

AN ON-SITE STUDY OF THE EFFECTIVENESS OF
THE U. S. FOREST SERVICE ROAD CLOSURE PROGRAM
IN MANAGEMENT SITUATION ONE
GRIZZLY BEAR HABITAT, SWAN LAKE RANGER DISTRICT,
FLATHEAD NATIONAL FOREST, MONTANA

Conducted and Prepared

by

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Abstract

Of the 62 road closure structures inventoried within Grizzly Bear Management Situation One areas of the Swan Lake Ranger District, 53 were successfully ground truthed, photographed and on-site observations recorded to enable each closure structure to be evaluated using criteria designed to measure the degree to which the U. S. Forest Service has taken all reasonable measures to insure the structure restricts the type of vehicles for which it is intended. 38% of the closures truthed were found to be ineffective in fully restricting passenger type vehicles. The road miles behind these ineffective closures comprises 44%, or 49 of the 111 miles of road reported by the USFS as being closed year-long to all motorized vehicles, and from April 1 to November 30 to snowmobiles, in order to protect wildlife resources.

50% of the ineffective closures was found to be due to failure of the agency to diligently insure that gate closures be kept closed and locked. 25% of the ineffective closures was due to two and four-wheel drive vehicle trails which circumvented the closure structure. 10% of the ineffective closures was due to vandalism. 15% of the ineffective closures was due to structures reported to restrict road miles but not yet installed.

Redundant use of multiple closure structures to secure a given area was found in numerous areas. Site specific examples are noted and both site specific and general recommendations are made toward achieving a more cost effective and efficient road closure program. The current average miles of road secured per closure truthed was found to be 2.14 miles. Summary discussion and recommendations are made concerning measures readily available and likely to increase the effectiveness of the truthed closures in restricting off-road-vehicle and snowmobile travel. Such available measures were not taken by the agency in 92% of the closures which were ground truthed.

Introduction

This study was conducted for the Swan View Coalition, Inc., and Resources, Ltd. as a case study of U. S. Forest Service programs to secure increased wildlife utilization of habitat through a road closure program. The purpose of the study was to assess the degree to which on-the-ground Forest Service road closure structures met criteria established to reflect measures which must reasonably be taken to effectively restrict vehicular traffic. While the study focuses on the effectiveness of particular closures in restricting vehicular traffic, observations and recommendations are made relative to the effectiveness of the closure in securing wildlife habitat via the strategic location of the closure device within the Forest road system.

The negative effects of open forest roads on the ability of various wildlife species to utilize available habitat is generally recognized within both the scientific and public land management communities. Lyon¹ found that primary and secondary open road densities of one mile/square mile reduced the effectiveness of elk habitat to only 60% of its potential. As open road densities increased, habitat effectiveness continued to decrease, resulting in less than 20% effectiveness when open road densities reached six miles/square mile.

Grizzly bear studies conducted on the Rocky Mountain front of Montana demonstrated that grizzly bears generally avoid areas of 500 meters on each side of an open road.² Similar findings were made during grizzly studies in Yellowstone National Park where observed grizzly bear use of areas of 600 meters on either side of primary roads was less than expected.³

That open forest roads also contribute to the deliberate poaching and mistaken killing of grizzly bears, especially during the black bear hunting season, is well documented and discussed by land managers and biologists such as Thomas Holland of the U. S. Forest Service.⁴

Study Area

The study area is generally situated within the Swan Valley of northwest Montana and includes portions of both the western slopes of the Swan Range Mountains and the eastern slopes of the Mission Range Mountains. The study area boundaries are described by the hydrological divide of the Swan Mountains to the east and the Mission Mountains to the west; the Flathead/Lolo National Forest boundary to the south, and the extremities of Management Situation One (MS-1) Grizzly Bear Habitat areas on the Swan Lake Ranger District (SLRD)⁵ as the central and northern boundaries. See Study Area Map, Exhibit 1.

