Huckleberry Heaven								
SOIL QUALITY MONITORING STANDARDIZED REPORT FORM - REGION 1. NATIONAL FOREST SYSTEM - VERSION 1.0 - JULY 1997								
SITE CHARACTERISTICS								
SITE NAME TYPE				FOREST	ດ	DISTRICT Salmon River		
LOCATION	berry 1	<u>+ la Ven</u> Latif	huda		I A/+ 7 JTM Northing	Perce	COUNTY	ISTATE
Sec. 14	T. 25N R.		gitude		TM Easting			STATE
	ASPECT,	ELEVA		☑ Feet	POSITION ON	LANDFORM / TO	POGRAPHY	
30%	NW d	eg.	5900	☐ Meters				
SUBSECTION H	. 1	•	М		WATERSHED	NAME & 4TH CC	DE HUC	
Abla - C		100 (C)	-i-1 / O a ala -i		SOIL CLASSIFICATION (FAMILY)			
LTA PARENT MATE		KINE (Suni	dai / Geologi	c seung)	SOIL CLASSIFICATION (FAMILET)			
LANDTYPE F	REMARKS:				1			
aycha								
ACTIVITY MONITORED								
FIRE		REMARKS	(disturbance	history; condition	ons during this	occurrence; cumu	lative effects; equipme	nt/system used):
HARVEST							···	
SITE PREP								
ROADING								
GRAZING								
MINING					· · · · · · · · · · · · · · · · · · ·			
RECREATION			<u> </u>					
NONENTRY								
MONITORING CONCERN								
COMPACTION		REMARKS	(reasons for	concern; action	s performed; n	nethodology; result	ts; mitigation applied; e	etc.):
DISPLACEMENT								
PUDDLING								
BURNED SOIL								
GROUND COVER		·						
SURFACE ORGANICS								
NUTRIENT CYCLING								
REGENERATION								
CONCLUSIONS / RECOMMENDATIONS								
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ADMINISTRATIVE

SUBMITTED BY:

TITLE:

DATES:

Monitored:

Reported:

TITLE AND LOCATION OF DETAILED REPORT

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■・■・■・SOIL & WATER・■・■・■

- Cattle impacts tended to be slight in most areas, but locally important, and more impactive on sites supporting palatable nonnative grasses, and loose, sandy soils.
- On road cuts 6 years old or more, cover provided by the forest seed mix is usually poor. Successful long-term revegetation depends on colonization by native forbs, grasses, shrubs, and trees. Plant cover differs in amount and species composition mostly by climate as indexed by habitat type, and by geologic parent material. Longer, steeper cutslopes support less cover than short, gentle ones. Shade afforded by adjacent hillslopes or forest vegetation can be important to revegetation success.
- Cut and fill slopes in decomposed granitics are the most difficult to revegetate successfully, even on short, relatively gentle slopes.

Effects on soil productivity of repeated summer burning on elk winter range were monitored as part of a cost-shared program with the University of Idaho, with financial support from the Rocky Mountain Elk Foundation (see 1990 Annual Monitoring Report, page 26). Laboratory analysis is complete for organic matter and preliminary statistical analysis indicates that:

- Ceanothus increased after summer burning, but was relatively little affected by aspect or elevation of the burn area. Scouler willow response was affected by elevation and age since burn.
- Elk use was highly correlated with abundance of ceanothus and Scouler willow. White-tail deer use was higher in areas of higher tree cover, on older burns.
- Total soil organic matter was decreased by burning and continued to accumulate throughout the 100 years included in sampling. Organic matter levels did not vary significantly by aspect or elevation.
- Soil litter showed the same trend but had increased to preburn levels by 80 years. Recovery of preburn levels of soil litter occurred faster on north aspects than south.

Informal qualitative monitoring on Forest reviews evaluated effectiveness of road design measures in reducing disturbed area, and minimizing sediment production and delivery through use of closely fitted designs using terrain and vegetation features to develop appropriate design measures.

Qualitative monitoring of road cut and fill revegetation suggests the following:

- Wet, slumpy road cuts are not well adapted to the standard Forest seed mix. Site-specific prescriptions for alder, willow, or other adapted, deep rooted species would be more successful.
- Revegetation using the standard forest mix on high elevation sites was not often successful, except for annual rye for temporary stabilization. Adapted species are suggested.
- Cursory monitoring of recent road construction indicated that certain segments needed followup treatment to rock eroding ditches, reseed, plant, fertilize, or otherwise attain specified levels of mitigation.

Quantitative soil effectiveness monitoring was conducted on one timber sale. One harvest unit had been tractor logged over most of the unit and grapple piled. The bottom part of the unit had been cable logged and grapple piled. Total soil damage (compacted, displaced, puddled, or eroded) averaged 37 percent of the area in the tractor unit and 18 percent in the cable and grapple part of the unit. Overall soil damage averaged 32 percent and violated Forest Plan standards which specify that not more than 20 percent of an activity area be detrimentally impacted. Impacts of unrestricted tractor skidding appeared to be responsible for most of the soil disturbance, while grapple piling, even on slopes of 35 to 40 percent, did not add appreciably to soil disturbance. Adherence to designated skid trails or cable systems would have reduced soil impacts.

Qualitative evaluation of a cut-to-length system operating on private land suggests that this harvesting method may reduce soil impacts by reducing the amount of land in roads, and restricting degree of soil compaction and rutting within units. Units scheduled for harvest in 1993 will be monitored, if feasible, to evaluate soil impacts more quantitatively.

Qualitative evaluation of a "slash buster" used after timber harvest to prepare sites for planting indicate that soil disturbance could be reduced by using this method where appropriate, instead of traditional dozer piling. Quantitative monitoring is suggested for 1993.

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