Your projects have been approved with the following special conditions:

1. The culvert must be installed when the flow is very low or preferably when the creek is dry - installation not to occur during spring runoff.

2. Use clean gravel as fill over culvert and on bridge approaches. Protect upstream and downstream faces of fill slopes on both structures with clean rock of adequate size to withstand high water.

3. All in-stream work shall be completed as quickly as possible to avoid unnecessary impacts to the stream;

4. Extra precautions shall be taken to preserve existing riparian vegetation;

5. All construction activities performed in the stream and immediate vicinity shall be conducted in a manner to reduce in-stream turbidity along with minimizing disturbances to the streambed and/or streambank;

6. All streambank and adjacent areas disturbed by the construction activity shall be protected with temporary erosion control measures during the construction activities. These areas shall be reclaimed with long-term erosion control measures and revegetated immediately after construction;

7. The use of machinery in the watercourse shall be avoided unless absolutely necessary. To prevent leaks of petroleum products into waterways, no defective equipment shall be operated in the watercourse or adjacent areas capable of contributing surface flow to the watercourse;

8. Any excess material generated from this project must be disposed of above the ordinary high water mark and not in an area classified as a wetland;

9. Clearing of vegetation will be limited to that which is absolutely necessary for construction of the project;

NOTE: This permit is valid for one year from the date of receipt.

___ This project will cause a significant increase in turbidity, therefore, the Department of Health and Environmental Sciences, Water Quality Bureau, should be contacted for an exemption from the surface water quality standards (3-A Authorization).

_X_ These projects will not cause significant turbidity and a 3-A Authorization will not be required.

Sincerely,

Stephen A. Leathe

Stephen A. Leathe,
Region Four Fisheries Manager

c: Ken Chrest

Big Willow #17-0688
proj. # DSL-50-91, R-4
culvert Replacement

FWP Use Only
_____ Form Letter to Applicant
Water Code: 17-6982 S.F. L. 2
Appl. No. DSL-51-91, R-4

STREAM PRESERVATION ACT PERMIT APPLICATION

"Notice of Construction"
(Please Print or Type)

Address: *(see reverse side)*

To: **MONTANA DEPARTMENT OF FISH, WILDLIFE & PARKS**

Region #4 Great Falls Attn: Fish Manager
P.O. Box 6609
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SPONSORING AGENCY: Dept. of STate Lands
Address: 3001 No. Mont. Ave.
Helena, MT 59601

Contact Person: D.J. Bakken
Title: Unit Forester
Telephone: 444-3633

Official In Charge: Robert Vlahovich
Title: Unit Manager
Telephone: 444-3633

PROJECT IDENTIFICATION: Project Name: Highwood Timber Sale
Project No. _____ Waterbody: Big Willow Creek & South Fork Little Belt Creek

Location: Township 19N Range 8E Section 15&24 County: Cascade
Location to Nearest Town: Approximately 13 miles east of Belt, MT

Project Features:

1 Bridge	2 Culvert	___ Other
___ Work Bridge and Removal	___ Dredging	
	___ Hydraulic Structure	
___ Bridge Demolition	___ Channel Change	
___ Core Drill	___ Bank Stabilization	

Project Scheduling: Contract Letting 11 / 1 / 91
Construction Period 11 / 1 / 91 to 7 / 1 / 92

Allow sixty (60) days for application processing. A set of preliminary plans or sketches of the proposed project **must** accompany this application. (NOTE: Dept. of Hwy. sponsored projects require **two** sets of plans sent with this form to Helena FWP address.)

___ Plans X Sketches X Other Map with locations

Signature *Date*

Distribution: White/Yellow – Region Pink – Applicant
Form: 124SPA 5/89