The Swan and Mission Mountains and the valley floors at their base represent the westernmost central portions of the Northern Continental Divide Grizzly Bear Ecosystem (NCDGBE) as described in the Grizzly Bear Recovery Plan.⁶

The study area chosen represents all lands "needed for the survival and recovery of the [grizzly bear] or a segment of its population"⁷, i.e., MS-1 areas, within a single federal administrative unit, the Swan Lake Ranger District. The multi-seasonal importance and essential nature of the grizzly bear habitat found in the study area is indicated by its interagency classification as MS-1 via the Flathead Forest Plan and formal Section 7 consultations undertaken with the U. S. Fish and Wildlife Service pursuant to the Endangered Species Act during development of the Plan. The importance of maintaining secure grizzly bear movement between the Mission and Swan Mountain portions of the NCDGBE is indicated in part by the establishment of direction in the Flathead Forest Plan to "manage the Swan/Clearwater Divide as an area that provides a secure grizzly bear travel route between the Mission and Swan Mountain Ranges."⁸

The study area is subject to both recreational and timber harvest related disturbances to grizzly bear habitat security and habitat alterations, as evidenced by both the Flathead Forest Plan Management Area Map (1985) and the Flathead Forest Travel Plan Map (1983). The central portions of the study area are

shown to contain a substantial road system accessing areas of primarily mixed land ownership. This area contains private and commercial timber lands adjacent to USFS lands allocated primarily to management areas where commercial timber harvest is scheduled. The eastern and western portions of the study area border or contain portions of the Mission Mountains and Bob Marshall Wilderness areas and contain timber harvest sites as well as higher elevation road end/trailhead access to high quality roadless and wilderness recreation.

Methodology

For the purposes of this case study, the Swan Lake Ranger District 6/4/86 Road Closure Inventory was utilized as the most complete and available inventory of the current SLRD road closure program.⁹ This Inventory included closures indicated on the Travel Plan Map and closures planned and/or implemented since the 1983 Travel Plan Map was printed.

Each road closure included in the 6/4/86 Inventory was then plotted on the 1983 Travel Plan Map using location descriptions from the Road Closure Inventory and the 6/4/86 Flathead National Forest Road Inventory. Closure locations were then compared to MS-1 boundaries shown in the Flathead Forest Plan¹⁰. Road closure locations outside MS-1 areas were omitted from further assessment.

A concerted attempt was made to visit each of the 61 closures located in MS-1 on SLRD, to record on-site observations and to photograph the closure structure and any other significant aspects of the immediate surroundings related to assessing the effectiveness of the closure device. Photos taken during on-site observations are assembled as unbound Appendix A to this report.

A standard "Ground Truthing Form" was developed and used consistently to record data from the Road Closure Inventory and on-site observations. Detailed margin notes are added where standard responses on the form may not accurately describe the on-site situation. A complete record of all completed "Ground Truthing Forms" is assembled as a bound "Appendix B" to this

report.

Results from the "Ground Truthing Forms" were then subjected to the application of "effectiveness" criteria and are displayed in Spreadsheets 1-3. SLRD Geographic Units were used to assist in data processing and the upper Swan Geographic Unit was further divided into logical geographic sub-units for the same purpose.

The criteria used to assess the effectiveness of each closure structure in restricting the type of vehicular traffic prohibited are as follows:

#1 Vehicles greater than 40" in width (>40").

The closure is
Deemed EFFECTIVE
if:

- A) An individual would reasonably be expected to have to resort to use of winches or tools to proceed past the closure structure by altering the structure or surrounding physical obstructions, such as boulders or trees, which prevent detouring around the device, and...
- B) Although a relatively unobstructed path wide enough to allow passage of a >40" vehicle may exist, there is no reasonable evidence (tracks, broken brush, etc.) that the potential detour is being used as a detour.

The closure is
deemed INEFFECTIVE
if:

- A) By Vandalism
 - 1) Sign torn down or defaced beyond recognition
 - 2) Gate torn down, lock pin (bar) broken, or otherwise damaged to allow >40" vehicle traffic to proceed on the road bed.
 - 3) Earth barrier leveled off or otherwise worn down and exhibiting >40" vehicle tracks over the top of the barrier.
- B) By Detour
 - 1) Sufficient opening around or near barrier with

evidence of >40" vehicle passage around the barrier.

