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Department of
Agriculture

Forest
Service

Pacific Southwest
Region

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Draft Environmental Impact Statement

Motorized Travel Management (formerly Motorized Route Designation)

Appendices

Klamath National Forest
California



List of Appendices

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Appendix A: Route-specific Data

Introduction

Appendix A displays the site specific resource information and required mitigation measures for all unauthorized routes proposed as additions to the National Forest Transportation System (NFTS) and any maintenance level 1 roads that are proposed to be opened to public motorized use in the alternatives.

Tables A-1 through A-5 below displays the following information for each proposed route as follows:

- The unique **route ID** number for each proposed route that is used throughout the document and on maps.
- The **current status** of each proposed route. The current status is one of the following 1) A maintenance Level 1 NFTS road not currently authorized for motorized use, 2) An unauthorized route, which may have been user created due to repeated motorized use by the public, or a former temporary road constructed as part of a vegetation management project or other authorized activity, but never intended for long term motorized use.
- The **class of vehicle and season of use** that would be authorized should the route be added to the NFTS in each respective alternative.

Table A-1. Maintenance level 1 roads changing to maintenance level 2 roads for each alternative including class of vehicle and season of use

Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use						
41S10	4.66	ALL	Yearround			ALL	Yearround	ALL	Yearround
40N51	5.3	ALL	Yearround						

Table A-2. OHV areas and season of use for each alternative

Name	Size (acres)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use						
Humbug	4.36	OHV	Yearround			OHV	5/1 – 10/31	OHV	5/1 – 10/31
Juniper Flat	48.1	OHV	Yearround			OHV	Yearround	OHV	Yearround

Table A-3. Additions of unauthorized routes to NFTS as maintenance level 2 roads for each alternative including class of vehicle and season of use

Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use	Vehicle Class	Season of Use	Vehicle Class	Season of Use	Vehicle Class	Season of Use
47N65.4	0.84	ALL	Yearround						
45N41.2	2.02	ALL	5/1-10/31						
45N53.3	0.11	ALL	5/1-10/31			ALL	5/1-10/31	ALL	5/1-10/31
45N88.1	1.97	ALL	5/1-10/31						
45N88.1B1	0.25	ALL	5/1-10/31						
45N88.1E	0.54	ALL	5/1-10/31						
45N88.2	3					All Trail Class Vehicles	5/1-10/31	All Trail Class Vehicles	5/1-10/31
46N24.1	0.06	ALL	5/1-10/31			ALL	5/1-10/31	ALL	5/1-10/31
46N24.2	0.12	Vehicles 50" or less in width	5/1-10/31			Vehicles 50" or less in width	5/1-10/31	Vehicles 50" or less in width	5/1-10/31
46N24.4	1.88	Vehicles 50" or less in width	5/1-10/31			Vehicles 50" or less in width	5/1-10/31	Vehicles 50" or less in width	5/1-10/31
46N24.4A	0.2					Vehicles 50" or less in width	5/1-10/31	Vehicles 50" or less in width	5/1-10/31
46N24.4B	0.27	Vehicles 50" or less in width	5/1-10/31			Vehicles 50" or less in width	5/1-10/31	Vehicles 50" or less in width	5/1-10/31
46N24.5	0.77					Vehicles 50" or less in width	5/1-10/31	Vehicles 50" or less in width	5/1-10/31
46N24.6	0.96 (1) 0.76 (5,6)	All Trail Class Vehicles	5/1-10/31			All Trail Class Vehicles	5/1-10/31	All Trail Class Vehicles	5/1-10/31
46N30.1	0.55	ALL	5/1-10/31						
46N30.2	0.29	ALL	5/1-10/31						
46N30.3	0.16	ALL	5/1-10/31						
46N30.4	0.53	ALL	5/1-10/31						
46N30.5	0.22	ALL	5/1-10/31						
46N30.9	0.18	ALL	5/1-10/31			Vehicles 50" or less in width	5/1-10/31	Vehicles 50" or less in width	5/1-10/31
7H002.2	0.16	ALL	5/1-10/31			ALL	5/1-10/31	ALL	5/1-10/31
7H002.3	0.43	ALL	5/1-10/31						
7H002.4	0.29			All Trail Class Vehicles	5/1-10/31	All Trail Class Vehicles	5/1-10/31	All Trail Class Vehicles	5/1-10/31

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Appendix A: Route-specific Data**

Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use	Vehicle Class	Season of Use	Vehicle Class	Season of Use	Vehicle Class	Season of Use
7J001.11	0.29	Vehicles 50" or less in width	5/1-10/31			Vehicles 50" or less in width	5/1-10/31	Vehicles 50" or less in width	5/1-10/31
7J001.11A	0.41	Vehicles 50" or less in width	5/1-10/31			Vehicles 50" or less in width	5/1-10/31	Vehicles 50" or less in width	5/1-10/31
7J001.9	0.84	Vehicles 50" or less in width	5/1-10/31			Vehicles 50" or less in width	5/1-10/31	Vehicles 50" or less in width	5/1-10/31
7J002.6	0.35					ALL	5/1-10/31		
7J031.5	0.05					Motorcycle only	5/1-10/31	Motorcycle only	5/1-10/31
7J031.5A	0.21	Motorcycle only	5/1-10/31			Motorcycle only	5/1-10/31		
8J002.3	0.75 (5) 0.24 (6)					Vehicles 50" or less in width	5/1-10/31	Vehicles 50" or less in width	5/1-10/31
8J002.3A	0.14					Vehicles 50" or less in width	5/1-10/31		
8J002.3C	0.14					Vehicles 50" or less in width	5/1-10/31	Vehicles 50" or less in width	5/1-10/31
6.1	0.18	ALL	Yearround	ALL	Yearround	ALL	Yearround	ALL	Yearround
6.4	0.74	ALL	Yearround	ALL	Yearround	ALL	Yearround	ALL	Yearround
15.3	1.39	ALL	Yearround						
15.5	0.71	ALL	Yearround						
19.5	0.22	ALL	Yearround	ALL	Yearround	ALL	Yearround	ALL	Yearround
77.1	0.97	ALL	Yearround						
77.5	0.44	ALL	Yearround	ALL	Yearround	ALL	Yearround	ALL	Yearround
77.8	0.20	ALL	Yearround						
43N03A.1	1.07	ALL	Yearround						
43N15.2	1.49	ALL	Yearround						
43N20B.1	1.00	ALL	Yearround			ALL	Yearround	ALL	Yearround
43N35.1	0.37	ALL	Yearround			ALL	Yearround		
43N43A.1	0.22	ALL	Yearround						
43N43B.1	0.44	ALL	Yearround						
43N46.1	0.56	ALL	Yearround						
43N46.1A	0.33	ALL	Yearround						
43N67.2	0.31	ALL	Yearround			ALL	Yearround		
44N02Y.1	1.49	ALL	Yearround						
44N02Y.2	0.89	ALL	Yearround						
44N03.1	0.62	ALL	Yearround						
44N03Y.1	0.04	ALL	Yearround						

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		2		4		5		6	
		Vehicle Class	Season of Use						
44N03Y.2	1.32	ALL	Yearround						
44N03Y.2A	0.39	ALL	Yearround						
44N03Y.3	0.33	ALL	Yearround						
44N06Y.3	0.39	ALL	Yearround			ALL	Yearround	ALL	Yearround
44N08.7	1.08	ALL	Yearround	ALL	Yearround	ALL	Yearround	ALL	Yearround
44N14.3	0.97	ALL	Yearround						
44N14A.1	0.68	ALL	Yearround						
44N16.1	0.14	ALL	Yearround			ALL	Yearround	ALL	Yearround
44N16.3	1.75	ALL	Yearround						
44N27.3	0.51	ALL	Yearround						
44N27G.1A	0.30	ALL	Yearround						
44N27Y.1A	0.21	ALL	Yearround						
44N27Y.2	0.52	ALL	Yearround			ALL	Yearround	ALL	Yearround
44N32Y.1	1.40	ALL	Yearround						
44N56B.1	0.50	ALL	Yearround						
44N68.2	0.57	ALL	Yearround			ALL	Yearround	ALL	Yearround
44N75C.1	0.42	ALL	Yearround	ALL	Yearround	ALL	Yearround	ALL	Yearround
44N83.1	0.09	ALL	Yearround			ALL	Yearround	ALL	Yearround
44N84.1	0.84	ALL	Yearround			ALL	Yearround		
44N89.1	1.83	ALL	Yearround			ALL	Yearround	ALL	Yearround
44N90A.1	0.27	ALL	Yearround			ALL	Yearround	ALL	Yearround
45N03.1	0.67	ALL	Yearround						
45N03.14	0.07	ALL	Yearround						
45N03.4	0.58	ALL	Yearround						
45N03.7	0.56	ALL	Yearround						
45N03C.1	0.81	ALL	Yearround						
45N22Y.2	0.81	ALL	Yearround	ALL	Yearround	ALL	Yearround	ALL	Yearround
45N62.1	0.47	ALL	Yearround						
46N04.6	0.22	ALL	Yearround			ALL	Yearround	ALL	Yearround
5Q002.6	1.82	ALL	Yearround			ALL	Yearround	ALL	Yearround
5Q002.9	1.14	ALL	Yearround						
6.4A	0.57	ALL	Yearround	ALL	Yearround	ALL	Yearround	ALL	Yearround
6P01.2	0.34	ALL	Yearround			ALL	Yearround	ALL	Yearround
6P01.3	0.11	ALL	Yearround						
6P01.4	0.38	ALL	Yearround						
6Q003.1A	0.14	ALL	Yearround						
70E.1	0.24	ALL	Yearround						
77.1A	0.28	ALL	Yearround						
8Q002.2	0.51	ALL	Yearround	ALL	Yearround	ALL	Yearround	ALL	Yearround
8Q002.3	1.43	ALL	Yearround			ALL	Yearround	ALL	Yearround
8Q003.1	0.34	ALL	Yearround						
8Q01.11	1.95	ALL	Yearround						
8Q01.3	0.90	ALL	Yearround			ALL	Yearround	ALL	Yearround

Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use						
S-97.14B	0.08	ALL	Yearround						
S-97.14C	0.07	ALL	Yearround						
S-97.2A1	1.13	ALL	Yearround						
S-97.2A1A	0.08	ALL	Yearround						
S-97.2B	1.49	ALL	Yearround						

Table A-4. Additions of unauthorized routes to NFTS as motorized trails for each alternative including class of vehicle and season of use

Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use	Vehicle Class	Season of Use	Vehicle Class	Season of Use	Vehicle Class	Season of Use
43012001	0.44	All Trail Class Vehicles	5/1 - 10/31	All Trail Class Vehicles	5/1 - 10/31	All Trail Class Vehicles	5/1 - 10/31	All Trail Class Vehicles	5/1 - 10/31
45080101	0.45					Vehicles 50" or less in width	5/1 - 10/31	Vehicles 50" or less in width	5/1 - 10/31
45080104	0.23					Vehicles 50" or less in width	5/1 - 10/31	Vehicles 50" or less in width	5/1 - 10/31
45080201	0.14					Vehicles 50" or less in width	5/1 - 10/31	Vehicles 50" or less in width	5/1 - 10/31
45080202	0.1					Vehicles 50" or less in width	5/1 - 10/31	Vehicles 50" or less in width	5/1 - 10/31
45080205	0.74	Vehicles 50" or less in width	5/1 - 10/31			Vehicles 50" or less in width	5/1 - 10/31	Vehicles 50" or less in width	5/1 - 10/31
45080207	0.65	Vehicles 50" or less in width	5/1 - 10/31			Vehicles 50" or less in width	5/1 - 10/31	Vehicles 50" or less in width	5/1 - 10/31
45080209	0.18	Vehicles 50" or less in width	Yearround						
45080301	0.43	Vehicles 50" or less in width	5/1 - 10/31			Vehicles 50" or less in width	5/1 - 10/31	Vehicles 50" or less in width	5/1 - 10/31

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Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use	Vehicle Class	Season of Use	Vehicle Class	Season of Use	Vehicle Class	Season of Use
45081003	0.24	All Trail Class Vehicles	Yearround						
45081203	0.27	All Trail Class Vehicles	Yearround						
46082601	0.38	Vehicles 50" or less in width	5/1 - 10/31			Vehicles 50" or less in width	5/1 - 10/31	Vehicles 50" or less in width	5/1 - 10/31
46082701	2.46					Vehicles 50" or less in width	5/1 - 10/31		
46083301	1.13	Motorcycle Only	5/1 - 10/31			Motorcycle Only	5/1 - 10/31	Motorcycle Only	5/1 - 10/31
46083401	2.43	Motorcycle Only	5/1 - 10/31			Motorcycle Only	5/1 - 10/31	Motorcycle Only	5/1 - 10/31
46083501	0.78 (1) 0.57 (5,6)	Vehicles 50" or less in width	5/1 - 10/31			Vehicles 50" or less in width	5/1 - 10/31	Vehicles 50" or less in width	5/1 - 10/31
46083502	0.94	Vehicles 50" or less in width	5/1 - 10/31			Vehicles 50" or less in width	5/1 - 10/31	Vehicles 50" or less in width	5/1 - 10/31
46083503	0.38	Vehicles 50" or less in width	5/1 - 10/31			Vehicles 50" or less in width	5/1 - 10/31	Vehicles 50" or less in width	5/1 - 10/31

Table A-5. Additions of unauthorized routes to nfts as maintenance level 2 roads to access dispersed recreation sites for each alternative including class of vehicle and season of use

Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use						
51-02	0.29	All	Yearround			All	Yearround	All	Yearround
51-03	0.02	All	Yearround			All	Yearround	All	Yearround
51-03a	0.04					All	Yearround		
51-05	0.02	All	Yearround			All	Yearround	All	Yearround
51-05a	0.03					All	Yearround		
51-07	0.04	All	Yearround						
51-08	0.09	All	Yearround						
51-09	0.29	All	Yearround						
51-10	0.03	All	Yearround						

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Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use	Vehicle Class	Season of Use	Vehicle Class	Season of Use	Vehicle Class	Season of Use
51-11	0.10	All	Yearround			All	Yearround	All	Yearround
51-11a	0.13					All	Yearround		
51-12	0.34	All	Yearround			All	Yearround	All	Yearround
51-13	0.09	All	Yearround						
51-14	0.05	All	Yearround			All	Yearround	All	Yearround
51-15	0.12	All	Yearround			All	Yearround	All	Yearround
51-16	0.09	All	Yearround						
51-17	0.09	All	Yearround						
51-18	0.14	All	Yearround			All	Yearround	All	Yearround
51-22	0.09	All	Yearround			All	Yearround	All	Yearround
51-23	0.09	All	Yearround						
51-24	0.09	All	Yearround						
51-25	0.16	All	Yearround			All	Yearround	All	Yearround
51-26	0.20	All	Yearround			All	Yearround	All	Yearround
51-27	0.09	All	Yearround						
51-28	0.11	All	Yearround			All	Yearround	All	Yearround
51-28a	0.03					All	Yearround		
51-29	0.03	All	Yearround			All	Yearround	All	Yearround
51-30	0.14	All	Yearround			All	Yearround	All	Yearround
51-31	0.07	All	Yearround			All	Yearround	All	Yearround
51-32	0.09	All	Yearround						
51-33	0.65	Highway Legal Only	Yearround			Highway Legal Only	Yearround	Highway Legal Only	Yearround
51-34	0.03	Highway Legal Only	Yearround			Highway Legal Only	Yearround	Highway Legal Only	Yearround
51-35	0.09	All	Yearround						
51-36	0.09	All	Yearround						
51-37	0.09	All	Yearround						
51-38	0.02	All	Yearround			All	Yearround	All	Yearround
51-39	0.09	All	Yearround						
51-39a	0.07					All	Yearround		
51-40	0.09	All	Yearround						
51-41	0.02	All	Yearround			All	Yearround	All	Yearround
51-41a	0.26					All	Yearround		
51-41b	0.04					All	Yearround		
51-42	0.02	All	Yearround			All	Yearround	All	Yearround
51-43	0.02	All	Yearround			All	Yearround	All	Yearround
51-44	0.09	All	Yearround						
51-45	0.09	All	Yearround						
51-46	0.18	All	Yearround			All	Yearround	All	Yearround
51-47	0.02					All	Yearround		
52-01	0.09	All	Yearround						

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Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use	Vehicle Class	Season of Use	Vehicle Class	Season of Use	Vehicle Class	Season of Use
52-02	0.09	All	Yearround						
52-03	0.65	All	Yearround						
52-04	0.25	All	Yearround			All	Yearround	All	Yearround
52-05	0.09	All	Yearround			All	Yearround	All	Yearround
52-05a	0.54					All	Yearround		
52-06	0.28	All	Yearround			All	Yearround	All	Yearround
52-07	0.11	All	Yearround			All	Yearround	All	Yearround
52-08	0.04	All	Yearround			All	Yearround	All	Yearround
52-09	0.16	All	Yearround			All	Yearround	All	Yearround
52-09b	0.06					All	Yearround		
52-10	1.37	All	Yearround			All	Yearround	All	Yearround
52-10b	0.08					All	Yearround		
52-12	0.04	All	Yearround			All	Yearround	All	Yearround
52-13	0.09	All	Yearround			All	Yearround	All	Yearround
52-14	0.09	All	Yearround						
52-15	0.08	All	Yearround			All	Yearround		
52-16	0.23	All	Yearround			All	Yearround	All	Yearround
52-17	0.08	All	Yearround			All	Yearround	All	Yearround
52-18	0.28	All	Yearround			All	Yearround	All	Yearround
52-19	0.09	All	Yearround						
52-20	0.17	All	Yearround			All	Yearround	All	Yearround
52-20a	0.03					All	Yearround		
52-21	0.09	All	Yearround						
52-22	0.09	All	Yearround						
52-23	0.06	All	Yearround			All	Yearround	All	Yearround
52-23a	0.16					All	Yearround		
52-BB	0.09			Highway Legal Only	Yearround	Highway Legal Only	Yearround	Highway Legal Only	Yearround
54-02	0.09	All	Yearround						
54-05	0.09	All	Yearround			All	Yearround	All	Yearround
54-07	0.44	All	Yearround			All	Yearround	All	Yearround
54-08	0.09	All	Yearround			All	Yearround	All	Yearround
54-09	0.18	All	Yearround			All	Yearround	All	Yearround
54-10	0.14	All	Yearround			All	Yearround	All	Yearround
54-11	0.63	All	Yearround			All	Yearround	All	Yearround
54-12	0.10	All	Yearround			All	Yearround	All	Yearround
54-13	0.05	All	Yearround			All	Yearround	All	Yearround
54-13a	0.14					All	Yearround		
54-16	0.09	All	Yearround						
54-17	0.06	All	Yearround			All	Yearround	All	Yearround
54-18	0.44	All	Yearround			All	Yearround	All	Yearround
54-20	0.09	All	Yearround						
54-23	0.09	All	Yearround						

