

Appendices

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Appendix A - LMP Feedback

The goal of ecosystem management is to promote sustainability by protecting the ecosystem elements within and across spatial and temporal scales. One roll is to guide site level projects and decision making by providing a larger scale context. Another roll of ecosystem analysis is to provide feedback to the *Forest Plan*.

The following recommendations were developed during the Thompson/Seiad/Grider Ecosystem Analysis process. These recommendations primarily involve data layers, estimates of land allocation acreage, and assumptions used for Forest-Wide calculations.

1- The Thompson/Seiad/Grider analysis provides an updated estimate of Riparian Reserve acreage and a sample of ground-truthed riparian features for comparison. This allows a more accurate representation of both mapped and unmapped Riparian Reserve acreage than was used in the *Forest Plan*. It is recommended that more sampling of ground-truthed riparian features be done across the forest

and future Forest-Wide analyses used updated mapping and sampling to estimate Riparian Reserve acreage.

2- The requirement in the *Klamath Forest Plan Record of Decision* for a watershed analysis in Areas with Watersheds Concerns (AWWCs) has been met for the AWWCs in the Thompson/Seiad/Grider watersheds. However, eight subwatersheds (Caroline, China Creek, Horse/Cade, Mill/Slide, Rancheria Creek, Upper Seiad Creek, Walker Creek, and West Grider/Bittenbender) have been determined to be impaired and in need of continued limitations from watershed disturbances

4- Using the updated Riparian Reserve mapping, updated Areas with Watershed Concerns, and refined vegetation mapping, an identification of areas capable of supporting timber harvest has been developed in this analysis. It is recommended that this refinement of capable acres in the General Forest and Partial Retention land allocations be used in developing expected timber yields from the watershed.

Appendix B - Cumulative Watershed Effects

Assumptions, procedures and caveats of the CWE analysis are described below. This analysis describes current watershed conditions as of March, 1998. Over time, model-generated values will change due to: (1) recovery of fire & harvest disturbances; road decommissioning, (2) refinement and/or update of component GIS layers [e.g., roads and harvest layers were in the process of being updated as of March, 1998], (3) refinements of coefficients [e.g., revision of mass-wasting coefficients as a result of flood assessment study scheduled for the summer of 1998], (4) changes and/or refinement of models (e.g., adding complexity or simplifying).

Landslide Model

The landslide model estimates sediment production from mass-wasting. Results are based on the *Salmon Sub-basin Sediment Analysis*, (de la Fuente and Haessig 1993) and uses methodology developed in Amaranthus et al. [1985], the Grider EIS [1989] and the Forest Plan [1994]. The sediment study identified landslides and estimated landslide volumes based on air photo interpretation with some ground verification. Landslide prediction was based on actual landslide production for the period 1970 to 1975. Several large floods occurred in this time period but none as large as the 1964 flood. The coefficients, expressed as cubic yards per acre given a series of floods similar to the 1970 to 1975 period, are displayed in the following table.

Landslide Model Coefficients				
Geomorphic Type	Road Related	Harvest/Fire		Undisturbed
	cu yd/ac	<20 years cu yd/ac	20-40 yrs cu yd/ac	cu yd/ac
Active Landslides	1,000	125	75	25
Dormant Slides/Toe Zone	225	3.2	3.0	2.8
Granitic Mtn. Slopes >60%	1,005	12	6.5	1.3
Granitic Mtn. Slopes <60%	36	11	5.9	0.6
Non-Granitic Slopes >60%	82	3.3	2.5	1.7
Non-Granitic Slopes <60%	19	2.1	1.2	0.3
Unconsolidated Inner Gorge	376	51	39	26
Granitic Inner Gorge	1,201	146	77	7.3
Other Inner Gorge	285	11	9.2	7.2
Debris Basins	25	50	3.8	1.3
Glacial Moraine & Terraces	7.5	6.5	4.9	3.2

To estimate future landslide production, the appropriate coefficient is multiplied by the acres of each geomorphic type by disturbance for each subwatershed. Background landslide production is

based on the undisturbed landslide model coefficients and the acres of each geomorphic type.

Surface Erosion Model

Surface erosion modeling is based on the Universal Soil Loss Equation (USLE) which is $A = R \times L \times S \times D \times C \times K \times c$. A is cubic yards per acre per year estimated sediment delivery to streams, R is rainfall/runoff factor; 28 for areas with greater than 60 inches precipitation/year, and 14 for areas with less than 60 inches precipitation/year), LS is the length/slope factor (2.5 for gentle slopes, less than or equal to 35%, and 7.32 for steep slopes, greater than 35%), D is delivery ratio (.29 for road prisms, .05 for everything else), C is cover factor (.5 for roads, .06 for less than 10 year old plantations or fire, .01 for everything else), K is inherent soil erodibility from soils coverage, and c is 0.7 tons/cu yds conversion. Current surface erosion uses the acreage and coefficients for roads and 1988-1997 plantations and background surface erosion includes only the background coefficients.

Roads, plantations, wildfire, slope classes, geomorphic and soil types are Geographic Information System (GIS) layers. Variable road prism widths are used to convert road lengths to acreage. A road prism width of 12 meters or 39.17 feet was used for this model. This width was chosen for the following reasons: a) similar to the 40 foot width used in the Salmon ... Sediment Analysis [de la Fuente & Haessig, 1994] and the width on which mass-wasting coefficients were based; b) similar to 40 foot dominant road prism width determined in the Ishi Pishi Ecosystem Analysis by using a variable road width technique; c) similar to estimated road prism width of 37.88 foot computed for 16 foot average road width (14 foot travel surface plus average of 2 foot additional width for turnouts and turn widenings) on a 50% side slope [Harry Sampson, Forest Engineer; pers. comm., 1998].

Roads coverages encompass the entire analysis area, extending into non-KNFadministered lands and including roads under county, state and private jurisdiction. As of March, 1998, Forest roads layer was undergoing revision and updating.

Through use of GIS, acres of different disturbance histories on different geomorphic and soil types, on different slope classes, and in different subwatersheds are generated and plugged into sediment modeling

equations. The sediment model results are displayed in Step 5.

Equivalent Roaded Area (ERA) Methodology

The ERA/TOC model provides a simplified accounting system for tracking disturbances that affect watershed processes, in particular, estimates in changes in peak runoff flows influenced by disturbance activities. Unlike the other two models discussed above, the ERA/TOC model is not intended to be a process-based sediment model. It does, however, provide an indicator of watershed conditions.

The ERA methodology is commonly used throughout the Forest Service Region 5 (California Region) for assessing Cumulative Watershed Effects. The basis for this methodology is converting road, harvest, fire, or other disturbance into Equivalent Roaded Area (ERA) using coefficients. The coefficients used for Thompson/Seiad/Grider are derived from the *Forest Plan*. Road miles are converted to acres as described under the sediment models. 0-20 year old regeneration harvest areas and 1987 moderate and high intensity wildfire acres are multiplied by 0.21 ERA/acre to convert to ERAs. 20-30 year old plantations are multiplied by 0.17 and 30-40 year old plantations are multiplied by 0.06 ERA/acre to convert to ERAs. The information needed to calculate ERA is in GIS and the percent ERA for each subwatershed is displayed in Step 5.

The percent ERA for each subwatershed is compared with a Threshold of Concern (TOC). The TOC is calculated based on the channel sensitivity (C), beneficial uses (B), soil erodibility (E), hydrologic response (H), and slope stability (S). The index for each of these factors is plugged into the equation - Watershed Sensitivity Level (WSL) = 3C + 2B + E + H + S. Watershed Sensitivity is converted to a Threshold of Concern in the equation - Threshold of Concern (TOC) = (43 - WSL)/2. The number "43" is used because it best fits a regression of the watershed sensitivity levels and previously determined Thresholds of Concern. For example, a watershed with sensitive channels, highly productive anadromous streams (high beneficial use), highly erodible soils, high landslide density &/or high percentage of granitic lands (slope stability), and high percentage of watershed in the "rain-on-snow" zone (~3,500' to 5,000' elevation; hydrologic response) would have a high "Watershed Sensitivity Level" and therefore a low TOC. The explanation and index value for each TOC parameter is discussed in the following paragraphs.

CHANNEL SENSITIVITY (C) is based on Pfankuch stream stability ratings or Rosgen channel types for each subwatershed.

Parameter	Sensitivity Class	Index	Description
Channel Sensitivity	Very High	5	Pfankuch >130 Rosgen A4, B4, C4
	High	4	Pfankuch 115-130 Rosgen A3, A5, B3, B5, C3
	Moderate	3	Pfankuch 77-114 Rosgen B2, C1, C5
	Low	2	Pfankuch 39-76 Rosgen A2, B1
	Very Low	1	Pfankuch <39 Rosgen A1, F

BENEFICIAL USE (B) is an index of the significance of the stream for beneficial uses, by the highest beneficial use of surface water. Five beneficial use stream classes are defined in the Forest Plan. A Class 1A stream is a highly productive anadromous stream, is a municipal or campground water source (>5 domestic uses), provides highly productive resident fisheries habitat, major fishing use, or major recreation use. Class 1B stream provides domestic use for 1-5 surface water users, moderately productive anadromous fisheries, or highly productive resident fisheries habitat with major fishing use. Class II provides agricultural or industrial use, low productivity anadromous fisheries, or moderately productive resident fisheries with moderate fishing or recreation. Class III provides low productivity resident habitat and is rarely used for fishing or recreation. Class IV provides no beneficial uses.

Parameter	Significance Class	Index	Description
Beneficial Use	Very Highly	5	Class 1A.
	High	4	Class 1B.
	Moderate	3	Class II.
	Low	2	Class III.
	Other	1	Class IV.

SOIL ERODIBILITY (E) is based on the relative proportions of soils with different inherent erosion potentials where:

Erodibility = [6(A + C) + 5(B + D) + 3(E + F + H) + 2(G + I) + J]/Watershed Acres; and A = acres of granitic soils, B & D = acres of metamorphic units on steep slopes, C = acres of mica schist, E = acres of dormant landslides, F = acres of shallow soil and rock outcrops, G = acres of very to extremely gravelly surface, H = acres of cobbly surface, I = acres of glacial till, and J = acres of all other units.

Parameter	Sensitivity Class	Index	Erodibility Rating
Soil Erodibility	Very High	5	> 5
	High	4	4-5
	Moderate	3	3-4
	Low	2	1.3-3

	Very Low	1	1-1.3
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HYDROLOGIC RESPONSE POTENTIAL (H) is based on the percent of the watershed in the transient snow zone (between 3,500 and 5,000 feet elevation), relative rain area (RRA or ratio of precipitation falling as rain vs. snow), and the dominant aspect of the watershed.

Parameter	Peak Runoff Potential	Index	Description
Hydrologic Response	Very High	4	High risk for rain-on-snow event every 1-5 years, rain-on-snow zone > 1/2 watershed, RRA > 0.9, aspect S high, N low.
	High	3	Occasional rain-on-snow event (5-10 years), 1/4 to 1/2 watershed in rain-on-snow zone, RRA 0.5-0.7.
	Moderate	2	Average risk of rain-on-snow event (10-25 years) <1/4 of the watershed in rain-on-snow zone, RRA 0.5-0.7.
	Low	1	Low risk of high runoff peaks, RRA < 0.5

SLOPE STABILITY (S) is based on the proportion of the watershed in various slope stability categories where

Stability Rating = $[10A + 6B + 4(C + D) + 3E + F] / \text{Watershed Area}$

A = acres of active landslide
B = acres of unconsolidated inner gorge
C = acres of consolidated inner gorge
D = acres on toe zones of dormant landslides
E = acres on highly dissected, steep granitics
F = acres of all other terranes

Parameter	Risk Class	Index	Stability Rating
Slope Stability	Very High	5	> 1.5
	High	4	1 - 1.5
	Moderate	3	0.75 - 1
	Low	2	0.5 - 0.75
	Very Low	1	<0.5

An ERA/TOC ratio of greater than 1.00 indicates that disturbance levels have exceeded the natural capacity of the watershed to "absorb" these disturbances. A basin is assumed to be healthy again as soon as sub-threshold ERA values are re-attained

Model Integration

Cumulative watershed effects assessments should include consideration of all model results. Models were weighted equally, with one-third to the ERA/TOC model and two-thirds to the two sediment production models. Model-derived sediment production (in cy/ac/yr) from an Indian Creek CWE assessment and the Ishi-Pishi Ecosystem Analysis suggests that 75% of the total is from mass-wasting, with 25% from surface erosion. Therefore the mass-wasting model is weighted three times the surface erosion model. This yields a final weighting as follows: (1) ERA/TOC = 33.3%, (2) surface erosion = 16.7%, and (3) mass-wasting = 50%

Before applying the model weighting factors, individual watershed values were normalized by the following model "threshold" values: (1) ERA/TOC = 1.00, (2) surface erosion = 800% over background, and (3) mass-wasting = 200% over background. For example, a watershed with ERA/TOC = .80, surface erosion = 400%, and mass-wasting = 150% would have normalized values of ERA/TOC = .80 [.80/1.00], surface erosion = .50 [400%/800%], and mass-wasting = .75 [150%/200%].

Normalized and weighted values from the three models were added to yield the "Combined" watershed CWE index. The following table is a tabular summary of this procedure.

Mathematics of Tools Used:

	Mass Wasting	Surface Erosion	ERA/TOC	Combined Index
Current (total existing)	volume [C]; sed. prod.	volume [C]; sed. prod.	ERA	
Background	volume [B]; sed. prod.	volume [B]; sed. prod.		
Threshold	200 %	800%	TOC	
% Over Background	$X = (100) * [C - B] / B$	$X = (100) * [C - B] / B$	risk ratio = ERA/TOC	
% of Threshold	$Y = [X] / 2.0$	$Y = [X] / 8.0$	$Y = \text{risk ratio} / 1.0$	
Model Weighting Factor	.50 (50%)	0.167 (16.7%)	.333 (33.3%)	
Combination Index	$[Y] * [.50]$	$[Y] * [.167]$	$[Y] * [.333]$	Sum of 3 values from left

APPENDIX C - Aquatic Habitat

The following are National Marine Fisheries Service Matrices of Factors and Indicators used to document baseline stream and watershed conditions. Seiad Creek, China Creek, Grider Creek, Thompson Creek and Walker Creek were surveyed during the summer of 1998. These data represent post 1997 flood in-channel habitat conditions. Fort Goff, Horse, and Portuguese Creeks were surveyed prior to 1997. Data for these streams are not as detailed and do not necessarily reflect post 1997 flood conditions. For a discussion of the applicability of these indicators see Step 5, Riparian Areas.

JUSTIFICATION OF MATRIX OF FACTORS AND INDICATORS MID-KLAMATH and LOWER SALMON RIVER TRIBUTARIES

Seiad Creek using Canyon Creek, Lower Seiad Creek, Panther Williams, and Upper Seiad Creek Subwatersheds

FACTORS	INDICATORS	JUSTIFICATION	PROPERLY FUNCTIONING	AT RISK	NOT PROPERLY FUNCTIONING
SEIAD CREEK					
WATER QUALITY	Temperature	The average of 17 afternoon samples is 60°F	X		
	Turbidity	No Data	No Data		
	Chemical/Nutrient Contamination	No Data	No Data		
HABITAT ACCESS	Physical Barriers	There are no man-made barriers present.	X		
HABITAT ELEMENTS	Substrate	From 105 sets of grid tosses (55 pools, 34 runs, and 17 low gradient riffles), 9% fines; 105 pebble counts (55 pools, 34 runs, and 16 low gradient riffles), 13% fines; 102 embeddedness samples (53 pools, 34 runs, and 15 low gradient riffles), 19% embedded.	X		
	Large Woody Material	Key large wood, 3.3 pieces/ mile; key large wood recruitment, counted at channel cross-section measurements, was high.			X
	Pool Frequency	One pool every 6.7 bankfull widths counting all pools. One pool every 14 bankfull widths counting pools 3 feet deep or deeper	X		
	Off-Channel Habitat	Not applicable to these channel types.	N/A		
	Refugia	Composite of stream factors		X	
CHANNEL CONDITIONS AND DYNAMICS	Width/Depth Ratio	W/D ratio on "A" channels is 15. W/D ratio on "B" and "C" channels is 21.		X	
	Streambank Condition	1,050 total feet of slides in 45,672 feet surveyed. Approx. 2% unstable banks.	X		
	Floodplain Connectivity	Not applicable to these channel types.	N/A		
CANYON CREEK, LOWER SEIAD CREEK, PANTHER WILLIAMS, AND UPPER SEIAD CREEK SUBWATERSHEDS					
FLOW/ HYDROLOGY	Change in Peak/ Base Flow	No Data	No Data		
	Increase in Drainage Network	Not available at publishing time.	Not Available		
WATERSHED CONDITIONS	Road Density and Location	1.5 miles/ square mile	X		
	Disturbance History	Mass Wasting model 127% over background Surface Erosion model 223% over background		X	
	Riparian Reserves	67 acres of road in 5,529 acres of riparian reserve. 1% of riparian reserve is roaded.		X	

**JUSTIFICATION OF MATRIX OF FACTORS AND INDICATORS
MID-KLAMATH and LOWER SALMON RIVER TRIBUTARIES**

China Creek using China Creek Subwatershed

FACTORS	INDICATORS	JUSTIFICATION	PROPERLY FUNCTIONING	AT RISK	NOT PROPERLY FUNCTIONING
CHINA CREEK					
WATER QUALITY	Temperature	The average of 12 afternoon samples is 57°F	X		
	Turbidity	No Data	No Data		
	Chemical/Nutrient Contamination	No Data	No Data		
HABITAT ACCESS	Physical Barriers	No man-made barriers present.	X		
HABITAT ELEMENTS	Substrate	From 44 sets of grid tosses (28 pools, 14 runs, and 2 low gradient riffles), 10% fines; 68 pebble counts (28 pools, 14 runs, and 26 low gradient riffles), 11% fines; 44 embeddedness samples (28 pools, 14 runs, and 2 low gradient riffles), 23% embedded.	X		
	Large Woody Material	Key large wood, 6 pieces/ mile; key large wood recruitment, counted at channel cross-section measurements, was moderate.			X
	Pool Frequency	One pool every 7.9 bankfull widths counting all pools. One pool every 38 bankfull widths counting pools 3 feet deep or deeper		X	
	Off-Channel Habitat	Not applicable to these channel types.	N/A		
	Refugia	Composite of stream factors		X	
CHANNEL CONDITIONS AND DYNAMICS	Width/Depth Ratio	W/D ratio on "A" channels is 12. W/D ratio on "B" channels is 14.	X		
	Streambank Condition	73 total feet of slides in 16,127 feet surveyed.	X		
	Floodplain Connectivity	Not applicable to these channel types.	N/A		
CHINA CREEK SUBWATERSHED					
FLOW/ HYDROLOGY	Change in Peak/ Base Flow	No Data.	No Data		
	Increase in Drainage Network	Not available at publishing time.	Not Available		
WATERSHED CONDITIONS	Road Density and Location	5.4 miles/ square mile			X
	Disturbance History	Mass Wasting model 205% over background Surface Erosion model 1202% over background			X
	Riparian Reserves	96 acres of road in 2,649 acres of riparian reserve. 4% of riparian reserve is roaded.			X

JUSTIFICATION OF MATRIX OF FACTORS AND INDICATORS
MID-KLAMATH and LOWER SALMON RIVER TRIBUTARIES

Grider Creek using Cliff Valley, Lower Grider, Rancheria and Upper Grider Creek Subwatersheds

FACTORS	INDICATORS	JUSTIFICATION	PROPERLY FUNCTIONING	AT RISK	NOT PROPERLY FUNCTIONING
GRIDER CREEK					
WATER QUALITY	Temperature	The average of 17 afternoon samples is 64°F	X		
	Turbidity	No Data	No Data		
	Chemical/Nutrient Contamination	No Data	No Data		
HABITAT ACCESS	Physical Barriers	No man-made barriers present.	X		
HABITAT ELEMENTS	Substrate	From 74 sets of grid tosses (39 pools, 16 runs, and 19 low gradient riffles), 10% fines; Pebble counts, 11% fines; 74 embeddedness samples (39 pools, 16 runs, and 19 low gradient riffles), 31% embedded.	X		
	Large Woody Material	Key large wood, 6 pieces/ mile.			X
	Pool Frequency	One pool every 11.6 bankfull widths counting all pools. One pool every 12 bankfull widths counting pools 3 feet deep or deeper.			X
	Off-Channel Habitat Refugia	Not applicable to these channel types.	N/A		
	Width/Depth Ratio	Composite of stream factors.	X		
CHANNEL CONDITIONS AND DYNAMICS	Streambank Condition	W/D ratio on "B" channels is 21.	X		
	Floodplain Connectivity	1,500 total feet of slides in 67,584 feet surveyed. Approx. 2% unstable banks.	X		
		Not applicable to these channel types.	N/A		
CLIFF VALLEY, LOWER GRIDER, RANCHERIA AND UPPER GRIDER SUBWATERSHEDS					
FLOW/ HYDROLOGY	Change in Peak/ Base Flow	No Data.	No Data		
	Increase in Drainage Network	Not available at publishing time.	Not Available		
WATERSHED CONDITIONS	Road Density and Location	51.3 miles/ square mile.	X		
	Disturbance History	Mass Wasting model 95% over background. Surface Erosion model 290% over background.	X		
	Riparian Reserves	77 acres of road in 9,895 acres of riparian reserve. Less than 1% of riparian reserve is roaded.	X		