- 2) Evidence of >40" vehicle passage past closure sign.
- C) By Failure to Lock
 - 1) Gate not in closed position with closed lock in pin.
- D) By No Structure
 - 1) The location of closure structure is reasonably certain and truthed. The Road Closure Inventory credits closure miles to the closure number, yet no closure structure is present.

#2 Vehicles less than 40" in width (<40").

A) Snowmobile closures.

Closure structures were ground truthed on 9/30, 10/1, 10/15 and 10/19 of 1986. Therefore, on-site inspection for snowmobile tracks beyond the closure structure during times of suitable snowpack was not feasible. During ground truthing, however, structures which could reasonably make snowmobile passage physically impossible were to be noted.

B) ORV closures. (Wheel driven off-road vehicles).

Closure structures were evaluated, and any which could reasonably make ORV passage in the immediate vicinity physically impossible were to be noted. Evidence of reasonably identifiable <40" ORV tracks on established detours beyond the closure structure were noted as "ORV".

The data from Spreadsheets 1-3 was then combined to determine data totals by Geographic Sub-Unit, Geographic Unit and District, as displayed in Spreadsheet #4. The mileages indicated on all spreadsheets are taken from the miles (behind closure) column on the Road Closure Inventory. Mileages which are circled indicate closures which were not ground truthed successfully and are placed in the "Effective" column by default. However, all totals, statistical analysis and conclusions are drawn from only ground

truthed data and totals unless otherwise indicated.

Results

Of the 62 closures included in the Inventory, 53 were successfully ground truthed and photographed. Two more closures were ground truthed and photographed outside the authorized closure dates. Hence, for data analysis purposes, they were considered untruthed. Three closure sites could not be located with enough accuracy to reasonably ensure there was no structure at the intended site, and were considered not ground truthed. One road closure truthing was attempted on 10/15/86 but could not be reached legally by motorized vehicle due to temporary "green dot" road restrictions in the area. Three closures in the Elk Creek area could not be reasonably truthed due to a combination of inclement weather, road conditions and pending darkness on the day of attempted truthing.

As a result of the above, 85% of the Inventory closures were accurately ground truthed. Given the high percentage of closures truthed and the random procedure determining those closures "untruthed", it was determined that an adequate sample group of closures was analyzed to accurately demonstrate trends within the SLRD/MS-1 road closure program as a whole.

Table 1 displays percentage results (nearest whole percent) in terms of Effectiveness or Ineffectiveness per the total of all truthed closures.

Table 1

	Total Road Closures Ground Truthed	
	By Mileage	By Count
Ineffective due to - Vandalism	3%	4%
Ineffective due to - Detour	10%	9%
Ineffective due to - Not Locked	29%	19%
Ineffective due to - No Structure	<u>3%</u>	<u>6%</u>
Ineffective Total	44%	38%
Effective Total	56%	62%

Table 2 displays percentage results (nearest whole percent) in terms of "Ineffective" subcategories per total Ineffectiveness among truthed closures.

Table 2

Ineffective Road Closures	Total Ineffective	
	By Mileage	By Count
Due to Vandalism	6%	10%
Due to Detour	22%	25%
Due to Not Locked	66%	50%
Due to No Structure	6%	15%

Conclusions and Recommendations

Part 1 - Vehicles Greater than 40" in Width

Of the 53 road closures truthed and subjected to statistical analysis, all but one (#5392) were listed on the Road Closure Inventory as being closed to >40" vehicles for the purpose of protecting/securing wildlife habitat. All were listed as year-long closures. As Table 1 demonstrates, 63% of the truthed closures were effective in restricting >40" vehicular traffic. 38% of the truthed closures were classified as ineffective due to failure of the agency to properly install and maintain the closure structures.

Of the structures classified as ineffective, 50% were due to failure of the agency to ensure that the gate was closed and locked. Of the ten closures not locked, six were in the general area of apparently active timber sales or road construction contracts. Analysis indicates that the single, most important way for the agency to increase the effectiveness of its gate closures is to ensure that gates are locked. This may be done by monitoring gate status and key issuance and by requiring that gates be kept closed during active contract activities.