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Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use						
54-24	0.05	All	Yearround			All	Yearround	All	Yearround
54-25	0.09	All	Yearround						
54-25a	0.02					All	Yearround		
54-28	0.01	All	Yearround			All	Yearround	All	Yearround
54-29	0.17	All	Yearround			All	Yearround	All	Yearround
54-30	0.05	All	Yearround			All	Yearround	All	Yearround
54-31	0.07	All	Yearround			All	Yearround	All	Yearround
54-32a	0.02					All	Yearround		
54-32b	0.12					All	Yearround		
54-33	0.09	All	Yearround						
54-36	0.01	All	Yearround			All	Yearround	All	Yearround
54-37	0.03	All	Yearround			All	Yearround	All	Yearround
54-39	0.26	All	Yearround			All	Yearround	All	Yearround
54-40	0.01	All	Yearround			All	Yearround	All	Yearround
54-40a	0.08					All	Yearround		
54-42	0.09	All	Yearround						
54-43	0.10	All	Yearround			All	Yearround	All	Yearround
54-43a	0.04					All	Yearround		
54-44	0.04	All	Yearround			All	Yearround	All	Yearround
54-46a	0.05					All	Yearround	All	Yearround
54-46	0.09	All	Yearround						
54-47	0.33	All	Yearround			All	Yearround	All	Yearround
54-48	0.10	All	Yearround			All	Yearround	All	Yearround
54-49	0.04	All	Yearround			All	Yearround	All	Yearround
54-50a	0.56					All	Yearround		
54-51	0.09	All	Yearround						
54-52	0.03	All	Yearround			All	Yearround	All	Yearround
54-53	0.10	All	Yearround			All	Yearround	All	Yearround
54-54	0.06	All	Yearround			All	Yearround	All	Yearround
54-55	0.22	All	Yearround			All	Yearround	All	Yearround
54-56	0.02	All	Yearround			All	Yearround	All	Yearround
54-57	0.13	All	Yearround			All	Yearround	All	Yearround
54-58	0.03	All	Yearround			All	Yearround	All	Yearround
54-59	0.22	All	Yearround			All	Yearround	All	Yearround
54-60	0.09	All	Yearround						
54-61	0.09	All	Yearround						
54-62	0.09	All	Yearround			All	Yearround	All	Yearround
54-63	0.09	All	Yearround						
55-01	0.09	All	Yearround						
55-01a	0.04					All	Yearround		
55-03	0.09	All	Yearround						
55-05	0.09	All	Yearround						
55-06	0.09	All	Yearround						

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Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use						
55-06a	0.17					All	Yearround		
55-08	0.09	All	Yearround						
55-13	0.50	All	Yearround			All	Yearround	All	Yearround
55-14	0.64	All	Yearround			All	Yearround	All	Yearround
55-15	0.15	All	Yearround			All	Yearround	All	Yearround
55-15a	0.03					All	Yearround		
55-15b	0.02					All	Yearround		
55-16	0.09	All	Yearround						
55-17	0.09	All	Yearround						
55-17a	0.02					All	Yearround		
55-18	0.38	All	Yearround			All	Yearround	All	Yearround
55-19	0.09	All	Yearround						
55-19a	0.19					All	Yearround		
55-23	0.39	All	Yearround			All	Yearround	All	Yearround
55-24	0.03	All	Yearround			All	Yearround	All	Yearround
55-25	0.04	All	Yearround			All	Yearround	All	Yearround
55-26	0.04	All	Yearround	All	Yearround	All	Yearround	All	Yearround
55-27	0.02	All	Yearround			All	Yearround	All	Yearround
55-28	0.03	All	Yearround			All	Yearround	All	Yearround
55-32	0.09	All	Yearround						
55-42	0.04	All	Yearround						
55-43	0.09	All	Yearround						
55-44	0.16	All	Yearround			All	Yearround	All	Yearround
55-45	0.09	All	Yearround						
55-46	0.06	All	Yearround			All	Yearround	All	Yearround
55-47	0.09	All	Yearround						
55-48	0.34	All	Yearround						
55-52	0.09	All	Yearround						
55-53	0.09	All	Yearround						
55-54	0.03	All	Yearround			All	Yearround	All	Yearround
55-55	0.02	All	Yearround			All	Yearround	All	Yearround
55-56	0.38	All	Yearround			All	Yearround	All	Yearround
55-57	0.08	All	Yearround			All	Yearround	All	Yearround
55-57a	0.07					All	Yearround		
55-58	0.09	All	Yearround						
55-59	0.06	All	Yearround			All	Yearround	All	Yearround
55-60	0.04	All	Yearround			All	Yearround	All	Yearround
55-61	0.01	All	Yearround			All	Yearround	All	Yearround
55-61a	0.03					All	Yearround		
55-62	0.10	All	Yearround			All	Yearround	All	Yearround
55-63	0.06	All	Yearround			All	Yearround	All	Yearround
55-64	0.03	All	Yearround			All	Yearround	All	Yearround
55-65	0.41	All	Yearround			All	Yearround	All	Yearround

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Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use						
55-66	0.33	All	Yearround			All	Yearround	All	Yearround
55-67	0.11	All	Yearround			All	Yearround	All	Yearround
55-72	0.06	All	Yearround			All	Yearround	All	Yearround
55-75	0.02	All	Yearround			All	Yearround	All	Yearround
55-77	0.04	All	Yearround			All	Yearround	All	Yearround
55-77b	0.01					All	Yearround		
55-77c	0.01					All	Yearround		
55-78a	0.01					All	Yearround		
55-78	0.09	All	Yearround						
55-79	0.04	All	Yearround			All	Yearround	All	Yearround
55-80	0.01	All	Yearround			All	Yearround	All	Yearround
55-81	0.03	All	Yearround			All	Yearround	All	Yearround
55-83	0.05	All	Yearround			All	Yearround	All	Yearround
57-01	0.07	All	Yearround			All	Yearround	All	Yearround
57-03	0.44	All	Yearround			All	Yearround	All	Yearround
57-04	0.09	All	Yearround						
57-05	0.09	All	Yearround						
57-07	0.09	All	Yearround						
57-08	0.09	All	Yearround						
57-09	0.17	All	Yearround			All	Yearround	All	Yearround
57-10	0.09	All	Yearround						
57-100	0.02	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-101	0.07	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-102	0.03	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-103	0.10	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-104	0.09	All	Yearround						
57-105	0.09	All	Yearround						
57-11	0.09	All	Yearround						
57-12	0.09	All	Yearround						
57-13	0.12	All	Yearround			All	Yearround	All	Yearround
57-13a	0.04					All	Yearround		
57-14	0.09	All	Yearround						
57-15	0.09	All	Yearround						
57-16	0.04	All	Yearround			All	Yearround	All	Yearround
57-16a	0.06					All	Yearround		
57-17	0.09	All	Yearround						
57-18	0.09	All	Yearround						
57-19	0.03	All	Yearround			All	Yearround	All	Yearround
57-20	0.09	All	Yearround						
57-20a	0.04					All	Yearround		
57-21	0.05	All	Yearround			All	Yearround	All	Yearround
57-22	0.09	All	Yearround						
57-23	0.09	All	Yearround						

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Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use						
57-24	0.09	All	Yearround						
57-25	0.09	All	Yearround						
57-26	0.09	All	Yearround						
57-26a	0.04					All	Yearround		
57-27	0.09	All	Yearround						
57-28	0.09	All	Yearround						
57-29	0.09	All	Yearround						
57-30	0.09	All	Yearround						
57-31	0.04	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-32	0.61	All	Yearround			All	Yearround	All	Yearround
57-33	0.09	All	Yearround						
57-34	0.09	All	Yearround						
57-35	0.93	All	Yearround			All	Yearround	All	Yearround
57-36	0.09	All	Yearround						
57-37	0.06	All	Yearround			All	Yearround	All	Yearround
57-41	0.03	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-41a	0.03					All	Yearround		
57-42	0.20	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-43	0.06	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-44	0.09	All	Yearround						
57-45	0.09	All	Yearround						
57-46	0.09	All	Yearround						
57-47	0.09	All	Yearround						
57-48	0.09	All	Yearround						
57-49	0.09	All	Yearround						
57-50	0.09	All	Yearround						
57-51	0.03	All	Yearround			All	Yearround	All	Yearround
57-52	0.13	All	Yearround			All	Yearround	All	Yearround
57-53	0.05	All	Yearround			All	Yearround	All	Yearround
57-53a	0.06					All	Yearround		
57-54	0.08	All	Yearround			All	Yearround	All	Yearround
57-55	0.36	All	Yearround			All	Yearround	All	Yearround
57-56	0.24	All	Yearround			All	Yearround	All	Yearround
57-57	0.17	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-58	0.09	All	Yearround						
57-59	0.09	All	Yearround						
57-60	0.95	All	Yearround			All	Yearround	All	Yearround
57-61	1.32	All	Yearround			All	Yearround	All	Yearround
57-62	0.09	All	Yearround						
57-64	0.09	All	Yearround						
57-66	0.25	All	Yearround			All	Yearround	All	Yearround
57-67	1.01	All	Yearround			All	Yearround	All	Yearround
57-68	0.11	All	Yearround			All	Yearround	All	Yearround

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Route ID	Length (miles)	Alternatives							
		2		4		5		6	
		Vehicle Class	Season of Use						
57-69	0.04	All	Yearround			All	Yearround	All	Yearround
57-69a	0.04					All	Yearround		
57-70	0.04	All	Yearround			All	Yearround	All	Yearround
57-70a	0.27					All	Yearround		
57-71	0.40	All	Yearround			All	Yearround	All	Yearround
57-72	0.12	All	Yearround			All	Yearround	All	Yearround
57-73	0.16	All	Yearround			All	Yearround	All	Yearround
57-74	0.09	All	Yearround						
57-75	0.21	All	Yearround			All	Yearround	All	Yearround
57-76	0.23	All	Yearround			All	Yearround	All	Yearround
57-76a	0.40					All	Yearround		
57-77	0.09	All	Yearround						
57-78	0.54	All	Yearround						
57-79	0.09	All	Yearround						
57-80	0.13	All	Yearround			All	Yearround	All	Yearround
57-81	0.03	All	Yearround			All	Yearround	All	Yearround
57-82	0.41	All	Yearround			All	Yearround	All	Yearround
57-82a	0.09					All	Yearround		
57-83	0.03	All	Yearround			All	Yearround	All	Yearround
57-84	0.01	All	Yearround			All	Yearround	All	Yearround
57-84a	0.03					All	Yearround		
57-85	0.18	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-86	0.09	All	Yearround						
57-87	0.09	All	Yearround						
57-88	0.09	All	Yearround						
57-89	0.16	All	Yearround			All	Yearround	All	Yearround
57-90	0.09	All	Yearround						
57-91	0.03	All	Yearround			All	Yearround	All	Yearround
57-92	0.14	All	Yearround			All	Yearround	All	Yearround
57-92a	0.12					All	Yearround		
57-93	0.07	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-94	0.09	All	Yearround			All	Yearround	All	Yearround
57-95	0.02	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-95a	0.02					All	Yearround		
57-96	0.05	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-96a	0.02					All	Yearround		
57-97	0.57	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-98	0.05	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-99	0.02	All	Yearround	All	Yearround	All	Yearround	All	Yearround
57-99a	0.04					All	Yearround		

The tables on the subsequent pages display the following information for each proposed motorized road or trail to be added to the NFTS.

- The unique Route ID number for each proposed route that is used throughout the document and on maps.
- A description of the road or trail including vehicle class, season of use, length (miles), alternatives that include the route, opportunity type (access, motorized recreation, or both), and location. For proposed trails, the level of difficulty is also provided.
- Site specific information for each route including;
 - **Resource Information** regarding watershed, botany, lands, safety, wildlife, air quality, recreation and heritage resources.
 - **Mitigation measures** required for each resource, except heritage resources, mentioned above (if any). Mitigation measures required to protect heritage resources are contained in the project planning record so as to avoid public disclosure of site locations.
- **Timing requirements for implementation of mitigation measures** which specifies when the mitigation measures must be implemented
- **Monitoring Requirements** should the motorized trail be added to the NFTS

Individual route cards were only generated for the unauthorized routes proposed as additions to NFTS in order to provide access to dispersed recreation sites that require restrictions on vehicle type, season of use and/or implementation of mitigations.

Required mitigation measures do not include routine operation and maintenance activities such as brushing, signing, clearing, culvert and bridge maintenance, debris slide clearance, patrolling routes, etc. The mitigation measures describe what needs to be done. Implementation of mitigation measures will vary, depending on resources available to accomplish the work (volunteers, state grants, federal funding, etc.).

Route Number	47N65.4	Length (Miles)	0.84	Map Location	T47N R10W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor overside drains at rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	45N41.2	Length (Miles)	2.02	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures		11/1-4/30			
Monitoring Requirements					

Route Number	45N53.3	Length (Miles)	0.11	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5	2	ALL		5/1-10/31	
6	2	ALL		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: High erosion potential. Substantial surface repair and runoff control needed. Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	prior to MVUM; 11/1-4/30				
Monitoring Requirements					

Route Number	Humbug	Length (Miles)	4.66	Map Location	T45N R8W,T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		OHV		Yearround	
4					
5		OHV		5/1 - 10/31	
6		OHV		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. Outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor overside drains at rolling dip areas as needed.				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat and riparian habitat Mitigation Measures seasonal closure; clearly define area and apply hydrology mitigations.				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures Define area perimeters with either signs or fencing (or other barriers), establish parking area, install kiosk, post rules and regulations, tread lightly information and area map.				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	Juniper Flat	Length (Miles)	48.10	Map Location	T43N R4W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		OHV		Yearround	
4					
5		OHV		Yearround	
6		OHV		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to caves Mitigation Measures Clearly define area and do not provide access route to caves				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures Define area perimeters with either signs or fencing (or other barriers), establish parking area, install kiosk, post rules and regulations, tread lightly information and area map.				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	45N88.1	Length (Miles)	1.97	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	45N88.1B1	Length (Miles)	0.25	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures		11/1-4/30			
Monitoring Requirements					

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Route Number	45N88.1E	Length (Miles)	0.54	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Very overgrown - needs brushing Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures		11/1-4/30			
Monitoring Requirements					

Route Number	45N88.2	Length (Miles)	3.00	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5		All Trail Class Vehicles		5/1-10/31	
6		All Trail Class Vehicles		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Surface repair and runoff control needed. Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures Clearly mark surrounding unauthorized route closures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Very overgrown - needs brushing Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	prior to MVUM; 11/1-4/30				
Monitoring Requirements					

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Route Number	46N24.1	Length (Miles)	0.06	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5	2	ALL		5/1-10/31	
6	2	ALL		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures		11/1-4/30			
Monitoring Requirements					

Route Number	46N24.2	Length (Miles)	0.12	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" or less in width		5/1-10/31	
4					
5		Vehicles 50" or less in width		5/1-10/31	
6		Vehicles 50" or less in width		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

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Route Number	46N24.4	Length (Miles)	1.88	Map Location	T45N R8W,T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" or less in width		5/1-10/31	
4					
5		Vehicles 50" or less in width		5/1-10/31	
6		Vehicles 50" or less in width		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures		11/1-4/30			
Monitoring Requirements					

Route Number	46N24.4A	Length (Miles)	0.34	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5		Vehicles 50" or less in width		5/1-10/31	
6		Vehicles 50" or less in width		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

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Route Number	46N24.4B	Length (Miles)	0.27	Map Location	T45N R8W,T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" or less in width		5/1-10/31	
4					
5		Vehicles 50" or less in width		5/1-10/31	
6		Vehicles 50" or less in width		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures		11/1-4/30			
Monitoring Requirements					

Route Number	46N24.5	Length (Miles)	0.77	Map Location	T45N R8W,T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5		Vehicles 50" or less in width		5/1-10/31	
6		Vehicles 50" or less in width		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Surface repair and runoff control needed. Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Needs improvements to 4 water crossings and for drainage. Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures		11/1-4/30			
Monitoring Requirements					

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Route Number	46N24.6	Length (Miles)	0.96	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class	Season of Use		
2		All Trail Class Vehicles	5/1-10/31		
4					
5		All Trail Class Vehicles	5/1-10/31		
6		All Trail Class Vehicles	5/1-10/31		
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	46N30.1	Length (Miles)	0.55	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures		11/1-4/30			
Monitoring Requirements					

Route Number	46N30.2	Length (Miles)	0.29	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure (10/31-5/1)				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures		11/1-4/30			
Monitoring Requirements					

Route Number	46N30.3	Length (Miles)	0.16	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures		11/1-4/30			
Monitoring Requirements					

Route Number	46N30.4	Length (Miles)	0.53	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures		11/1-4/30			
Monitoring Requirements					

Route Number	46N30.5	Length (Miles)	0.22	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closur				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures		11/1-4/30			
Monitoring Requirements					

Route Number	46N30.9	Length (Miles)	0.14	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5		Vehicles 50" or less in width		5/1-10/31	
6		Vehicles 50" or less in width		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Very steep; rills+gullies. High erosion potential. Substantial surface repair and runoff control needed. Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	prior to MVUM; 11/1-4/30				
Monitoring Requirements					

Route Number	7H002.2	Length (Miles)	0.16	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		5/1-10/31	
4					
5	2	ALL		5/1-10/31	
6	2	ALL		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: knapweed alongside route. Site was treated. Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements	Monitor annually for noxious weeds (knapweed).				