**JUSTIFICATION OF MATRIX OF FACTORS AND INDICATORS
MID-KLAMATH and LOWER SALMON RIVER TRIBUTARIES**

***Thompson Creek using Cedar/Morgan, Mill/Slide,
and Upper Thompson Creek Subwatersheds***

FACTORS	INDICATORS	JUSTIFICATION	PROPERLY FUNCTIONING	AT RISK	NOT PROPERLY FUNCTIONING
THOMPSON CREEK					
WATER QUALITY	Temperature	The average of 20 afternoon samples is 61 ⁰ F	X		
	Turbidity	No Data	No Data		
	Chemical/Nutrient Contamination	No Data	No Data		
HABITAT ACCESS	Physical Barriers	There are no man-made barriers present.	X		
HABITAT ELEMENTS	Substrate	From 63 sets of grid tosses (33 pools, 13 runs, and 17 low gradient riffles), 8% fines; Pebble counts , 17% fines; 63 embeddedness samples (33 pools, 13 runs, and 17 low gradient riffles), 36% embedded.		X	
	Large Woody Material	Key large wood, 13 pieces/ mile.			X
	Pool Frequency	One pool every 8.6 bankfull widths counting all pools. One pool every 11.7 bankfull widths counting pools 3 feet deep or deeper			X
	Off-Channel Habitat Refugia	Not applicable to these channel types.	N/A		
		Composite of stream factors	X		
CHANNEL CONDITIONS AND DYNAMICS	Width/Depth Ratio	W/D ratio on "B" channels is 21.	X		
	Streambank Condition	700 total feet of slides in 43,296 feet surveyed. Less than 2% unstable banks.	X		
	Floodplain Connectivity	Not applicable to these channel types.	N/A		
CEDAR/MORGAN, MILL/SLIDE, AND UPPER THOMPSON CREEK SUBWATERSHEDS					
FLOW/ HYDROLOGY	Change in Peak/ Base Flow	No Data	No Data		
	Increase in Drainage Network	Not available at publishing time.	Not Available		
WATERSHED CONDITIONS	Road Density and Location	1.7 miles/ square mile	X		
	Disturbance History	Mass Wasting model 92% over background Surface Erosion model 320% over background	X		
	Riparian Reserves	104 acres of road in 8,034 acres of riparian reserve. 1% of riparian reserve is roaded.		X	

JUSTIFICATION OF MATRIX OF FACTORS AND INDICATORS **MID-KLAMATH and LOWER SALMON RIVER TRIBUTARIES**

Walker Creek using Walker Creek Subwatershed

FACTORS	INDICATORS	JUSTIFICATION	PROPERLY FUNCTIONING	AT RISK	NOT PROPERLY FUNCTIONING
WALKER CREEK					
WATER QUALITY	Temperature	The average of 7 afternoon samples is 62 ⁰ F	X		
	Turbidity	No Data	No Data		
	Chemical/Nutrient Contamination	No Data	No Data		
HABITAT ACCESS	Physical Barriers	There are no man-made barriers present.	X		
HABITAT ELEMENTS	Substrate	Pebble counts, 17% fines; 18% embedded.	X		
	Large Woody Material	Key large wood, 4 pieces/ mile.			X
	Pool Frequency	One pool every 8 bankfull widths counting all pools.			X
	Off-Channel Habitat Refugia	Not applicable to these channel types.	N/A		
		Composite of stream factors		X	
	Width/Depth Ratio	W/D ratio on "B" channels is 31.	X		
	Streambank Condition	1,000 total feet of slides in 31,940 feet surveyed. Approx. 3% unstable banks.	X		
	Floodplain Connectivity	Not applicable to these channel types.	N/A		
WALKER CREEK SUBWATERSHED					
FLOW/ HYDROLOGY	Change in Peak/ Base Flow	No Data	No Data		
	Increase in Drainage Network	Not available at publishing time.	Not Available		
WATERSHED CONDITIONS	Road Density and Location	3.7 miles/ square mile		X	
	Disturbance History	Mass Wasting model 300% over background Surface Erosion model 813% over background			X
	Riparian Reserves	74 acres of road in 3,274 acres of riparian reserve. 2% of riparian reserve is roaded.		X	

Pathways: INDICATORS	ENVIRONMENTAL BASELINE <u>Fort Goff Creek</u>		
	PROPERLY FUNCT	AT RISK	NOT PROP FUNCT
<u>Water Quality</u>			
Temperature*	X		
	X		
Sediment			
Chemical Contam	X		
<u>Habitat Access</u>			
Physical Barrier	X		
<u>Habitat Elements</u>	X		
Substrate			
	X		
LWD*			X
Pool Frequency		X	
Pool Quality			X
Off-channel Habitat	X		
Refugia			
<u>Channel Cond & Dyn</u>	X		
W/D Ratio*	X		
Streambank Cond.		X	
Floodplain Cond.	X		
<u>Flow /Hydrology</u>	X		
Peak/Base Flow	X		
Drainage Net Incrs			
<u>Watershed Cond.</u>	Road Dens/Loc		
	X		
Disturbance History	X		
Riparian Reserves			

*-- Used local numbers

Pathways: INDICATORS	ENVIRONMENTAL BASELINE Horse Creek		
	PROPERLY FUNCT	AT RISK	NOT PROP FUNCT
<u>Water Quality</u>			
Temperature*	X		
	X		
Sediment			
Chemical Contam	X		
<u>Habitat Access</u>			
Physical Barrier	X		
<u>Habitat Elements</u>	X		
Substrate			
	X		
LWD*			X
Pool Frequency		X	
Pool Quality			X
Off-channel Habitat			
Refugia	X		
<u>Channel Cond & Dyn</u>	X		
W/D Ratio*	X		
Streambank Cond.		X	
Floodplain Cond.			
<u>Flow /Hydrology</u>	X		
Peak/Base Flow			
Drainage Net Incrs	X		
<u>Watershed Cond.</u>	Road Dens/Loc		
Disturbance History	X		
Riparian Reserves	X		

*-- Used local numbers

<u>Pathways:</u> INDICATORS	ENVIRONMENTAL BASELINE <u>Portuguese Creek</u>		
	PROPERLY FUNCT	AT RISK	NOT PROP FUNCT
<u>Water Quality</u> Temperature*	X		
	X		
Sediment			
Chemical Contam	X		
<u>Habitat Access</u> Physical Barrier	X		
<u>Habitat Elements</u> Substrate	X		
LWD*	X		
Pool Frequency			X
Pool Quality		X	
Off-channel Habitat			X
Refugia	X		
<u>Channel Cond & Dyn</u> W/D Ratio*	X		
Streambank Cond.	X		
Floodplain Cond.		X	
<u>Flow /Hydrology</u> Peak/Base Flow	X		
Drainage Net Incrs	X		
<u>Watershed Cond.</u> Road Dens/Loc			
Disturbance History	X		
Riparian Reserves	X		

*-- Used local numbers

Appendix D - Fire and Fuels

The following is a description of the components and the process involved in determining fire behavior potential and risk for the Thompson, Seiad, Grider watershed analysis.

FUEL MODEL DEFINITIONS

The prediction of fire behavior is valuable for assessing potential fire damage to resources, for fire suppression pre-planning, and for fuels treatment planning and implementation. A quantitative basis for rating fire danger and predicting fire behavior became possible with the development of mathematical fire behavior fuel models. Fuel modeling and the prediction of fire behavior has been a valuable tool for analysis and project implementation on the Klamath National Forest. These tools have been utilized and refined on the Klamath National Forest for over 20 years. Fuels have been classified into four groups; **grasses, shrubs, timber, and slash**. The differences in these groups are related to the fuel load and distribution of fuel among size classes. Size classes are: 0 - 1/4" (1 hour fuels), 1/4 - 1" (10 hour fuels), 1 - 3" (100 hour fuels), and 3" and greater (1,000 hour fuels).

A description of fuel models used in fire behavior as documented by Albini (1976) is in the following table:

FUEL MODEL Typical Fuel Complex	FUEL LOADING tons/acre				FUEL BED DEPTH in ft.
	1 Hr.	10 Hr.	100 Hr.	Live	
GRASS AND GRASS-DOMINATED					
1-Short Grass (1 ft.)	0.74	0.00	0.00	0.00	1.0
2-Timber (Grass and Understory)	2.00	1.00	0.50	0.50	1.0
3-Tall Grass (2.5 ft.)	3.01	0.00	0.00	0.00	-
CHAPARRAL AND SHRUB FIELDS					
4-Chaparral (6 ft.)	5.01	4.01	2.00	5.01	6.0
5-Brush (2 ft.)	1.00	0.50	0.00	2.00	2.0
6-Dormant Shrub & Hdwd. Slash	1.50	2.50	2.00	0.00	2.5
7-Southern Rough	1.13	1.87	1.50	0.37	2.5
TIMBER LITTER					
8-Closed Timber Litter	1.50	1.00	2.50	0.00	0.2
9-Hardwood Litter	2.92	0.41	0.15	0.00	0.2
10-Timber (Litter and Understory)	3.01	2.00	5.01	2.00	1.0
SLASH					
11-Light Logging Slash	1.50	4.51	5.51	0.00	1.0
12-Medium Logging Slash	4.01	14.03	16.53	0.00	2.3
13-Heavy Logging Slash	7.01	23.04	28.05	0.00	3.0

The criteria for choosing a fuel model (Anderson 1982) includes the fact that fire burns in the fuel stratum best conditioned to support fire. Fuel models are simply tools to help the user realistically estimate fire behavior. Modifications to fuel models are

possible by changes in the live/dead ratios, moisture contents, fuel loads, and drought influences.

Following is a brief description of each of the 13 fire behavior fuel models:

GRASS GROUP

Fire Behavior Fuel Model 1 - Fire spread is governed by the very fine, porous, and continuous herbaceous fuels that have cured or are nearly cured. Fires are surface fires that move rapidly through the cured grass. Very little timber or shrub is present.

Fire Behavior Fuel Model 2 - Fire spread is primarily through cured or nearly cured grass where timber or shrubs cover one to two-thirds of the open area. These are surface fires that may increase in intensity as they hit pockets of other litter.

Fire Behavior Fuel Model 3 - Fires in this grass group display the highest rates of spread and fire intensity under the influence of wind. Approximately one-third or more of the stand is dead or nearly dead.

SHRUB GROUP

Fire Behavior Fuel Model 4 - Fire intensity and fast spreading fires involve the foliage and live and dead fine woody material in the crowns of a nearly continuous secondary overstory. Stands of mature shrubs, six feet tall or more are typical candidates. Besides flammable foliage, dead woody material in the stands contributes significantly to the fire intensity. A deep litter layer may also hamper suppression efforts.

Fire Behavior Fuel Model 5 - Fire is generally carried by surface fuels that are made up of litter cast by the shrubs and grasses or forbs in the understory. Fires are generally not very intense because the fuels are light and shrubs are young with little dead material. Young green stands with little dead wood would qualify.

Fire Behavior Fuel Model 6 - Fires carry through the shrub layer where the foliage is more flammable than fuel model 5, but requires moderate winds, greater than eight miles per hour.

Fire Behavior Fuel Model 7 - Fires burn through the surface and shrub strata with equal ease and can occur at higher dead fuel moistures because of the flammability of live foliage and other live material.

TIMBER GROUP

Fire Behavior Fuel Model 8 - Slow burning ground fuels with low flame lengths are generally the case, although the fire may encounter small "jackpots" of heavier concentrations of fuels that can flare up. Only under severe weather conditions do the fuels pose a threat. Closed canopy stands of short-needled conifers or hardwoods that have leafed out support fire in the compact litter layer. This layer is mostly twigs, needles, and leaves.

Fire Behavior Fuel Model 9 - Fires run through the surface faster than in fuel model 8 and have a longer flame length. Both long-needle pine and hardwood stands are typical. Concentrations of dead, down woody material will cause possible torching, spotting, and crowning of trees.

Fire Behavior Fuel Model 10 - Fires burn in the surface and ground fuels with greater intensity than the other timber litter types. A result of overmaturing and natural events creates a large load of heavy down, dead material on the forest floor. Crowning out, spotting, and torching of individual trees is more likely to occur, leading to potential fire control difficulties.

SLASH GROUP

Fire Behavior Fuel Model 11 - Fires are fairly active in the slash and herbaceous material intermixed with the slash. Fuel loads are light and often shaded. Light partial cuts or thinning operations in conifer or hardwood stands. Regeneration harvest operations generally produce more slash than is typical of this fuel model.

Fire Behavior Fuel Model 12 - Rapidly spreading fires with high intensities capable of generating firebrands can occur. When fire starts it is generally sustained until a fuelbreak or change in conditions occur. Fuels generally total less than 35 tons per acre and are well distributed. Heavily thinned conifer stands, regeneration units, and medium to heavy partial cuts are of this model.

Fire Behavior Fuel Model 13 - Fire is generally carried by a continuous layer of slash. Large quantities of material three inches and greater is present. Fires spread quickly through the fine fuels and intensity builds up as the large fuels begin burning. Active flaming is present for a sustained period of time and firebrands may be generated. This contributes to spotting as weather conditions become more severe. Regeneration units are depicted where the slash load is dominated by the greater than three inch fuel size, but may also be represented by a "red

slash" type where the needles are still attached because of high intensity of the fuel type.

Fuel models identified and used in this analysis are in the following table:

Thompson Seiad Grider Fuel Models		
Fuel Model	Acres	Fuel Model Description
1	1,000	Grass, dry meadow or pasture
5B	12,490	Montane chaparral, i.e., manzanita, or deer brush
5C	17,690	Conifer plantations >35 years old and dense natural conifer stands in smaller size classes
8	30,635 *	Mature conifer and deciduous stands with open understories and low fuel accumulations
9	6,715	Typically these are pine dominated stands with open understories
10	55,100	Typically these are Douglas-Fir dominated stands with dense understories and high fuel accumulations
12	20,495	These are stands that burned with moderate and high intensities in 1987 and have high fuel accumulations.
14	1,820	These are riparian and montane meadow vegetation types that are virtually non-flammable except in drought conditions
98	2,375	Non-flammable material, i.e., gravel bars

*Due to the age of the vegetation layer and how quickly fuels can be generated, fuel model 8 has been over-estimated in this analysis.

Fire Behavior Fuel Model 14 has been generated to represent conditions that are virtually non-flammable due to wet conditions.

WEATHER DATA

The 90th percentile weather data is based on twenty years of data collected at Oak Knoll for elevations less than 4,000 feet and Collins Baldy for elevations greater than 4,000 feet. These are the closest weather stations to the analysis area with at least 20 years of weather data.

FUEL MOISTURE	PERCENT
1 Hour	2-5
10 Hour	4-5
100 Hour	4
1000 Hour	7-8
Live Woody	80
Herbaceous	30
20 Foot Wind Speed	9-12 MPH

FIRE BEHAVIOR POTENTIAL

To determine Fire Behavior Potential Classes, each fuel model is run through the BEHAVE program. This program uses fuel model, slope, and weather parameters to predict fire behavior and resistance to control for fire suppression purposes. The 90th percentile weather from the most representative weather station was used to model late summer afternoons, typical of late July through early September.

Three slope classes are used, consistent with the slope classes used in the LMP geologic hazard classification (0-34%, 35-65%, and greater than 65%). All fuel models were run through each of the three slope classes, to determine increases in fire behavior with increased steepness of terrain.

The output of this is a rating of Low, Moderate, or High fire behavior based on flame lengths, which are good indicators of fire line intensity and resistance to control, and/or rate of spread (ROS), which is also a good indicator of resistance to control.

Fire behavior potential modeling is done in order to estimate the severity and resistance to control that can be expected, when a fire occurs during what is considered the worst case weather conditions. Late summer weather conditions are referred to as the 90th percentile weather data, which is a standard used when calculating fire behavior (90th percentile weather is defined as the severest 10% of the historical fire weather, i.e., hot, dry, windy conditions occurring on mid afternoons during the fire season). The modeling incorporates fuel condition, slope class, and 90th percentile weather conditions in calculating projections on flame lengths and rates of spread. A **low** rating indicates that fires can be attacked and controlled directly by ground crews building fireline and will be limited to burning in understory vegetation. A **moderate** rating indicates that hand built firelines alone would not be sufficient in controlling fires and that heavy equipment and retardant drops would be more effective. Areas rated as **high** represent the most hazardous conditions in which serious control

problems would occur i.e., torching, crowning, and spotting, control lines are established well in advance of flaming fronts with heavy equipment and backfiring may be necessary to widen control lines.

Using the CONTAIN model of BEHAVE, it was determined whether or not a fire with Low Flame Lengths could be contained by the initial attack forces. These runs indicated that given, typical response times, terrain, fuels, and available forces, a Low rating had to have a ROS less than 30 chains per hour, for containment to be accomplished during initial attack.

FIRE BEHAVIOR POTENTIAL CLASSES

Low- Flame lengths less than 4' and ROS less than 30chs/hr:

Fires can generally be attacked at the head or flanks by firefighters using handtools. Handline should hold the fire.

Moderate- Flame lengths 4-8':

Fires are too intense for direct attack at the head of the fire by firefighters using handtools. Handline cannot be relied on to hold the fire. Equipment such as dozers, engines, water and/or retardant dropping aircraft can be effective.

High- Flame lengths greater than 8':

Fires may present serious control problems, such as torching, crowning, and spotting. Control efforts at the head of the fire will be ineffective.

FUEL MODEL DATA TABLE

Fuel Model	Aspect	1 HR	Wind	R25	R55	R75	F25	F55	F75	H@25	H@55	H@75
2	S&W	2	4	50	74	100	8	10	11	High	High	High
2	E	3	4	45	66	90	8	9	10	High	High	High
2	N	4	4	*41	60	82	7	8	10	High	High	High
5	S&W	2	4	30	42	56	7	9	10	Mod	High	High
5	E	3	4	28	40	53	7	8	9	Mod	High	High
5	N	4	4	27	38	51	7	8	9	Mod	High	High
6	S&W	2	4	43	61	81	8	9	10	High	High	High
6	E	3	4	*39	55	72	7	8	9	High	High	High
6	N	4	4	*35	49	65	7	8	9	High	High	High
8	S&W	2	3	2	3	4	1	1	2	Low	Low	Low
8	E	3	3	2	3	4	1	1	2	Low	Low	Low
8	N	4	3	2	3	4	1	1	1	Low	Low	Low
9	S&W	2	3	8	13	18	3	4	5	Low	Mod	Mod
9	E	3	3	7	11	16	3	4	4	Low	Mod	Mod
9	N	4	3	6	10	14	3	3	4	Low	Low	Mod
10	S&W	2	2	5	10	16	5	6	7	Mod	Mod	**High
10	E	3	2	5	10	15	4	6	7	Mod	Mod	**High
10	N	5	2	5	9	13	4	5	6	Mod	Mod	**High
12	S&W	2	4	17	25	33	10	12	14	High	High	High
12	E	3	4	16	23	30	9	11	13	High	High	High
12	N	4	4	14	21	28	9	10	12	High	High	High
14	S&W	10	3	3	N/A	N/A		N/A	N/A	Low	Low	Low
14	E	12	3	3	N/A	N/A		N/A	N/A	Low	Low	Low
14	N	14	3	3	N/A	N/A		N/A	N/A	Low	Low	Low

* Fire behavior potential is based on rate of spread rather than flame length.

** Enhanced fire behavior potential (slope greater than 60% and crown closure greater than 70%).

INITIAL ATTACK ACCESS

Another consideration when determining fire behavior potential is the ability of initial attack fire suppression forces to successfully contain a fire that can be quickly accessed.

The initial attack fire suppression forces used for this analysis were:

Two Model 42 Engines/Crew
One 5-Person Handcrew
One Type 3 Helicopter/Bucket
One Type 1 Airtanker

Based on the flame lengths and rates of spread modeled at the 90th percentile weather and the line building capabilities of the initial attack fire suppression forces, it was determined that fires with <8' flame length and a rate of spread <30 chains per hour could be contained, if they originated within 1/4 mile of a road.

This is the crosswalk from fuel models to fire behavior potential taking into account initial attack fire suppression capabilities. Within 1/4 mile from a road, fire suppression will be credited for lowering fire behavior potential from a moderate rating to a low rating. In areas where fuels and topography indicate a high rating, the rating will stay as high. Areas identified as low will stay low. The only areas that will change are those with moderate fire behavior potential where the rate of spread is lower than the line building capabilities of the initial attack forces and are within 1/4 mile of a road.

FUEL MODEL	FIRE BEHAVIOR POTENTIAL	FIRE BEHAVIOR POTENTIAL WITHIN 1/4 MILE OF A ROAD
2	High	
5	Mod on Slopes \leq 35%	Low on Slopes \leq 35%
5	High on Slopes > 35%	
6	High	
8	Low	
9	Mod on S,W&E Aspects, with >60% Slope	Low on S,W&E Aspects, with >60% Slope
9	Low on S,W&E Aspects, with <60% Slope	
9	Low on N Aspects	
10	High on S&W Aspects with >60% Slope	Low on all Aspects with <60% Slope and <70% Crown Closure
10	High on N&E Aspects with >60% Slope and >70% Crown Closure	
10	Mod on all Aspects with <60% Slope	
10	Mod on N&E Aspects with <60% Slope and <70% Crown Closure	
12	High	
14	Low	

Using this crosswalk, these are the acres associated with each Fire Behavior Potential class in the watershed, taking into account fire suppression capabilities.

High- 43,620 acres (30% of the analysis area)

Moderate- 47,850 acres (33% of the analysis area)

Low- 54,490 acres (37% of the analysis area)

FIRE RISK

Historical records indicate lightning and human caused fires have been common in the watershed. Little precipitation (May to September) and high summer temperatures allow fuels to dry, which allows for ease and spread of wildfire ignitions.