The second leading cause of closure ineffectiveness, was the use of a detour circumventing the closure structure. Detours accounted for 25% of all ineffective closures. Of the five structures circumvented by a >40" detour, four exhibited detours

established around the structure with minimal prior tree cutting or brush clearing evident. The fifth structure was a closure sign which was ignored to the degree that significant evidence of vehicle passage beyond the sign was apparent. These observations indicate the need for more strategic placement of gates or very large earthen barriers combined with appropriate physical barriers. Additional physical barriers may include boulders adjacent to the gate/earthen barrier, to prevent detours through the barrow pit or neighboring terrain. A good example of such a closure is closure #10383 (Thicket at Piper) where large boulders are combined with the cutbank and ditches to prevent detour. A poor example is closure #10503 (N. Goat Cr.), a gate recently installed under a current logging contract. The uphill ditch next to the gate is wide and gentle and left unobstructed, offering a ready detour for two-wheel drive vehicles. The only "sign" closure (#10321) which appeared to be effective was on a road reclaimed by vegetation to the degree it would tend to discourage vehicular travel.

Vandalism was a minor contributor to ineffectiveness at 10% of total ineffectiveness. One gate (#10319) had a broken locking pin and one earth barrier (#9821) was worn down to allow vehicles to pass over it. No gates were found to exhibit major vandalism such as attempts to pull a gate out of the ground. However, many gates exhibited bullet holes and minor bending of the cross bar.

The absence of any structure accounted for 15% of closure ineffectiveness. Three inventoried closure sites showed no structure at all. One was listed as "Planned" (#10527). One was listed as "Under Contract" (#10593). A third one was listed as "Existing" (#10574) in the Inventory. All three were in areas of apparent contract activity, making administrative and construction scheduling appear to be responsible for the lack of closure structure rather than an act of vandalism. The Road Closure Inventory claimed closure miles for these non-existent closures. Therefore, our analysis listed claimed closure miles as "ineffective" rather than as "untruthed". Similarly, structures

listed as "under contract" and found to exist were assigned road miles in the appropriate category.

The 38% of the truthed closures classified as ineffective account for 44% of the assigned road miles behind all truthed closures. This indicates that almost half of the road system listed as closed in the Inventory is subject to a higher degree of vehicular use and wildlife disturbance than if the agency had taken all reasonable measures to maintain an effectively closed structure.

While it is beyond the scope of this analysis to measure or calculate the net effect of the closures on wildlife habitat, the extensive ground truthing enables this report to make valuable recommendations for use by the agency in maintaining, modifying and expanding their road closure program in an effective and cost efficient manner. These recommendations are directed toward achieving more secure habitat per closure, and in turn, per dollar investment. Statistical analysis reveals that the average mileage of road "closed" per truthed closure is 2.14 miles. This relatively low mileage figure can be attributed, in part, to on-site examples such as the following:

1. Closures #9572 and #9552 are situated at a trailhead (#351) above Lindbergh Lake and 50 yards from one another. They are situated 0.25 road miles up the road which forks adjacent to Closure #79. All these closures are within sight distance of one another in this clearcut area. Placement of closure #79 immediately before the road fork would eliminate the need for gates #9572 and #9552. As a result, only 0.25 mile would be added to Trail #351. Signs of horse-stock unloading against the ditchbank prior to Closure #79 indicate that some horse users are currently not driving the last 0.25 mile.
2. Closures #5206 and #9821 are located within several hundred yards of each other on the two forks of the road up N.F. Lost Creek (#5206). Both closures are situated in the center of a large, south facing burned area, known as Fire Basin. The area exhibits substantial winter big game range characteris-

tics. A single closure farther down N.F. Lost Creek would eliminate the need and expense of two closures. Also habitat security in Fire Basin would be improved by moving the disturbances associated with road end activities downstream to a more appropriate position.