Route Number	7H002.3	Length (Miles)	0.43	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class	Season of Use		
2	2	ALL	5/1-10/31		
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Rills+gullies. High erosion potential. Substantial surface repair and runoff control needed. Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures Clearly mark surrounding unauthorized route closures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	prior to MVUM;11/1-4/30				
Monitoring Requirements					

Route Number	7H002.4	Length (Miles)	0.29	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4		All Trail Class Vehicles		5/1-10/31	
5		All Trail Class Vehicles		5/1-10/31	
6		All Trail Class Vehicles		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Surface repair and runoff control needed. Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	7J001.11	Length (Miles)	0.29	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" or less in width		5/1-10/31	
4					
5		Vehicles 50" or less in width		5/1-10/31	
6		Vehicles 50" or less in width		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: High erosion potential. Substantial surface repair and runoff control needed. Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: User created routes in vicinity. Mitigation Measures Block and install signs on unauthorized routes to minimize confusion.				
Timing Requirements for Implementation of Mitigation measures	prior to MVUM;11/1-4/30				
Monitoring Requirements					

Route Number	7J001.11A	Length (Miles)	0.41	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" or less in width		5/1-10/31	
4					
5		Vehicles 50" or less in width		5/1-10/31	
6		Vehicles 50" or less in width		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information:				
	Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information:				
	Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information:				
	Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information:				
	Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information:				
	Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information:				
	User created routes in vicinity.				
	Mitigation Measures Block and install signs on unauthorized routes to minimize confusion.				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	7J001.9	Length (Miles)	0.84	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" or less in width		5/1-10/31	
4					
5		Vehicles 50" or less in width		5/1-10/31	
6		Vehicles 50" or less in width		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Start of road too steep for vehicles (but may be ok for OHV). High erosion potential. Substantial surface r Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: User created routes in vicinity. Mitigation Measures Block and install signs on unauthorized routes to minimize confusion.				
Timing Requirements for Implementation of Mitigation measures	prior to MVUM;11/1-4/30				
Monitoring Requirements					

Route Number	7J002.6	Length (Miles)	0.36	Map Location	T46N R7W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5	2	ALL		5/1-10/31	
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

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Route Number	7J031.5	Length (Miles)	0.45	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5		Motorcycle only		5/1-10/31	
6		Motorcycle only		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Surface repair and runoff control needed. Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	7J031.5A	Length (Miles)	0.21	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Motorcycle only		5/1-10/31	
4					
5		Motorcycle only		5/1-10/31	
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	8J002.3	Length (Miles)	0.99	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5	2	Vehicles 50" or less in width		5/1-10/31	
6		Vehicles 50" or less in width		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Surface repair and runoff control needed. Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures Clearly mark surrounding unauthorized route closures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	prior to MVUM;11/1-4/30				
Monitoring Requirements					

Route Number	8J002.3A	Length (Miles)	0.14	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5	2	Vehicles 50" or less in width		5/1-10/31	
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Severe erosion. High erosion potential. Substantial surface repair and runoff control needed. Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures Clearly mark surrounding unauthorized route closures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: User created routes in vicinity. Mitigation Measures Block and install signs on unauthorized routes to minimize confusion.				
Timing Requirements for Implementation of Mitigation measures	prior to MVUM;11/1-4/30				
Monitoring Requirements					

Route Number	8J002.3C	Length (Miles)	0.14	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5	2	Vehicles 50" or less in width		5/1-10/31	
6		Vehicles 50" or less in width		5/1-10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Severe erosion. High erosion potential. Substantial surface repair and runoff control needed. Mitigation Measures seasonal closure. As needed, outslope; cross drain with rolling dips; replace metal pipes with rolling dips; rock low water crossings; armor the overside drains at the rolling dip areas; maintain roads (rut free).				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	prior to MVUM;11/1-4/30				
Monitoring Requirements					

Route Number	6.1	Length (Miles)	0.18	Map Location	T42N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4	2	ALL		Yearround	
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	6.4	Length (Miles)	0.74	Map Location	T42N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4	2	ALL		Yearround	
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	15.3	Length (Miles)	1.39	Map Location	T43N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	15.5	Length (Miles)	0.71	Map Location	T43N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	19.5	Length (Miles)	0.22	Map Location	T43N R3W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4	2	ALL		Yearround	
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	77.1	Length (Miles)	0.97	Map Location	T44N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	77.5	Length (Miles)	0.44	Map Location	T44N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4	2	ALL		Yearround	
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	77.8	Length (Miles)	0.20	Map Location	T43N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	43N03A.1	Length (Miles)	1.07	Map Location	T43N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	43N15.2	Length (Miles)	1.49	Map Location	T43N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	43N20B.1	Length (Miles)	1.00	Map Location	T43N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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 Appendix A: Route Specific Data

Route Number	43N35.1	Length (Miles)	0.37	Map Location	T43N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	43N43A.1	Length (Miles)	0.22	Map Location	T43N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	43N43B.1	Length (Miles)	0.44	Map Location	T43N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	43N46.1	Length (Miles)	0.56	Map Location	T43N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	43N46.1A	Length (Miles)	0.33	Map Location	T43N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	43N67.2	Length (Miles)	0.31	Map Location	T43N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N02Y.1	Length (Miles)	1.49	Map Location	T44N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	44N02Y.2	Length (Miles)	0.89	Map Location	T43N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N03.1	Length (Miles)	0.62	Map Location	T44N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	44N03Y.1	Length (Miles)	0.04	Map Location	T44N R2W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N03Y.2	Length (Miles)	1.32	Map Location	T44N R2W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	44N03Y.2A	Length (Miles)	0.39	Map Location	T44N R2W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N03Y.3	Length (Miles)	0.33	Map Location	T44N R2W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	44N06Y.3	Length (Miles)	0.39	Map Location	T44N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N08.7	Length (Miles)	1.08	Map Location	T43N R2E, T44N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4	2	ALL		Yearround	
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	44N14.3	Length (Miles)	0.97	Map Location	T44N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N14A.1	Length (Miles)	0.68	Map Location	T45N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	44N16.1	Length (Miles)	0.14	Map Location	T43N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N16.3	Length (Miles)	1.75	Map Location	T44N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	44N27.3	Length (Miles)	0.51	Map Location	T45N R3W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N27G.1A	Length (Miles)	0.30	Map Location	T44N R3W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	44N27Y.1A	Length (Miles)	0.21	Map Location	T45N R2W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N27Y.2	Length (Miles)	0.52	Map Location	T45N R2W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	44N32Y.1	Length (Miles)	1.40	Map Location	T44N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N56B.1	Length (Miles)	0.50	Map Location	T44N R3W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: NSO NR habitat noise concerns are potentially mitigated by limited access due to winter snow. Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	44N68.2	Length (Miles)	0.57	Map Location	T44N R3E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N75C.1	Length (Miles)	0.42	Map Location	T44N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4	2	ALL		Yearround	
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	44N83.1	Length (Miles)	0.09	Map Location	T44N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N84.1	Length (Miles)	0.84	Map Location	T44N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	44N89.1	Length (Miles)	1.83	Map Location	T44N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	44N90A.1	Length (Miles)	0.27	Map Location	T44N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	45N03.1	Length (Miles)	0.67	Map Location	T45N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	45N03.14	Length (Miles)	0.07	Map Location	T45N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	45N03.4	Length (Miles)	0.58	Map Location	T45N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	45N03.7	Length (Miles)	0.56	Map Location	T45N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	45N03C.1	Length (Miles)	0.81	Map Location	T45N R2E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	45N22Y.2	Length (Miles)	0.81	Map Location	T44N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4	2	ALL		Yearround	
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	45N62.1	Length (Miles)	0.47	Map Location	T45N R2W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	46N04.6	Length (Miles)	0.22	Map Location	T46N R2W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	5Q002.6	Length (Miles)	1.82	Map Location	T44N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	5Q002.9	Length (Miles)	1.14	Map Location	T43N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	6.4A	Length (Miles)	0.57	Map Location	T42N R1E,T43N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4	2	ALL		Yearround	
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	6P01.2	Length (Miles)	0.34	Map Location	T43N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	6P01.3	Length (Miles)	0.11	Map Location	T43N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	6P01.4	Length (Miles)	0.38	Map Location	T43N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	6Q003.1A	Length (Miles)	0.14	Map Location	T44N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	70E.1	Length (Miles)	0.24	Map Location	T46N R3W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	77.1A	Length (Miles)	0.28	Map Location	T44N R1E
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	8Q002.2	Length (Miles)	0.51	Map Location	T46N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4	2	ALL		Yearround	
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	8Q002.3	Length (Miles)	1.43	Map Location	T46N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		8/16-4/14	
4					
5	2	ALL		8/16-4/14	
6	2	ALL		8/16-4/14	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: proximity to Swainson's nest Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	4/15 - 8/15				
Monitoring Requirements					

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Route Number	8Q003.1	Length (Miles)	0.34	Map Location	T46N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	8Q01.11	Length (Miles)	1.95	Map Location	T44N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	8Q01.3	Length (Miles)	0.90	Map Location	T44N r1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5	2	ALL		Yearround	
6	2	ALL		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	S-97.14B	Length (Miles)	0.08	Map Location	T45N R2W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	S-97.14C	Length (Miles)	0.07	Map Location	T45N R2W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	S-97.2A1	Length (Miles)	1.13	Map Location	T46N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	S-97.2A1A	Length (Miles)	0.08	Map Location	T46N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	S-97.2B	Length (Miles)	1.49	Map Location	T47N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2	2	ALL		Yearround	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	46082601	Length (Miles)	0.33	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1 - 10/31	
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Tread and drainage needed on areas >25% slope. Mitigation Measures Establish tread and drainage on portions w/25%+ slope.				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	45080101	Length (Miles)	0.58	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Surface repair and runoff control needed. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures Improve waterbars.				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

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Route Number	45080104	Length (Miles)	0.23	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Surface repair and runoff control needed. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: User created routes in vicinity. Mitigation Measures Improve water bars and crossings. Block and install signs on unauthorized routes to minimize confusion.				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	45080201	Length (Miles)	0.70	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Substantial surface repair and runoff control needed. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: User created routes in vicinity. Mitigation Measures Block and install signs on unauthorized routes to minimize confusion.				
Timing Requirements for Implementation of Mitigation measures	Prior to MVUM; 11/1-4/30				
Monitoring Requirements					

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Route Number	45080202	Length (Miles)	0.10	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Substantial surface repair and runoff control needed. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: User created routes in vicinity. Mitigation Measures Block and install signs on unauthorized routes to minimize confusion.				
Timing Requirements for Implementation of Mitigation measures	Prior to MVUM; 11/1-4/30				
Monitoring Requirements					

Route Number	45080205	Length (Miles)	0.74	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1-10/31	
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Needs rolling dips for runoff control needed. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: User created routes in vicinity. Mitigation Measures Block and install signs on unauthorized routes to minimize confusion.				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

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Route Number	45080207	Length (Miles)	0.65	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1-10/31	
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Needs rolling dips for runoff control. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	45080209	Length (Miles)	0.18	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Substantial surface repair and runoff control needed. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	prior to MVUM;11/1-4/30				
Monitoring Requirements					

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Route Number	45080301	Length (Miles)	0.43	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1-10/31	
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Needs rolling dips for runoff control. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	45081003	Length (Miles)	0.24	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Needs rolling dips for runoff control. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	45081203	Length (Miles)	0.27	Map Location	T45N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1-10/31	
4					
5					
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Needs rolling dips for runoff control. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: User created routes in vicinity. Needs drainage improvement in areas >40% slope. Mitigation Measures Block and install signs on unauthorized routes to minimize confusion. Establish drainage on portions >40% slope.				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	46082601	Length (Miles)	0.05	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1-10/31	
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Tread and drainage needed on areas >25% slope. Mitigation Measures Establish tread and drainage on portions w/25%+ slope.				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

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Route Number	46082701	Length (Miles)	1.71	Map Location	T45N R8W,T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6					
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	46083301	Length (Miles)	1.13	Map Location	T45N R8W,T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1-10/31	
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: User created routes in vicinity. Mitigation Measures Block and install signs on unauthorized routes to minimize confusion. Needs waterbars and brushing.				
Timing Requirements for Implementation of Mitigation measures	Prior to MVUM; 11/1-4/30				
Monitoring Requirements					

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Route Number	46083401	Length (Miles)	2.43	Map Location	T45N R8W,T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1 - 10/31	
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Needs rolling dips for runoff control. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: User created routes in vicinity. Mitigation Measures Block and install signs on unauthorized routes to minimize confusion. Needs waterbars and brushing.				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	46083501	Length (Miles)	0.78	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1 - 10/31	
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Needs rolling dips for runoff control. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Portion of trail NW of jct w/46083502 is extremely steep and should be closed. Mitigation Measures Install waterbars on the entire length.				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	46083502	Length (Miles)	0.94	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1 - 10/31	
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Needs rolling dips for runoff control. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Portions of trail extremely steep (45%). User created routes in vicinity. Mitigation Measures Block and install signs on unauthorized routes to minimize confusion. Establish drainage and construct switchbacks on steep portions.				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	46083503	Length (Miles)	0.38	Map Location	T46N R8W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1 - 10/31	
4					
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Needs rolling dips for runoff control. Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Proximity to critical deer habitat Mitigation Measures seasonal closure				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: User created routes in vicinity. Mitigation Measures Block and install signs on unauthorized routes to minimize confusion.				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

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Route Number	43012001	Length (Miles)	0.44	Map Location	T43N R1W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2		Vehicles 50" and Less in Width		5/1 - 10/31	
4	Motorized Trail	Vehicles 50" and Less in Width		5/1 - 10/31	
5		Vehicles 50" and Less in Width		5/1 - 10/31	
6		Vehicles 50" and Less in Width		5/1 - 10/31	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures seasonal closure				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see Soils and Water				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures	11/1-4/30				
Monitoring Requirements					

Route Number	51-33	Length (Miles)	0.65	Map Location	T46N R7W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4					
5	2	Highway Legal Only		Yearround	
6	2	Highway Legal Only		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Route Number	51-34	Length (Miles)	0.03	Map Location	T46N R7W
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class	Season of Use		
2					
4					
5	2	Highway Legal Only	Yearround		
6	2	Highway Legal Only	Yearround		
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

Route Number	52-BB	Length (Miles)	0.09	Map Location	
Field Review Comments					
Alternative	Proposed Maintenance Level	Proposed Vehicle Class		Season of Use	
2					
4	2	Highway Legal Only		Yearround	
5	2	Highway Legal Only		Yearround	
6	2	Highway Legal Only		Yearround	
Watershed Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Botany Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Wildlife Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Cultural Resource Information and Mitigation Measures	Resource Information: Mitigation Measures see project file				
Fisheries Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Recreation Resource Information and Mitigation Measures	Resource Information: Mitigation Measures				
Timing Requirements for Implementation of Mitigation measures					
Monitoring Requirements					

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Appendix B: Present and Reasonably Foreseeable Actions Relevant to Cumulative Effects

The geographic scope of the cumulative effects analysis is the total area, including private lands, located within the boundaries of the Klamath National Forest, since all routes that would allow public motorized vehicle use, and the consequent effects, would occur within this area. The cumulative effects analysis includes present and reasonably foreseeable actions that are likely to occur in this area within the next 20 years.

Present and reasonably foreseeable actions potentially contributing to cumulative effects resulting from this project include road management, such as road construction, decommissioning and closure, fuel treatments and fire, timber harvest and vegetation treatments, reforestation, range management, minerals management, recreation and special uses and other permitted activities. In the analysis of present and reasonably foreseeable future effects from these actions, the Forest considered projects with similar direct and indirect effects that overlap in time and space with route designation (see Table B-1). While the appendix lists numerous actions, not every resource would be affected by every action. For example, a future project may affect wildlife but not affect water quality.

The prohibition of cross-country travel by motorized vehicles will provide positive benefits to terrestrial and aquatic resources. Adverse effects to the physical environment, plants, and animals are expected to decrease with any of the action alternatives conforming to the Travel Management Rule. Areas that have been affected by off-road travel in the past should experience passive restoration, including revegetation of denuded sites, reduction in soil compaction (with a concomitant increase in soil productivity), and an improvement in hydrologic function. The noise and disturbance created by cross-country travel and use of unauthorized routes will diminish, which will provide a positive effect for terrestrial wildlife. Motorized intrusion into riparian areas or wet meadows will decrease, providing a positive benefit for water-dependent wildlife species.

The effects of some ongoing actions, such as grazing, recreation use, special uses and other permitted activities are reflected in the current conditions on the Forest. Effects from recent wildfires and consequent burned area rehabilitation actions that have occurred on the Forest are also reflected in current conditions.

In analyzing cumulative effects of motorized travel management, the Klamath National Forest considered effects from all present and reasonably foreseeable future actions that have potential for changing road density within the analysis area. These actions include new road construction, reconstruction, decommissioning and/or adding roads to the Forest transportation system. Road maintenance and use do not affect road density and were not considered. Present and reasonably foreseeable actions considered included:

- Projects with road actions - with decisions - that have not been implemented on the ground.
- Any projects with road actions - with decisions - that are not yet in the Forest road database (INFRA).
- Any projects with road actions in projects listed on the Forest's Schedule of Proposed Actions that do not yet have decisions.

Present and future actions, such as vegetation and fuels management projects, that include connected road actions are listed in Table B-1.