There are numerous fire risks within the watershed. Many year-round residences, industrial endeavors, many dispersed camp sites, recreational use, and travel corridors all contribute to the possibility of a wildfire occurrence from human causes.

The greatest risk of fire starts is from the occurrence of lightning. Thunder storms are common throughout the summer months in and near the watershed. Lightning, erratic winds and usually precipitation accompany these storms, the latter which limits the actual number of ignitions.

The Klamath National Forest fire history data base indicates that within the watershed boundary 1,026 fire starts have occurred during the period from 1922-1997. Using this information and the vegetative composition of the watershed, determines the general fire risk assessment.

It is important to realize that risk is not the probability of a fire occurring, but the probability of when a fire will occur. In this watershed, the fire **will** occur.

A mathematical formula is used to derive a risk value. Included in the formula are the number of starts, number of years of historical information, and number of acres involved. The values in the formula are:

x = Number of starts recorded for the area from the fire start data base (1026).

y = Period of time covered by the data base (for this analysis, 76 years).

z = Number of acres analyzed (displayed in thousands 148,320 = 148.3).

$\{(x/y)10\}/z$ = Risk rating

$\{(1026/76)10\}/148.3 = 0.91$

The value derived corresponds to a likelihood of fire starts per 1,000 acres per decade. The following are the risk ratings and range of values used to determine the risk.

Low Risk = 0-0.49: This projects one fire every 20 or more years per thousand acres.

Moderate Risk = 0.5-0.99: This projects one fire every 11-20 years per thousand acres.

High Risk = greater than or equal to 1.0: This level projects one fire every in 0-10 years per thousand acres.

The rating of 0.91 falls into a moderate risk. It is important to note that, **fires have occurred within**

the analysis area every year of this recorded history (1922-1997).

FUELS TREATMENT

Based on the *Forest Plan*, an average of 2,300 acres within the analysis area could be treated with prescribed fire each year. Utilizing the Fuels Out-Year Request and Budget System (FORBS) program, burning these acres at a cost of \$250./acre shows a net benefit of \$2,758./acre. This equates to a project cost of \$575,000.00 and a net benefit of \$6,343,814.00.

Appendix E - Access and Travel Analysis

This appendix documents the process used to develop the Access and Travel Analysis which is included as part of this analysis.

BACKGROUND

Recent changes in agency policy, budget, focus, and direction have caused all National Forests to critically examine their road systems. The following documents place increased emphasis on roads:

Chief's **Natural Resources Agenda** (1998) includes roads as one of four emphasis items (along with recreation, ecosystem health and sustainability, and watershed restoration). The Agenda lists four actions: 1) Determine the best way to provide all Americans with access to the National Forests. 2) Accelerate the pace of decommissioning unneeded substandard roads that damage the environment. 3) Selectively upgrade forest roads. 4) Seek additional funding sources for the transportation system.

Chief's **Interim Road Management Policy** (1997) placed an 18 month moratorium on road construction in roadless areas. National Forests that had their Forest Plans revised by the *Northwest Forest Plan* were exempt from the moratorium. (The Klamath NF is exempt.) The Chief is quoted as saying, "We anticipate that the final long-term road policy will apply to all Forests." (To date, the final policy has not been released.) The agency has identified three expected outcomes for the final road management policy. *First*, fewer forest roads will be built and those that are built will minimize environmental impacts. *Second*, roads that are no longer needed or that cause significant environmental damage will be removed. *Third*, roads that are most heavily used by the Public will be made safer and promote more efficient use.

Westside Roads Analysis (WSRA) (1997) - This document provides a "coarse filter" analysis of the road system on the west-side of the Klamath National Forest. This broad Forest-Scale analysis is intended for comparative purposes and to highlight areas needing a more refined review. This document was used as a "starting point" for the Thompson/Seiad/Grider Access and Travel Analysis.

Klamath Province Access & Travel Management Guide (1996) - establishes direction throughout the province for road and trail management decisions.

Klamath National Forest Land and Resource Management Plan (Forest Plan) (1995) - states that "Transportation planning shall be an integral part of Ecosystem Analysis at the landscape/watershed level..." (Page 4-51). Also land allocations which provide for timber harvest have been reduced from historic levels, thereby changing the needs of our road system.

Declining Timber Harvest Volumes - Historically much of this Forest's road construction and/or maintenance were tied to timber sales. As a result, an extensive road system was developed to access timber resources and provide fire protection. Since the decline in timber harvest volumes in the 1900s, there has been a corresponding decline in our ability to maintain our road system.

EXPECTATIONS AND OBJECTIVES

This access and travel analysis will:

- Provide a consistent rating system for analyzing roads across the forest.
- Provide a system to track roads and recommendations within the Ecosystem Analysis and across the forest.
- Tier to the WSRA and include more site specific analysis.
- Look at a long-term transportation network.
- Be driven by the Ecosystem Analysis - where existing and desired conditions come from the WA.
- Make specific recommendations for roads and state why those recommendations were made.
- Provide a strong tie between individual road ratings and the resulting recommendations (this leads back to being defensible).

ASSUMPTIONS

--The Access and Travel analysis will use road segments as delineated in the Forest Transportation Inventory System (TIS). Only Forest Service system roads will be analyzed.

--The analysis will also utilize basic concepts from the *Westside Roads Analysis*, which identifies human access needs and potential risks or resource impacts from roads

PROCESS

Terrestrial, Aquatic, and Human Subgroups Develop Rating Criteria:

During this analysis, each of the three subgroups (Aquatic, Terrestrial, and Human Dimension) developed rating factors to apply to each road or road segment. Where applicable, rating factors and their definitions were tiered to the *Westside Roads Analysis (WSRA)* and checked for consistency with the *North Fork Salmon River Watershed Access Analysis*.

If rating factors from the *WSRA* were suitable, they were applied to this analysis. For example, the Human Dimension subgroup used the *WSRA* "need for access" criteria extensively with some minor changes.

If rating factors from the *WSRA* were not suitable, the subgroup refined them to the watershed scale and developed different rating factors. Both the Terrestrial and Aquatic subgroups refined the Resource Impacts rating criteria. These new rating factors were tied directly to information compiled throughout the document and are, therefore, relevant to the Thompson/Seiad/Grider analysis area. New rating factors included additional components not included in the *WSRA* but were derived from existing data and tracked through **Step 5**. For example, this analysis includes wildlife concerns associated with the road system, while the *WSRA* did not.

The following three **Tables E-1, E-2, and E-3**, display by subgroup, the roads rating criteria used in this analysis.

Table E-1 Aquatic Subgroup Access and Travel Analysis Criteria

AQUATIC RESOURCE IMPACTS		
REDUCE ACCELERATED SEDIMENT DELIVERY: Mass Wasting		
SEDIMENT DELIVERY POTENTIAL BASED ON GEOLOGIC TYPE.		
HIGH	MODERATE	LOW
Roads through or immediately adjacent to active landslides.	- Roads on other granitics (granitics not included in "high" rating.) - Roads on dormant landslides with >20% slope.	Other roads on dormant landslides with <20% slope.
Roads on toe zone, inner gorge, and dissected granitics.	- Other roads on >or = 60% slope.	Other roads on <60% slope.
REDUCE ACCELERATED SEDIMENT DELIVERY: Surface-Erosion		
SURFACE SEDIMENT DELIVERY POTENTIAL BASED ON A COMBINATION OF FOUR INDICATORS: A) Soil Type, B) Road Surface Type, C) Proximity To Stream, and D) Use Level (refer to Table E-5)		
HIGH	MODERATE	LOW
Three or four "high" ratings in any of the four indicators. (high Erosion Hazard Risk (EHR), 0.25 miles within one site potential tree of stream, native or crushed surface, high human use.)	Any combination of two "high" and two "low" ratings.	Three or four "low" ratings in any of the four indicators. (low EHR, greater distance than one site potential tree from stream, pit-run, chip seal, or other paved surface, low human use.)
REDUCE ALTERATION OF HYDROLOGIC INTEGRITY		
POTENTIAL TO: Alter Physical Channel Dynamics, Divert Stream, Extend Stream Network, Based on Road Stream Intersections.		
HIGH	MODERATE	LOW
Road segments with more than four stream crossings. (Stream crossings are counted on perennial and intermittent streams using 20 acre accumulation model.)	Road segment with three to four stream crossings.	Road segment with zero to two stream crossings.
REDUCE ROAD-RELATED IMPACTS TO RIPARIAN RESERVE INTEGRITY (RR includes stream buffers, active slides and inner gorge.)		
OVERALL LOSS OF RIPARIAN HABITAT (Shade, Wood Recruitment, Species Travel Corridors) Based on Miles of Road in RR		
HIGH	MODERATE	LOW
0.75 or more miles of road within riparian reserve.	0.25 to 0.74 miles of road within riparian reserve.	Less than 0.25 miles of road within riparian reserve.
GIVE SPECIAL CONSIDERATION TO AREAS WITH HIGH CUMULATIVE WATERSHED EFFECTS (CWE)		
CWE ANALYSIS FROM WA BASED ON 7TH FIELD WATERSHEDS		
HIGH	MODERATE	LOW
Combined CWE analysis is 1 or greater.	Combined CWE analysis is 0.6 to 0.9.	Combined CWE analysis is less than 0.6.

Table E-2 Terrestrial Subgroup Road Rating Criteria

FIRE ACCESS NEEDS			
FIRE AND FUELS NEED FOR OPEN AND MAINTAINED ROADS			
CRITERIA	HIGH	MODERATE	LOW
Fire Suppression Access	All roads under private, state or county jurisdiction and all Road Maintenance Level (ML) 3, 4, and 5 roads and ML 2 roads on ridges or with main access	ML 1 and 2 roads that provide primary access or better access than alternate routes.	ML 1 and 2 roads that are not needed for primary access.

FIRE AND FUELS NEED FOR OPEN AND MAINTAINED ROADS (Cont.)			
CRITERIA	HIGH	MODERATE	LOW
Prescribed Fire Access	All Forest Service ML 3, 4, and 5 roads and ML 2 roads on ridges or with main access	ML 1 and 2 roads that provide access for prescribed fire mgmt. and/or are strategically located for potential fuelbreaks.	ML 1 and 2 roads that are not needed for prescribed fire access or use.
WILDLIFE RESOURCE IMPACTS			
WILDLIFE RESOURCE IMPACTS ASSOCIATED WITH ROADS *			
CRITERIA	HIGH	MODERATE	LOW
Reduce Road Density in LSRs	Areas within LSRs with >4 miles per sq. mile of roads	Areas within LSRs with 1-4 miles per sq. mile of roads	Areas within LSRs with < 1 mile per sq. mile of roads
Reduce Road Density in Deer/Elk Range	Areas within deer/elk range with >4 miles per sq. mile of roads	Areas within deer/elk range with 1-4 miles per sq. mile of roads	Areas within deer/elk range with < 1 mile per sq. mile of roads
Road Closure Recommendations: 1) Roads that access plantations, that have been identified for closure within LSRs, should be considered for gating to allow access for thinning of plantations, decommissioning should be planned for the future. 2) Roads that intersect blocks of late-successional habitat within LSRs should be considered for decommissioning in order to reduce fragmentation of late-successional forest habitats. 3) ML 1 and 2 roads within 1/2 mile of bald eagle or peregrine nests should be considered for closure. LSR = Late-Successional Reserve.			
* Road density ratings are based on <u>total road density</u> for Forest Service system roads, including roads with seasonal or year-round closures. Therefore, open-road related disturbance is less than is implied by the above density ratings.			

Table E-3 Human Dimension Subgroup Road Rating Criteria			
HUMAN ACCESS NEEDS			
HIGH	MODERATE	LOW	
Timber/Silviculture			
Primary access to matrix lands and/or multiple plantations, or areas with potential future expansion for timber sales.	Secondary access to matrix lands and/or multiple plantations, or providing access to a small area of matrix.	All other roads not included in "high" or "moderate" ratings.	
Recreation			
Primary access to recreational facilities/sites identified on the 1997 KNF Visitors Map. It includes campgrounds, trailheads, etc.	Primary access to known dispersed camping sites, mt.bike routes, woodcutting areas, birding routes, or trailheads not listed on the KNF Visitors Map.	Any open or closed road not included above.	
Other Public Access (Includes Mining, Tribal Gathering, Firewood Cutting, Access to Private Land and/or Private Uses)			
Known location with high use.	Secondary access, limited quantity or quality.	Little or no use, no known resource value present, or a Level 1 road.	

Full Interdisciplinary Team Reviews Rating Criteria & Definitions

All rating factors from all subgroups were compiled and distributed to the full IDT for review and comment. Minor changes were made to several of the rating criteria definitions based on this review.

Terrestrial, Aquatic, and Human Subgroups Apply Rating Criteria To Road or Road Segments:

Rating factors were then applied to road segments and a rating of High, Medium, or Low for each rating factor was recorded along with the reason or rationale for the rating. *Any preliminary recommendations the subgroup developed to resolve road concerns are also documented.* The ratings from each subgroup are displayed in **Tables E-6** through **E-8**, listed in this appendix.

Full Interdisciplinary Team Develops Recommendations:

During **Step 5** (Interpretation) desired conditions for existing roads were developed. The full Interdisciplinary Team proposed recommendations for each road segment based on the various combinations of high, medium, and low ratings from each factor. The accompanying reasons why the segment received a high, medium, or low rating determined the proposed recommendation. Recommendations included: maintain current management, increase or decrease maintenance level which may or may not include a change in closure status (year-round to seasonal or vice versa), improvements (spot rock, outslope, etc.), decommission, reroute, change maintenance level (high clearance vehicles to passenger cars), etc. **Table E-4** displays a summary of road mileages and recommendations made in this analysis.

Table E-4 Summary of Recommendations		
RECOMMENDATIONS	MILES OF ROAD	PERCENTAGE OF MILE--AGE IN ANALYSIS AREA
State, County, Private Roads Not Included in Analysis	103	21
Maintain Current Management	165	33
Improve (Repair)	101	20
Increase Maintenance Level	12	2
Decommission	107	21
Decrease Maintenance Level	12	2
TOTAL	500	100

The above summary is based on **Table E-5**, listed in this appendix, which displays final subgroup ratings and the full interdisciplinary team recommendations for each road. *Any recommendations for priorities or timing of actions are documented.*

In **Step 6** (Recommendations), seven Management Opportunities reference the road recommendations contained in this Access and Travel Analysis. These Management Opportunity numbers are: 1, 2, 11, 17,

25, 26, and 29. Maps displaying these recommendations are included in the **Step 6** maps (see **Figure 6 - 7**).

All road recommendations are preliminary and require site-specific analysis through the environmental assessment process before a decision is made.

Concerns Identified by the Karuk Tribe for the Travel and Access Analysis

The Watershed Analysis Guide states that "...Tribes should be consulted and involved throughout the watershed analysis process, as appropriate, to assist in the early identification of treaty rights, treaty protected resources, tribal trust resources, and *other concerns...*"(italics added). This documents the Karuk Tribe's concerns about roads in the analysis area. The following concerns are watershed-wide but may also have site specific contexts. The site specific locales will be identified with environmental analysis documents.

Concerns Identified Through Field Consultation

1997 FLOOD EVENT ASSOCIATED CONCERNS:

The Karuk Tribe (Tribe) questions the need to restore some segments of road flood damaged as a result of the 1997 event.

Some of the large trees in streams may need to be removed as the loading is unnatural due to past Forest land uses and development.

OTHER ROAD RELATED CONCERNS:

The Tribe is concerned about how roads have changed the natural hydrological morphological processes and what effect that has on fisheries as well as how road use can affect erosion.

The Tribe is concerned about road density and how modern land uses have contributed to the decline of fisheries.

The Tribe has concerns that some road management and closures can affect contemporary gathering and Forest access.

The following **Table E-5** displays final road ratings of high (H), medium (M) and low (L).

Road No.	Mi.	ML	CS	LSR	Big Game	Mass Wasting	Surface Erosion	Hydro. Integrity	RR	CWE	Fire Suppression	Rx Fire	Timber /Silv.	Rec.	Com-mod.	Recommendations and Comments
16N01	2.25	2	S	-	M	M	M	L	L	H	H	L	L	L	H	Nice access to river. Old mining claim needs to be cleaned up. Spot rock.
16N09	0.40	3	N	-	-	H	M	L	L	H	-	-	L	H	H	Maintain current management.
16N16	0.70	3	N	-	-	H	H	L	M	H	M	L	L	H	H	China Point river access. A buttress on FS road could stabilize the slide and Hwy 96.
16N42	3.00	1	Y	H	H	H	M	L	M	H	M	M	M	L	L	Maintain current management.
16N42B	0.30	1	Y	-	H	M	M	L	L	H	H	M	M	L	L	Maintain current management.
17N01	1.00	2	N	-	H	H	M	L	L	H	H	H	M	M	H	Sewer pond access. Spot rock.
17N01Y	1.90	2	N	-	M	H	M	L	L	H	L	L	M	L	L	Needed for plantation access. Thick red soils, risk of fill failures. Maintain current management.
17N03	3.30	1	Y	-	M	H	H	H	H	H	M	L	M	L	L	Needed for plantation access. Maintain current management.
17N05	0.80	1	Y	-	H	H	L	L	L	H	L	L	M	L	L	Consider decommissioning.
17N06	4.10	1	Y	-	M	H	H	H	H	H	H	M	M	M	M	Primary access to Cade Creek area as 17N12 has difficult ERFO sites on it. This road was recently fixed but could use some spot rocking especially around springs (SW 1/4 Sec 30).
17N07 seg. 1	1.90	2	N	M	H	H	H	L	H	H	H	H	M	H	H	Fiber optic line. Maintain current management.
17N07 seg. 2	6.50	1	N	M	H	H	H	H	H	H	H	H	M	L	L	Consider decommissioning north of Mill Creek. Install gate to keep at ML1.
17N08	0.60	2	N	-	H	H	H	L	L	H	H	L	M	H	H	Fiber optic line. Maintain current management..

Table E-5 Summary of Road Recommendations with Subgroup Ratings

Road No.	Mi.	ML	CS	LSR	Big Game	Mass Wasting	Surface Erosion	Hydro. Integrity	RR	CWE	Fire Suppression	Rx Fire	Timber /Silv.	Rec.	Com-mod.	Recommendations and Comments
17N12 seg. 1	2.80	1	Y	-	H	H	M	L	M	H	H	M	M	M	L	Consider decommissioning.
17N12 seg. 2	1.40	1	Y	-	M	H	M	L	M	H	H	H	M	M	L	Needed for stand tending and fire suppression. Maintain current management.
17N12A	1.50	1	Y	-	M	H	M	L	L	H	M	H	M	L	L	Maintain current management.
17N12D	0.10	1	Y	-	H	L	M	L	L	H	L	L	M	L	L	Consider decommissioning.
17N12E	0.40	1	Y	-	H	H	M	L	L	H	L	L	M	L	L	Consider decommissioning.
17N31	1.90	1	Y	H	H	H	M	M	M	H	L	L	M	L	L	Maintain current management.
17N33	1.70	2	Y	-	M	H	M	L	L	H	M	L	M	L	H	Spot rock.
17N38	2.20	1	N	-	M	H	M	L	L	H	H	H	M	L	L	Maintain current management.. Install closure device.
17N38Y	1.70	1	N	-	H	H	M	L	L	H	H	H	M	M	L	Upgrade to ML2.
17N38YA	0.85	1	N	-	H	H	M	L	L	H	H	H	M	M	L	Upgrade to ML2.
17N38YB	0.35	1	N	-	H	L	M	L	L	H	L	L	M	M	L	Consider decommissioning.
17N48 seg. 1	0.90	2	N	-	M	M	M	L	L	H	H	M	M	H	H	Slater Butte access. Upgrade to ML3. Rock.
17N48 seg. 2	0.70	2	S	-	M	M	M	L	L	H	H	M	-	H	-	Slater Butte access. Upgrade to ML3. Rock.
17N50	0.10	3	N	-	-	L	L	L	L	H	L	L	L	H	L	Seattle Creek river access. Maintain current management.
17N56	3.50	1	Y	-	H	H	H	L	M	H	L	L	M	L	L	Maintain current management.
17N56A	1.00	1	Y	-	M	H	M	L	L	H	L	L	M	L	L	Consider decommissioning.
18N01 seg. 1	1.80	3	N	-	-	H	H	M	H	H	-	-	H	H	H	Road is chip sealed. Fiber optic line. Maintain current management.
18N01 seg. 2	7.20	3	S	-	-	H	H	H	H	H	-	-	M	H	H	Consider decommissioning from private property North.
18N01 seg. 3	1.50	2	S	M	M	H	H	H	H	H	M	L	L	M	L	Consider decommissioning. (See above comment.)
18N02 seg. 1	1.60	2	N	-	M	H	L	M	H	H	H	H	M	M	L	Tim's Peak road. Spot rock.
18N02 seg. 2	2.30	2	S	-	M	H	L	L	H	H	H	H	-	M	-	Tim's Peak road. Spot rock.
18N02 seg. 3	4.15	2	S	-	M	H	L	L	H	H	H	H	-	M	-	Tim's Peak road. Spot rock.
18N07	5.60	2	S	M	-	H	M	H	M	H	H	M	L	L	L	Consider decommissioning.
18N07A	1.30	1	S	M	-	H	M	M	L	L	L	L	L	L	L	Consider decommissioning.
18N07B	0.20	1	S	H	-	H	M	L	L	M	L	L	L	L	L	Consider decommissioning.
18N10 seg. 1	0.80	2	N	H	H	H	H	L	H	H	L	L	H	H	H	Maintain current management.
18N10 seg. 2	5.15	1	Y	H	H	H	H	H	H	H	L	L	L	L	-	Consider decommissioning.
18N38	1.55	1	N	M	M	H	L	L	L	H	L	L	M	L	L	Install closure device to keep at ML1.
19N01 seg. 1	11.3	3	N	-	-	H	M	L	H	H	-	-	H	H	H	Maintain current management.
19N01 seg. 2	6.20	2	N	H	M	H	M	L	H	H	H	H	M	H	L	Maintain current management.
19N01A	1.30	1	N	-	M	H	M	L	M	H	L	L	M	L	L	Maintain current management.
19N01B	1.00	1	N	-	H	H	M	L	L	H	L	L	M	L	L	Consider decommissioning.
19N01D	1.20	2	N	M	-	M	M	L	L	M	H	M	L	M	H	Tanker fill, private land access. Maintain current management.
19N01K	0.20	1	Y	M	-	H	M	L	L	M	L	L	L	L	L	Consider decommissioning.
45N01X	2.00	1	Y	M	-	H	M	L	L	H	M	H	L	L	L	Short term keep for Rx burning. Long-term decommission.
45N01XA	0.35	1	Y	M	-	M	M	L	L	H	L	L	L	L	L	Consider decommissioning.
45N01XB	0.50	1	Y	H	-	M	M	L	L	H	L	L	L	L	L	Consider decommissioning.
45N02Y	1.15	1	Y	M	-	L	L	L	L	H	L	L	L	L	L	Consider decommissioning, low priority. Trees growing in road, no culverts, easy to decommission.
45N03Y	10.0	1	Y	H	L	H	M	H	H	H	L	L	M	L	L	Decommission portion in LSR. Status quo on rest of road to keep future access to matrix. Road probably not used in 20 years.
45N05Y	0.30	2	N	H	-	L	M	L	L	H	H	L	M	H	H	Keep for fire and recreation. Rock for surface erosion.
45N05YB	0.60	2	N	L	-	L	M	L	L	L	L	L	M	M	L	Consider decommissioning, low priority.
45N13	4.10	2	S	H	-	H	H	H	H	H	H	M	L	M	H	Maintain current management. maintain seasonal closure. Surface is good, bad crossing fixed last year.
45N19Y	0.80	2	N	H	-	L	L	L	L	H	L	L	L	M	L	Maintain current management., keep for LSR - access to plantations on Scott River side.
45N19YA	0.25	2	N	H	-	L	M	L	L	H	L	L	L	L	L	Consider decommissioning, low priority.
45N20	0.80	2	N	H	-	L	M	L	L	L	L	L	L	M	L	Consider decommissioning, low priority.
45N32Y	4.25	2	S	M	-	H	H	L	M	M	H	H	L	L	L	Fix - spot rock especially near creek crossings, maintain seasonal closure.
45N38	1.40	2	N	M	-	L	M	L	M	L	H	H	L	M	L	Maintain current management.
45N38A	0.20	2	N	M	-	L	L	L	L	L	H	M	L	M	L	Maintain current management.
45N38B	0.10	2	N	M	-	H	M	L	L	L	L	L	L	M	L	Consider decommissioning.
45N57Y	1.75	2	N	H	-	H	M	L	L	M	L	L	L	M	L	Consider decommissioning. Block of lateral habitat, mass wasting potential.