Agency implementation of such recommendations on a program wide basis would serve to increase the closed road mileage per closure structure and hence lower costs while increasing the acreage of secure habitat. Similarly, substantial numbers of uninventoried spur roads exist in the study area without the benefit of any closure structure. In numerous instances, other unrestricted spur roads appear to access the same "block" of habitat and could be restricted by a common closure structure simply by placing it below the road fork. Examples include closures #5381 and #9785A. Similarly, closure of a main or secondary road would often accomplish the effective closure of a multitude of spur roads originating from the road closed.

Part II - Vehicles Less than 40" in Width (<40"). ORV's or Snowmobiles

Of the 53 closures truthed, all are listed in the Road Closure Inventory as closed year-round to "trail vehicles", and as closed from 4/1 - 11/30 to snowmobiles. However, none of these closure structures appeared to be capable of physically restricting snowmobiles and <40" ORV's. Only four of the 53 truthed closures were accompanied by signs indicating snowmobiles and ORV's were restricted, two (#5398, #10319) were at gates and two were signs only (#10320, #10321).

While it is beyond the scope of this study to accurately determine the amount of illegal snowmobile and ORV use occurring behind inventoried closures, it appears unreasonable to expect that an ORV or snowmobile operator approaching a closure structure not designed to physically restrict snowmobiles or ORV's will have reviewed the Forest Travel Plan sufficiently to know that such travel beyond the closures is prohibited. Signs depicting the type of vehicle restricted should be placed at all closures.

92% of the closures truthed had no such sign. Particularly with regard to snowmobiles and ORV's, installing a sign is a measure which would significantly increase the effectiveness of the closure.

In conclusion, failure of the agency to take all reasonable measures to insure the maximum effectiveness of its existing closure structures has resulted in a significant loss in effectiveness of the closures truthed. Of the 111 miles of road inventoried as "closed" by these closure structures, 49 miles or 44% are at risk of compromising grizzly bear and other wildlife habitat utilization in the areas these roads access.

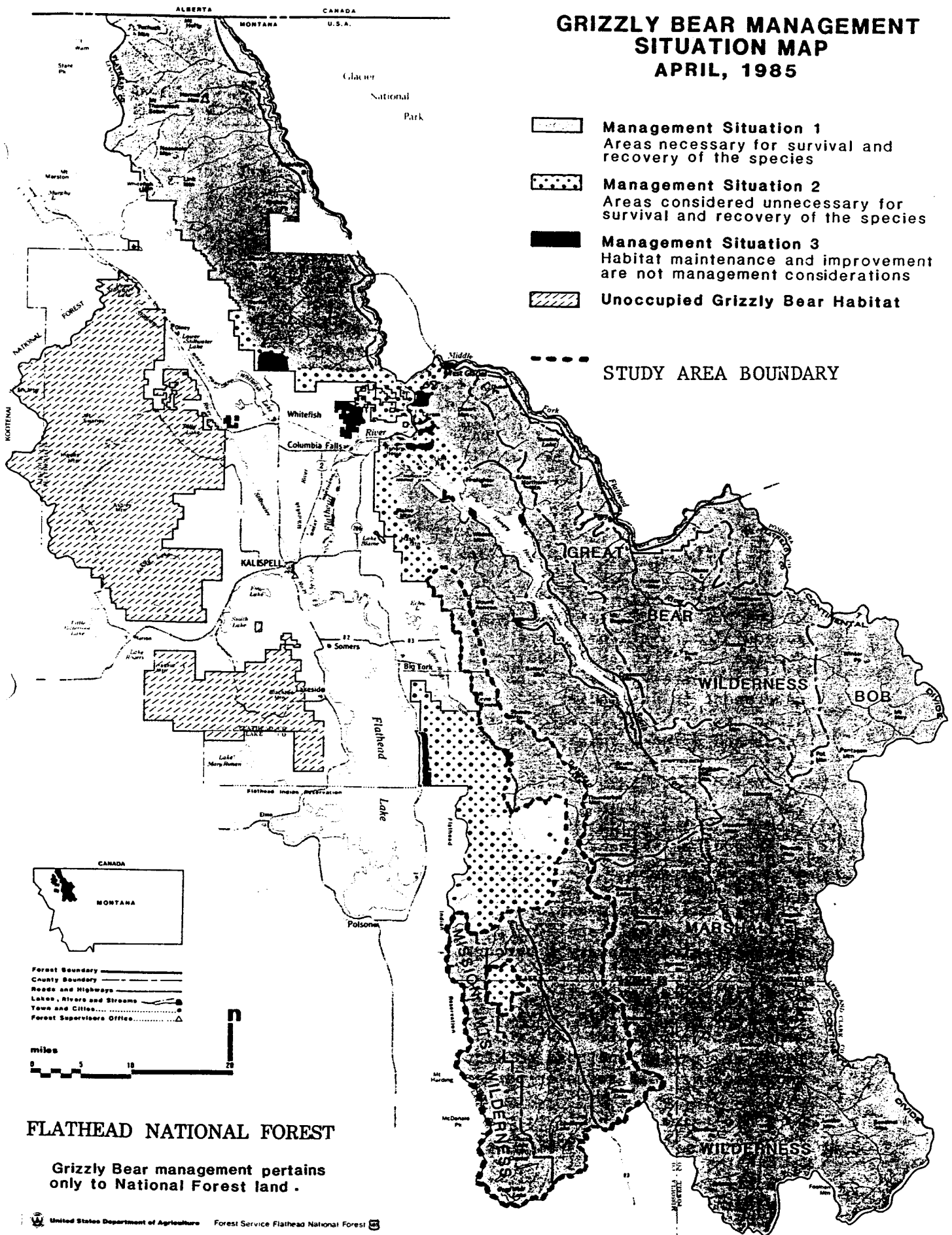
The Sunset-Beaver Creek area of the Swan/Clearwater Divide corresponds roughly with the Flathead National Forest's Management Area 11-C where management of a secure grizzly bear travel corridor between the Mission and Swan Mountains is to be a management priority. In the Sunset-Beaver area, of the eight gates inventoried as being in current existence, four were not closed and locked and one was not in existence. Hence, 24.4 miles of "closed" road was found to not be effectively secured, as compared to 3.95 miles which were secured. In addition to scheduling current road building activities in the area, this marks an 86% failure on the part of the agency to secure their delineated grizzly bear travel corridor from vehicular intrusions by the general public.