Table B-1. Ongoing and reasonably foreseeable projects on the Klamath National Forest

Project Name	Ranger District	Description
43N02 and 43N03 Road Maintenance Level Reduction	Goosenest	Road Management - changes 2 NFTS roads (3.6 mi) from ML 3 to ML 2
Big Pony Fuels Reduction and Vegetation Management	Goosenest	Vegetation and Fuels Management - Thinning and fuels treatments (3,180 acres)
Black Rock Restoration	Goosenest	Vegetation and Fuels Management and Habitat Improvement – Aspen and meadow restoration (890 acres), Thinning and slash piling/burning (300 acres)
Erickson Vegetation, Fuels, and Road Management	Goosenest	Vegetation Management and Timber Harvest (2,500 acres) Includes construction of 1 new road (0.5 mi) and addition to NFTS as ML 1, addition of 1 route (0.3 mi) to NFTS as a ML 2 road and 2 routes (2.5 mi) as ML 1 roads
First Creek Forest Health Management	Goosenest	Vegetation Management and Timber Harvest (1900 acres); Fuels Management (260 acres) Includes adding 4 routes (1.4 mi) to the NFTS as ML 2
Goosenest LSR SE Habitat Restoration	Goosenest	Vegetation Management and Timber Harvest (2,225 acres). Includes adding 6 routes (4.1 mi) to the NFTS as ML 1
Hi Grouse	Goosenest	Vegetation and Fuels Management - Thinning and fuels treatments (5,085 acres)
Round Valley	Goosenest	Fuels and Vegetation Management (16,900 acres). Includes addition of 15 routes (12.7 mi) to NFTS as ML 2 roads and 1 route (1.4 mi) as a ML1 road, changing 3 NFTS roads (4.1 mi) from ML 2 to ML 1.
Shafter Elk/Aspen Enhancement	Goosenest	Watershed Management and Habitat Restoration – Thinning and meadow restoration
Tamarack	Goosenest	Vegetation Management and Timber Harvest (1,600 acres). Includes addition of 3 routes (2 mi) to NFTS as ML 2 roads and 9 routes (4 mi) as ML1 roads, and construction of 1 temp road (0.5 mi)
Tennant WUI Hazardous Fuels Reduction	Goosenest	Vegetation Management and Timber Harvest (4,285 acres), Fuels Management (2,435 acres) Includes adding 11 routes (9 mi) to NFTS as ML 2 roads
Van Bremmer	Goosenest	Vegetation Management – Thinning
Bear Creek Trail Reroute	Happy Camp	Recreation Management – re-route ¼ mile of trail
Black Panther Slashing and Reforestation	Happy Camp	Vegetation Management – Site preparation and reforestation of areas burned in the 2008 Panther wildfire (2050 acres)
Ferry Point Elk Habitat Improvement	Happy Camp	Vegetation Management – chainsaw removal of small diameter trees from meadow habitat
Mill Luther Watershed Restoration	Happy Camp	Roads Management. Decommissioning of 11 NFTS roads (9.6 mi), changing 2 NFTS roads (2.6 mi) from ML2 to ML 1, and converting 1 NFTS road (1.8 mi) to a hiking trail
Panther Fire Salvage	Happy Camp	Vegetation and Fuels Management, Timber Harvest (255 acres)

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Project Name	Ranger District	Description
Thom Seider Vegetation Management	Happy Camp	Vegetation and Fuels Management, Timber Harvest – Thinning and prescribed fire (29,600 acres)
Two Bit Vegetation Mgt	Happy Camp	Fuels Management (8,600 acres); Vegetation Management and Timber Harvest (2,200 acres). Includes decommissioning of 6 system roads (4.34 mi)
Horse Heli	Oak Knoll	Vegetation Management and Timber Harvest (570 acres) Includes addition of 3 routes (0.7 mi) to NFTS as ML 2 roads and decommissioning of 6 NFTS roads (2 mi)
Mt. Ashland LSR Habitat Restoration and Fuels Reduction	Oak Knoll	Habitat Improvement, Fuels and Vegetation Management, Timber Harvest – Thinning (4,000 acres), Underburning, piling and/or mastication (5,765 acres)
Caribou Fire Reforestation	Salmon River	Vegetation and Fuels Management, Timber Harvest (400 acres)
Caribou Site Preparation and Reforestation	Salmon River	Fuels and Vegetation Management
Crapo Creek Site Preparation and Reforestation	Salmon River	Fuels Management – cutting, piling, burning, masticating (700 acres) Vegetation Management – Reforestation (1300 acres)
Eddy LSR	Salmon River	Fuels and Vegetation Management, Timber Harvest – Thinning, mastication, piling/burning (4400 acres); prescribed burning (26,000 acres)
Kelly Thin	Salmon River	Fuels and Vegetation Management, Timber Harvest -
North Fork Roads	Salmon River	Road Management - Decommissioning 17 NFTS roads (11.8 mi)
Deep	Scott River	Vegetation Management and Timber Harvest (362 acres) Includes decommissioning of 3 NFTS roads (2.7 mi), and addition of 3 routes (3.6 mi) to the NFTS as ML 1
Little Grizzly	Scott River	Fuels and Vegetation Management, Timber Harvest - (70 acres)
Loop Roadside Hazard Tree Removal	Scott River	Road and Facility Management – remove roadside hazard trees along 10 miles of road and in Trail Creek Campground
McBaldy	Scott River	Fuels and Vegetation Management, Timber Harvest, Road Management – Thinning, prescribed burning, roadside hazard tree removal
Roo	Scott River	Fuels and Vegetation Management, Timber Harvest - Thinning
Tennessee Thin	Scott River	Fuels and Vegetation Management, Timber Harvest - Thinning
2008 Wildfires Roadside Hazard Tree and Fuels Reduction	Ukonom	Road maintenance and fuels management – Remove hazard trees and treat fuels adjacent to driveable system roads associated with the Siskiyou, Ukonom and Panther wildfires of 2008
Orleans 2008 Fireline Decks	Ukonom	Fuels management – Remove 29 log decks resulting from fireline construction during 2008 Siskiyou, Ukonom and Panther wildfire suppression activities.
Seasonal POC Gate	Ukonom	Road Management - Seasonal closure of Forest road 15N01
Ukonom West Plantation Thinning	Ukonom	Fuels and Vegetation Management, Timber Harvest – Plantation Thinning (750 acres)

The cumulative effects analysis also considered overlapping effects from other ongoing and reasonably foreseeable future actions in proximity to the motorized travel routes and use areas analyzed on the Forest, such as noise disturbance from vegetation and fuels management activities.

Present and reasonably foreseeable actions occurring on private lands within the Forest boundaries were also considered. There are currently about 231,000 acres of private lands located within the Klamath NF boundaries. Cross-country motorized travel across these areas will most likely continue. Future actions on private lands are difficult to analyze since private landowners typically do not publicly disclose their long-term management plans. Timber harvest, and associated road construction, is expected to continue on private lands located within the Forest boundaries. Any new roads constructed to support timber harvest operations would be expected to be temporary since they would only be needed for short periods of time.

Road Management

The transportation system accessing the Forest includes federal, state, and county highways, as well as forest and private roads. There are approximately 120 miles of state highways and 350 miles of county roads located within the Forest boundaries. These roads and their associated right-of-ways would continue to be managed according to existing easements and/or agreements. There are no new county or state highways presently under construction or proposed for construction within the Forest boundaries.

Present and reasonably foreseeable road management actions on National Forest roads are listed in Table B-2.

There are currently approximately 1,100 miles of private roads located within the Klamath NF boundaries. While it is likely that some new roads will be built on private lands located within the Forest boundaries; it is not likely that these new roads will be open to the public.

Fuel Treatments and Fire

Present and reasonably foreseeable fuel projects with connected road actions are listed in Table B-2. For the most part, implementation of fuels treatments does not include road actions, although motorized cross-country travel may occasionally be needed.

On average, approximately 1,300 acres¹ of the Forest are burned by wildfires each year. Wildfire suppression and rehabilitation activities may require creation of temporary access roads; however, these would be decommissioned upon completion of these activities.

Timber Harvest and Vegetation Treatments

Present and reasonably foreseeable timber harvest and vegetation management projects with connected road actions on the Forest are listed in Table B-1.

¹ Median annual acreage based upon Klamath NF historical fire data from 1922-2006

There are approximately 231,000 acres of private lands located within the Forest boundaries, much of which is industrial forest land. Timber harvest plans have been filed for approximately 400 acres of private lands within the Forest boundaries. Timber harvest is expected to continue on private lands located within the Forest boundaries. The primary road system on these lands is in place, and any new roads constructed to support timber harvest operations on these lands would be expected to be temporary, since they would only be needed for short periods of time.

Reforestation

Reforestation activities will continue to occur following wildfires or timber harvest. There are several ongoing and reasonably foreseeable reforestation projects in areas of the Forest that were recently burned by wildfires. These projects do not include road actions.

Range Management

There are 42 active grazing allotments that occur on the Forest. Ongoing and reasonably foreseeable range-management activities on these allotments include installation and maintenance of improvements, such as cattle guards and fences, and water source development, as well as restoration activities. Range management activities generally do not include road actions.

Minerals Management

The Forest processes 40 to 60 mining notices and plans each year. Most mining operations utilize existing roads, and very few involve new road actions. No current Plans of Operation request new road construction.

Recreation

There are 51 developed recreation sites, including campgrounds, picnic grounds, trailheads, etc., and numerous dispersed recreation sites (primarily dispersed campgrounds) on the Forest. There are no ongoing or reasonably foreseeable recreation projects occurring on the Forest that involve road actions.

Special Uses and Other Permitted Activities

There are presently about 590 special use authorizations for a variety of activities, including road use, recreational residences, utility and water transmission lines, communication sites, and outfitter guides. Authorizations for new permits include specific terms and conditions, which in most cases do not include road actions.

Table B-2. Ongoing and reasonably foreseeable road actions, Klamath National Forest (GN = Goosenest, SS = Salmon River and Scott River , OK = Oak Knoll, HC = Happy Camp)

District	Project	Road No	GIS generated lengths (mi)	Comments
Road proposals and decisions that would add a road to Level 1 maintenance				
GN	Erickson Vegetation, Fuels, and Road Mgt	44N31Y.1	1.9	Bring on to system in Level 1 Maintenance
GN	Erickson Vegetation, Fuels, and Road Mgt	44N31Y.1a	0.6	Bring on to system in Level 1 Maintenance
GN	Erickson Vegetation, Fuels, and Road Mgt	44N16.3	0.5	Bring on to system in Level 1 Maintenance, construct about 0.5 more mile
GN	Goosenest LSR SE Habitat Restoration	46N04.1	0.51	Add to system in ML1
GN	Goosenest LSR SE Habitat Restoration	46N04.3	0.75	Add to system in ML1
GN	Goosenest LSR SE Habitat Restoration	46N04.1	0.51	Add to system in ML1
GN	Goosenest LSR SE Habitat Restoration	46N04.3	0.75	Add to system in ML1
GN	Goosenest LSR SE Habitat Restoration	46N92.3	0.47	Add to system in ML1
GN	Goosenest LSR SE Habitat Restoration	46N92.2	1.01	Add to system in ML1 - approx. 0.2 mi of an alternate rd takeoff will be decommissioned and a new segment reconstructed
GN	Round Valley	43N20F.1A	1.04	Put on system in L1
GN	Tamarack	44N08.1	0.8	add portion to system as L1 roads
GN	Tamarack	44N08.10	0.7	add to system as L1 roads
GN	Tamarack	44N08.4	0.2	add to system as L1 roads
GN	Tamarack	44N08.5	0.2	add to system as L1 roads
GN	Tamarack	44N08.8	0.6	add to system as L1 roads
GN	Tamarack	44N08.9	0.1	add to system as L1 roads
GN	Tamarack	44N12.2	0.8	add to system as L1 roads
GN	Tamarack	44N81.1	0.6	add to system as L1 roads
GN	Tamarack	44N81.2	0.1	add to system as L1 roads
SS	Deep	46N64.1	0.1	Upgrade and add to system (ML 1)
SS	Deep	46N64.4	1.5	Upgrade and add to system (ML 1)
SS	Deep	44N96.1	2.0	Upgrade and add to system (ML 1)
Total Miles			15.74	

Table B-2. Ongoing and reasonably foreseeable road actions, Klamath National Forest (GN = Goosenest, SS = Salmon River and Scott River , OK = Oak Knoll, HC = Happy Camp)

District	Project	Road No	GIS generated lengths (mi)	Comments
Road proposals and decisions that would add a road to Level 2 maintenance				
GN	Erickson Vegetation, Fuels, and Road Mgt	97.4	0.3	Bring on system in Level 2 Maintenance
GN	First Creek Forest Health Management	44N27.5	0.17	Add to system as Level 2
GN	First Creek Forest Health Management	44N27F.2	0.27	Add to system as Level 2, coordinate with arch
GN	First Creek Forest Health Management	45N22.3	0.27	Add to system as Level 2
GN	First Creek Forest Health Management	45N22.6	0.69	Add to system as Level 2 from 45N22 S to S34 W edge (jct 27F.2)
GN	Tamarack	44N08.1	0.87	add portion to system as L2 roads
GN	Tamarack	44N10.1	0.64	add to system as L2 roads
GN	Tamarack	45N03.2	0.47	add to system as L2 roads
GN	Tennant WUI Hazardous Fuels Reduction	44N16.3	1.75	Bring on system in Level 2 Maintenance
GN	Tennant WUI Hazardous Fuels Reduction	43N43B.1	0.44	Bring on system in Level 2 Maintenance
GN	Tennant WUI Hazardous Fuels Reduction	43N46.1	0.56	Bring on system in Level 2 Maintenance
GN	Tennant WUI Hazardous Fuels Reduction	43N46.1A	0.33	Bring on system in Level 2 Maintenance
GN	Tennant WUI Hazardous Fuels Reduction	43N50.1	0.18	Bring on system in Level 2 Maintenance
GN	Tennant WUI Hazardous Fuels Reduction	5Q002.11	0.93	Bring on system in Level 2 Maintenance
GN	Tennant WUI Hazardous Fuels Reduction	5Q002.9	1.14	Bring on system in Level 2 Maintenance
GN	Tennant WUI Hazardous Fuels Reduction	44N02Y.1	1.5	Bring on system in Level 2 Maintenance
GN	Tennant WUI Hazardous Fuels Reduction	44N02Y.2	0.89	Bring on system in Level 2 Maintenance
GN	Tennant WUI Hazardous Fuels Reduction	44N02YA.1	0.27	Bring on system in Level 2 Maintenance
GN	Tennant WUI Hazardous Fuels Reduction	44N16	1.01	Bring 1.01 miles on system in Level 2 Maintenance.
GN	Round Valley	43N20B.1	1.00	Put on system in L2
GN	Round Valley	44N14.1	0.27	Put on system in L2
GN	Round Valley	44N15.2	0.68	Put on system in L2
GN	Round Valley	44N15.2A	0.47	Put on system in L2

Table B-2. Ongoing and reasonably foreseeable road actions, Klamath National Forest (GN = Goosenest, SS = Salmon River and Scott River , OK = Oak Knoll, HC = Happy Camp)

District	Project	Road No	GIS generated lengths (mi)	Comments
GN	Round Valley	44N28.1	1.00	Put on system in L2
GN	Round Valley	44N28.1A	0.60	Put on system in L2
GN	Round Valley	44N93.1	2.27	Put on system in L2
GN	Round Valley	44N93.1A	1.05	Put on system in L2
GN	Round Valley	44N93.4	1.26	Put on system in L2
GN	Round Valley	44N95.1	0.75	Put on system in L2
GN	Round Valley	44N95.2	0.54	Put on system in L2
GN	Round Valley	6P01.10A	1.01	Put on system in L2
GN	Round Valley	6Q003.2	0.27	Put on system in L2
GN	Round Valley	8Q01.4	0.50	Put on system in L2
OK	Horse Heli EIS	40S01.1	0.22	Improve and add to Forest transportation system (ML 2)
OK	Horse Heli EIS	40S01.2	0.1	Improve and add to Forest transportation system (ML 2)
OK	Horse Heli EIS	40S01.3	0.37	Improve and add to Forest transportation system (ML 2)
	Total Miles		25.04	
Road proposals and decisions that would change a road's maintenance level				
GN	43N02 and 43N03 Road Maint Level Reduction	43N02	2.7	Reduce road maintenance level from 3 to 2
GN	43N02 and 43N03 Road Maint Level Reduction	43N03	0.9	Reduce road maintenance level from 3 to 2
GN	Round Valley	44N92	0.41	ML2-->ML1
GN	Round Valley	45N11	1.25	ML2-->ML1
GN	Round Valley	45N11A	2.40	ML2-->ML1
HC	Mill Luther H20shed restor	18N39	0.4	maintenance level change (ML2 ---> ML1)
HC	Mill Luther H20shed restor	18N46	2.2	maintenance level change (ML2 ---> ML1)
HC	Mill Luther H20shed restor	18N31A	1.8	convert to hiking trail
	Total Miles		12.06	

Table B-2. Ongoing and reasonably foreseeable road actions, Klamath National Forest (GN = Goosenest, SS = Salmon River and Scott River , OK = Oak Knoll, HC = Happy Camp)

District	Project	Road No	GIS generated lengths (mi)	Comments
Roads proposed or scheduled for decommissioning				
HC	Mill Luther H20shed restor	17N12C	1	decommission system road
HC	Mill Luther H20shed restor	17N37B	0.9	decommission system road
HC	Mill Luther H20shed restor	18N15	0.25	decommission system road
HC	Mill Luther H20shed restor	18N15A	0.4	decommission system road
HC	Mill Luther H20shed restor	18N16C	0.6	decommission system road
HC	Mill Luther H20shed restor	18N17	0.76	decommission system road
HC	Mill Luther H20shed restor	18N26A	0.3	decommission system road
HC	Mill Luther H20shed restor	18N44	2.85	decommission system road
HC	Mill Luther H20shed restor	19N01C	0.4	decommission system road
HC	Mill Luther H20shed restor	19N01E	1.3	decommission system road
HC	Mill Luther H20shed restor	19N01F	0.8	decommission system road
HC	Two Bit Vegetation Mgt	17N02	1.86	use for Two Bit then decommission
HC	Two Bit Vegetation Mgt	17N02A	0.17	use for Two Bit then decommission
HC	Two Bit Vegetation Mgt	17N04	0.93	use for Two Bit then decommission
HC	Two Bit Vegetation Mgt	17N11C	0.25	use for Two Bit then decommission
HC	Two Bit Vegetation Mgt	18N43	0.84	use for Two Bit then decommission
HC	Two Bit Vegetation Mgt	18N43A	0.29	use for Two Bit then decommission
OK	Horse Heli EIS	47N22YA	0.25	Decommission
OK	Horse Heli EIS	47N22YB	0.25	Decommission
OK	Horse Heli EIS	47N23Y	0.46	Decommission
OK	Horse Heli EIS	47N57	0.39	Decommission
OK	Horse Heli EIS	47N98	0.46	Decommission
OK	Horse Heli EIS	47N99A	0.17	Decommission
SS	Deep	44N40	1.2	Decommission
SS	Deep	44N52YA	0.4	Decommission

Table B-2. Ongoing and reasonably foreseeable road actions, Klamath National Forest (GN = Goosenest, SS = Salmon River and Scott River , OK = Oak Knoll, HC = Happy Camp)

District	Project	Road No	GIS generated lengths (mi)	Comments
SS	Deep	44N96A	1.1	Decommission
SS	North Fork	10N29	1.59	Decommission
SS	North Fork	10N29A	0.3	Decommission
SS	North Fork	39B	0.8	Decommission
SS	North Fork	39F	0.65	Decommission
SS	North Fork	40N39	0.5	Decommission
SS	North Fork	40N42A	0.7	Decommission
SS	North Fork	40N51E	0.5	Decommission
SS	North Fork	40N51G	0.3	Decommission
SS	North Fork	40N51H	0.12	Decommission
SS	North Fork	40N51J	0.28	Decommission
SS	North Fork	40N54G	0.25	Decommission
SS	North Fork	40N72	2.02	Decommission
SS	North Fork	40N72A	0.23	Decommission
SS	North Fork	41N19	1.6	Decommission
SS	North Fork	41N22	1.05	Decommission
SS	North Fork	41N22A	0.9	Decommission
SS	North Fork	41N23	1.0	Decommission
	Total Miles		30.37	

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Appendix C – Motorized Mixed Use Analysis

Appendix C consists of two documents:

Public Uses (Roads) White Paper

This is a paper on public road use on the Klamath National Forest. This paper focuses on two topics:

- Forest road management and maintenance strategies to meet public and Forest Service access and resource protection needs using limited funding sources.
- The impact of adding unauthorized roads under the Travel Management Rule.