Table E-5 Summary of Road Recommendations with Subgroup Ratings

Road No.	Mi.	ML	CS	LSR	Big Game	Mass Wasting	Surface Erosion	Hydro. Integrity	RR	CWE	Fire Suppression	Rx Fire	Timber /Silv.	Rec.	Com-mod.	Recommendations and Comments
45N57YA	0.55	2	N	H	-	H	L	L	L	M	L	L	L	M	L	Consider decommissioning. Block of late seral habitat, mass wasting potential.
45N69	0.70	2	N	H	-	L	M	L	L	L	L	L	M	L	M	Consider decommissioning, low priority.
45N71	2.75	2	N	M	-	M	M	L	L	L	H	H	L	M	L	Fix - rock to 45N05Y. Main access to Scott River Dist.
45N71A	0.85	2	N	H	H	H	M	L	L	L	L	L	L	L	L	Consider decommissioning.
45N71B	0.90	2	N	-	M	H	L	L	L	L	L	L	M	M	L	Consider decommissioning last 0.2 miles.
45N71C	0.60	2	N	H	H	M	L	L	L	L	L	L	M	L	L	Consider decommissioning.
45N72X	3.35	2	S	M	-	H	H	M	H	M	H	M	L	H	H	Keep to trailhead and spot rock OR gate and change to ML1.
45N77 seg. 1	2.60	3	N	-	-	M	M	L	M	H	-	-	L	H	L	Rock where needed.
45N77 seg. 2	0.20	3	N	-	-	M	M	L	M	H	-	-	L	H	L	Rock where needed.
45N77 seg. 3	2.90	3	N	-	-	M	M	L	M	H	-	-	L	H	L	Rock where needed.
45N77A	0.30	1	Y	M	-	M	M	L	L	H	L	L	L	L	L	Consider decommissioning, low priority.
45N77B	0.50	2	N	M	-	L	L	L	L	L	M	M	L	M	H	Maintain current management. rock pit at end.
45N77D	0.60	1	Y	H	-	M	M	L	L	H	L	L	L	L	L	Consider decommissioning, low priority.
45N78 seg. 1	3.30	2	S	M	-	H	H	H	H	M	H	M	L	H	H	Consider decommissioning last 2.3 miles (across stream) rock rest of road, fix any high risk crossings.
45N78 seg. 2	0.60	2	Y	M	-	H	H	L	H	M	L	M	L	L	L	See above comment.
45N78A	3.80	2	S	M	-	M	H	H	M	M	M	L	L	H	M	Rock to trailhead, decommission beyond trailhead.
45N78B	1.00	1	Y	M	-	M	L	L	L	M	L	M	L	L	L	Decommission with 45N78.
45N81 seg. 1	3.30	1	Y	M	-	H	H	L	M	H	L	L	L	M	L	Consider decommissioning.
45N81 seg. 2	0.60	1	Y	M	-	H	H	M	M	H	L	L	L	M	L	Consider decommissioning.
45N85	11.9	3	S	-	-	H	M	L	L	H	-	-	H	H	H	Maintain current management.
45N85B	0.10	1	Y	-	H	L	L	L	L	H	L	L	L	L	L	Maintain current management.
45N85D	1.10	1	Y	-	M	H	L	L	L	H	M	L	M	L	L	Maintain current management.
45N85E	0.30	1	Y	-	M	L	M	L	L	H	L	L	M	L	L	Maintain current management.
45N85G	0.10	1	Y	-	H	M	M	L	L	H	L	L	M	L	L	Maintain current management.
45N86Y	1.80	2	N	-	M	H	M	L	L	H	L	L	M	L	L	Change to ML1, install gate.
45N87 seg. 1	1.10	2	N	M	H	H	H	L	H	H	H	M	M	H	H	Spot rock.
45N87 seg. 2	5.00	2	S	M	H	H	H	M	H	H	H	M	L	H	L	Spot rock.
45N87A	0.40	1	Y	-	H	H	L	L	L	H	L	L	M	L	M	Maintain current management., install closure device.
45N87B	0.30	1	S	H	-	L	L	L	L	H	M	L	L	L	L	Maintain current management., install closure device.
45N87C	1.30	1	Y	-	M	H	L	L	L	H	H	H	M	L	L	Maintain current management., enforce year-round closure.
45N88Y	2.40	2	S	H	-	H	M	M	L	L	M	L	L	L	L	Maintain current management., Decommission 1/4 mile each side of S.Fork.
45N88Y	2.40	2	S	H	-	H	M	M	L	L	M	L	L	L	L	See above comment.
45N88YA	0.30	1	S	H	-	L	M	L	L	H	L	L	L	L	L	Install closure device.
45N88YB	0.50	1	Y	H	-	M	L	L	L	H	L	L	L	L	L	Maintain current management.
45N90Y	1.50	2	N	H	-	M	M	L	L	L	L	L	L	M	L	Consider decommissioning low priority.
46N02X	0.60	2	N	-	H	H	L	L	L	H	H	L	L	L	M	Maintain current management.
46N03	5.80	3	N	-	-	H	H	H	H	H	-	-	H	H	H	Spot rock.
46N08Y	1.40	2	S	-	H	H	H	M	M	M	M	M	M	L	M	Consider decommissioning.
46N15	0.10	3	N	-	-	M	M	L	L	H	-	-	L	H	M	Maintain current management.
46N18Y	3.30	2	S	-	M	H	H	L	H	H	H	H	M	H	H	Maintain current management.
46N18YB	0.40	1	Y	-	M	L	M	L	H	L	L	L	M	L	L	Maintain current management.
46N18YC	0.20	2	S	-	M	M	M	L	H	L	L	L	M	L	L	Maintain current management.
46N18YD	0.20	1	Y	-	M	M	M	L	H	L	L	L	M	L	L	Maintain current management.
46N19	0.40	1	Y	-	H	M	L	L	H	L	L	L	L	L	L	Consider decommissioning.
46N24X	0.20	3	N	-	-	H	L	L	M	H	-	-	L	H	L	Rock.
46N24XA	0.30	3	N	-	-	H	M	L	H	H	-	-	L	H	L	Rock.
46N28Y seg 1	1.80	2	N	M	-	H	M	L	H	H	H	M	L	L	L	Consider decommissioning last 1.5 miles.
46N28Y seg 2	0.80	2	Y	M	-	H	M	L	H	H	H	M	L	L	L	See above comment.
46N29Y	3.65	2	N	-	M	H	H	H	L	H	H	H	L	M	H	Rock.
46N30Y	4.70	2	S	M	-	H	H	M	M	H	H	H	L	L	L	Outslope, rock, storm-proof.
46N30YA	0.60	2	S	M	-	M	M	L	L	H	L	L	L	L	L	Consider decommissioning.
46N31	3.10	2	S	M	-	M	M	L	L	L	H	M	L	L	H	Maintain current management.
46N31B	0.45	2	S	M	-	M	M	L	L	L	L	L	L	L	L	Consider decommissioning.
46N31C	0.60	2	S	-	M	H	M	L	L	L	M	M	L	L	L	Consider decommissioning.
46N31Y	0.90	1	Y	M	L	L	L	M	L	H	L	L	L	L	L	Consider decommissioning low priority. Upgrade gate to SS.
46N32	1.65	2	S	M	-	L	H	L	L	L	M	M	M	M	H	Maintain current management.

Table E-5 Summary of Road Recommendations with Subgroup Ratings

Road No.	Mi.	ML	CS	LSR	Big Game	Mass Wasting	Surface Erosion	Hydro. Integrity	RR	CWE	Fire Suppression	Rx Fire	Timber /Silv.	Rec.	Com-mod.	Recommendations and Comments
46N33Y	0.45	2	N	-	L	L	M	L	L	H	H	M	M	M	H	Maintain current management.
46N37	1.55	2	S	-	H	M	M	L	L	M	H	M	M	M	H	Rock and outslope.
46N37A	0.65	2	S	-	H	H	M	L	L	M	L	L	M	M	M	Change to ML1, install gate.
46N41Y	0.50	1	Y	M	-	M	L	L	L	M	L	L	L	L	L	Consider decommissioning low priority.
46N41YA	0.30	1	Y	M	-	M	L	L	L	M	L	L	L	L	L	Consider decommissioning low priority.
46N42Y	0.40	1	Y	H	-	M	L	L	L	M	L	L	L	L	L	Consider decommissioning low priority.
46N43Y	1.10	1	Y	M	-	L	M	L	L	M	L	L	L	L	L	Consider decommissioning low priority.
46N50 seg. 1	3.25	3	N	-	-	H	H	H	H	H	-	-	H	H	H	Maintain current management., Seiad Low-gap road. Road is chip sealed and crushed. Could be problems on Scott River side.
46N50 seg. 2	0.15	3	N	-	-	H	H	L	H	H	-	-	H	H	H	See above comment.
46N54	0.30	2	S	M	-	L	M	L	L	H	H	H	M	M	H	Maintain current management.
46N54D	1.10	2	S	M	-	L	H	L	L	L	H	H	L	L	H	Change to ML1, install gate.
46N56	1.75	2	N	H	-	H	H	H	M	H	H	H	L	L	L	Change to ML1, install gate.
46N56A	1.30	2	S	M	-	M	M	L	L	H	L	M	L	L	L	Consider decommissioning
46N60	11.1	3	S	-	-	H	H	H	H	H	-	-	H	H	H	Outslope, rock.
46N60B	1.85	1	Y	H	-	M	M	L	L	L	M	L	L	M	M	Maintain current management., mining claim.
46N60C	1.70	2	S	-	H	H	H	M	M	M	H	M	M	M	H	Spot rock.
46N60D	0.50	2	S	-	M	M	M	M	L	M	L	L	M	L	L	Consider decommissioning low priority.
46N60E	0.70	2	S	M	-	L	M	L	L	L	M	M	L	M	H	Maintain current management., rock pit, hunting.
46N60F	0.70	1	Y	-	M	L	L	L	L	H	L	M	M	L	L	Maintain current management.
46N60G	0.30	2	N	-	H	M	L	L	L	H	H	H	M	L	H	Maintain current management.
46N61	5.70	3	N	-	-	H	H	H	H	H	-	-	L	H	H	Change to ML2 with a seasonal closure.
46N61A	2.90	1	Y	M	-	H	H	H	M	H	M	L	L	L	L	Consider decommissioning.
46N61B	0.85	1	Y	H	-	L	M	L	L	H	M	M	L	L	L	Consider decommissioning.
46N62 seg. 1	2.00	2	N	-	M	H	H	L	H	H	H	M	M	M	H	Decommission from Gard Creek out, rock rest.
46N62 seg. 2	1.85	2	Y	-	M	H	H	L	H	H	H	M	L	L	L	See above comment.
46N63	3.00	2	N	H	-	H	M	L	M	H	L	M	L	L	L	Consider decommissioning.
46N64 seg. 1	2.70	3	N	-	-	H	H	H	H	H	-	-	M	H	H	Maintain current management.
46N64 seg. 2	4.30	3	N	-	-	H	H	H	H	H	-	-	L	M	H	Consider decommissioning in Secs. 2, 12, 13, 14.
46N64 seg. 3	8.10	3	N	-	-	H	H	M	H	H	-	-	L	M	H	Maintain current management.
46N65 seg. 1	3.95	3	N	-	-	H	H	M	H	M	-	-	M	H	H	Rock, road has been outslowed and narrowed.
46N65 seg. 2	9.55	3	N	-	-	H	H	H	H	M	-	-	M	H	H	See above comment.
46N65	1.70	3	S	-	-	H	H	H	H	M	-	-	M	H	H	See above comment.
46N65A seg 1	1.05	1	Y	M	-	H	M	H	M	M	H	M	L	L	L	Maintain current management.
46N65A seg 2	0.70	1	Y	M	-	H	M	L	M	M	H	M	L	L	L	Maintain current management.
46N65B	0.50	1	Y	M	-	H	L	L	L	M	L	L	L	L	L	Consider decommissioning extremely wet where spur takes off.
46N66	7.40	3	N	-	-	H	H	L	H	M	-	-	M	H	H	Maintain current management.. Thoroughfare between Seiad and Happy Camp.
46N66A	2.40	1	Y	H	-	H	H	H	H	H	H	L	L	L	L	Consider decommissioning.
46N67	4.00	2	N	M	-	M	M	H	L	H	H	L	L	M	L	Maintain current management. fire suppression.
46N68	3.80	1	Y	H	-	M	M	L	L	H	H	H	L	L	L	Maintain current management.. Maintain year-round closure.
46N69	0.60	1	Y	H	-	H	M	L	L	H	L	L	L	L	L	Consider decommissioning.
46N70	1.25	2	N	H	-	H	M	L	L	H	L	L	L	L	L	Consider decommissioning.
46N70Y	1.00	1	Y	H	-	H	M	L	L	H	L	L	L	L	L	Consider decommissioning.
46N71	1.40	1	Y	H	-	H	L	M	L	H	L	L	L	L	L	Consider decommissioning.
46N71Y	0.80	1	Y	H	-	M	L	L	L	H	L	L	L	L	L	Consider decommissioning.
46N73	0.80	2	N	-	H	H	M	L	L	H	L	L	M	M	H	Rock red clay. Maintain access to private land.
46N74	3.65	2	S	H	H	H	H	H	H	H	L	M	M	M	H	Change to ML1 from 46N03 to 46N74A.
46N74A	0.60	2	S	H	-	M	L	L	L	H	H	M	L	M	H	Maintain current management.
46N75 seg. 1	3.40	2	S	H	H	H	M	L	H	H	M	M	M	H	H	Spot rock.
46N75 seg. 2	1.10	2	S	H	-	H	M	L	H	H	M	M	L	H	M	Spot rock.
46N75A	0.75	1	S	H	-	M	L	L	L	H	L	L	L	L	L	Install gate to make year-round closure.
46N76 seg. 1	1.50	2	N	-	H	H	H	M	H	H	M	M	M	H	H	Maintain current management.
46N76 seg. 2	3.60	2	S	-	H	H	H	L	H	H	M	M	M	H	H	Maintain current management.
46N76 seg. 3	2.70	2	S	-	H	H	H	H	H	H	L	L	M	H	H	Consider decommissioning.
46N76A	0.70	1	Y	-	M	H	M	L	L	H	L	L	L	L	L	Consider decommissioning.
46N76C	1.40	2	S	-	H	H	H	M	L	H	L	L	M	H	H	Consider decommissioning.
46N76E	0.40	1	Y	-	M	H	M	L	L	H	L	L	M	L	L	Change to ML2 seasonal closure.
46N76Y	2.60	2	S	H	-	H	M	L	L	H	L	L	L	M	L	Decommission from 46N30Y to 46N61.

Table E-5 Summary of Road Recommendations with Subgroup Ratings

Road No.	Mi.	ML	CS	LSR	Big Game	Mass Wasting	Surface Erosion	Hydro. Integrity	RR	CWE	Fire Suppression	Rx Fire	Timber /Silv.	Rec.	Com-mod.	Recommendations and Comments
46N77 seg. 1	10.5	3	S	-	-	H	H	L	H	M	L	L	M	H	H	Maintain current management.
46N77 seg. 2	2.50	2	S	-	-	H	H	L	H	M	L	M	L	H	M	Consider decommissioning.
46N77 seg. 3	1.50	2	S	-	-	H	H	L	H	M	H	H	-	-	-	Consider decommissioning.
46N77A	0.80	2	S	H	-	M	M	L	L	H	L	L	L	M	L	Consider decommissioning low priority.
46N77E	1.05	1	Y	H	-	L	L	L	L	H	M	L	L	L	L	Consider decommissioning low priority.
46N77F	1.15	2	S	M	-	M	M	L	L	M	L	L	L	L	L	Maintain current management.
46N78	6.50	2	S	H	-	H	H	H	H	M	M	M	L	M	L	Decommission from 74 south to end and between 88Y and 75.
46N78Y	3.00	2	S	M	-	M	L	L	L	H	M	M	L	M	L	Consider decommissioning .
46N79	1.60	1	Y	-	M	M	L	L	L	H	M	L	M	L	L	Maintain current management.
46N80X	4.00	1	Y	H	-	H	M	L	L	H	H	H	L	L	L	Decommission from sec 2 to 46N64. Install gate at 46N67.
46N80XA	0.85	1	Y	H	-	M	M	L	L	M	M	L	L	L	L	Maintain current management.
46N80XB	0.40	1	Y	H	-	M	M	L	L	M	L	L	L	L	L	Consider decommissioning .
46N81 seg. 1	5.15	2	N	H	M	H	H	H	H	H	H	M	L	M	H	Maintain current management.
46N81 seg. 2	1.40	2	Y	H	M	H	H	H	H	H	H	M	L	L	L	Decommission from D-spur out.
46N81A	1.00	2	N	M	-	H	M	L	M	H	L	L	L	L	H	Maintain current management.
46N81D	0.45	1	Y	M	-	L	M	L	L	M	M	M	L	L	L	Maintain current management.
46N83Y seg 1	1.25	2	S	H	-	M	H	L	M	M	M	L	L	M	H	Maintain current management.
46N83Y seg 2	1.55	1	Y	H	-	M	H	M	M	M	M	L	L	L	L	Consider decommissioning.
46N83YA	0.70	2	S	M	-	M	M	L	L	H	H	H	L	L	H	Maintain current management.
46N83YB	0.20	2	S	M	-	H	M	L	L	M	L	H	L	L	L	Consider decommissioning.
46N83YC	0.15	1	Y	H	-	L	L	M	M	H	L	L	L	L	L	Consider decommissioning.
46N84	0.20	4	N	-	-	L	L	L	L	H	-	-	L	H	L	Maintain current management.
46N84A	0.10	4	S	-	-	L	L	L	L	H	-	-	L	H	L	Maintain current management.
46N85 seg. 1	0.10	4	N	-	-	L	L	L	L	H	-	-	L	H	L	Maintain current management.
46N85 seg. 2	0.20	4	S	-	-	L	L	L	L	H	-	-	L	-	L	Maintain current management.
46N85A	0.15	4	S	-	-	L	L	L	L	H	-	-	L	H	L	Maintain current management.
46N85Y seg 1	0.30	4	N	-	-	L	L	L	L	H	-	-	L	M	H	Maintain current management.
46N85Y seg 2	0.70	2	N	-	-	L	L	L	L	H	-	-	-	-	H	Maintain current management. Change signing.
46N86 seg. 1	0.25	5	N	-	-	L	L	L	M	H	-	-	L	L	H	Maintain current management.
46N86 seg. 2	0.25	5	S	-	-	L	L	L	M	H	-	-	L	L	H	Maintain current management.
46N95	2.80	2	S	M	-	L	M	L	L	H	H	M	L	H	H	Maintain current management.
46N95A	1.40	2	S	M	-	M	L	L	L	M	H	M	L	M	M	Maintain current management.
47N17Y	2.45	1	Y	-	H	H	L	L	L	H	L	L	M	L	L	Change to seasonal closure, spot rock.
47N17YA	1.65	1	Y	H	H	H	M	L	L	H	L	L	M	L	L	Change to seasonal closure, spot rock.
47N25Y	1.90	1	Y	H	-	M	M	M	M	H	L	L	L	L	L	Maintain current management.
47N25YA	0.15	1	Y	M	-	L	M	L	L	H	L	L	L	L	L	Maintain current management.
47N72	2.45	2	S	H	-	M	H	M	M	H	H	H	L	H	M	Fix where needed including outslope, rolling dips.
47N72A	0.80	1	Y	M	-	M	M	L	L	H	L	L	L	L	L	Consider decommissioning.
47N74 seg. 1	0.90	2	S	H	-	M	M	L	L	H	M	M	L	H	M	Rock.
47N74 seg. 2	2.75	2	S	H	-	M	M	L	L	H	M	M	L	H	M	Rock.
47N74A	0.65	2	S	H	-	M	M	L	L	H	L	L	L	M	M	Maintain current management.
47N76	1.65	2	S	M	-	H	H	M	M	H	M	L	L	H	M	Consider decommissioning.
47N77D	1.00	2	N	-	H	L	L	L	L	H	H	H	M	M	M	Maintain current management.
47N80	3.80	2	N	L	-	H	H	L	L	H	H	H	L	H	H	Maintain current management.
47N89	2.05	1	Y	H	-	L	M	L	L	H	L	L	L	L	H	Maintain current management.
47N89Y	1.05	1	Y	H	-	M	L	L	L	H	L	L	L	L	L	Consider decommissioning low priority.
48N20 seg. 1	3.10	2	N	M	M	H	H	H	H	H	H	H	M	H	H	Change to ML3, rock.
48N20 seg. 2	4.95	2	N	M	M	H	H	H	H	H	H	H	M	H	H	Change to ML3.