The findings of this report indicate that marked problems associated with implementing a sound road closure program on National Forest Lands arise not from the public's unwillingness to respect well designed closures. This is evidenced by the low rate of vandalism. Instead, closure problems are shown to result from the agency's failure to design closure structures to prevent "casual" circumvention of the structure and the agency's failure to diligently ensure that closure structures are kept closed and locked by Forest Service personnel and private parties under contract to the agency.

Footnotes:

1. Lyon, L. Jack; 1984: Field Tests of Elk/Timber Coordination Coordination Guidelines: U. S. Forest Service Research Paper INT-325.
2. Aune, Madel and Hunt; 1986.
3. Mattson, David J.; R. Knight & B. Blanchard; The Effects of Developments and Primary Roads on Grizzly Bear Habitat Use in Yellowstone National Park, Wyoming; as presented at the 7th International Conference on Bear Research and Management, Williamsburg, VA; 2/21 - 26/86 (Conference proceedings, publication pending).
4. Holland, Thomas M.; Grizzly Habitat Improvement Projects on the South and Middle Fork Flathead River; from Proceedings - Grizzly Bear Habitat Symposium, Missoula, Montana. April 30 - May 2, 1985; U. S. Forest Service General Technical Report INT-207.
5. USDA Forest Service; 1986, Flathead Forest Plan, p. II-24.
6. U. S. Fish and Wildlife Service; 1982, Grizzly Bear Recovery Plan, p. 58.
7. Flathead Forest Plan, supra, p. II-26.
8. Id., pps. III-42 - 50.
9. The cooperative "green dot" road control program undertaken during the Fall big game hunting season by the USFS and Montana Department of Fish, Wildlife and Parks in order to enhance hunter opportunity was not included in the SLRD Road Closure Inventory and was not considered an integral part of this study.
10. Flathead Forest Plan, supra, p. II-24.