Engineering Analysis of Motorized Mixed Use on National Forest System Roads

This is an engineering analysis of motorized mixed use on national forest roads on the Klamath National Forest which has three parts:

- A summary of relevant laws and regulations; a history of transportation management on the Forest; and a methodology for the mixed use analysis.
- A description of the roads analyzed, by ranger district.
- A compilation of the road-by-road analyses.

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**USDA Forest Service
Klamath National Forest**

Public Uses (Roads) White Paper

Kenneth C. Stagg

Forest Engineer

April 2009

TOPIC

- Forest road management and maintenance strategies to meet public and Forest Service access and resource protection needs using limited funding sources.
- Impact of adding unauthorized roads under the Travel Management Rule

INTRODUCTION

The definition of a forest road is “Any road wholly or partially within, or adjacent to, and serving the National Forest System and which is necessary for the protection, administration, and utilization of the National Forest System is a “Forest Road” (Title 23, Section 101 of the United States Code). The Klamath National Forest (NF) road network facilitates forest management, provides access to diverse recreational opportunities, and contributes to the rural transportation infrastructure of interspersed private lands. At the same time, agency and public awareness of the environmental costs and risks associated with forest roads and attendant activities is increasing. As the agency’s emphasis has shifted from commodity production to ecosystem health, the forest road system needs to be analyzed, managed and maintained to minimize environmental impacts and reduce costs, while providing sufficient access for public and agency needs. This paper will provide background information and management strategies being employed to meet these objectives.

KLAMATH NATIONAL FOREST ROAD SYSTEM

State and county roads stretch across the Klamath NF and serve large tracts of federal land. Some of these county roads are also designated as Forest Highways, making them eligible under the Federal Lands Highway Program for disaster relief and major renovation funds. Examples are the Scott River Road, Sawyers Bar Road and Indian Creek Road. The Forest facilitates management of these roads, but jurisdiction for their repair and maintenance lies with State and county road agencies. Klamath National Forest System (NFS) Roads, under Forest Service jurisdiction, branch off from these state and county roads as arterial, collector and local roads.

National Forest System (NFS) roads are not public roads in the same sense as roads that are under the jurisdiction of State and county road agencies. NFS roads are not intended to meet the transportation needs of the public at large. Instead, they are authorized only for the use and administration of national forest lands. Although generally open and available for public use, that use is at the discretion of the Secretary of Agriculture. Through authorities delegated by the

Secretary, the Forest Service may restrict or control traffic to meet specific management direction.

NFS roads are categorized using the following system:

Maintenance Level (ML) 5: Roads that provide a high degree of user comfort and convenience. Normally double lane paved facilities, or aggregate surface with dust abatement. This is the highest standard of maintenance.

Maintenance Level 4: Roads that provide a moderate degree of user comfort and convenience at moderate speeds. Most are double lane aggregate surfaced. Some may be single lane. Some may be chip sealed or dust abated.

Maintenance Level 3: Roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities. Typically these roads are low speed, single lane with turnouts and native or aggregate surfacing.

Maintenance Level 2: Roads open for use by high-clearance vehicles. Passenger car traffic is allowed but discouraged. Use by the public is unrestricted, and is generally focused on access to privately-owned lands or recreation sites, or permitted activities (grazing, woodcutting, etc.). The Forest Service uses these roads extensively for administrative purposes. Non-traffic generated maintenance is minimal.

Maintenance Level 1: These roads are closed year-round, but some intermittent use may be authorized. When closed, they must be physically closed with barricades, berms, gates, or other closure devices. When closed to vehicular traffic, they may be suitable and used for non-motorized uses, with custodial maintenance.

The current Klamath NF transportation system encompasses 4,536 miles of roads in all maintenance levels (Table 1). The Ukonom District and its 357 mile road system are included; however, management of these roads is the responsibility of the Six Rivers National Forest.

Table 1. Road Mileage on the Klamath National Forest by Maintenance Level.

Maintenance Level	Miles
Level 1	813.0
Level 2	2768.7
Level 3	810.7
Level 4	102.6
Level 5	41.5
Total Miles:	4536.5

ROAD MAINTENANCE TERMINOLOGY

Maintenance needs on NFS roads are categorized and quantified in several ways that must be understood to make sense of cost data and projected annual and deferred maintenance needs being reported at the national level. Common terms used in this paper are defined here.

Traffic Generated & Non-Traffic Generated Maintenance: Traffic generated maintenance needs are those associated with the use of a road, such as rutting of the roadbed caused by traffic during wet weather. In general, as use on a particular route increases, so does the traffic-generated maintenance needs. Non-Traffic generated maintenance is independent of the use of a road. For example, the growth of tree limbs and brush creates a maintenance need, but the growth is independent of the volume of traffic the road receives.

Annual Maintenance: This term refers to the expected annual maintenance required on roadways and roadsides based on the Maintenance Level assigned to the road. The actual amount of maintenance required depends on the amount of use the road has received, the condition of the surface, and the season of use. Annual maintenance estimates include many work items that are not done yearly, but are annualized. For example, the aggregate surfacing on a mile of level 3 road may last 25 years and cost \$60,000 to replace. This equates to a simple annualized cost of \$2,400 per mile.

Deferred Maintenance: This is work that can be deferred, without loss of road serviceability, until such time as the work can be economically or efficiently performed. Using the example above, if the surfacing is completely worn down, the deferred maintenance is \$60,000 per mile for replacement. Deferred maintenance needs can be reduced through a number of different actions and strategies, as discussed below.

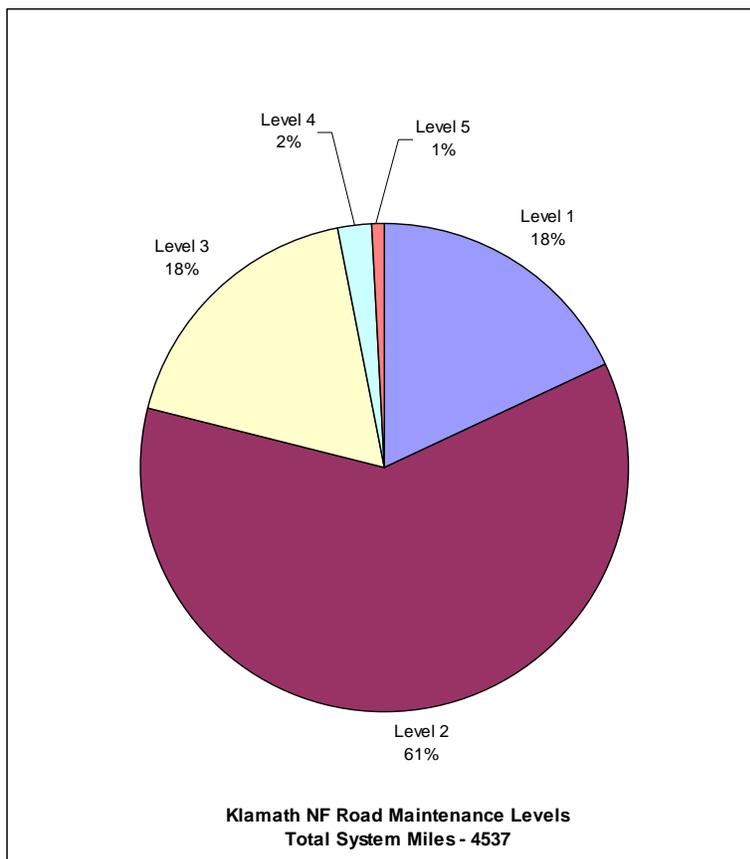
Safety & User Related Maintenance: This term refers to activities that protect the public and agency employees and allow use of the road for the intended purpose. Examples include installation of warning devices (such as stop or bridge abutment signs); pothole patching on a level 5 road; maintaining surface and brush clearance for passenger car access to developed recreation sites; maintaining access for fire suppression initial attack equipment; or maintaining access for forest health project planning and implementation.

Resource Protection Related Maintenance: These activities preserve the road prism for its intended use and minimize erosion and sediment delivery to aquatic systems. Examples include ditch and culvert cleaning; maintaining rolling dips to prevent stream diversion; or surface blading to remove wheel ruts that concentrate runoff.

Stormproofing & Aquatic Passage: These projects reconstruct a road using various techniques to minimize chronic and storm related resource damage, reduce future maintenance costs, and restore aquatic passage at stream crossings. Stormproofing includes out-sloping the road surface to the maximum extent possible and eliminating associated inboard ditches and cross drains; installing larger culverts and/or lowering the grade through stream crossings to reduce fill volume and prevent diversion; installing rolling dips on moderate road grades to minimize road surface erosion; armoring fills with rock to reduce erosion should they be overtopped; or completely replacing earth fills with rock. Aquatic passage involves replacing a pipe culvert with an open bottom culvert or bridge to restore the natural stream bottom.

DEFERRED MAINTENANCE BACKLOG

The Klamath National Forest's transportation system has developed over the past 100 years, generally in response to public access and resource extraction needs. The current inventory shows over 4,500 miles of road, with 79% in ML's 1 and 2, and only 21% in ML's 3, 4 and 5 (Figure 1). Road maintenance budgets have declined over the past decade, and the Forest's internal capability to maintain roads has been reduced with loss of maintenance personnel and equipment. The Klamath Forestwide Roads Analysis completed in 2002 reported a Klamath NF deferred maintenance backlog of \$55.5 million and the need for an annual maintenance budget of \$6.1 million to cover all ML 1 – 5 roads on the system. Fiscal year 2007 figures are \$47.9 million and \$10.2 million respectively.



These national estimates require some explanation. The deferred and annual maintenance figures were generated using a national formula based on random sampling (less than 0.2% miles of system roads nationwide for 2009) and standard maintenance prescriptions. It is a useful tool for tracking national trends and producing auditable outputs, but was never intended for use at the forest level, nor is it considered to be statistically valid at this scale. The 2007 deferred maintenance cost figures for ML 4 and 5 roads (\$4.1 million) is a reasonably fair assessment of needs, since paved or chip sealed roads have clearly defined maintenance needs to preserve the surfacing and avoid rapid failure. Annual maintenance cost figures (3.1 million) for ML 4 and 5 roads are too high for the Klamath due to lighter traffic volumes and winter snow cover extending the pavement life. Local estimates are closer to \$2 million. Maintenance level 2 and 3

road maintenance costs are even more overstated. These roads account for \$42 million (88%) of the 2007 deferred maintenance and \$6.7 million (66%) of the annual maintenance needs; however these require far less maintenance expenditures to remain useable and protect natural resources. The nationally calculated cost figures for ML 2 and 3 roads are based on several assumptions:

- High cost aggregate surfacing should be replaced and maintained on most level 3 roads
- Culverts have fixed and relatively limited life spans
- ML 2 roads require high numbers of cross drain culverts
- Roadside vegetation and debris should be regularly removed from every road

These assumptions are not site-specific to the Klamath NF, and do not apply to many of the Forest's roads. Given the conditions on the ground and current maintenance and environmental objectives, the maintenance figures for ML 2 and 3 roads are considered to be unreasonably high, which artificially inflates the Forest deferred backlog figure. More reasonable figures for the entire Klamath ML 1 through ML 5 road system would be in the range of \$20 million deferred maintenance and \$3 million annual maintenance. While these figures may still appear high, they are slowly being reduced through a variety of activities that are part of a Forest-wide strategy.

FOREST STRATEGY FOR ROAD MAINTENANCE

Klamath NF line officers regularly make decisions about which roads to maintain or improve, and to what standard, in order to protect resources and minimize costs. These maintenance decisions, coupled with road projects such as stormproofing, fish passage construction, and decommissioning, reduce road maintenance needs and the deferred maintenance backlog. These actions are accomplished through carefully targeted maintenance planning, and aggressive pursuit of funding opportunities. The Forest has requested and received significant additional funding from several sources for road restoration and design projects since 2006. The ongoing decommissioning program has resulted in a net loss of road miles over the past 8 years. These actions have reduced annual road maintenance needs, allowing more regular maintenance funds to be focused on the deferred maintenance backlog.

Annual Maintenance

Road managers consider a number of factors in deciding when, where and on what to spend annual maintenance funds. Every road does not need or receive maintenance every year, nor is every type of maintenance task completed when a road is maintained. There is no expectation, either by Forest managers or the public that every mile of every Forest road will be passable every year. A description of the Klamath NF transportation system by maintenance level follows.

Maintenance Level 5: These roads are mostly double lane paved that do require care every year and significant mission and safety related maintenance every 8 – 10 years. Important to note is these roads only make up 1% of the system. An example is the 9 mile segment called Grayback located between county roads connecting Happy Camp on Highway 96 to O'Brien on Highway 199 in Oregon. These roads receive relatively low traffic volumes with significantly fewer log

trucks than in years past, and most are not driven in winter due to snow cover. This substantially reduces maintenance costs as heavy vehicles and winter use greatly accelerate asphalt deterioration, and generate increases in safety related costs. By the end of 2009, we will have completed major maintenance on over 23 of 41 miles of level 5 roads by completing full depth asphalt patching of bad areas, crack sealing and then double chip sealing with a fog seal. Another 6 miles may receive the same treatment if special funding materializes. This will extend the pavement life for another 10 years. The remaining 12 miles are in fair to good condition. Drainage is fully maintained and sediment run-off is negligible on these roads.

Maintenance Level 4: These are mostly chipsealed roads with some asphalt sections that also require annual care and significant mission and safety related maintenance every 8 – 10 years. These roads make up 2% of the system. They generally service campgrounds, major trailheads, river accesses and administrative sites. These roads receive low traffic volumes and most are not driven in winter due to facility seasonal closures and snow cover. The vast majority of these roads have received the critical maintenance necessary to preserve the surfacing. Examples include recent chipseals at Tree of Heaven, Juanita Lake and Indian Scotty campgrounds and asphalt overlays at several administrative sites. Drainage is fully maintained and sediment run-off is negligible.

Maintenance Level 3: These roads make up 18% of the system and 88% are in-sloped to a ditch, which reduces the probability that water will concentrate on the road and erode the surface. Most of these roads were aggregate surfaced at one time, but the rock has worn off and been pounded into the native material. In many cases, the aggregate surfacing was placed for the purpose of withstanding heavy use during logging operations. Since the mid 1990's, the traffic mix has shifted to predominately light administrative use and dispersed recreation. The maintenance objectives have shifted to drainage structure cleaning, debris removal, hazard tree removal and spot roadside brushing for safety. The road surfaces are generally hard, stable and bumpy, but are passable with most passenger cars having reasonable ground clearance. The majority of traffic on these roads is pickup trucks or sport utility vehicles, which offer even better ground clearance. These roads are graded only as necessary for proper drainage or for safety concerns such as severe wash boarding. This not only saves maintenance funds, but reduces fresh ground disturbance and reduces surface disturbance and the potential for sediment generation. We only plan to replace aggregate surfacing where needed for resource protection. From a road user perspective, the trip may take a little longer, but given the winding roads, steep drop offs, extremely light traffic volumes and beautiful country, this is probably a good thing.

The following summarizes the maintenance level 3 strategy and cost savings:

- **Aggregate Surfacing** – Applied only as needed for resource protection adjacent to major streams or in soft soils or for driver safety. Approximately 200 miles of road could be enhanced through the replenishment of aggregate surfacing, but since there are no associated resource problems, the decision has been made to forgo surfacing at this time.
- **Grading/Ditch Cleaning** – Conducted as needed to restore surface drainage or abate safety hazards. In many areas where the surface is hard and stable, the roadbed would need to be ripped in order to loosen enough soil to grade a smooth running surface. This ground disturbance could lead to an increase in sediment run-off until the road surface stabilizes, so roads with stable surfaces are generally not graded.

- **Culverts** – Check and clean as needed, with scheduled replacement of those that are deteriorated or of inadequate size. National standard for replacement life is 20 years; however, inspections indicate that most culverts on the Klamath are 30 – 40 years old and still in good condition. Changing culvert lifespan directly affects calculated deferred maintenance costs.
- **Debris Removal** – Accomplished as required on all ML 4 – 5 and most ML 3 roads, but generally only as needed for specific projects on ML 2 roads. As an example, in fiscal year 2008 only 686 miles of ML 2 roads received maintenance.
- **Roadside Brushing** – Brushing needs depend on vegetation types and precipitation which decreases substantially from west to east across the Forest. The western-most roads on the Klamath NF with lower growing vegetation generally have higher brushing costs. Brushing is focused on areas with safety concerns (generally sight distance around curves). Force account crews assist with spot brushing, which is less expensive and more flexible than using contract crews.