ML= Maintenance Level, CS = Closure Status, LSR = Late-Successional Reserve, RR = Riparian Reserve, CWE = Cumulative Watershed Effects, Rx = Prescribed

Table E-6 Aquatics Subgroup Roads Ratings

ROAD NO	MASS WASTING	A SOIL TYPE	B ROAD SURFACE TYPE	C PROXIMITY TO STREAM	D USE LEVEL	TOTAL SURFACE EROSION	MILES IN RR	ROAD XING	CWE	COMMENTS
16N01	M	L	L	H	H	M	L	L	H	
16N09	H	L	L	H	H	M	L	L	H	
16N16	H	H	L	H	H	H	M	L	H	

Table E-6 Aquatics Subgroup Roads Ratings

ROAD NO	MASS WASTING	A SOIL TYPE	B ROAD SURFACE TYPE	C PROXIMIT Y TO STREAM	D USE LEVEL	TOTAL SURFACE EROSION	MILES IN RR	ROAD XING	CWE	COMMENTS
16N42	H	H	L	H	L	M	M	L	H	
16N42B	M	H	L	H	L	M	L	L	H	
17N01	H	L	L	H	H	M	L	L	H	
17N01Y	H	H	L	H	L	M	L	L	H	
17N03	H	H	H	H	L	H	H	H	H	
17N05	H	L	L	H	L	L	L	L	H	
17N06	H	H	H	H	L	H	H	H	H	
17N07 seg. 1	H	H	H	H	H	H	H	L	H	
17N07 seg. 2	H	H	H	H	L	H	H	H	H	
17N08	H	H	L	H	H	H	L	L	H	
17N12 seg. 1	H	H	L	H	L	M	M	L	H	
17N12 seg. 2	H	H	L	H	L	M	M	L	H	
17N12A	H	H	L	H	L	M	L	L	H	
17N12D	L	M	L	H	L	M	L	L	H	
17N12E	H	H	L	H	L	M	L	L	H	
17N31	H	H	H	H	L	H	M	M	H	
17N33	H	H	L	H	H	H	L	L	H	
17N38	H	H	L	H	L	M	L	L	H	
17N38Y	H	H	L	H	L	M	L	L	H	
17N38YA	H	H	L	H	L	M	L	L	H	
17N38YB	L	H	L	H	L	M	L	L	H	
17N48 seg. 1	M	L	L	H	H	M	L	L	H	
17N48 seg. 2	M	L	L	H	H	M	L	L	H	
17N50	L	L	L	H	H	L	L	L	H	
17N56	H	H	H	H	L	H	M	L	H	
17N56A	H	H	L	H	L	M	L	L	H	
18N01 seg. 1	H	H	H	L	H	H	H	M	H	
18N01 seg. 2	H	H	H	L	H	H	H	H	H	
18N01 seg. 3	H	H	H	L	L	M	H	H	H	
18N02 seg. 1	H	H	L	L	L	L	H	M	H	
18N02 seg. 2	H	H	L	L	L	L	H	L	H	
18N02 seg. 3	H	H	L	L	L	L	H	L	H	
18N07	H	L	H	H	L	M	H	H	M	
18N07A	H	H	L	H	L	M	L	M	L	
18N07B	H	H	L	H	L	M	L	L	M	
18N10 seg. 1	H	H	H	H	H	H	H	L	H	
18N10 seg. 2	H	H	H	H	L	H	H	H	H	
18N38	H	H	L	L	L	L	L	L	H	
19N01 seg. 1	H	L	H	L	H	M	H	L	H	
19N01 seg. 2	H	L	H	H	H	H	H	L	H	
19N01A	H	H	L	H	L	M	M	L	H	
19N01B	H	H	L	H	L	M	L	L	H	
19N01D	M	L	L	H	H	M	L	L	M	
19N01K	H	H	L	H	L	M	L	L	M	
45N01X	H	H	L	H	L	M	L	L	H	
45N01XA	M	H	L	H	L	M	L	L	H	
45N01XB	M	H	L	H	L	M	L	L	H	
45N02Y	L	L	L	H	L	L	L	L	H	
45N03Y	H	H	H	L	L	M	H	H	H	
45N05Y	L	L	L	H	H	M	L	L	H	
45N05YB	L	H	L	H	L	M	L	L	L	
45N13	H	H	H	H	H	H	H	H	H	
45N19Y	L	L	L	H	L	L	L	L	H	
45N19YA	L	H	L	H	L	M	L	L	H	
45N20	L	L	H	H	L	M	L	L	L	
45N32Y	H	H	H	H	L	H	M	L	M	
45N38	L	L	H	H	L	M	M	L	L	
45N38A	L	L	L	H	L	L	L	L	L	
45N38B	H	H	L	H	L	M	L	L	L	
45N57Y	H	H	L	H	L	M	L	L	M	
45N57YA	H	L	L	H	L	L	L	L	M	
45N69	L	H	L	H	L	M	L	L	L	
45N71	M	H	L	H	L	M	L	L	L	
45N71A	H	H	L	H	L	M	L	L	L	
45N71B	H	L	L	H	L	L	L	L	L	

Table E-6 Aquatics Subgroup Roads Ratings

ROAD NO	MASS WASTING	A SOIL TYPE	B ROAD SURFACE TYPE	C PROXIMITY TO STREAM	D USE LEVEL	TOTAL SURFACE EROSION	MILES IN RR	ROAD XING	CWE	COMMENTS
45N71C	M	L	L	H	L	L	L	L	L	
45N72X	H	H	H	H	H	H	H	M	M	
45N77 seg. 1	M	H	H	H	H	H	M	L	H	
45N77 seg. 2	M	H	H	L	H	H	M	L	H	
45N77 seg. 3	M	H	H	H	H	H	M	L	H	
45N77A	M	H	L	H	L	M	L	L	H	
45N77B	L	L	L	H	L	L	L	L	L	
45N77D	M	H	L	H	L	M	L	L	H	
45N78 seg. 1	H	H	H	H	H	H	H	H	M	
45N78 seg. 2	H	H	H	H	L	H	H	L	M	
45N78A	M	H	H	H	H	H	M	H	M	
45N78B	M	L	L	H	L	L	L	L	M	
45N81 seg. 1	H	H	H	H	L	H	M	L	H	
45N81 seg. 2	H	H	H	H	L	H	M	M	H	
45N85	H	H	L	L	H	M	L	L	H	
45N85B	L	L	L	H	L	L	L	L	H	
45N85D	H	L	L	H	L	L	L	L	H	
45N85E	L	H	L	H	L	M	L	L	H	
45N85G	M	H	L	H	L	M	L	L	H	
45N86Y	H	H	L	H	L	M	L	L	H	
45N87 seg. 1	H	H	H	L	H	H	H	L	H	
45N87 seg. 2	H	H	H	L	H	H	H	M	H	
45N87A	H	L	L	H	L	L	L	L	H	
45N87B	L	L	L	H	L	L	L	L	H	
45N87C	H	L	L	H	L	L	L	L	H	
45N88Y seg. 1	H	H	H	L	L	M	H	H	H	
45N88Y seg. 2	H	H	H	L	L	M	H	L	H	
45N88YA	L	H	L	H	L	M	L	L	H	
45N88YB	M	L	L	H	L	L	L	L	H	
45N90Y	M	H	L	H	L	M	L	L	L	
46N02X	H	L	L	H	L	L	L	L	H	
46N03	H	L	H	H	H	H	H	H	H	
46N08Y	H	H	H	H	L	H	M	M	M	
46N15	L	L	L	H	H	M	L	L	H	
46N18Y	H	H	L	H	H	H	L	L	H	
46N18YB	L	H	L	H	L	M	L	L	H	
46N18YC	M	H	L	H	L	M	L	L	H	
46N18YD	L	H	L	H	L	M	L	L	H	
46N19	L	L	L	H	L	L	L	L	H	
46N24X	H	L	L	H	H	M	L	L	M	
46N24XA	H	L	H	L	H	M	L	L	H	
46N28Y seg. 1	H	H	L	H	L	M	L	L	H	
46N28Y seg. 2	H	H	L	H	L	M	L	L	H	
46N29Y	H	H	H	H	H	H	H	H	L	
46N30Y	H	H	H	H	L	H	M	M	H	
46N30YA	M	H	L	H	L	M	L	L	H	
46N31	M	H	L	H	H	H	L	L	L	
46N31B	M	H	L	H	L	M	L	L	L	
46N31C	H	H	L	H	L	M	L	L	L	
46N31Y	L	L	L	H	L	L	M	L	H	
46N32	L	H	L	H	H	H	L	L	L	
46N33Y	L	L	L	H	H	M	L	L	H	
46N37	M	L	L	H	H	M	L	L	M	
46N37A	H	H	L	H	L	M	L	L	M	
46N41Y	M	L	L	H	L	L	L	L	M	
46N41YA	M	L	L	H	L	L	L	L	M	
46N42Y	M	L	L	H	L	L	L	L	M	
46N43Y	L	H	L	H	L	M	L	L	M	
46N50 seg. 1	H	H	H	L	H	H	H	H	H	
46N50 seg. 2	H	H	H	L	H	H	H	L	H	
46N54	L	L	L	H	H	M	L	L	H	
46N54D	L	H	L	H	H	H	L	L	L	
46N56	-	H	H	H	L	H	M	H	H	
46N56A	M	H	L	H	L	M	L	L	H	
46N60	H	H	H	H	H	H	H	-	H	

Table E-6 Aquatics Subgroup Roads Ratings

ROAD NO	MASS WASTING	A SOIL TYPE	B ROAD SURFACE TYPE	C PROXIMITY TO STREAM	D USE LEVEL	TOTAL SURFACE EROSION	MILES IN RR	ROAD XING	CWE	COMMENTS
46N60B	M	H	L	H	L	M	L	L	L	
46N60C	H	H	H	H	H	H	M	M	M	
46N60D	M	H	L	H	L	M	L	M	M	
46N60E	L	L	L	H	H	M	L	L	L	
46N60F	L	L	L	H	L	L	L	-	H	
46N60G	M	L	L	H	L	L	L	L	H	
46N61	H	H	H	H	H	H	H	H	H	
46N61A	H	H	H	H	L	H	M	H	H	
46N61B	L	H	L	H	L	M	L	L	H	
46N62 seg. 1	H	H	H	H	H	H	H	L	H	
46N62 seg. 2	H	H	H	H	L	H	H	L	H	
46N63	H	H	L	H	L	M	M	L	H	
46N64 seg. 1	H	H	H	H	H	H	H	H	H	
46N64 seg. 2	H	H	H	H	H	H	H	H	H	
46N64 seg. 3	H	H	H	H	H	H	H	M	H	
46N65 seg. 1	H	H	H	H	H	H	H	M	M	
46N65 seg. 2	H	H	H	H	H	H	H	H	M	
46N65 seg. 3	H	H	H	H	H	H	H	H	M	
46N65A seg. 1	H	H	L	H	L	M	M	L	M	
46N65A seg. 2	H	H	L	H	L	M	M	L	M	
46N65B	H	L	L	H	L	L	L	L	M	
46N66	H	H	H	L	H	H	H	H	M	
46N66A	H	H	H	H	L	H	H	H	H	
46N67	M	H	L	H	L	M	L	L	M	
46N68	M	H	L	H	L	M	L	L	M	
46N69	H	H	L	H	L	M	L	L	H	
46N70	H	H	L	H	L	M	L	L	H	
46N70Y	H	H	L	H	L	M	L	L	H	
46N71	H	L	L	H	L	L	L	M	H	
46N71Y	M	L	L	H	L	L	L	L	H	
46N73	H	L	L	H	H	M	L	L	H	
46N74	H	L	H	H	H	H	H	H	H	
46N74A	M	L	L	L	H	L	L	L	H	
46N75 seg. 1	H	L	H	L	H	M	H	H	H	
46N75 seg. 2	H	L	H	L	H	M	H	L	H	
46N75A	M	L	L	H	L	L	L	L	H	
46N76 seg. 1	H	H	H	L	H	H	H	M	H	
46N76 seg. 2	H	H	H	L	H	H	H	L	H	
46N76 seg. 3	H	H	H	L	H	H	H	H	H	
46N76A	H	H	L	H	L	M	L	L	H	
46N76C	H	H	L	H	H	H	L	M	H	
46N76E	H	H	L	H	L	M	L	L	H	
46N76Y	H	H	L	H	L	M	L	L	H	
46N77 seg. 1	M	H	H	H	H	H	H	L	M	
46N77 seg. 2	H	H	H	H	H	H	H	L	M	
46N77 seg. 3	H	H	H	H	H	H	H	L	M	
46N77A	M	H	L	H	L	M	L	L	H	
46N77E	L	L	L	H	L	L	L	L	H	
46N77F	M	H	L	H	L	M	L	L	M	
46N78	H	H	H	H	L	H	H	H	M	
46N78Y	M	L	L	H	L	L	L	L	H	
46N79	M	L	L	H	L	L	L	L	H	
46N80X	H	H	L	H	L	M	L	L	H	
46N80XA	M	H	L	H	L	M	L	L	M	
46N80XB	M	H	L	H	L	M	L	L	M	
46N81 seg. 1	H	H	H	H	H	H	H	H	H	
46N81 seg. 2	H	H	H	H	L	H	H	H	H	
46N81A	H	L	H	H	L	M	M	L	H	
46N81D	L	H	L	H	L	M	LL	L	M	
46N83Y seg. 1	M	H	H	H	H	H	M	L	M	
46N83Y seg. 2	M	H	H	H	L	H	M	M	M	
46N83YA	M	H	L	H	H	H	L	L	H	
46N83YB	H	H	L	H	L	M	L	L	M	
46N83YC	L	H	L	H	L	M	L	L	H	
46N84	L	L	L	L	H	L	L	L	H	

Table E-6 Aquatics Subgroup Roads Ratings

ROAD NO	MASS WASTING	A SOIL TYPE	B ROAD SURFACE TYPE	C PROXIMITY TO STREAM	D USE LEVEL	TOTAL SURFACE EROSION	MILES IN RR	ROAD XING	CWE	COMMENTS
46N84A	L	L	L	L	H	L	L	L	H	
46N85 seg. 1	L	L	L	L	H	L	L	L	H	
46N85 seg. 2	L	L	L	L	L	L	L	L	H	
46N85A	L	L	L	L	H	L	L	L	H	
46N85Y seg. 1	L	L	L	L	H	L	L	L	H	
46N85Y seg. 2	L	L	L	H	H	M	L	L	H	
46N86 seg. 1	L	L	L	L	H	L	M	L	H	
46N86 seg. 2	L	L	L	L	H	L	M	L	H	
46N95	L	H	L	H	H	M	L	L	H	
46N95A	M	L	L	H	L	L	L	L	M	
47N17Y	H	L	L	H	L	L	L	L	H	
47N17YA	H	H	L	H	L	M	L	L	H	
47N25Y	M	L	H	H	L	M	M	M	H	
47N25YA	L	H	L	H	L	M	L	L	H	
47N72	M	H	H	H	H	H	M	M	H	
47N72A	M	H	L	H	L	M	L	L	H	
47N74 seg. 1	M	H	L	L	H	M	L	L	H	
47N74 seg. 2	M	H	L	H	H	H	L	L	H	
47N74A	M	H	L	H	L	M	L	L	H	
47N76	H	H	H	L	H	H	M	M	H	
47N77D	L	L	L	H	L	L	L	L	H	
47N80	H	H	L	H	H	H	L	L	H	
47N89	L	H	L	H	L	M	L	L	H	
47N89Y	M	L	L	H	L	L	L	L	H	
48N20 seg. 1	H	H	H	H	H	H	H	H	H	
48N20 seg. 2	H	H	H	H	H	H	H	H	H	

Table E-7 Terrestrial Subgroup Roads Ratings

ROAD NUMBER	RATING-FIRE ACCESS	RATING-RX FIRE ACCESS	RATING-LSR RD DENSITY	RATING-BIG GAME RD DENSITY	T-SUB-GROUP RECOMMENDATION
16N01	H	L		M	MINING/RIVER ACCESS - BE OPP.SIDE OF RIVER
16N42	M	M	H	H	MAINTAIN CURRENT CLOSURE
16N42B	H	M	-	H	MAINTAIN CURRENT CLOSURE
17N01	H	H		H	SPECIAL USES
17N01Y	L	L		M	
17N03	M	L	-	M	MAINTAIN CURRENT CLOSURE (THINNING)
17N05	L	L	-	H	CLOSE - GATE (PLANTATION THINNING)
17N06	H	M	-	M	MAINTAIN CURRENT CLOSURE
17N07	H	H	M	H	CLOSE WITH GATE
17N08	H	L		H	FIBEROPTIC
17N12	H	M	-	H	MAINTAIN CURRENT CLOSURE
17N12A	M	H	-	M	MAINTAIN CURRENT CLOSURE
17N12D	L	L	-	H	DECOMMISSION
17N12E	L	L	-	H	MAINTAIN CURRENT CLOSURE
17N31	L	L	H	H	MAINTAIN CLOSURE W/THINNING ACCESS
17N33	M	L		M	MAINTAIN CLOSURE
17N38	H	H	-	M	OPEN
17N38Y	H	H	-	H	OPEN
17N38YA	H	H	-	H	OPEN
17N38YB	L	L	-	H	CLOSE OR DECOM
17N48	H	M		M	LOOKOUT
17N56	M	L	-	H	MAINTAIN CURRENT CLOSURE
17N56A	L	L	-	M	MAINTAIN CURRENT CLOSURE
18N01	M	L	M	M	MAINTAIN SEASONAL CLOSURE
18N02	H	H		M	MAINTAIN SEASONAL CLOSURE
18N07	H	M	M		MAINTAIN SEASONAL CLOSURE
18N07A	L	L	M	-	CLOSE
18N07B	L	L	H	-	CLOSE
18N10	L	L	H	H	MAINT.CLOSURE, DECOM N OF 17N08
18N38	L	L	M	M	GATE? CLOSE ITSELF
19N01	H	H	H	M	OPEN
19N01A	L	L	-	M	PLANTATIONS
19N01B	L	L	-	H	CLOSE - DECOMMISSION
19N01D	H	M	M		TANKER FILL