GRIZZLY BEAR MANAGEMENT SITUATION MAP APRIL, 1985



	ROAD CLOSURE NUMBER	ROAD NAME	MILES RD. BEHIND CLOSURE				POTENTIAL > 40" DETOUR	EXISTING < 40" DETOUR	ACTIVE CONTRACT AT TRUHING	STATUS AS PER INVENTORY
			EFFECTIVE > 40"	VANDALISM	DETOUR	NOT LOCKED				
Sunset / Beaver	E 9570	Sunset Ridge			1.2				X	EX
	I 9653	East Side Beaver			7.3		X		X	EX
	E 9656	Beaver Sidehill	2.25						X	EX
	- 9658	Sunset Beaver			4.8				X	EX
	- 10574	Cygnest Lake				0.9			X	EX
	E 10577	West Beaver Cr.	0.3						X	EX
	- 10589	Beaver Potholes				0.9			X	UC
	- 10590	Salish Beaver	0.9						X	EX
	I 10593	Beaver Face			0.0				X	UC
	9	TOTALS	19.05	3.95	13.3	1.8	1	9		
Lindbergh / Knott	- 79	Lindbergh Lake	0.6							EX
	E 9552	Meadow Lake	1.7							EX
	E 9572	Bunyan Lake	0.6							EX
	- 9575	Main Herrick	3.0							EX
	I 9578	Pulaski	6.7				ORV		EX	N. End Jct w/ 561
	"	"	X						EX	S. End Jct w/ 79
	- 9593	Windfall East	(0.4)						EX	Couldn't find Jct w/ 9590
	E 10567	East Halterman	1.4						EX	
	7 0 8	TOTALS	14.0 (0.4) 14.4	14.0 (0.4) 14.4				1		
Holland	I 9595	Breck Cr.			3.1					EX
	E 9560	Upper Pienne Lk.	1.2				X			EX
	E 9561	Upper Owl			3.4					EX
	E 9562	Lower Owl	2.2							EX
	E 9618	Holland Breaks	4.1					X		EX
	E 9814	South Side Owl	4.2						EX	March "Special Use" Evident
	6	TOTALS	18.2	11.7	3.1	3.4	1	1		

ROAD CLOSURE NUMBER	ROAD NAME	MILES RD. BEHIND CLOSURE				POTENTIAL > 40" DETOUR	EXISTING < 40" DETOUR	ACTIVE CONTRACT AT TRUTH	STATUS AS PER INVENTORY
		EFFECTIVE > 40"	INEFFECTIVE > 40"						
			VANDALISM	DETOUR	NOT LOCKED				
E 9553	Cold Cr. - Elk Cr.	(1.8)							EX
- 9589	Boundary Basin	(2.0)							EX
- 9785A	First Chance Rd. A	0.9					X		EX
E 10291	Elk Head	(1.4)							EX
I 10296	Jim Cr. Rd.	2.1							EX
- 10318	Dump Rd	(1.7)							EX
- 10382	Middle 24	0.8							EX
I 10383	Thicket	1.75							EX
4	TOTALS	5.55					1		
⑨		(6.3)							
8		11.85							
E 5237	Van Flats	2.2							EX
I 5377	Dry Lake North	1.9							EX
E 5381	Old Pack Rd.	0.9							EX
- 9547	Pony Creek	1.9							EX
- 9594	Swan Akler Cr.	0.6							EX
I 9718	North Akler			0.4			?		EX
E 9728	Lowest Dog		X	0.5					EX
- 9760A	Condon Tree Stub		0.9						EX
E 9811	Dog Simpson	1.7							EX
I 9813	Upper Falls	0.8							EX
- 9835	Dog Ridge	(0.7)							EX
- 9883	North Lion		3.8						EX
E 10323	South Side Lion	1.0							EX
I 10513	Upper Simpson	2.8							EX
E 10515	McKay Cr.			2.8			X		EX
14		22.2		4.7	3.7		1		
⑩		(1.7)							
15		22.9							

Illegal to access.

couldn't find.