Maintenance Level 2: These roads make up 61% of the system. Eighteen percent are in-sloped to a ditch; the remainder are either out-sloped or flat. The majority of these roads are only maintained as needed to support Forest projects or provide access to lookouts or recreation facilities; therefore, many may not see any maintenance for several years. In some cases, roads may become impassable due to rocks or down trees. When needed, maintenance activities typically consist of debris removal and roadside brushing. The amount of brushing required can be substantial, depending on location and the last time it was done. Spot aggregate surfacing is only used to stabilize soft areas. By designing a maintenance scheme focused on roads needed specifically for project or recreation access, we can effectively utilize our maintenance budget on the highest-priority needs.

Maintenance Level 1: These roads make up 18% of the system and only 3% are in-sloped to a ditch. Nearly half of the in-sloped roads are located on the Goosenest District where rainfall is low and the volcanic soil is porous. Normal practice is to place these roads into self-maintaining hydrologic storage using a combination of water bars, rolling dips and pulling culverts. Closure device is either a gate or berm. No maintenance is typically performed except to check the closure device.

Change in Operational Maintenance Level

When roads no longer warrant or receive the type of use for which they were designed, the road manager may recommend that the road's maintenance level be reduced. For example, in many cases on the Forest, ML 3 roads support little traffic, and may be subject to rocks, woody debris, encroaching vegetation and uneven surfaces. Over the past decade a number of ML 3 roads have been reduced to ML 2, and drainage function (rather than passenger comfort) has become the primary objective. These roads are then prioritized for maintenance with the rest of the ML 2 roads. Annual maintenance needs are reduced, and the dollar values assigned to these roads as part of the deferred maintenance backlog are also reduced.

Stormproofing, Decommissioning & Aquatic Passage

Stormproofing opportunities are evaluated at the watershed level on typically maintenance level 1 through 3 roads, to reduce the need for drainage maintenance and to prevent catastrophic soil loss during significant storm events. Approximately 117 miles of roads in the South Fork Salmon, Grider Creek and Elk Creek have been stormproofed using grants and/or special funding sources. Stormproofing project design plans are underway in the Indian Creek drainage and funds are being sought to start project designs in North Fork Salmon River and Lower Scott River watersheds.

Decommissioning is analyzed at the watershed level through the appropriate project-level environmental documentation. It may be as simple as taking a naturally revegetated road with no erosion issues off the system, or it may involve major reconstruction to remove culverts and fills, followed by aggressive outsliping to restore the original hillside contour to the extent possible. All decommissioned roads and associated deferred and annual maintenance costs are removed from the transportation system corporate database. Over the past decade, the Klamath NF has decommissioned 167 miles of NFS roads and 75 miles of unauthorized roads that were not needed and were causing or could potentially cause resource damage.

Aquatic passage projects have been completed on approximately 23 stream crossings, with a few more under construction or awaiting funding. The projects typically replace a culvert with an open bottom arch or a bridge that greatly reduces the fill volume in the stream and exceeds the 100 year storm flow. These projects do more than enhance aquatic habitat – they reduce the potential for culvert blockage and subsequent heavy sedimentation from loss of fill. In some cases, the old culvert was near the end of its useful life, so the replacement structure reduces future maintenance needs.

ADDING ROADS TO THE SYSTEM

A logical question when proposing to add new roads to the transportation system is that of affordability. The ongoing efforts described in this paper are aimed at providing a sustainable transportation system to meet a range of access needs and protect natural resources. The unauthorized roads being proposed for addition to the system under the Travel Management EIS have for years provided access to dispersed recreation opportunities, and connections between NFS roads. These routes have not needed nor received Forest Service maintenance, due in large measure to being mostly short lengths located over generally gentle slopes with no erosion potential. On-the-ground review of these routes indicates that we would not consider conducting maintenance for user access. Expected additional management costs are (1) installation of road signs at less than \$100 each and (2) entry of data into the corporate INFRA database.

SUMMARY

- Management of the Forest road system has changed from an emphasis on commodity extraction to resource protection.
- The Klamath NF is working towards the minimum road system to meet agency and public uses.

- National maintenance cost models were not intended to be used at the Forest level
- The Forest road management program is focused on safety and resource protection while aggressively seeking to leverage maintenance funds through grants and special programs.
- Strategies to reduce annual maintenance costs include:
 - Prioritizing maintenance of ML 2 roads on project and recreation-related access needs
 - Downgrading maintenance levels where possible without compromising user needs.
 - Focusing on watershed level stormproofing and decommissioning to enhance resource protection and reduce future maintenance needs.
- Proposed road additions under the Travel Management EIS will have minimal impact on road maintenance program.

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Engineering Analysis
of
Motorized Mixed Use
on
National Forest System Roads



Klamath National Forest

April 2009

Prepared by Lampe Engineering

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Introduction

Engineering analysis, or traffic engineering, is the science of measuring traffic and travel, the study of the basic laws relating to traffic flow and generation, and the application of this knowledge to the professional practice of planning, designing and operating traffic systems to achieve safe and efficient movement of persons and goods. (Ref. 1)

Motorized mixed use, as defined by the US Forest Service (FS), is the designation of a National Forest System (NFS) road for use by both highway-legal and non-highway-legal motor vehicles. Examples of highway legal motor vehicles are: passenger cars, sport utility vehicles, pickups, motor homes, buses, motorcycles, dual-sport motorcycles and commercial trucks. Examples of non-highway-legal (OHV) motor vehicles are: dual-sport motorcycle, enduro motorcycle, motocross motorcycle, trails motorcycle (dirt bikes), sport ATV (all-terrain vehicle), utility ATV (quad) long-wheel base 4WD, short wheel base 4WD, rock crawler, dunebuggy/sandrail, utility type vehicle(UTV) and snowmobiles.

The FS maintains NFS roads for prudent drivers in standard passenger cars (buses and motor homes) or for high-clearance traffic, i.e., all the others listed above. (FSH 7709.59–25.21 & 25.22 2/09)

Further, the FS defines five (5) levels of maintenance to be applied to all NFS roads (FSH 7709.59 62.32 (2/09)

Level 1	Closed to motor vehicle use.
Level 2	High clearance vehicle use.
Level 3	Standard passenger car use with comfort and convenience not a priority. Typically low speed with single lane and turnouts.
Level 4	Passenger car with moderate degree of user comfort and convenience at moderate travel speeds. Most are 2 lane and aggregate running surface.
Level 5	Passenger cars with high degree of user comfort and convenience. Normally 2 lane and paved.

The objective of this analysis is to assess the current operating conditions on the identified miles of maintenance level (ML) 3 & 4 unpaved NFS roads to address the many factors related to motorized mixed use as outlined in EM-7700-30 (12/05).

OHV use is not being proposed on paved (asphalt or chip sealed) NFS roads except on two ML 4 roads.

The first task is to review, understand and apply the FS regulations, directives and state laws.

Forest Service Manual (FSM) Forest Service Handbook (FSH) and State Vehicle Code Laws

EM-7700-30 (12/05)–Guidelines for Engineering Analysis of Motorized Mixed Use on National Forest System Roads is the basic road map for conducting this analysis.

FSM 7700 (1/09) Zero Code, Chapter 10 Travel Planning, Chapter 30 Road Operations and Maintenance, FSH 7709.55 (1/09) Chapter 10 Travel Planning for Designations, Chapter 30 Engineering Analysis and FSH 7709.59 (2/09) Chapters 10-60 Road System Operations and Maintenance Handbook, all dovetail with EM-7700-30(12/05).

The California State Vehicle Code (CVC) and Oregon Revised Statutes (ORS) are the major sources of State law pertaining to traffic engineering and are referred to in both the FSM and FSH. Relevant sections of the CVC and ORS are covered below; however the vast majority of the Forest is located in California and the Forest Service Pacific Southwest motorized mixed use guidance is written around the CVC.

CVC Provisions:

There are several CVC Divisions that apply to operator license/certificates, vehicle registration, vehicle equipment and training. The key sections are listed in the Appendix 1 – CVC. For example, Division 16.5, Chapter 7–OHV Safety, Education and Certificates provides specific requirements for operators under the age of 18 years.

And there are three sections in Chapter 1 of Division 16.5 that are causing a lot of confusion and concern. The following is from the on-line CVC:

Applicability of Provisions

38001. (a) Except as otherwise provided, this division applies to off-highway motor vehicles, as defined in Section 38006, on lands, other than a highway, that are open and accessible to the public, including any land acquired, developed, operated, or maintained, in whole or in part, with money from the Off-Highway Vehicle Trust Fund, except private lands under the immediate control of the owner or his or her agent where permission is required and has been granted to operate a motor vehicle. For purposes of this division, the term “highway” does not include fire trails, logging roads, service roads regardless of surface composition, or other roughly graded trails and roads upon which vehicular travel by the public is permitted.

Amended Sec. 37, Ch. 563, Stats. 2002. Effective January 1, 2003.

Operation on Highway

38025. In accordance with subdivision (c) of Section 4000, a motor vehicle issued a plate or device pursuant to Section 38160 may be operated or driven upon a highway but only as follows:

(a) On a two-lane highway, only to cross the highway at an angle of approximately 90

degrees to the direction of the roadway and at a place where a quick and safe crossing may be made or only when the roadway is not maintained by snow removal equipment and is closed to motor vehicles that are subject to registration pursuant to Division 3 (commencing with Section 4000), or only to cross a highway in the manner specified in subdivision (b).

Designating Highways: Combined Use

38026. (a) In addition to Section 38025 and after complying with subdivision (c) of this section, if a local authority, an agency of the federal government, or the Director of Parks and Recreation finds that a highway, or a portion thereof, under the jurisdiction of the authority, agency, or the director, as the case may be, is located in a manner that provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway, the local authority, by resolution or ordinance, agency of the federal government, or the Director of Parks and Recreation, as the case may be, may designate that highway, or portion thereof, for combined use and shall prescribe rules and regulations therefore. No highway, or portion thereof, shall be so designated for a distance of more than three miles. No freeway shall be designated under this section.

Amended Sect. 39, Ch. 563, Stats. 2002. Effective January 1, 2003

ORS Provisions:

Oregon Revised Statutes (ORS) regulates the use of motor vehicles in Oregon, including motor vehicles used on the national forests. Per ORS 821.190, it is unlawful to operate a Class III vehicle on a highway, but exemptions are established in 821.200. One of these exemptions is “(2) a snowmobile or all-terrain vehicle may be lawfully operated upon a highway under any of the following circumstances...(c) Where the highway is posted to permit snowmobiles or all-terrain vehicles. ORS 821.200 states “The prohibitions and penalties under ORS 821.190 do not apply when a snowmobile or all-terrain vehicle that qualifies for the exemption from equipment requirements under ORS 821.010...”

The exemption noted above is described in ORS 821.020:

Applicability of off-road vehicle exemption from general equipment requirements.

(1) This section establishes the areas where the exemption from equipment requirements for off-road vehicles described under ORS 821.010 is applicable. The exemption applies to any land, road or place within the State of Oregon that meets the description in subsection (2) of this section and that is not posted as closed to off-road use.

- (2) The exemption applies to each of the following lands, roads and places:
- (a) Lands that are open to the public.
 - (b) Roads, other than two-lane gravel roads, that are open to the public.
 - (c) Paved parking lots adjacent to or on designated off-road vehicle areas, trails and routes that are open to the public.
 - (d) Any local two-lane gravel road that is open to the public and that is designated by the road authority with jurisdiction over the road as open to off-road vehicles that are described in ORS 821.010. [1983 c.338 §711; 1999 c.565 §4]

The use of the term “highway” appears in only several locations in the FSM and FSH:

FSM 7703.3(1/09) – Jurisdiction Over Forest Transportation Facilities. 2. Transfer of Jurisdiction Over a Forest Transportation Facility. Wherever possible, transfer jurisdiction over NFS roads and associated forest transportation facilities to the appropriate public road authority when the road meets any of the following criteria:

- a. More than half the traffic on the road is not related to administration and use of NFS lands.
- b. The road is necessary for mail, school, or other essential local government purposes.
- c. The road serves yearlong residents within or adjacent to NFS lands.

FSM 7740.5 (8/2000). Forest Highway. A designated forest road under the jurisdiction of, and maintained by, a public authority that is subject to the Highway Safety Act.

FSM 7741.1 – Route Designation. Forest highways are a special classification of forest roads. They are specifically designated state or local government roads that meet the criteria listed in 23.CFR 660.105. The designation of forest highways is not intended to form a “system” of roads. Instead, the purpose of the designation is to identify state and local government roads that qualify for construction and reconstruction funding under the forest highway program – which is administered by the Federal Highway Administration.

FSH 7709.59 Chapter 40 (2/09) – Highway Safety Programs as applied to all NFS roads. See Appendix 2 – HSA.

Forest service Region 5 direction in 2006 and 2007 states that roads maintained for passenger cars are not considered roughly graded and the operation of OHV's on those roads is not consistent with state law. Further, the Regional direction implies that vehicles on ML 3-5 roads must be highway legal and operated by licensed drivers, thus all ML 3 -5 roads are considered “highways”.

Understanding the rationale used in applying the California Vehicle Code statutes in the

formulation of Forest Service Regional direction has a profound effect on how motorized mixed use is analyzed and implemented on NFS roads in California and how the OHV using public is able to understand and accept a motorized mixed use decision.

Methodology

Traffic Volume and Classification – The second task of the analysis is to learn the actual facts about how much volume and what class of vehicle is traveling on the Klamath NFS roads today.

See Appendix 3–Terms, for clarification of engineering terminology.

In the 1960s and 1970s the FS in California established a traffic surveillance program to assist in setting road construction design standards and cost share agreement percentages. Machine counts were the predominate method for obtaining data. Attempts were made to classify logging traffic from other traffic. The data and assumptions made during that period of time is what have generally been carried forward over the years.

Since the 1990's, the amount of road construction has been reduced to nearly nothing and the traffic surveillance program followed suit. As a result of the change in resource activities over the last 20 years the volume and class of traffic has changed dramatically and is not reflected in the data base (INFRA).

There is no recent statistically sound average daily traffic data or vehicle classification information available. The data in the transportation records generally reflects values used for design prior to the 1990's.

We know of one recent traffic volume and classification study done on 72 miles of NFS ML 3 and 4 roads by a State Licensed Traffic Engineer. The study protocol was fully documented and forwarded to the Washington Office Recreation Staff, National Visitor Use Monitoring group, for Sue Kocis's evaluation and concurrence. The only change recommended was to observe and record the number of people in each vehicle when it passed the count station.

The protocol was based upon the guidance published in the ITTE Syllabus (Ref. 1) for rural roads. Manual counts were made between 7:00 AM and 7:00 PM on the first Sunday and third Wednesday in June, July and August, 2005. Recordings were by 4 hour blocks of time and distinguished between passenger cars, SUVs, pickups, highway legal motorcycles, dirt bikes and quads. No commercial traffic occurred during the summer on the involved roads. The protocol statistically measured 85% of total traffic flowing.

The observations were made by a group of volunteers under a Volunteer Agreement. The work began by holding a training session with all hands to ensure uniformity in data collection. The study included local USFS employee participation. This study provided a snapshot of what volume and class of traffic was flowing during the summer of 2005

on 72 miles of ML 3 and 4 NFS roads.

Table 1 – Statistical Sample – Summer 2005 Traffic Study on 72 miles Maintenance Level 3 and 4 unpaved NFS roads on the Lassen NF

Count Station Data	1	3	4	5	9	10	11	12	Ave
ADT–LNF Roads Analysis 2006	25	25	25	25	15	40	?	40	28
ADT Counted in 2005	5.5	18.0	19.2	11.2	5.6	13.9	14.0	7.9	12
Peak Hr (7/3)	5.0	13.8	5.8	3.3	2.3	3.0	8.5	1.5	5.4
Hwy Legal%*	42	95	83	87	83	76	95	85	81%
Non-Hwy Leg.%	58	5	17	13	17	24	5	15	19%
Passen. Car%	11	9	8	10	10	9	19	4	10%
People/veh	1.6	1.9	1.8	1.5	1.4	1.5	1.9	1.6	1.65

*Highway Legal – 10% pass. cars, 26% SUVs, 47% Pickups

$$\text{ADT} = \frac{\text{Average week end day (2)} + \text{Average week day (5)}}{7}$$

Peak Hour = chose 7/3 between 11AM and 3PM, thus data for 4 hours

$$\text{Peak Hour} = X \div 4$$

Finally – Keep in mind that the ADT volume is for a 24-hour day

So, how much traffic if flowing?

Count Station #1 Roads Analysis ADT = 25 ADT

$$25 \text{ ADT} \div 24 \text{ Hours} = 1.04 \text{ veh. per hour}$$

Count Station #1 Observed ADT = 5.5 ADT

$$5.5 \text{ ADT} \div 24 = 0.23 \text{ veh. per hour}$$

The Klamath NF does not currently have an active traffic surveillance program.

Therefore, best judgments have been used, guided by the above 2005 traffic study, to estimate the current volume and classification of traffic occurring on the NFS roads being evaluated in this analysis.

Appendix 4, lists Klamath NFS roads (or segments) with estimated ADT, estimated percentage of highway-legal and non-highway traffic flowing, average speeds and road widths. This estimate was prepared by the Forest Engineer, Transportation Planner and Roads Operation and Maintenance Engineer in March 2009.

Other Travel Factors – The third task is to assess other travel and roadway factors that may have an effect on the probability of a crash between highway-legal and non-

highway-legal motor vehicles if they are permitted to co-exist on a road.

Speed – There is a design speed and there is an average speed that a prudent driver can travel the road under its current conditions. “The average speed method is a driving technique by which the driver is to travel at a speed that, in his/her opinion, is representative of the speed of all traffic at the time. Tests of this method have shown excellent correlation with actual travel time. (Ref. 1)

Road Surface – Surface conditions affect how fast a prudent driver can safely drive and stop. All roads in this study are unpaved, i.e., native, pit-run, rock aggregate or cinders. Stopping sight distances listed below are for these unpaved conditions and are compatible with guidance given in FSH 7709.56 4.25 (5/87).

Safe Stopping Sight Distance–Gravel Surface

<u>MPH</u>	<u>Distance in Feet</u>
10	70
15	120
20	150
25	190
30	215
35	280
40	290

Intersecting Roads/Trails – The key factor here is stopping sight distance for all operators. Normal conditions are that the main (major) road will have right-of-way and the operator making the turn movement has the greater responsibility. The physical “lay-of-the-land” and sight distance affect the judgment call to require traffic control at an intersection. The general rule on the Klamath NF is to not provide intersection controls where an unpaved road meets another unpaved road. There may be exceptions to this. When an unpaved road meets a paved road, then intersection control is generally required. Control is generally by use of a yield sign or stop sign.