Table E-7 Terrestrial Subgroup Roads Ratings

ROAD NUMBER	RATING-FIRE ACCESS	RATING-RX FIRE ACCESS	RATING-LSR RD DENSITY	RATING-BIG GAME RD DENSITY	T-SUB-GROUP RECOMMENDATION
19N01K	L	L	M	-	CLOSE - DECOMMISSION
45N01X	M	H	M	-	MAINTAIN CURRENT CLOSURE
45N01XA	L	L	M	-	CLOSE
45N01XB	L	L	H	-	MAINTAIN CURRENT CLOSURE
45N02Y	L	L	M	-	MAINTAIN CURRENT CLOSURE
45N03Y	M	L	H	M	DECOM LSR PORTION
45N05Y	L	H	H		CLOSE
45N05YB	L	L		H	CLOSE
45N13	H	M	H		MAINTAIN SEASONAL CLOSURE
45N19Y	L	L	H		OPEN (LSR TREATMENTS ON SCR)
45N19YA	L	L	H		KEEP OPEN BELOW LAKE MTN. LOOKOUT
45N20 seg. 1	L	L	H	-	DECOMMISSION (FALKENSTEIN)
45N20 seg. 2	L	L	H		DECOM
45N32Y	H	H	M		MAINTAIN SEASONAL CLOSURE
45N38	H	H	M		OPEN- RIDGE RD
45N38A	H	M	M		
45N38B	L	L	M		CLOSE
45N57Y	L	L	H		CLOSE (LS HAB)
45N57YA	L	L	H		CLOSE (LS HAB)
45N69	L	L	H		CLOSE
45N71	H	H	M		OPEN (MAIN ACCESS TO O5Y ON SCR)
45N71A	L	L	H	H	
45N71B	L	L		M	
45N71C	L	L	H	H	CLOSE
45N72X	H	M	M		MAINTAIN CLOSURE, PEREGRINE NEST
45N77A	L	L	M	-	MAINTAIN CURRENT CLOSURE
45N77B	M	M	M		
45N77D	L	L	H		MAINTAIN CURRENT CLOSURE
45N78	H (1st 3 mi)	M	M		WILDERNESS ACCESS (DECOM PAST TRAIL)
45N78A	M	L	M		WILDERNESS ACCESS-MAINT. SEAS. CLOSURE
45N78B	H	M	M	-	MAINTAIN CURRENT CLOSURE
45N81	L	L	M	-	MAINTAIN CURRENT CLOSURE
45N85B	L	L	-	H	MAINTAIN CURRENT CLOSURE
45N85D	M	L	-	M	MAINTAIN CURRENT CLOSURE
45N85E	L	L	-	M	DECOMMISSION
45N85G	L	L	-	H	MAINTAIN CURRENT CLOSURE
45N86Y	L	L		M	GRAVEL PIT?
45N87	H	M	M	H	MAIN ACCESS
45N87A	L	L	-	H	OTHER SIDE OF RIDGE FROM PEREGRINE
45N87B	M	L	H	-	CHG TO YEAR ROUND
45N87C	H	H	-	M	MAINTAIN CLOSURE, PEREGRINE NEST
45N88Y	M	L	H		DECOM @ S.FORK, NEED THIN ACCESS
45N88YA	L	L	H	-	CHG TO YEAR ROUND W/THINNING ACCESS
45N88YB	L	L	H	-	MAINTAIN CURRENT CLOSURE
45N90Y	L	L	H		CLOSE
46N02X	H	L		H	PRIVATE ACCESS
46N08Y	M	M		H	MAINTAIN SEASONAL CLOSURE
46N18Y	H	H		M	MAINTAIN SEASONAL CLOSURE
46N18YB	L	L	-	M	MAINTAIN CURRENT CLOSURE
46N18YC	L	L		M	MAINTAIN CLOSURE
46N18YD	L	L	-	M	MAINTAIN CURRENT CLOSURE
46N19	L	L	-	H	MAINTAIN CURRENT CLOSURE
46N28Y	H	M	M		
46N29Y	H	H		M	PRIVATE ACCESS
46N30Y	H	H	M		MAINTAIN SEASONAL CLOSURE (NSO)
46N30YA	L	L	M		MAINTAIN SEASONAL CLOSURE
46N31	H	M	M		REPEATER? MAINTAIN SEASONAL CLOSURE
46N31B	L	L	M		MAINTAIN SEASONAL CLOSURE
46N31C	M	M		M	MAINTAIN SEASONAL CLOSURE
46N31Y	L	L	M	L	MAINTAIN CURRENT CLOSURE
46N32	M	M	M		MAINTAIN SEASONAL CLOSURE
46N33Y	H	M		L	PRIVATE
46N37	H	M		H	MAINTAIN SEASONAL CLOSURE
46N37A	L	L		H	CLOSE - 100 ACRE LSR
46N41Y	L	L	M	-	MAINTAIN CURRENT CLOSURE
46N41YA	L	L	M	-	MAINTAIN CURRENT CLOSURE
46N42Y	L	L	H	-	MAINTAIN CURRENT CLOSURE
46N43Y	L	L	M	-	MAINTAIN CURRENT CLOSURE

Table E-7 Terrestrial Subgroup Roads Ratings

ROAD NUMBER	RATING-FIRE ACCESS	RATING-RX FIRE ACCESS	RATING-LSR RD DENSITY	RATING-BIG GAME RD DENSITY	T-SUB-GROUP RECOMMENDATION
46N54	H	H	M		MAINTAIN SEASONAL CLOSURE
46N54D	H	H	M		MAINTAIN SEASONAL CLOSURE
46N56	H	H	H		MAINTAIN ACCESS
46N56A	L	M	M		MAINTAIN SEASONAL CLOSURE
46N60B	M	L	H	-	MAINTAIN CURRENT CLOSURE
46N60C	H	M		H	MAINTAIN CLOSURE - 100 ACRE LSR
46N60D	L	L		M	MAINTAIN SEASONAL CLOSURE
46N60E	M	M	M		MAINTAIN SEASONAL CLOSURE
46N60F	L	M	-	M	
46N60G	H	H		H	PRIVATE
46N61A	M	L	M	-	MAINTAIN CURRENT CLOSURE
46N61B	M	M	H	-	MAINTAIN CURRENT CLOSURE
46N62	H	M		M	DECOM IN BALD EAGLE MGT AREA
46N63	L	M	H		CLOSE - INSTALL A GATE
46N65A	H	M	M	-	MAINTAIN CURRENT CLOSURE (NSO)
46N65B	L	L	M	-	MAINTAIN CURRENT CLOSURE
46N66A	H	L	H	-	OPEN (FIRE ACCESS)
46N67	H	L	M		NEED FIRE ACCESS
46N68	H	H	H	-	MAINTAIN CURRENT CLOSURE (THINNING)
46N69	L	L	H	-	MAINTAIN CURRENT CLOSURE
46N70	L	L	H		CLOSE - INSTALL A GATE
46N70Y	L	L	H	-	MAINTAIN CURRENT CLOSURE
46N71	L	L	H	-	MAINTAIN CURRENT CLOSURE
46N71Y	L	L	H	-	MAINTAIN CURRENT CLOSURE (THINNING)
46N73	L	L		H	
46N74	L	M	H	H	DECOM OR CLOSE
46N74A	H	M	H		MAINTAIN SEASONAL CLOSURE
46N75	M	M	H	H	MAINTAIN SEASONAL CLOSURE
46N75A	L	L	H	-	CHG TO YEAR ROUND W/THINNING ACCESS
46N76	L	M		H	
46N76A	L	L	-	M	MAINTAIN CURRENT CLOSURE
46N76C	L	L		H	MAINTAIN SEASONAL CLOSURE
46N76E	L	L	-	M	MAINTAIN CURRENT CLOSURE
46N76Y	L	M	H		MAINTAIN SEASONAL CLOSURE DECOM?
46N77A	L	L	H		MAINTAIN SEASONAL CLOSURE
46N77E	M	L	H	-	MAINTAIN CURRENT CLOSURE
46N77F	L	L	M		
46N78	M	M	H		MAINTAIN SEASONAL CLOSURE - DECOM END?
46N78Y	M	M	M		MAINTAIN SEASONAL CLOSURE
46N79	M	L	-	M	MAINTAIN CURRENT CLOSURE
46N80X	H	H	H	-	MAINTAIN CURRENT CLOSURE
46N80XA	M	L	H	-	MAINTAIN CURRENT CLOSURE
46N80XB	L	L	H	-	DECOMMISSION
46N81	H	M	H	M	CLOSE PAST "D" SPUR
46N81A	L	L	M		
46N81D	M	M	M	-	MAINTAIN CURRENT CLOSURE
46N83Y	M	L	H	-	MAINTAIN CURRENT CLOSURE
46N83YA	H	H	M		MAINTAIN SEASONAL CLOSURE - REPEATER?
46N83YB	H	H	M		MAINTAIN SEASONAL CLOSURE
46N83YC	L	L	H	-	MAINTAIN CURRENT CLOSURE
46N95	H	M	M		MAINTAIN SEASONAL CLOSURE
46N95A	H	M	M		MAINTAIN SEASONAL CLOSURE
47N17Y	L	L	-	H	MAINTAIN CURRENT CLOSURE
47N17YA	L	L	H	H	MAINTAIN CURRENT CLOSURE
47N25Y	L	L	H	-	CLOSE - DECOM (NSO X 2)
47N25YA	L	L	M	-	CLOSE AS PER 25Y ROAD
47N72	H	H	H		MAINTAIN SEASONAL CLOSURE
47N72A	L	L	M	-	CLOSE - DECOMMISSION
47N74	M	M	H		MAINTAIN SEASONAL CLOSURE
47N74A	L	L	H		MAINTAIN SEASONAL CLOSURE
47N76	M	L	M		MAINTAIN CLOSURE (NSO)
47N77D	H	H		H	
47N80	H	H	L		NEED FIRE ACCESS
47N89	L	L	H	-	CLOSE - GATE (PLANTATION THINNING)
47N89Y	L	L	H	-	CLOSE - GATE (PLANTATION THINNING)
48N20	H	H	M	M	MAIN ACCESS, NEED FIRE ACCESS

Table E-8 Human Dimension Subgroup Roads Ratings

ROAD NO	RECREATION	COMMENTS	TIMBER/ SILVICULTURE	COMMENTS	PUBLIC ACCESS	COMMENTS	REMARKS
16N01	L		L		H	ACTIVE MINING	PVT LAND ACCESS
16N09	H	RIVER ACCESS	L		H	DREDGE MINING	
16N16	H	RIVER ACCESS	L		H	USE < 16N09	PVT LAND ACCESS
16N42	L	SOME HUNTING, MUSHROOMS	M*	MA	L		*L IN LSR, ML1
16N42B	L		M	MA	L		
17N01	M	HUNTING	M	NUM PLANT, MA	H	SUP- SEWAGE DUMP	
17N01Y	L		M	NUM PLANT, MA	L	NO MUSHROOMS, WOOD	
17N03	L		M	PLANT, MA	L	NO MUSHROOMS, WOOD	
17N05	L		M	PLANT, MA	L		TIE THROUGHTO 18N10
17N06	M	HUNTING, ATV	M	PLANT, MA	M	MUSHROOMS, BASKETMAKING	ACCESS LARGE AREA
17N07 seg. 1	H	HUNTING	M	MA	H	SUP-FOC	HWY 96 ALTERNATIVE
17N07 seg. 2	L		M*	PLANT, MA	L	ML1	* L IN LSR
17N08	H	HUNTING	M	MA	H	SUP-FOC	DUPS 17N07
17N12 seg. 1	M	HORSERIDING	M	PLANT, MA	L	NO MUSHROOMS, WOOD	CLOSE TO TOWN
17N12 seg. 2	M	HORSERIDING	M	MA	L	"	CLOSE TO TOWN
17N12A	L	WALKIN HUNTING	M	PLANT, MA	L		ML1
17N12D	L	WALK-IN HUNTING	M	PLANT, MA	L		ML1
17N12E	L	WALK-IN HUNTING	M	PLANT, MA	L		ML1
17N31	L		M	PLANT, MA	L		ML1
17N33	L		M	PLANT, MA	H	SUP-WASTE DISPOSAL PONDS	
17N38	L	SOME HUNTING	M	PLANT, MA	L		ML1, NO GATE
17N38Y	M	HUNTING	M	PLANT, MA	L		ML1, CAN DRIVE
17N38YA	M	HUNTING	M	PLANT, MA	L		
17N38YB	M	HUNTING	M	PLANT, MA	L		
17N48	H	L/O, HUNTING	M	PLANT, MA	H	L/O-ADMIN SITE	NEEDS IMPROVEMENT ML3
17N48	H						
17N50	H	RIVER ACCESS	L		L	DREDGE MINING	
17N56	L		M	PLANT, MA	L		
17N56A	L		M	PLANT, MA	L		
18N01 seg. 1	H	PA HUNTING	H	PA, MA	H	PA FIREWOOD, FIBER OPTICS	
18N01 seg. 2	H	PA HUNTING, TRAPPING	M	MA	H	MINING CLAIMS	
18N01 seg. 3	M		L		L	SOME MUSHROOMS	
18N02 seg. 1	M	SOME HUNTING & FISHING	M	PLANT, MA	L	ONLY ACCESS TO AREA	
18N02 seg. 2	M						
18N02 seg. 3	M						
18N07	L	SOME HUNTING	L		L	LSR	
18N07A	L		L		L		
18N07B	L		L		L		
18N10 seg. 1	H	PA HUNTING	H	PA, MA, HAUL	H	SUP - FIBER OPTICS CABLE	
18N10 seg. 2	L		L				
18N38	L		M*	MA	L		* L IN LSR
19N01 seg. 1	H	PA HUNTING & WILDERNESS, MT BIKE ROUTE	H	PA MA	H	SUP-FIBER OPTICS CABLE	
19N01 seg. 2	H		M	LSR	L		
19N01A	L		M	PLANT, MA	L		
19N01B	L		M	PLANT, MA	L		
19N01D	M	HUNTING	L	LSR	H	PA FIREWOOD	PVT LAND ACCESS
19N01K	L		L		L		ML1
45N01X	L		L	LSR	L		ML1
45N01XA	L		L		L		ML1, OVERGROWN

Table E-8 Human Dimension Subgroup Roads Ratings

ROAD NO	RECREATION	COMMENTS	TIMBER/SILVICULTURE	COMMENTS	PUBLIC ACCESS	COMMENTS	REMARKS
45N01XB	L		L		L		DEAD END SPUR
45N02Y	L		L		L		DEAD END SPUR
45N03Y	L		H	MA	L		
45N05Y	H	PA HUNTING	M	MA	H	PA	TIE-THROUGH, ADMIN USE
45N05YB	M	HUNTING	M	MA	L		
45N13	M	HUNTING	L	LSR	H	TRIBAL USE - GATHERING	TIES THROUGH CHINA CK, FRYING PAN RIDGE
45N19Y	M	HUNTING	L	LSR	L	GRAZING	
45N19YA	L		L		L		OVERGROWN
45N20	M	DISPERSED CAMPING, HUNTING	L	LSR	L		
45N32Y	L		L		L		GATED
45N38	M	HUNTING	L	LSR	L		
45N38A	M	HUNTING	L	LSR	L		
45N38B	M	HUNTING	L	LSR	L		
45N57Y	M	HUNTING	L	LSR	L	GRAZING	
45N57YA	M	HUNTING	L		L		
45N69	L		M	MA	M	WOODCUTTING	
45N71	M	HUNTING	*L	M IN MATRIX	L		SEGMENT TO 05Y SECTION 15
45N71A	L	WALK-IN HUNTING	L		L		
45N71B	M	HUNTING	M	MA	L		
45N71C	L	WALK-IN HUNTING	M	MA	L		
45N72X	H*	PCT T/H, * L AFTER	L		H	MINING	PVT LAND ACCESS
45N77 seg. 1	H	T/H ACCESS	L		L		
45N77 seg. 2	H		L		L		
45N77 seg. 3	H		L		L		
45N77A	L		L		L		
45N77B	M	HUNTING	L		M	ROCK PIT	
45N77D	L		L		L		ML1
45N78 seg. 1	H	PA HUNTING, PCT T/H	L		H	TRIBAL GATHERING TO A SPUR	
45N78 seg. 2	L	SOME HUNTING	L		L		
45N78A	H	PA PCT T/H	L		M	2ND TRIBAL GATHERING	
45N78B	L		L		L		
45N81 seg. 1	M	HUNTING - WELL USED	L	LSR	L		ML1
45N81 seg. 2	M		L	LSR	L		ML1
45N85	H	PA HUNTING	H	PA, HAUL	H	FIREWOOD, POLES, RAILS	
45N85B	L		L		L		ML1
45N85D	L		M	MA	L		ML1
45N85E	L		M	MA	L		ML1
45N85G	L		M	MA	L		ML1
45N86Y	L		M	MA	L	SOME FIREWOOD	
45N87 seg. 1	H	HUNTING	M	MA	H	FIREWOOD, POLES, TRIBAL GATHERING - HAZEL, BEARGRASS	
45N87 seg. 2	H		L	LSR	L		
45N87A	L		M	MA	M	FIREWOOD	
45N87B	L		L		L		
45N87C	L		M	MA	L		ML1
45N88Y seg. 1	L		L	LSR	L		
45N88Y seg. 2	L		L		L		
45N88YA	L		L		L		
45N88YB	L		L		L		
45N90Y	M	HUNTING	L		L		
46N02X	L		L		M	SA PVT LAND	SEGMENT TO GATE
46N03	H	PA HUNTING	H	PA	H	PA FIREWOOD, SUP-MINING	
46N08Y	L		M	MA	M	SUP-WATER	
46N15	H	RIVER ACCESS	L		M	MINING	
46N18Y	H	HUNTING	M	MA	H	FIREWOOD	
46N18YB	L		M	MA	L		

Table E-8 Human Dimension Subgroup Roads Ratings

ROAD NO	RECREATION	COMMENTS	TIMBER/SILVICULTURE	COMMENTS	PUBLIC ACCESS	COMMENTS	REMARKS
46N18YC	L		M	MA	L		
46N18YD	L		M	MA	L		
46N19	L		L		L		SLIDE
46N24X	H	GRIDER CK C/G ACCESS	L		L		
46N24XA	H	GRIDER CK C/G ACCESS	L		L		
46N28Y seg. 1	L		L	LSR	L		
46N28Y seg. 2	L		L		L		PROPOSED FOR DECOMMISSIONING
46N29Y	M	FISHING	L		H	MINING, AIRPORT	PVT LAND ACCESS
46N30Y	L		L	LSR	L		
46N30YA	L		L		L		
46N31	L		L		H	ELECTRONICS SITE	
46N31B	L		L		L		
46N31C	L		L		L		
46N31Y	L		L	LSR	L		CLOSED
46N32	M	HUNTING	M		H		PVT LAND
46N33Y	M	T/H ,LOWER HALF	M	MA, OLD LANDING	H		PVT LAND - LOWER HALF
46N37	M	HUNTING	M	MA	H	HIGH USE FIREWOOD AREA	RECENT SALVAGE
46N37A	M	HUNTING	M	MA	M	LITTLE FIREWOOD	
46N41Y	L		L	LSR	L		ML1
46N41YA	L		L		L		ML1
46N42Y	L		L		L		ML1
46N43Y	L		L		L		ML1
46N50 seg. 1	H	PA HUNTING	H	HAUL	H	FIREWOOD	ALTERNATE ROUTE FOR GRANITE PT
46N50 seg. 2	H	PA HUNTING	H	HAUL	H	FIREWOOD	
46N54	M	HUNTING	M	HAUL	H	LOTS OF WOOD CUTTERS	
46N54D	L		L	LSR	H	LOTS OF WOOD CUTTERS	
46N56	L		L	LSR	L		SECONDARY ROAD
46N56A	L		L	LSR	L		
46N60	H	PA HUNTING	H	MA, PA, HAUL	H	LOTS OF WOOD CUTTERS	DIFFICULT TO KEEP CLOSED
46N60B	M	HUNTING	L	LSR	M	MINING CLAIM	DIFFICULT TO KEEP CLOSED
46N60C	M	HUNTING	M	MA	H	LOTS OF WOOD CUTTERS	
46N60D	L	WALK-IN HUNTING	M	MA, LANDING, ACCESS 1 UNIT	L	NO FIREWOOD CUTTERS	PASSABLE NOW-SLIDES
46N60E	M	HUNTING	L	LSR	H	.2 MILE ROCK PIT, NO WOOD	SEASONAL CLOSURE
46N60F	L		M	MA	L		BARRICADE
46N60G	L	WALK-IN HUNTING	M	MA	H		PVT LAND ACCESS
46N61	H	ALL TYPES OF HUNTING	L	LSR	H	ROCK PIT, LOTS OF WOOD CUTTERS	WAS MAIN ROAD, SLIDES NOW
46N61A	L		L	LSR	L		ML1, COMPLETELY CLOSED NOW
46N61B	L	WALK-IN HUNTING	L	LSR	L		ML1
46N62 seg. 1	M	HUNTING	M	MA	H	LOTS OF WOOD CUTTERS	
46N62 seg. 2	L	WALK-IN HUNTING	L	LSR	L		ML1
46N63	L		L	LSR	L		CLOSED-SLIDES, TREES
46N64 seg. 1	H	PA HUNTING	M	PA, MA	H	SUP-WATER DITCHES, LOTS OF WOOD CUTTERS	
46N64 seg. 2	M	SIGHTSEEING, HUNTING	L	LSR	H	LOTS OF WOOD CUTTERS, ROCK PIT	WAS MAIN ROAD, SLIDE CLOSED
46N64 seg. 3	M		L		H		
46N65 seg. 1	H	L/O, HUNTING	M	PA LSR	H	CORRALS	
46N65	H		M		H		
46N65	H		M		H		
46N65A seg. 1	L		L	LSR	L		ML1
46N65A seg. 2	L		L		L		ML1