LOWER SWAN / NOISY FACE GEO. UNITS

SPREADSHEET #3

	ROAD CLOSURE NUMBER	ROAD NAME	MILES RD BEHIND CLOSURE					POTENTIAL >40" DETOUR	EXISTING <40" DETOUR	ACTIVE CONTRACT AT TYPING	STATUS AS PER INVENTORY
			EFFECTIVE >40"	VANDALISM	DETOUR	NOT LOCKED	NO STRUCTURE				
Lower Swan Geo. Unit	E 680	South East			5.7						EX
	E 5206	N. Fork East Cr.	3.5					X	ORV		EX
	- 9507	Lower Bond Cr.	(8.0)								EX
	- 9508A	Lower Six mile			0.6						EX
	- 9509	Bond Foothills	(1.2)								EX
	- 9530	Goat Basin			6.4				X		EX
	E 9821	Fire Basin		1.0	X						EX
	E 10503	North Goat Cr.	2.2					X			UX
	- 10527	Redtail Hawk					1.0		?		PL
	E 10528	Swan View	3.2								EX
	- 10531	Hemp Rd	(0.1)								EX
Noisy Face Geo. Unit	8 (3) 11	TOTALS	23.6 (9.3) 32.9	8.9 (9.3) 18.4	1.0	0.6	12.1	1.0	2	1	1
	I 5392	Jewel Basin	1.4								EX
	E 5398	Bear Cr.	1.7					X			EX
	E 10319	Wolf Cr.		1.9				X			EX
	E 10320	Lower Peterson			2.3						EX
	- 10321	Upper Peterson	1.5								
	5	TOTALS	8.8	4.6	1.9	2.3		2			

Trucked outside closure dates.

" " " "

Couldn't find closure.

Couldn't locate Jetway Hwy 83

GEOGRAPHIC UNIT Subunit	EFFECTIVE > 40"	INEFFECTIVE > 40"				TOTAL	CLOSURES TRUTHED	CLOSURES NOT TRUTHED	CLOSURES PER INVENTORY	POTENTIAL > 40" DETOUR	EXISTING < 40" DETOUR	ACTIVE CONTRACT AT TRUTHING
		VANDALISM	DETOUR	NOT LOCKED	NO STRUCTURE							
UPPER SWAN												
Sunset/Beaver												
Count	3	-	-	4	2	6	9	-	9	1	-	9
Mileage	3.95	-	-	13.3	1.8	15.1	19.05	-	19.05	7.3	-	19.05
Lindbergh/Kraft												
Count	7	-	-	-	-	-	7	1	8	-	1	-
Mileage	14.0	-	-	-	-	-	14.0	0.4	14.4	-	6.7	-
Holland												
Count	4	-	1	1	-	2	6	-	6	1	1	-
Mileage	11.7	-	3.1	3.4	-	-	18.2	-	18.2	1.2	4.1	-
Cold/Piper												
Count	4	-	-	-	-	-	4	4	8	-	1	-
Mileage	5.55	-	-	-	-	-	5.55	6.3	11.85	-	0.9	-
Condon/Squeezer												
Count	9	-	(3) 2	3	-	5	14	1	15			
Mileage	13.8	-	4.7	3.7	-	8.4	22.2	0.7	22.9			
TOTAL UPPER SWAN												
Count	27	-	(4) 3	8	2	13	40	6	46	2	3	9
Mileage	49.0	-	7.8	20.4	1.8	30.0	79.0	7.4	86.4	8.5	11.7	19.05
LOWER SWAN												
Count	3	1	(2) 1	2	1	5	8	3	11	2	1	1
Mileage	8.9	1.0	0.6	12.1	1.0	14.7	23.6	9.3	32.9	5.7	3.5	6.4
NOISY FACE												
Count	3	1	1	-	-	2	5	-	5	-	2	-
Mileage	4.6	1.9	2.3	-	-	4.2	8.8	-	8.8	-	3.6	-
SWAN LAKE RANGER DISTRICT/MIS-1 TOTALS												
Count	33	2	(2) 5	10	3	20	53	9	62	4	6	10
Mileage	62.5	2.9	10.7	32.5	2.8	48.9	111.4	16.7	128.1	14.2	19.9	25.45