Roadway Alignment, Visibility and Sight Distance – Can be measured by checking the stopping sight distance (see above).

Climate conditions – Not a major factor for the Klamath NFS roads. Mixed use generally occurs in the summer months when the weather is clear and warm. Drivers have the responsibility to slow down to avoid dust from other vehicles. In the fall, when rain is possible, you will see hunters out in pickups or quads. Quads are becoming the preferred method of poking around on the roads during the hunting season.

Single lane with turnouts – This is the general case for Klamath NFS roads. And those roads constructed via timber sales also have curve widening for log truck trailer tracking and an extra full lane width on curves to allow two logging/chip trucks to pass.

The typical design standards used during the development days were for a travel way width of 12 or 14 feet, plus 2-4 feet of curve widening on the inside of a curve and an additional 10 foot wide passing zone/turnout on the outside of most curves. Turnouts were generally designed to be intervisible.

Most passenger cars, SUVs and pickups are about 7 feet wide. Most OHV's encountered are less than 50 inches wide—say 4 feet—thus there is room to safely pass.

An observation from driving these roads is that almost always opposing drivers slow down to pass, in particular the folks on quads. There is that 2-5% that does not drive safely and in particular those that are working out there. They are using the road to get to and from work and tend to over drive a safe speed, including USFS drivers.

Crash Probability – The following assumptions and benchmarks will be used to assess the risk of a crash happening: It is assumed that all operators have met California Vehicle Code requirements for having and maintaining their vehicle and have obtained required safety training and certifications to operate legally, that parents are responsibly looking after their minor operators, and all drivers are operating prudently.

Assessing High Probability and Low Probability for a crash:

<u>Indicator</u>	<u>Benchmark Ranking</u>	
	<u>High</u>	<u>Low</u>
Crash History (5 year period)	>4/site	0
Average Daily Traffic (ADT)	>150*	30 or less*
Prudent Driver Average Speed (MPH)	>40**	25 or less**
Intersections with Sight problems	>5	0
Visibility, Alignment, Stopping		
Sight Distance not met (sites)	many >10/mile	few <4/mile
Travel Way width (feet)	<10	14 or more

* Used by R3, & 6. R4 & R8 used 100 ADT or less for low probability

** In FSH 7709.55.32 (2/09)

Crash Severity –

1. Roadside Conditions

a. Downhill slopes – the steeper the slope the greater damage will be done in the event of a run off the road crash. A major portion of the Klamath NFS roads are in steep country. The operators know this and drive accordingly. The topography is visible. Also, FSH, 7709.59.41.4 (2/09) states that for NFS roads with an ADT of 400 or less, it is generally not appropriate to make special provisions for roadside design features, such as clear zones and barriers, intended to minimize the consequences of run off the road accidents.

b. Hazards – large, unyielding features adjacent to the road such as trees, bridge abutments, cattle guards, boulders, culvert drop inlets, drainage dips on curves, shoulder slough due to short culverts or grade lowering.

2. Speed – The road's surface condition plays a major part in how fast people will drive. Today, most travelers are out to enjoy the ride and road surfaces are rough, which keeps the speed down.

3. Traffic Class – A variety of different sized vehicles will tend to cause the severity to increase.

Assessing Crash Severity – The following assumptions and benchmarks will be used to assess the severity of a crash causing personal injury and property damage.

It is assumed that a temporary forest order will be issued for a road during times of commercial activity to prohibit non-highway-legal vehicles in accordance with FSH 7709.59.23 (2/09).

Proposed High Probability and Low Probability of a severe crash causing severe damage:

<u>Indicator</u>	<u>Benchmark Ranking</u>	
	<u>High</u>	<u>Low</u>
Prudent Driver Average Speed (MPH)	>40*	25 or less*
Clearance from Hazards	Little or None	Adequate
Alignment & Sight Distance	Poor	Adequate
Roadway Gradient	>12%	<12%
Multi-passenger vehicles	Buses	Cars, PU
	Motor homes	SUV

*In FSH 7709.55.32 (2/09)

Most operators on the Klamath NFS roads live in or very near the Forest and, therefore, are considered to be familiar with driving conditions. All operators are assumed to be legal per the license and safety certificate requirements of the state.

Crash History – There are no records or knowledge of mixed use crashes on ML 3-5 roads according to R5 mixed use accident data over the past 15 years. Reporting procedures are being established to provide information for future mixed use decision making, with emphasis on the official cause of the crash if roadway related.

Klamath NF Background

Transportation History – Homesteading and mining began in the 1800s, followed by logging, grazing and fire suppression. These activities generated the need for vehicle travel, thus the majority of roads that exist today were developed.

During the period of major timber harvesting, 1950s to 1980s, roads were designed and constructed to serve the efficient extraction of timber. The roads also provided access for all forms of recreation, including driving for pleasure. The designs were done to accommodate the large logging trucks and the volume of daily traffic that was generated. The roads were generally 12-14 feet wide with intervisible turnouts so that logging trucks could pass each other. Further, the Region had a traffic surveillance (counting) program to understand how much traffic was actually flowing, when and where. The ADT data that is in the INFRA corporate database today is based largely upon the data collected in the 1970s and '80s and needs to be revised.

With the major change in resource activities in the 1990s, traffic flow on the NFS roads has changed significantly. Funding for the operation and maintenance of the existing system has also been reduced. As a result, factual knowledge of the type and volume of traffic has not been updated or collected. Instead, emphasis has been given to drainage maintenance and higher clearance vehicle access.

Crash History – There are no records or knowledge of mixed use accidents on any of the Klamath NFS roads.

Mixed Use Traffic and Public Safety: Engineering judgment and common sense tells us that no person or operator wants to be hurt or do any damage to their motor vehicle.

There are, however, a lot of folks, including those that have a disability, who enjoy getting outdoors for the experience. Some of them hike, ride horseback, bicycle, ride OHV's or highway-legal motor vehicles. The Klamath NF provides opportunities for all of these modes of travel.

The landscape is rugged, particularly on the west side of Interstate Highway 5, and this affords many excellent observation points to enjoy the scenery. Because the existing roads were constructed for logging, they are fairly wide and have reasonable stopping sight distance and intervisible turnouts. Furthermore, the roadway surface has worn down to where it is impractical to maintain the surface in a smooth condition, thus travel speeds are generally slow, between 10 and 20 miles per hour.

User safety is further enhanced by the fact that the recent estimated traffic volume on any given road is in the range of less than 1 to at most 15 vehicles per day. At 15 vehicles in say a 15 hour driving day, statistically that is one vehicle every 1 hour.

Consistency with State and Local Law – During public workshops on Travel Management recently held throughout Siskiyou County, it became apparent that many

OHV users were not aware of 1) the difference between ML 2, ML 3 and some ML 4 roads, 2) the Forest Service interpretation of the CVC regarding ML 3 roads as highways and 3) the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but thought unpaved roads were legal to use. Together with observations by Forest Service employees, it is clear that OHV use is occurring on ML3 and ML 4 roads, not because it is sanctioned by the Forest Service, but rather public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Regional Forester Order No. 08-01 pertaining to Division 16.5 of the California Vehicle Code provides the authority for NF Law Enforcement Officer's to contact operators and check for safety certificates as well as registrations, helmets, spark arresters, brakes and to provide information and education.

Conclusion

The background presented above provides the context used for assessing the safety of motorized mixed use on the individual roads in this analysis.

References

1. Fundamentals of Traffic Engineering – 6th Edition – Syllabus, Institute of Transportation and Traffic Engineering (ITTE), University of California, Berkeley, CA 1966.
2. Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), Federal Highway Administration (FHWA), 2003 Edition.
3. Guide for Traffic Volume Counting Manual, Bureau of Public Roads (now FHWA), 2nd Edition, 1965.
4. Forest Service Manual and Handbook (FSM 7700 & FSH 7709.59)

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Appendix 1 – CVC

California Vehicle Code (CVC) Liability and Licensing Requirement

Following are brief excerpts from the on-line code:

Division 6 – Driver’s Licenses (Highway Legal)

CVC 12500. (a) A person may not drive a motor vehicle upon a highway, unless the person then holds a valid driver’s license under this code.

CVC 12501. The following persons are not required to obtain a driver’s license:

(c) Any person driving or operating an off-highway motor vehicle subject to identification, as defined in Section 38012, while driving or operating such motor vehicle as provided in Section 38025.

38012 – Motorcycle or motor driven cycle, snowmobile, sand buggy, dune buggy, all-terrain vehicle or Jeep. (green or red sticker)

38025 – to cross a two-lane highway.

CVC 12512. Except as provided in Sections 12513, 12514 and 12814.6, no license to drive shall be issued to a person under the age of 18 years.

12513 – Junior permit for 14-18 when for school purpose or public transportation more than one mile away.

12514 – Junior permit duration

12814.6 – Provisional license for minor under direct supervision of 25 year old licensed driver or parent.

Class M1 Licenses. To operate any 2-wheel motorcycle or motor driven cycle.

NOTE – The DMV will not issue a license to operate a 2-wheel motorized vehicle to anyone under 21 years of age unless that person has completed a CHP approved motorcycle rider training program certified on the Certificate of Completion of Motorcycle Trailing (DL 389).

OHV – See Division 16.5 Chapter 7 below. (Non-Highway-Legal)

Division 7 – Financial Responsibility Laws

Reportable Off-Highway Accident

16000.0 (a) For purposes of this division, a “reportable off-highway accident” means an accident which includes all of the following:

- (1) Occurs off the street or highway.
 - (2) Involves a vehicle that is subject to registration under this code.
 - (3) Results in damages to the property of any one person in excess of seven hundred fifty dollars (\$750) or in bodily injury or in the death of any person.
- (b) A “reportable off-highway accident” does not include any accident which occurs off-highway in which damage occurs only to the property of the driver or owner of the motor vehicle and no bodily injury or death of a person occurs.

Evidence of Financial Responsibility

CVC 16020. (a) Every driver and every operator of a motor vehicle shall at all times be able to establish financial responsibility pursuant to Section 16021, and shall at all times carry in the vehicle evidence of the form of financial responsibility in effect for the vehicle.

Establishing Financial Responsibility

CVC 16021. Financial responsibility of the driver or owner is established if the driver or owner of the vehicle involved in an accident described in Section 16000 is:

- b) An insured or obligee under a form of insurance or bond which complies with the requirements of this division and which covers the driver for the vehicle involved in the accident.

Division 9 – Civil Liability of Owners and Operators of Vehicles

Article 2. Liability of Private Owners

17150. Every owner of a motor vehicle is liable and responsible for death or injury to person or property resulting from a negligent or wrongful act or omission in the operation of the motor vehicle, in the business of the owner or otherwise, by any person using or operating the same with the permission, express or implied, of the owner.

Division 16.5 Off-Highway Vehicles

Vehicle License

CVC 38012. (a) As used in this division, “off-highway motor vehicle subject to identification”* means a motor vehicle subject to the provisions of subdivision (a) of Section 38010.

(b) As used in this division, “off-highway motor vehicle” includes, but is not limited to, the following:

(1) Any motorcycle or motor-driver cycle, except for any motorcycle which is eligible for a special transportation identification device issued pursuant to Section 38088. (Motorcycle used in racing events).

(2) Any snowmobile or other vehicle designed to travel over snow or ice, as defined in Section 557.

(3) Any motor vehicle commonly referred to as a sand buggy, dune buggy, or all-terrain vehicle.

(4) Any motor vehicle commonly referred to as a jeep (that is not highway legal).

*Identification refers to registration with DMV and evidenced by a green or red sticker—date sensitive.

Vehicle Equipment

CVC 38335 & 38345 – Headlights and taillights when operating from one-half hour after sunset to one-half hour before sunrise.

CVC 38355 – Serviceable brakes.

CVC 38366 – Spark Arrester

CVC 38370 – Noise Limits

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38007. The Off-Highway Motor Vehicle Recreation Division of the Department of Parks and Recreation shall adopt courses of instruction in off-highway motor vehicle safety, operation, and principles of environmental preservation by January 1, 2005. For this purpose the division shall consult with the Department of the California Highway Patrol and other public and private agencies or organizations. The division shall make this course of instruction available directly, through contractual agreement, or through volunteers authorized by the division to conduct a course of instruction.

CVC 38501. (a) An all-terrain vehicle safety training organization, commencing on January 1, 1989, shall issue an all-terrain vehicle safety certificate furnished by the department to any individual who successfully completes a course of instruction in all-terrain vehicle operation and safety as approved and certified by the Off-highway Vehicle Safety Education Committee.

CVC 38502. The department, on and after July 1, 1988, may monitor any all-terrain vehicle safety training organization or any all-terrain vehicle safety instructor without advance notice. The monitoring may include, but is not limited to, the instruction provided, business practices, and records required by Section 11108.

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

(a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.

(b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.

(c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

CVC 38504.2. If a person under 14 years of age was not properly supervised or accompanied in accordance with Section 38504, and the parent or guardian of that child or the adult who was authorized by the parent or guardian to supervise or accompany that child is in violation of Section 38504.1, upon conviction pursuant to Section 38504, the court may order that child to attend and complete the all-terrain vehicle safety training course accompanied by the person who violated Section 38504.1. If so ordered, the child under 14 years of age shall provide the court a copy of the all-terrain vehicles safety certificate issued as a result of that completion.

CVC 38505. No person, on and after January 1, 1989, shall operate, ride, or be otherwise propelled on an all-terrain vehicle on public lands unless the person wears a safety helmet meeting requirements established for motorcycles and motorized bicycles, pursuant to Section 27802.

CVC 38305. 38314, 38316a, 38317. Operators may not drive a motor vehicle in a manner that endangers the safety of other persons or their property.

CVC 38319. No person shall operate, nor shall an owner permit the operation of, an off-highway motor vehicle in a manner likely to cause malicious or unnecessary damage to the land, wildlife, and wildlife habitat or vegetation resources.

Appendix 2 – HSA

Highway Safety Program – FSH 7709.59.40 (2/09)

40.3 – Policy

- Safety is the predominant consideration in road operation and maintenance and takes priority over biological and other considerations.
- Roadways must be managed for safe passage by road users.
- Identification of danger trees must be performed by qualified persons.
- When high priority hazards to road users are identified on NFS roads and those hazards cannot be immediately mitigated, the roads must be closed.

41 – Highway Safety Program Components

41.1 – Traffic Engineering Services

1. Engineering skills
2. Engineering principles and road safety audits
3. Establish a traffic control device plan

41.2 – Identification, Investigation, and Surveillance of Accident (Crash) Locations

41.3 – Design and Construction

1. Design Standards – for construction and reconstruction of NFS roads
2. Temporary Traffic Control at Construction Sites – requires compliance with MUTCD in construction zones on roads open to public travel.

41.4 – Roadside Design

On NFS roads with 400 ADT or less, it is generally not appropriate to make special provision for roadside design features, such as clear zones and barriers, intended to minimize the consequences of run off the road accidents.

41.5 – Highway–Rail Grade Crossings

Sign all railroad grade crossings in accordance with the MUTCD

41.6 – Roadway Maintenance

Maintain roadway and roadsides for movement of traffic commensurate with the annual operational maintenance level assigned to the road.

41.7 – Hazard Identification and Correction

1. General – use common sense and engineering judgment to determine safety deficiencies and the priority for corrective action.
2. Danger Trees

41.8 – Incident Management

Temporary traffic control measures during incident management activities must comply with the MUTCD, Part 6.

41.9 – Forest Service Employees and Forest Service-Owned Equipment.

Requirements are found in FSH 6709.11 Health and Safety Code Handbook, Chapter 10 and the Drivers-Operators Guide, EM-7130-2.

Appendix 3 – Terms

Clarification of Terms

Combined Use – This is a State of California term defined in CVC 38026 to provide for OHV's to legally use up to 3 miles of highway. The California Highway Patrol has clarified, via their December 19, 2007 letter to the Regional Forester of the Pacific Southwest Region (California) of the U. S. Forest Service, that unpaved USFS roads are not considered highways.

Mixed Use – This is a U.S. Forest Service term most recently defined in their “Guidelines for Engineering Analysis of Motorized Mixed Use on National Forest System Roads” (EM-7700-30, December 2005). The Guide’s Glossary, page 10, defines Motorized Mixed Use as “Designation of a NFS road for use by both highway-legal and non-highway legal motor vehicles”.

Shared Use – This is a term and standard warning sign listed in the 2003 edition of the “Manual of Uniform Traffic Control Devices” published by the Federal Highway Administration.

CalTrans and other road management agencies, including the Forest Service, may use these signs to warn the traveling public about what they may encounter along the highway or road where posted. This sign does serve to put the traveling public on notice that they may encounter a bicycle, horse, ATV, etc.

The terms traffic volume, traffic flow, average daily traffic (ADT), and vehicle classification are used throughout the FSM and FSH directives and guidance, but they are not defined.

The following are definitions for the above terms and some others as used in this analysis:

Average Day – a day representing traffic volumes normally and repeatedly found at a location. When volumes are primarily influenced by employment, the average day is typically a week day. When volumes are primarily influenced by entertainment or recreation, the average day is typically a weekend day. (Ref. 2)

Average Daily Traffic (ADT) – the average number of vehicles passing a particular point on the road during a specified period of time. (Ref. 3)

Average daily traffic is calculated by averaging the recorded weekday and weekend day traffic for the time period. (Ref. 3)

Average Daily Traffic (ADT) or Average Annual Daily Traffic (AADT) in vehicles per day is used for: (Ref 1)

- a) Measuring the present demand for service by the road.
- b) Evaluating the present traffic flow with respect to the road system.
- c) Developing (or identifying) the major or arterial road system.
- d) Locating areas where new facilities or improvements to existing facilities are needed.