Table E-8 Human Dimension Subgroup Roads Ratings

ROAD NO	RECREATION	COMMENTS	TIMBER/ SILVICULTURE	COMMENTS	PUBLIC ACCESS	COMMENTS	REMARKS
46N65B	L		L	LSR	L		ML1
46N66	H	GRIDER CK C/G, HUNTING	M	PA LSR	H	LOTS OF WOOD CUTTERS	HWY 96 ALTERNATIVE ROUTE- SEIAD TO 4 CORNERS
46N66A	L		L	LSR	L		OVERGROWN WITH 4-6" TREES
46N67	M	HUNTING	L	LSR	L	LSR, WHITE FIR	
46N68	L	SOME HUNTING	L	LSR	L		ML1, FREQUENTLY BROKEN INTO
46N69	L		L	LSR	L		ML1, OVERGROWN
46N70	L	SOME BEAR HUNTING	L	LSR	L		OVERGROWN
46N70Y	L		L	LSR	L		WAS 70 ROAD
46N71	L		L		L		OVERGROWN
46N71Y	L		L		L		OVERGROWN
46N73	M	HUNTING	M	MA	H		PVT LAND ACCESS
46N74	M	HUNTING	M	MA	H	POLES, FIREWOOD USE	
46N74A	M	DISPERSED CAMPING-HUNTERS	L	LSR	H	POLES, FIREWOOD, SMALL SAWTIMBER	TIE-THROUGH
46N75 seg. 1	H	PA HUNTING	M	MA	H	PVT LAND ACCESS TO WATER	
46N75 seg. 2	H	PA HUNTING	L	LSR	M	FIREWOOD	
46N75A	L		L	LSR	L		
46N76 seg. 1	H	PA HUNTING	M	SA MA	H	POLES, FIREWOOD- HARDWOODS & CONIFERS	
46N76 seg. 2	H	PA HUNTING	M	SA MA	H	FIREWOOD	
46N76 seg. 3	H		M		H		
46N76A	L		L	LSR	L		ML1
46N76C	H	HUNTING	M	MA	H	FIREWOOD	
46N76E	L		M	MA	L		ML1, SLIDE
46N76Y	M	SOME HUNTING, SEASONAL DRIVERS	L	LSR	L	SOME FIREWOOD	GATED BOTH ENDS
46N77 seg. 1	H	HUNTING, PCT ACCESS	M	PA MA	H	PRIME FIREWOOD USE	
46N77 seg. 2	H		L	LSR	M		
46N77 seg. 3							
46N77A	M	HUNTING	L	LSR	L	NO FIREWOOD	
46N77E	L		L	LSR	L		ML1
46N77F	L		L	LSR	L		OVERGROWN
46N78	M	HUNTING	L	LSR	L	LSR	
46N78Y	M	HUNTING	L	LSR	L	LSR- LITTLE USE	
46N79	L	SOME HUNTING	M	MA	L		CLOSED
46N80X	L		L	LSR	L		ML1
46N80XA	L		L	LSR	L		
46N80XB	L		L	LSR	L		
46N81 seg. 1	M	HUNTING	L	LSR	H	.3 MILES ROCK PIT, FIREWOOD	PVT LAND ACCESS
46N81	L		L		L		OUTSLOPED- NO CULVERTS, STILL DRIVEN ON
46N81A	L		L	LSR	H		PVT LAND ACCESS
46N81D	L		L	LSR	L	NO FIREWOOD	
46N83Y seg. 1	M	HUNTING	L	LSR	H	REPEATER SITE	
46N83Y	L		L		L		ML1
46N83YA	L		L		H	REPEATER SITE	
46N83YB	L		L		L		
46N83YC	L		L		L		ML1
46N84	H	SARAH TOTTEN C/G	L		L		
46N84A	H	SARAH TOTTEN C/G	L		L		

Table E-8 Human Dimension Subgroup Roads Ratings

ROAD NO	RECREATION	COMMENTS	TIMBER/SILVICULTURE	COMMENTS	PUBLIC ACCESS	COMMENTS	REMARKS
46N85 seg. 1	H	O'NEIL C/G	L		L		
46N85			L		L		
46N85A	H	O'NEIL C/G	L		L		
46N85Y seg. 1	M	FISH ACCESS	L		H	TO COUNTY ROAD	PVT LAND ACCESS
46N85Y					H		
46N86 seg. 1	L		L		H	ADMIN SITE-REC, FIRE	
46N86 seg. 2	L		L		H		
46N95	H	PA HUNTING	L		H	FIREWOOD, L/O ACCESS	
46N95A	M	HUNTING	L	LSR	M	FIREWOOD	
47N17Y	L		M	MA	L		ML1
47N17YA	L		M*	MA	L		* L IN LSR
47N25Y	L		L		L		ML1
47N25YA	L		L		L		
47N72	H	PA HUNTING	L	LSR	M	GRAZING SUP, LIMITED FIREWOOD	
47N72A	L		L		L		ML1
47N74 seg. 1	H	PA HUNTING	L	LSR	M	GRAZING, LIMITED FIREWOOD	SEASONAL
47N74 seg. 2	H		L		H		
47N74A	M	WALK-IN HUNTING	L	LSR	M	FIREWOOD	
47N76	H	PA HUNTING	L		M	GRAZING, NO FIREWOOD	
47N77D	M	HUNTING	M	MA	M	FIREWOOD	
47N80	H	LILY PAD LK T/H, HUNTING	L	LSR, POOR SITE	H	MINE ACCESS	
47N89	L		L	LSR	H		PVT LAND ACCESS, ML1
47N89Y	L		L		L		ML1
48N20 seg. 1	H	APPLEGATE NF ACCESS	M	PA	H	GRAZING, HUNTING	RECOMMEND ML3
48N20 seg. 2	H		M		H		

PA = Primary Access, MA = Matrix, LSR = Late-Successional Reserve, L/O = Fire Lookout, C/G = Campground, T/H = Trailhead, PCT = Pacific Crest Trail, SUP = Special Use Permit, SA = Secondary Access, ML1 = Maintenance Level 1 Road, ML3 = Maintenance Level 3 Road, PVT = Private, TRIBAL = Karuk Tribe, FOC = Fiber Optic Cable

Appendix F - Numerical Listing of Roads and Their Status

ROAD NUMBER	ROAD NAME	LENGTH	TERMINI	SURFACE	MTC. LEVEL	CLOSURE	TYPE	DISTRICT	FUNC. CLASS	TRAF OBJ.	TEMPL.	ROAD LOG	JURISDICTION	HWY. SFTY.	NO. OF LANES
16N01	CHINA RIDGE	2.25	7C002 - SEC 8	NATIVE	2	S	SS	52	L	A	H	N	FS	N	1
16N09	GORDONS FERRY R.A.	0.40	7C014 - S	CRUSHED	3	N		52	L	E	H	N	FS	Y	1
16N16	CHINA POINT R.A.	0.70	HWY 96 - RIVER	NATIVE	3	N		52	L	E	D	Y	FS	Y	1
16N42	TEFLON	3.00	45N85 - SEC 22	NATIVE	1	Y	SS	52	L	P	H	N	FS	N	1
16N42B	TEFLON	0.30	16N42 - NW (SEC 20)	NATIVE	1	Y		52	L	P	H	Y	FS	N	1
17N01	SOUTH SEATTLE BAR	1.00	19N01 - SE	CRUSHED	2	N		52	L	A	H	Y	FS	N	1
17N01Y	SEATTLE BAR	1.90	18N10 - SE	NATIVE	2	N		52	L	A	H	Y	FS	N	1
17N03	SUNDERLAND	3.30	17N07 - SE	NATIVE	1	Y	SS	52	L	P	H	N	FS	N	1
17N05	FELS	0.80	18N10 - 17N31	NATIVE	1	Y		52	L	P	H	N	FS	N	1
17N06	CADE BRANCH	4.10	19N01 - 17N12	CRUSHED	1	Y	SS	52	L	P	H	Y	FS	N	1
17N07	FEARLESS	1.90	18N01 - MP 1.90	CRUSHED	2	N		52	L	A	H	Y	FS	N	1
17N07	FEARLESS	6.50	MP 1.90 - SEC 36	NATIVE	1	N		52	L	D	H	N	FS	N	1
17N08	SHINAR TIE	0.60	17N07 - 18N10	CRUSHED	2	N		52	L	A	H	Y	FS	N	1
17N12	CRUMPTEN HILL	2.80	HWY 96 - MP 2.80	CRUSHED	1	Y	SS	52	L	D	H	Y	FS	N	1
17N12	CRUMPTEN HILL	1.40	MP 2.80 - MP 4.20	NATIVE	1	Y		52	L	P	H	Y	FS	N	1
17N12A	CRUMPTEN HILL	1.50	17N12 - NE	NATIVE	1	Y		52	L	P	H	Y	FS	N	1
17N12D	CRUMPTEN HILL	0.10	17N12 - NW	NATIVE	1	Y		52	L	P	H	Y	FS	N	1
17N12E	CRUMPTEN HILL	0.40	17N12 - NW	NATIVE	1	Y	L&E	52	L	P	H	Y	FS	N	1
17N31	UPPER WEST THOMPSON	1.90	19N01 - SEC 12	NATIVE	1	Y	SS	52	L	P	H	N	FS	N	1
17N33	EAST CADE	1.70	17N01 - E	NATIVE	2	Y	SS	52	L	P	H	Y	FS	N	1
17N38	UPPER CADE	2.20	19N01 - SE	NATIVE	1	N		52	L	D	H	Y	FS	N	1
17N38Y	LOWER CADE	1.70	17N01 - N	NATIVE	1	N		52	L	D	H	Y	FS	N	1
17N38YA	LOWER CADE	0.85	17N38Y - N	NATIVE	1	N		52	L	D	H	N	FS	N	1
17N38YB	LOWER CADE	0.35	17N38Y - SE	NATIVE	1	N		52	L	D	H	Y	FS	N	1
17N48	SLATER BUTTE L/O	0.90	19N01 - MP 0.90	NATIVE	2	N		52	L	A	H	Y	FS	N	1
17N48	SLATER BUTTE L/O	0.70	MP 0.90 - L.O.	NATIVE	2	S	SS	52	L	D	H	Y	FS	N	1
17N50	SEATTLE CREEK R.A.	0.10	HWY 96 - RIVER	CRUSHED	3	N		52	L	E	D	Y	FS	Y	1
17N56	SLATER LICK TIE	3.50	17N12 - 17N12	NATIVE	1	Y		52	L	P	H	Y	FS	N	1
17N56A	SLATER LICK TIE	1.00	17N56 - W	NATIVE	1	Y		52	L	P	H	Y	FS	N	1
18N01	THOMPSON CREEK	1.80	HWY 96 - MP 1.80	CHIPSEAL	3	N		52	C	E	D	Y	FS	Y	1
18N01	THOMPSON CREEK	7.20	MP 1.80 - MP	CHIPSEAL	3	S	SS	52	L	A	D	Y	FS	N	1

ROAD NUMBER	ROAD NAME	LENGTH	TERMINI	SURFACE	MTC. LEVEL	CLOSURE	TYPE	DISTRICT	FUNC. CLASS	TRAF OBJ.	TEMPL.	ROAD LOG	JURISDICTION	HWY. SFTY.	NO. OF LANES
			9.00												
18N01	THOMPSON CREEK	1.50	MP 9.00 - SEC 14	CRUSHED	2	S	SS	52	L	A	D	Y	FS	N	1
18N02	BUG CREEK	1.60	18N01 - MP 1.60	PITRUN	2	N		52	L	A	H	Y	FS	N	1
18N02	BUG CREEK	2.30	MP 1.60 - MP 3.90	PITRUN	2	S	SS	52	L	A	H	Y	FS	N	1
18N02	BUG CREEK	4.15	MP 3.90 - SEC 4	NATIVE	2	S		52	L	A	H	Y	FS	N	1
18N07	EAST THOMPSON	5.60	19N01 - E	CRUSHED	2	S	SS	52	L	A	H	Y	FS	N	1
18N07A	EAST THOMPSON	1.30	18N07 - N	NATIVE	1	S		52	L	D	H	N	FS	N	1
18N07B	EAST THOMPSON	0.20	18N07 - N	NATIVE	1	S		52	L	D	H	Y	FS	N	1
18N10	MIDDLE WEST THOMPSON	0.80	19N01 - 17N08	CRUSHED	2	N		52	L	A	H	Y	FS	N	1
18N10	MIDDLE WEST THOMPSON	5.15	17N08 - SEC 36	NATIVE	1	Y	EAR	52	L	P	H	N	FS	N	1
18N38	FRANKS FOLLY	1.55	19N01 - WASHOUT	PITRUN	1	N		52	L	D	H	Y	FS	N	1
19N01	THOMPSON RIDGE	11.30	HWY 96 - MP 11.30	CHIPSEAL	3	N		52	C	E	D	Y	FS	Y	1
19N01	THOMPSON RIDGE	6.20	MP 11.30 - FOR BDY	CRUSHED	2	N		52	C	A	H	Y	FS	N	1
19N01A	THOMPSON RIDGE	1.30	19N01 - NW	NATIVE	1	N		52	L	D	H	N	FS	N	1
19N01B	THOMPSON RIDGE	1.00	19N01 - NW	NATIVE	1	N		52	L	D	H	N	FS	N	1
19N01D	THOMPSON RIDGE	1.20	19N01 - N	NATIVE	2	N		52	L	A	H	Y	FS	N	1
19N01K	THOMPSON RIDGE	0.20	19N01 - NW	NATIVE	1	Y	SS	52	L	P	H	Y	FS	N	1
45N01X	WEE WALKER	2.00	46N64 - S	NATIVE	1	Y	SS	51	L	P	H	N	FS	N	1
45N01XA	WEE WALKER	0.35	45N01X - NW	NATIVE	1	Y	TR	51	L	P	H	N	FS	N	1
45N01XB	WEE WALKER	0.50	45N01X - NW	NATIVE	1	Y	TR	51	L	P	H	N	FS	N	1
45N02Y	SHANTY RANCH	1.15	46N64 - W	NATIVE	1	Y	SS	51	L	P	H	N	FS	N	1
45N03Y	HORSE BISCUIT	10.00	45N13 - 45N85	PITRUN	1	Y	TR	52	L	D	H	N	FS	N	1
45N05Y	EAGLE SPRINGS	0.30	45N71 - DIST BDY	NATIVE	2	N		51	L	A	H	N	FS	N	1
45N05YB	EAGLE SPRINGS	0.60	45N05Y - SE	NATIVE	2	N		51	L	A	H	N	FS	N	1
45N13	GORDON ROAD	4.10	45N87 - 45N85	NATIVE	2	S		52	L	A	H	Y	FS	N	1
45N19Y	LAKE MOUNTAIN VIEW	0.80	46N64 - DIST BDY	NATIVE	2	N		51	L	A	H	Y	FS	N	1
45N19YA	LAKE MOUNTAIN VIEW	0.25	45N19Y - NW	NATIVE	2	N		51	L	A	H	Y	FS	N	1
45N20	NORTH FISH	0.80	45N90Y - NW	NATIVE	2	N		51	L	A	H	Y	FS	N	1
45N32Y	O'NEIL VIEW	4.25	46N65 - NE	NATIVE	2	S	SS	51	L	A	H	Y	FS	N	1
45N38	RANCHERIA	1.40	45N90Y - W	NATIVE	2	N		51	L	A	H	N	FS	N	1
45N38A	RANCHERIA	0.20	45N38 - W	NATIVE	2	N		51	L	A	H	N	FS	N	1
45N38B	RANCHERIA	0.10	45N38 - NW	NATIVE	2	N		51	L	A	H	N	FS	N	1
45N57Y	SLINKEY O'NEIL	1.75	46N61 - S	NATIVE	2	N		51	L	A	H	N	FS	N	1
45N57YA	SLINKEY O'NEIL	0.55	45N57Y - NE	NATIVE	2	N		51	L	A	H	Y	FS	N	1

ROAD NUMBER	ROAD NAME	LENGTH	TERMINI	SURFACE	MTC. LEVEL	CLOSURE	TYPE	DISTRICT	FUNC. CLASS	TRAF OBJ.	TEMPL.	ROAD LOG	JURISDICTION	HWY. SFTY.	NO. OF LANES
45N69	MARTIN/CHRISCO	0.70	45N05Y - DIST BDY	NATIVE	2	N		51	L	A	H	Y	FS	N	1
45N71	TOM MARTIN	2.75	46N65 - E	NATIVE	2	N		51	L	A	H	Y	FS	N	1
45N71A	TOM MARTIN	0.85	45N71 - N	NATIVE	2	N		51	L	A	H	Y	FS	N	1
45N71B	TOM MARTIN	0.90	45N71 - NE	NATIVE	2	N		51	L	A	H	Y	FS	N	1
45N71C	TOM MARTIN	0.60	45N71 - N	NATIVE	2	N		51	L	A	H	N	FS	N	1
45N72X	UPPER GRIDER	3.35	46N77 - E	NATIVE	2	S		51	L	A	H	Y	FS	N	1
45N77	RANCHERIA CAMP	2.60	46N64 - 45N77B	NATIVE	3	N		51	L	E	B	N	FS	Y	1
45N77	RANCHERIA CAMP	0.20	45N77B - 45N90Y	PITRUN	3	N		51	L	E	H	N	FS	Y	1
45N77	RANCHERIA CAMP	2.90	45N90Y - TRAILHEAD	NATIVE	3	N		51	L	E	H	N	FS	Y	1
45N77A	RANCHERIA CAMP	0.30	45N77 - W	NATIVE	1	Y	L&E	51	L	P	H	N	FS	N	1
45N77B	RANCHERIA CAMP	0.50	45N77 - W	NATIVE	2	N		51	L	A	H	N	FS	N	1
45N77D	RANCHERIA CAMP	0.60	45N77 - S	NATIVE	1	Y	SS	51	L	P	H	N	FS	N	1
45N78	HUCKLEBERRY	3.30	46N77 - MP 3.30	NATIVE	2	S		51	L	A	H	Y	FS	N	1
45N78	HUCKLEBERRY	0.60	MP 3.30 - N	NATIVE	2	Y	EAR	51	L	P	H	N	FS	N	1
45N78A	HUCKLEBERRY	3.80	45N78 - S	NATIVE	2	S		51	L	A	H	N	FS	N	1
45N78B	HUCKLEBERRY	1.00	45N78 - E	NATIVE	1	Y	TR	51	L	P	H	N	FS	N	1
45N81	GRIDER VIEW	3.30	46N64 - MP 3.30	NATIVE	1	Y	SS	51	L	P	B	Y	FS	N	1
45N81	GRIDER VIEW	0.60	MP 3.30 - S	NATIVE	1	Y	EAR	51	L	P	B	Y	FS	N	1
45N85	FRYINGPAN RIDGE	11.90	46N77 - 7C002	PITRUN	3	S	SS	52	C	A	D	Y	FS	Y	1
45N85B	FRYINGPAN RIDGE	0.10	45N85 - E	NATIVE	1	Y	L&E	52	L	P	H	Y	FS	N	1
45N85D	FRYINGPAN RIDGE	1.10	45N85 - E	NATIVE	1	Y	SS	52	L	P	H	Y	FS	N	1
45N85E	FRYINGPAN RIDGE	0.30	45N85 - N	NATIVE	1	Y	L&E	52	L	P	H	Y	FS	N	1
45N85G	FRYINGPAN RIDGE	0.10	45N85 - W (SEC 21)	NATIVE	1	Y	L&E	52	L	P	H	Y	FS	N	1
45N86Y	FORTUNE COOKIE	1.80	7C002 - SE	NATIVE	2	N		52	L	A	H	N	FS	N	1
45N87	LIME BLUFF	1.10	7C002 - MP 1.10	PITRUN	2	N		52	L	A	H	Y	FS	N	1
45N87	LIME BLUFF	5.00	MP 1.10 - 46N78	PITRUN	2	S	ST	52	L	A	H	Y	FS	N	1
45N87A	LIME BLUFF	0.40	45N87 - NW	NATIVE	1	Y	TR	52	L	D	H	N	FS	N	1
45N87B	LIME BLUFF	0.30	45N87 - NW	NATIVE	1	S		52	L	D	H	Y	FS	N	1
45N87C	LIME BLUFF	1.30	45N87 - NE	NATIVE	1	Y	SS	52	L	P	H	Y	FS	N	1
45N88Y	CHINA BISCUIT	2.40	46N78 - MP 2.40	PITRUN	2	S		52	L	A	H	Y	FS	N	1
45N88Y	CHINA BISCUIT	2.40	MP 2.40 - 45N85	NATIVE	2	S		52	L	A	H	Y	FS	N	1
45N88YA	CHINA BISCUIT	0.30	45N88Y - NW	NATIVE	1	S		52	L	D	H	Y	FS	N	1
45N88YB	CHINA BISCUIT	0.50	45N88Y - N	NATIVE	1	Y	SS	52	L	P	H	Y	FS	N	1
45N90Y	FAULKSTEIN	1.50	45N77 - W	NATIVE	2	N		51	L	A	H	N	FS	N	1
46N02X	GRIDER/KLAMATH	0.60	PR LN SEC 15 - 46N81	NATIVE	2	N		51	L	A	H	N	FS	N	1
46N03	CHINA CREEK	5.80	7C002 - 46N77	CRUSHED	3	N		52	C	E	D	Y	FS	Y	1
46N08Y	WALKER GULCH	1.40	46N60 - S	NATIVE	2	S		51	L	A	H	Y	FS	N	1

ROAD NUMBER	ROAD NAME	LENGTH	TERMINI	SURFACE	MTC. LEVEL	CLOSURE	TYPE	DISTRICT	FUNC. CLASS	TRAF OBJ.	TEMPL.	ROAD LOG	JURISDICTION	HWY. SFTY.	NO. OF LANES
46N15	PORTUGUESE CR RIV ACC	0.10	HWY 96 - SW	CRUSHED	3	N		51	L	E	H	N	FS	Y	1
46N18Y	JOE MILES RIDGE	3.30	46N95 - 46N76	CRUSHED	2	S		52	L	A	H	Y	FS	N	1
46N18YB	JOE MILES RIDGE	0.40	46N18Y - W	NATIVE	1	Y	HW	52	L	P	H	Y	FS	N	1
46N18YC	JOE MILES RIDGE	0.20	46N18Y - W	NATIVE	2	S		52	L	D	H	Y	FS	N	1
46N18YD	JOE MILES RIDGE	0.20	46N18Y - N	NATIVE	1	Y	L&E	52	L	P	H	Y	FS	N	1
46N19	JESTERS JOKE	0.40	46N60 - W	NATIVE	1	Y	SS	51	L	P	H	Y	FS	N	1
46N24X	GRIDER TRAILHEAD CG	0.20	46N66 - 46N24XA	CRUSHED	3	N		51	L	E	B	Y	FS	Y	1
46N24XA	GRIDER TRAILHEAD CG	0.30	46N24X - LOOPS	CRUSHED	3	N		51	L	E	H	Y	FS	Y	1
46N28Y	RIDGE LOOP	1.80	46N67 - MP 1.80	NATIVE	2	N		51	L	A	H	Y	FS	N	1
46N28Y	RIDGE LOOP	0.80	MP 1.80 - S	NATIVE	2	Y	EAR	51	L	P	H	Y	FS	N	1
46N29Y	JOHN LADD	3.65	8D004 - E	NATIVE	2	N		51	L	A	H	Y	FS	N	1
46N30Y	LOWER WALKER	4.70	46N76Y - S	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N30YA	LOWER WALKER	0.60	46N30Y - SE	NATIVE	2	S	TR	51	L	D	H	N	FS	N	1
46N31	MICROWAVE	3.10	46N54 - S	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N31B	MICROWAVE	0.45	46N31 - W	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N31C	MICROWAVE	0.60	46N31 - SW	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N31Y	CHINA WOLF	0.90	7C002 - S	NATIVE	1	Y	HW	52	L	P	H	Y	FS	N	1
46N32	MICRO	1.65	46N31 - E LN SEC 30	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N33Y	SALVAGE	0.45	8D002 - NW	NATIVE	2	N		51	L	A	H	Y	FS	N	1
46N37	JOHNNY RIDGE	1.55	46N60 - NE	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N37A	JOHNNY RIDGE	0.65	46N37 - SE	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N41Y	MIDDLE GRIDER	0.50	46N68 - SE	NATIVE	1	Y		51	L	P	H	N	FS	N	1
46N41YA	MIDDLE GRIDER	0.30	46N41Y - NE	NATIVE	1	Y		51	L	P	H	N	FS	N	1
46N42Y	NO VIEW	0.40	46N68 - SE	NATIVE	1	Y		51	L	P	H	N	FS	N	1
46N43Y	P C VIEW	1.10	46N42Y - S	NATIVE	1	Y		51	L	P	H	N	FS	N	1
46N50	SEIAD CREEK ROAD	3.25	47N70 - MP 10.70	CRUSHED	3	N		51	C	E	B	Y	FS	Y	1
46N50	SEIAD CREEK ROAD	0.15	MP 10.70 - 8D002	CHIPSEAL	3	N		51	C	E	H	Y	FS	Y	1
46N54	BLACKS LOOP	0.30	46N60 - S LN SEC 20	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N54D	BLACKS LOOP	1.10	46N54 - SW	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N56	WEST STAGE	1.75	46N81 - 46N66	NATIVE	2	N		51	L	A	H	N	FS	N	1
46N56A	WEST STAGE	1.30	46N56 - NW	NATIVE	2	S		51	L	A	H	N	FS	N	1
46N60	JOHNNY O'NEIL	11.10	46N54 - 46N50	NATIVE	3	S	SS	51	L	E	B	Y	FS	Y	1
46N60B	JOHNNY O'NEIL	1.85	46N60 - NE	NATIVE	1	Y	SS	51	L	P	H	Y	FS	N	1

ROAD NUMBER	ROAD NAME	LENGTH	TERMINI	SURFACE	MTC. LEVEL	CLOSURE	TYPE	DISTRICT	FUNC. CLASS	TRAF OBJ.	TEMPL.	ROAD LOG	JURISDICTION	HWY. SFTY.	NO. OF LANES
46N60C	JOHNNY O'NEIL	1.70	46N60 - N	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N60D	JOHNNY O'NEIL	0.50	46N60 - SW	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N60E	JOHNNY O'NEIL	0.70	46N60 - SE	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N60F	JOHNNY O'NEIL	0.70	46N60 - SW	NATIVE	1	Y	RB	51	L	P	H	Y	FS	N	1
46N60G	JOHNNY O'NEIL	0.30	46N60 - E	NATIVE	2	N		51	L	A	H	Y	FS	N	1
46N61	MAPLE SPRINGS	5.70	46N65 - 46N64	CRUSHED	3	N		51	L	E	B	Y	FS	Y	1
46N61A	MAPLE SPRINGS	2.90	46N61 - SW	NATIVE	1	Y	SS	51	L	P	H	Y	FS	N	1
46N61B	MAPLE SPRINGS	0.85	46N61 - N	NATIVE	1	Y	SS	51	L	P	H	Y	FS	N	1
46N62	BLUE MTN	2.00	46N64 - MP 2.00	NATIVE	2	N		51	L	A	H	Y	FS	N	1
46N62	BLUE MTN	1.85	MP 2.00 - SE	NATIVE	2	Y	EAR	51	L	P	H	Y	FS	N	1
46N63	BLUE WALKER	3.00	46N67 - 46N80X	NATIVE	2	N	TR	51	L	P	H	N	FS	N	1
46N64	TOM WALKER	2.70	8D006 - 46N65	CRUSHED	3	N		51	C	E	B	Y	FS	Y	1
46N64	TOM WALKER	4.30	46N65 - MP 7.0	CRUSHED	3	N		51	L	E	B	Y	FS	Y	1
46N64	TOM WALKER	8.10	MP 7.00 - DIST BDY	NATIVE	3	N		51	L	E	B	Y	FS	Y	1
46N65	LAKE MOUNTAIN	3.95	46N64 - 46N65A	CRUSHED	3	N		51	L	E	D	Y	FS	Y	1
46N65	LAKE MOUNTAIN	9.55	46N65A - MP 13.50	NATIVE	3	N		51	L	E	B	Y	FS	Y	1
46N65	LAKE MOUNTAIN	1.70	MP 13.5 - LAKE MTN LO	NATIVE	3	S	SS	51	L	A	H	Y	FS	Y	1
46N65A	LAKE MOUNTAIN	1.05	46N65 - MP 1.05	NATIVE	1	Y	SS	51	L	P	H	Y	FS	N	1
46N65A	LAKE MOUNTAIN	0.70	MP 1.05 - NE	NATIVE	1	Y	TR	51	L	P	H	N	FS	N	1
46N65B	LAKE MOUNTAIN	0.50	46N65 - NW	NATIVE	1	Y	SS	51	L	P	H	Y	FS	N	1
46N66	GRIDER CREEK	7.40	8D001 - DIST BDY	PITRUN	3	N		51	C	E	B	Y	FS	Y	1
46N66A	GRIDER CREEK	2.40	46N66 - N	NATIVE	1	Y	L&E	51	L	P	H	N	FS	N	1
46N67	BARK SHANTY	4.00	46N64 - NE	NATIVE	2	N		51	L	A	B	Y	FS	N	1
46N68	WEST GRIDER RIDGE	3.80	46N66 - 46N77	NATIVE	1	Y	SS	51	L	P	H	N	FS	N	1
46N69	EVANS	0.60	46N02X - NW	NATIVE	1	Y	RB	51	L	P	H	N	FS	N	1
46N70	WEST GRIDER	1.25	46N66 - SE	NATIVE	2	N		51	L	A	H	Y	FS	N	1
46N70Y	EAST GRIDER VIEW	1.00	46N68 - SW	NATIVE	1	Y		51	L	P	H	N	FS	N	1
46N71	WEST GRIDER RIDGE VIEW	1.40	46N66 - SE	NATIVE	1	Y	SS	51	L	P	H	Y	FS	N	1
46N71Y	EAST GRIDER RIDGE	0.80	46N68 - SW	NATIVE	1	Y		51	L	P	H	N	FS	N	1
46N73	PIG TAIL	0.80	7C002 - S	NATIVE	2	N		52	L	A	H	Y	FS	N	1
46N74	WOLF CREEK	3.65	7C002 - 46N78	NATIVE	2	S	ST	52	L	A	H	Y	FS	N	1
46N74A	WOLF CREEK	0.60	46N74 - 46N77	PITRUN	2	S		52	L	A	H	Y	FS	N	1
46N75	ARNDT	3.40	7C002 - MP 3.40	PITRUN	2	S	ST	52	L	A	H	Y	FS	N	1
46N75	ARNDT	1.10	MP 3.40 - 46N78	NATIVE	2	S		52	L	A	H	Y	FS	N	1
46N75A	ARNDT	0.75	46N75 - N	NATIVE	1	S		52	L	A	H	N	FS	N	1
46N76	JOE MILES	1.50	7C002 - MP 1.50	PITRUN	2	N		52	L	A	D	Y	FS	Y	1
46N76	JOE MILES	3.60	M.P. 1.50 - M.P.	PITRUN	2	S	SS/ST	52	L	A	H	Y	FS	N	1

ROAD NUMBER	ROAD NAME	LENGTH	TERMINI	SURFACE	MTC. LEVEL	CLOSURE	TYPE	DISTRICT	FUNC. CLASS	TRAF OBJ.	TEMPL.	ROAD LOG	JURISDICTION	HWY. SFTY.	NO. OF LANES
			5.10												
46N76	JOE MILES	2.70	M.P. 5.10 - 7C002	NATIVE	2	S		52	L	A	H	Y	FS	N	1
46N76A	JOE MILES	0.70	46N76 - NE	NATIVE	1	Y	EAR	52	L	P	H	N	FS	N	1
46N76C	JOE MILES	1.40	46N76 - SE	NATIVE	2	S		52	L	A	H	Y	FS	N	1
46N76E	JOE MILES	0.40	46N76 - NE	NATIVE	1	Y	HW	52	L	P	H	Y	FS	N	1
46N76Y	MAPLE TIE	2.60	46N65 - 46N61	NATIVE	2	S	SS	51	L	A	H	Y	FS	N	1
46N77	GRIDER RIDGE	10.50	46N03 - DIST BDY	CRUSHED	3	S	ST	52	L	E	D	Y	FS	Y	1
46N77	GRIDER RIDGE	2.50	DIST BDY - MP 13.00	NATIVE	2	S		51	L	A	B	N	FS	Y	1
46N77	GRIDER RIDGE	1.50	MP 13.00 - N	NATIVE	2	S	TR	51	L	D	H	N	FS	Y	1
46N77A	GRIDER RIDGE	0.80	46N77 - SW	NATIVE	2	S		52	L	A	H	Y	FS	N	1
46N77E	GRIDER RIDGE	1.05	46N77 - SE	NATIVE	1	Y	SS	51	L	P	H	Y	FS	N	1
46N77F	GRIDER RIDGE	1.15	46N77 - N	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N78	THREE BISCUIT	6.50	7C002 - SEC 5	NATIVE	2	S	ST	52	L	A	H	Y	FS	N	1
46N78Y	EAST GRIDER	3.00	46N77 - 46N77	NATIVE	2	S		52	L	A	H	Y	FS	N	1
46N79	BEAR HAVEN	1.60	46N60 - SW	NATIVE	1	Y	RB	51	L	P	H	Y	FS	N	1
46N80X	BIG BLUE	4.00	46N67 - 46N64	NATIVE	1	Y	SS	51	L	P	H	Y	FS	N	1
46N80XA	BIG BLUE	0.85	46N80X - S	NATIVE	1	Y		51	L	P	H	N	FS	N	1
46N80XB	BIG BLUE	0.40	46N80X - E	NATIVE	1	Y		51	L	P	H	N	FS	N	1
46N81	MASONIC BAR	5.15	46N66 - 46N81D	NATIVE	2	N		51	L	A	B	Y	FS	N	1
46N81	MASONIC BAR	1.40	46N81D - W	NATIVE	2	Y	EAR	51	L	D	D	Y	FS	N	1
46N81A	MASONIC BAR	1.00	46N81 - NW	NATIVE	2	N		51	L	A	H	N	FS	N	1
46N81D	MASONIC BAR	0.45	46N81 - NW	NATIVE	1	Y	SS	51	L	P	H	N	FS	N	1
46N83Y	UPPER MASONIC	1.25	46N95 - 46N83YB	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N83Y	UPPER MASONIC	1.55	46N83YB - W	NATIVE	1	Y	EAR	51	L	D	H	N	FS	N	1
46N83YA	UPPER MASONIC	0.70	46N83Y - NE	NATIVE	2	S		51	L	A	H	Y	FS	N	1
46N83YB	UPPER MASONIC	0.20	46N83Y - NE	NATIVE	2	S		51	L	A	H	N	FS	N	1
46N83YC	UPPER MASONIC	0.15	46N83Y - W	NATIVE	1	Y	EAR	51	L	D	H	N	FS	N	1
46N84	SARAH TOTTEN CG	0.20	HWY 96 - CG	CHIPSEAL	4	N		51	L	E	D	N	FS	Y	1
46N84A	SARAH TOTTEN CG	0.10	HWY 96 - HWY 96	CRUSHED	4	S	SS	51	L	E	H	N	FS	Y	1
46N85	O'NEIL CREEK CG	0.10	HWY 96 - MP 0.25	PAVED	4	N		51	L	E	B	N	FS	Y	1
46N85	O'NEIL CREEK CG	0.20	MP 0.25 - CG	PAVED	4	S	SS	51	L	E	B	N	FS	Y	1
46N85A	O'NEIL CREEK CG	0.15	46N85 - 46N85	PAVED	4	S		51	L	E	D	N	FS	Y	1
46N85Y	SEIAD VALLEY	0.30	HWY 96 - ST. MTC YD	PAVED	4	N		51	L	E	B	N	FS	Y	1
46N85Y	SEIAD VALLEY	0.70	STATE MTCE YD - S	NATIVE	2	N		51	L	A	H	N	FS	N	1
46N86	SEIAD GUARD STATION	0.25	HWY 96 - MP 0.25	PAVED	5	N		51	L	E	H	N	FS	Y	1
46N86	SEIAD GUARD STATION	0.25	MP 0.25 - GS	PAVED	5	S	ST	51	L	E	H	N	FS	Y	1
46N95	CHINA PEAK LOOKOUT	2.80	7C002 - CHINA	NATIVE	2	S	ST	52	L	A	H	Y	FS	N	1

ROAD NUMBER	ROAD NAME	LENGTH	TERMINI	SURFACE	MTC. LEVEL	CLOSURE	TYPE	DISTRICT	FUNC. CLASS	TRAF. OBJ.	TEMPL.	ROAD LOG	JURISDICTION	HWY. SFTY.	NO. OF LANES
			PK LO												
46N95A	CHINA PEAK LOOKOUT	1.40	46N95 - N	NATIVE	2	S		51	L	A	H	N	FS	N	1
47N17Y	SHWARTZ	2.45	47N77 - W	NATIVE	1	Y	SS	51	L	P	H	Y	FS	N	1
47N17YA	SHWARTZ	1.65	47N17Y - NE	NATIVE	1	Y		51	L	P	H	Y	FS	N	1
47N25Y	EXETER	1.90	46N50 - NW	NATIVE	1	Y	SS	51	L	P	H	Y	FS	N	1
47N25YA	EXETER	0.15	47N25Y - SW	NATIVE	1	Y		51	L	P	H	Y	FS	N	1
47N72	MALLOY	2.45	47N89Y - NW	NATIVE	2	S		51	L	A	H	Y	FS	N	1
47N72A	MALLOY	0.80	47N72 - NE	NATIVE	1	Y	RB	51	L	P	H	Y	FS	N	1
47N74	LAMISH	0.90	47N70 - 47N76	PITRUN	2	S	SS	51	L	A	H	N	FS	N	1
47N74	LAMISH	2.75	47N76 - N	NATIVE	2	S		51	L	A	H	Y	FS	N	1
47N74A	LAMISH	0.65	47N74 - NE	NATIVE	2	S		51	L	A	H	Y	FS	N	1
47N76	JOEY	1.65	47N74 - NW	PITRUN	2	S		51	L	A	H	Y	FS	N	1
47N77D	FISH GULCH	1.00	47N77 - S	NATIVE	2	N		51	L	A	H	N	FS	N	1
47N80	LILY PAD	3.80	48N20 - FOR BDY	NATIVE	2	N		51	L	A	H	Y	FS	N	1
47N89	COPPER VIEW	2.05	47N26 - N	NATIVE	1	Y		51	L	P	H	Y	FS	N	1
47N89Y	EAST FORK VIEW	1.05	47N72 - SW	NATIVE	1	Y	SS	51	L	P	H	Y	FS	N	1
48N20	SEIAD CREEK	3.10	47N80 - MP 3.10	NATIVE	2	N		51	C	A	B	Y	FS	Y	1
48N20	SEIAD CREEK	4.95	MP 3.10 - 8D002	CRUSHED	2	N		51	C	A	B	Y	FS	Y	1

429.60

DEFINITION OF TERMS

SURFACE - road surface type.

Native
Crushed
Chip Seal
Pitrun

MAINTENANCE LEVEL

1 = intermittent roads not maintained for use
2 = roads maintained for use by high clearance vehicles
3 = roads have an aggregate surface and are maintained for travel by a prudent driver in a standard passenger car

CLOSURE

S = seasonal
Y = year long closure
N = no closure

TYPE

SS = self supporting gate
HW = heavyweight gate
L & E = log and earth barrier
TR = brush
EAR = earth
RB = removable barrier

DEFINITION OF TERMS (Continued)

DISTRICT

51 = Oak Knoll
52 = Happy Camp

FUNCTIONAL CLASS

L = local
C = collector

TRAFFIC OBJECTIVE

A = accept traffic
D = discourage traffic
E = encourage traffic
P = prohibit traffic (Road Order)

TEMPLATE

B = cross section includes ditch and shoulder
D = cross section includes ditch
H = does not have ditch, shoulder, or berm

HIGHWAY SAFETY ACT

Y = Yes, Act applies
N = No, Act does not apply
If the road is passable by a passenger car, Act applies

Appendix G - Short-Term Timber Program Analysis

This appendix documents the process used to take a realistic look at the current Matrix landbase and identify lands that could realistically provide timber outputs in the next ten years. A significant reduction of Forest Plan identified Matrix lands from 36,200 acres to 3,405 acres is expected to be available in the short-term. The 3,405 acres identified in the analysis are only to be used for timber planning purposes for the next decade. It should be pointed out that 36,200 are still designated in the Forest Plan as land available for timber harvest until such time as a planning amendment formally changes the lands available.

Timber Analysis Assumptions:

- GTR is based on an average rotation of 130 years.
- Thinning assumption: 1) Natural stands would be entered no more than every 20-30 years for commercial thinning. Only 3G strata was used for assessing acreage for thinning. It was assumed that approximately a third of the available acres would be thinned per decade. Expected volumes were assumed to be approximately 4 mbf/ac. for thinning in natural stands. 2) Some expectations were assumed from the older plantations. It was assumed that approximately a quarter of the existing older plantations would be available for commercial thinning opportunities during the next decade with volume expectations of approximately 2 mbf/ac.
- Sanitation/Salvage assumption: An assumption was made that approximately 1/3 of the M3P, M4P, and M4G acres would be available for sanitation/salvage opportunities with average volume estimates of 2 mbf/ac.
- Salamander acres was assumed at 50% of remaining strata. This is the value used during the long range timber plan assessment.
- Unmapped Riparian Reserve acreage was assumed at 0% in this analysis. However refinements of riparian reserve acres will occur at the project scale.

-- Green Tree Retention (GTR) acreage reduction is based on 15% retention (per Forest Plan Standard & Guide).

Current Matrix Strata (based on Klamath LMP timber type strata and WA discretionary Matrix):

Shrub/Pole -	1,479 ac.
M3P -	2,351 ac.
M3G -	2,880 ac.
M4P -	43 ac.
M4G -	<u>1,259 ac.</u>
TOTAL	8,012 ac.

Salamander	4,006
GTR Ac. -	601 ac.
Remaining Matrix Ac. -	3,405 ac.

Remaining Strata:

Shrub/Pole -	613 ac.
M3P -	987 ac.
M3G -	1,226 ac.
M4P -	34 ac.
M4G -	<u>545 ac.</u>
TOTAL	3,405 ac.

POTENTIAL HARVEST ACRES PER DECADE

Potential **GTR**/decade = 3,405 ac. ÷ 13 decades = **262 ac./decade**

Potential **Thinning**/decade = 286 ÷ 4 = 72 ac./decade and 1,226 ÷ 3 = 407 ac./decade for a total of **479 ac./decade**

Potential **Sanitation/Salvage**/decade = 1,304 ac. ÷ 3 = **435 ac./decade**

POTENTIAL VOLUME PER DECADE

GTR = 262 ac./decade x 22.5 mbf/ac. = 5,895 mbf/decade

Thinning (plantations > 30 yrs.) = 72 ac. x 2 mbf/ac. = 144 mbf/decade

Thinning (M3G) = 479 ac. x 4 mbf/ac. = 1,916
mbf/decade

Sanitation/Salvage (M3P) = 435 ac./decade x 2
mbf/ac. = 870 mbf/decade

Total = 8,825 mbf/decade

POTENTIAL APPROPRIATED PRE-COMMERCIAL THINNING

There are approximately 330 acres of plantations under 30 years of age that should be assessed for possible pre-commercial thinning with appropriated dollars. Plantations should be considered for thinning if they can be accomplished for no more than \$275/ac.

Current strata breakout is as follows:

Shrub/Pole:	18%
Mid-Seral:	65%
Late-Seral:	17%

With 15% GTR some of the regeneration harvesting should occur in older decadent late-seral stands, stands that are currently understocked, and mid successional stands that have culminated. Based on this analysis roughly 70-80 acres should be regenerated in the late successional stands with the remaining coming from mid successional stands. Field verification will be necessary to determine stand conditions and actual seral conditions remaining in available ground.