Counting Periods – The length of time that a specific location should be counted is dependent upon the data desired and the application in which the data are to be used. (Ref. 1)

1. Some of the more commonly used intervals are:
 - a. Weekends between 6PM Friday to 6AM Monday
 - b. 24-hour counts
 - c. 16-hour counts usually from 6AM to 10PM
 - d. 12-hour counts usually from 7AM to 7PM to cover most daytime traffic movements.
 - e. Peak-period counts, i.e., commute times

Counting Programs – The establishment of scheduled periodic volume counts is necessary if accurate information concerning the use of roads is to be maintained. (Ref. 1)

1. Rural Counting Programs
2. Urban Count Programs
3. California Statewide Counting Program

Counting Techniques – The data required usually determines the method to be used in obtaining the counts. (Ref. 1)

1. Machine Counts
2. Manual Counts
3. Moving Vehicle Method

Traffic – pedestrians, bicyclists, ridden or herded animals, vehicles, streetcars, and other conveyances either singularly or together while using any highway for purposes of travel. (Ref. 2)

Traffic Counter – a person or a machine that keeps track of the traffic that passes a counting site in a specified period of time.

Traffic Service Level – A description of the road's significant traffic characteristics and operating conditions:

<u>Code</u>	<u>Description</u>
A –	Free flowing, mixed traffic; stable, smooth surface. Provides safe service to all traffic.
B –	Congested during heavy traffic, slower speeds and periodic dust; accommodates any legal-size load or vehicle.
C –	Interrupted traffic flow, limited passing facilities, may not accommodate some vehicles. Low design speeds. Unstable surface under certain traffic or weather.
D –	Traffic flow is slow and may be blocked by management activities. Two-way traffic is difficult, backing may be required. Rough and irregular surface. Travel with low clearance vehicles is difficult. Single purpose facility.

Volume Studies – The type of data collected in a specific volume study depends upon the application in which the information is to be used. (Ref. 1)

1. Street (Road) Counts
2. Direction Counts
3. Turning Movement/Intersection Counts
4. Classification Counts
5. Occupancy Counts

Volume Characteristics – Traffic volumes tend to have general characteristics depending upon certain variables present. (Ref. 1)

1. Variables
 - a) Type of road – Rural or Urban
 - b) Type of use – recreational, commercial
 - c) Composition of traffic – proportion autos, pickups, buses, or (OHV)
2. Rural Characteristics
 - a) A recreational route with high summer traffic and a high Sunday peak.
 - b) A general purpose interstate route
 - c) A farm service route

Appendix 4 – Current Traffic Volume and Classification Estimates

<u>District</u>	<u>Road Number</u>	<u>INFRA ADT</u>	<u>Est. ADT</u>	<u>Ave Speed</u>	<u>Rd Width</u>
51	12	20/5/10	10	20	22
51	46N42	5	5	20	20
51	46N50	5	10	18	17
52	15N19	20	5	15	16
52	45N19	10/20	5	14	16
52	46N03	30	5	20	18
54	39	5	5	20	18
54	39N23	5	10	15	18
54	39N60	1	10	15	17
55	40N08	1/5/5	5	20	18
55	41N08	10	10	15	18
57	6	25	10	20	17
57	43N69	10/25	5	10	16
57	46N09	25	15	15	17
58	13N11	10/30	5	15	16
58	15N17	10/30	5	15	16

The collective engineering judgment is that the general traffic on the Klamath is made up of 90% high-clearance vehicles, 2% passenger cars, 6% quads and 2% dirt bikes. OHV has been observed over time on all of these roads. These percentages do not reflect sporadic commercial use of the road.

The average speed listed is the speed recorded when driving the road now. And the road widths listed represent the measured width over most of the road's length. There are minor variations of these numbers; however, they are evident when driving the road.

Exhibit 1

Documentation of Engineering Judgment

Klamath National Forest

Analysis of Roads For Motorized Mixed Use Designation

April 2009

Exhibit 1

Documentation of Engineering Judgment For Motorized Mixed Use on National Forest System Roads

Forest: Klamath

District: 51 Oak Knoll

The following roads or segments are included in this engineering judgment:

Road Name	Road No	BMP	EMP	Ob ML	Op ML	Maint. by	Jurisd.
Siskiyou Divide	20	0.35	13.44	3	3	FS	FS
Siskiyou Summit	40S01	0.00	9.54	3	2	FS	FS
Beaver Grouse	40S15	3.40	9.80	3	3	FS	FS
Long John	40S16	0.00	7.23	3	2	FS	FS
High CCC	45N28	19.98	21.49	2	2	FS	FS
White Cloud	47N69	0.00	4.17	3	3	FS	FS

The Forest Engineer, Transportation Planner and Roads Operations and Maintenance Engineer collaborated their judgment to assign traffic volume and vehicle classification. Their collective judgment is that traffic flow ranged between 5 ADT and 15 ADT. And they estimate that 90% of traffic is high-clearance vehicles, 2% passenger cars, and 8% OHV's at this time.

All of the roads listed above were constructed more than 20 years ago. The only maintenance received in recent years has been culvert cleaning, tree or rock hazard removal and brushing if required for commercial use. The existing running surface is hard, stable and generally weather resistant. Grading is not needed for resource protection and would actually be counterproductive due to the existing hard and/or stable surface. The roads or road segments located in California specifically meet the CVC 38001 exemption for non-highway legal vehicles in two ways. First, they began existence as logging roads and second, are considered roughly graded today, i.e., rough with lots of embedded rocks showing. The road or road segments located in Oregon meet the exemptions listed in ORS 821.020.

All of these roads have had some OHV (green sticker) vehicle use over the years and there are no records or knowledge of crashes between highway-legal and non-highway-legal motor vehicles. Therefore, per FSH 7709.55.30.3 (1/09) No. 5, all of these roads are recommended for mixed use and reducing the operational maintenance level to 2.

Exhibit 1

Documentation of Engineering Judgment
For Motorized Mixed Use on National Forest System Roads

Forest: Klamath

District: 52 Happy Camp

The following roads or segments are included in this engineering judgment:

Road Name	Road No	BMP	EMP	Ob ML	Op ML	Maint. by	Jurisd.
Bishop	15N13	9.95	13.04	3	3	FS	FS
Doolittle	17N11	2.3	9.9	3	3	FS	FS
Benjamin Creek	17N16	0.0	16.56	3	3	FS	FS
Fryingpan Ridge	45N85	0.0	4.44	2	3	FS	FS

The Forest Engineer, Transportation Planner and Roads Operations and Maintenance Engineer collaborated their judgment to assign traffic volume and vehicle classification. Their collective judgment is that traffic flow ranged between 5 ADT and 15 ADT. And they estimate that 90% of traffic is high-clearance vehicles, 2% passenger cars, and 8% OHV's at this time.

All of the roads listed above were constructed more than 20 years ago. The only maintenance received in recent years has been culvert cleaning, tree or rock hazard removal and brushing if required for commercial use. The existing running surface is hard, stable and generally weather resistant. Grading is not needed for resource protection and would actually be counterproductive due to the existing hard and/or stable surface. The roads or road segments located in California specifically meet the CVC 38001 exemption for non-highway legal vehicles in two ways. First, they began existence as logging roads and second, are considered roughly graded today, i.e., rough with lots of embedded rocks showing.

All of these roads have had some OHV (green sticker) vehicle use over the years and there are no records or knowledge of crashes between highway-legal and non-highway-legal motor vehicles. Therefore, per FSH 7709.55.30.3 (1/09) No. 5, all of these roads are recommended for mixed use and reducing the operational maintenance level to 2.

Exhibit 1

Documentation of Engineering Judgment
For Motorized Mixed Use on National Forest System Roads

Forest: Klamath

District: 54 Salmon River

The following roads or segments are included in this engineering judgment:

Road Name	Road No	BMP	EMP	Ob ML	Op ML	Maint. by	Jurisd.
High Point	10N04	0.00	18.69	3	2	FS	FS
Cecil Point	38N27	0.15	10.01	3/2	3	FS	C/FS

The Forest Engineer, Transportation Planner and Roads Operations and Maintenance Engineer collaborated their judgment to assign traffic volume and vehicle classification. Their collective judgment is that traffic flow ranged between 5 ADT and 15 ADT. And they estimate that 90% of traffic is high-clearance vehicles, 2% passenger cars, and 8% OHV's at this time.

All of the roads listed above were constructed more than 20 years ago. The only maintenance received in recent years has been culvert cleaning, tree or rock hazard removal and brushing if required for commercial use. The existing running surface is hard, stable and generally weather resistant. Grading is not needed for resource protection and would actually be counterproductive due to the existing hard and/or stable surface. The roads or road segments located in California specifically meet the CVC 38001 exemption for non-highway legal vehicles in two ways. First, they began existence as logging roads and second, are considered roughly graded today, i.e., rough with lots of embedded rocks showing.

All of these roads have had some OHV (green sticker) vehicle use over the years and there are no records or knowledge of crashes between highway-legal and non-highway-legal motor vehicles. Therefore, per FSH 7709.55.30.3 (1/09) No. 5, all of these roads are recommended for mixed use and reducing the operational maintenance level to 2.

Exhibit 1

Documentation of Engineering Judgment For Motorized Mixed Use on National Forest System Roads

Forest: Klamath

District: 55 Scott River

The following roads or segments are included in this engineering judgment:

Road Name	Road No	BMP	EMP	Ob ML	Op ML	Maint. by	Jurisd.
Tom Walker	46N64	24.12	30.78	3	3	FS	FS

The Forest Engineer, Transportation Planner and Roads Operations and Maintenance Engineer collaborated their judgment to assign traffic volume and vehicle classification. Their collective judgment is that traffic flow ranged between 5 ADT and 15 ADT. And they estimate that 90% of traffic is high-clearance vehicles, 2% passenger cars, and 8% OHV's at this time.

All of the roads listed above were constructed more than 20 years ago. The only maintenance received in recent years has been culvert cleaning, tree or rock hazard removal and brushing if required for commercial use. The existing running surface is hard, stable and generally weather resistant. Grading is not needed for resource protection and would actually be counterproductive due to the existing hard and/or stable surface. The roads or road segments located in California specifically meet the CVC 38001 exemption for non-highway legal vehicles in two ways. First, they began existence as logging roads and second, are considered roughly graded today, i.e., rough with lots of embedded rocks showing.

All of these roads have had some OHV (green sticker) vehicle use over the years and there are no records or knowledge of crashes between highway-legal and non-highway-legal motor vehicles. Therefore, per FSH 7709.55.30.3 (1/09) No. 5, all of these roads are recommended for mixed use and reducing the operational maintenance level to 2.

Exhibit 1

Documentation of Engineering Judgment For Motorized Mixed Use on National Forest System Roads

Forest: Klamath

District: 57 Goosenest

The following roads or segments are included in this engineering judgment:

Road Name	Road No	BMP	EMP	Ob ML	Op ML	Maint. by	Jurisd.
Stephens Pass	6	0.00	2.66	3	3	FS	FS
Baird Spring	43N02	1.83	3.73	2	3	FS	FS
Little Horse	43N03	2.22	4.36	2	3	FS	FS
Lost Springs	43N37	0.00	0.71	3	3	FS	FS
South Deer Tie	43N69	0.00 4.42	1.50 5.60	2	3	FS	FS
Badger Loop	44N03	0.00	8.82	3	3	FS	FS
Deer Mtn	44N23	7.94	12.87	3	3	FS	FS
Old Highway	44N25	1.59 4.90	1.90 5.30	3	3	FS	FS
Cold Bottle Spring	46N09	0.00	2.12	3	3	FS	FS
Poison Springs	47N05	2.80	5.14	3	3	FS	FS
Steep Trail	47N13	0.00	8.90	3	3	FS	FS

The Forest Engineer, Transportation Planner and Roads Operations and Maintenance Engineer collaborated their judgment to assign traffic volume and vehicle classification. Their collective judgment is that traffic flow ranged between 5 ADT and 15 ADT. And they estimate that 90% of traffic is high-clearance vehicles, 2% passenger cars, and 8% OHV's at this time.

All of the roads listed above were constructed more than 20 years ago. The only maintenance received in recent years has been culvert cleaning, tree or rock hazard removal and brushing if required for commercial use. The existing running surface is hard, stable and generally weather resistant. Grading is not needed for resource protection and would actually be counterproductive due to the existing hard stable and/or surface. The roads or road segments located in California specifically meet the CVC 38001 exemption for non-highway legal vehicles in two ways. First, they began existence as logging roads and second, are considered roughly graded today, i.e., rough with lots of embedded rocks showing.

All of these roads have had some OHV (green sticker) vehicle use over the years and there are no records or knowledge of crashes between highway-legal and non-highway-legal motor vehicles. Therefore, per FSH 7709.55.30.3 (1/09) No. 5, all of these roads are recommended for mixed use and reducing the operational maintenance level to 2.

Exhibit 2

Engineering Reports

Klamath National Forest

Analysis of Roads

For Motorized Mixed Use Designation

April 2009

Engineering Report
Klamath National Forest
Oak Knoll Ranger District
Analysis of Dogget Middle Road
#12
for Motorized Mixed Use Designation

Forest: **Klamath** District: **51 Oak Knoll**

Road Number: **12** Road Name: **Dogget Middle**

Beginning Mile Post: 1.20 Ending Mile Post 23.45

Traffic Service Level: **B**

Objective Maintenance Level: **3**

Operational Maintenance Level: **3**

Maintenance by: **FS**

Non-Forest ROW or jurisdiction: **No**

Any road use agreements, maintenance agreements, or other encumbrances? **No**

Description of agreements or encumbrances: **None**

Subject to Highway Safety Act? **Yes**

Non-highway-legal vehicles currently permitted? **No**

Is motorized mixed use consistent with State and local laws? **Subject to Regional Forester approval**

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Because the section of road being considered would be greater than three miles, and because non-highway legal motor vehicles would be driven by unlicensed operators, designating the section of road for motorized mixed use would require Regional Forester approval.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF **Road # 12**
Surface Type Pit Run and Native

BMP 1.20 **EMP** 23.45
Design Traffic Logging

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	10			X
Prudent Driver Average Speed (MPH)	>40	25 or less	20			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	22			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	20			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	5%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
Yes or No

Overall Severity Assessed Ranking Low

Engineering Report
Klamath National Forest
Oak Knoll Ranger District
Analysis of Dogget Tie Road
#46N42
for Motorized Mixed Use Designation

Forest: **Klamath** District: **51** **Oak Knoll**

Road Number: **46N42** Road Name: **Doggett Tie**

Beginning Mile Post: 0.0 Ending Mile Post 1.35

Traffic Service Level: C

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Yes

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour

unless changed as authorized by this code and, if so changed, only when signs have been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Engineering Report
Klamath National Forest
Oak Knoll Ranger District
Analysis of Horse Creek Road
#46N50
for Motorized Mixed Use Designation

Forest: **Klamath** District: **51 Oak Knoll**

Road Number: 46N50 Road Name: Horse Creek Road

Beginning Mile Post: 0.0 Ending Mile Post 9.35

Traffic Service Level: B

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Subject to Regional Forester approval

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Because the section of road being considered would be greater than three miles, and because non-highway legal motor vehicles would be driven by unlicensed operators, designating the section of road for motorized mixed use would require Regional Forester approval.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF
Surface Type

Road # 46N50
Nat., Pit Run, Agg.

BMP 0.0 **EMP** 9.35
Design Traffic Logging

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	10			X
Prudent Driver Average Speed (MPH)	>40	25 or less	18			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	1			X
Travel Way Widths (feet)	<10'	14 or more	17			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	18			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	5%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
Yes or No

Overall Severity Assessed Ranking Low

Engineering Report
Klamath National Forest
Happy Camp Ranger District
Analysis of Bear Peak Road
#15N19
for Motorized Mixed Use Designation

Forest: **Klamath** District: **52 Happy Camp**

Road Number: **15N19** Road Name: **Bear Peak**

Beginning Mile Post: 6.1 Ending Mile Post 11.22

Traffic Service Level: A

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Subject to Regional Forester approval

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Because the section of road being considered would be greater than three miles, and because non-highway legal motor vehicles would be driven by unlicensed operators, designating the section of road for motorized mixed use would require Regional Forester approval.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF **Road #** 15N19
Surface Type Pit Run

BMP 6.1 **EMP 11.22**
Design Traffic Logging

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	5			X
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	16			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	4%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
Yes or No

Overall Severity Assessed Ranking Low

Engineering Report

Klamath National Forest

Happy Camp Ranger District

Analysis of East Fork Elk Road

#45N19

for Motorized Mixed Use Designation

Forest: **Klamath** District: **52 Happy Camp**

Road Number: **45N19** Road Name: **East Fork Elk**

Beginning Mile Post: 4.6 Ending Mile Post 7.05

Traffic Service Level: C

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Yes

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF
Surface Type

Road # 45N19
Pit Run

BMP 4.6 **EMP** 7.05
Design Traffic Logging

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	5			X
Prudent Driver Average Speed (MPH)	>40	25 or less	14			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	1			X
Travel Way Widths (feet)	<10'	14 or more	16			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	14			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	8%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
Yes or No

Overall Severity Assessed Ranking Low

Engineering Report
Klamath National Forest
Happy Camp Ranger District
Analysis of China Creek Road
#46N03
for Motorized Mixed Use Designation

Forest: **Klamath** District: **52 Happy Camp**

Road Number: **46N03** Road Name: **China Creek**

Beginning Mile Post: 5.57 Ending Mile Post 6.7

Traffic Service Level: C

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Yes

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF **Road #** 46N03
Surface Type **Agg**

BMP 5.57 **EMP** 6.7
Design Traffic **Logging**

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	5			X
Prudent Driver Average Speed (MPH)	>40	25 or less	20			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	18			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	20			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	5%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
Yes or No

Overall Severity Assessed Ranking Low

Engineering Report
Klamath National Forest
Salmon River Ranger District
Analysis of Grasshopper–Picayune Road
#39
for Motorized Mixed Use Designation

Forest: **Klamath** District: **54 Salmon River**

Road Number: **39** Road Name: **Grasshopper–Picayune**

Beginning Mile Post: 0.0 Ending Mile Post 32.65

Traffic Service Level: C

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Subject to Regional Forester approval

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for “combined use” when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Because the section of road being considered would be greater than three miles, and because non-highway legal motor vehicles would be driven by unlicensed operators, designating the section of road for motorized mixed use would require Regional Forester approval.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

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- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF **Road #** 39
Surface Type Nat, Pit Run, Agg

BMP 0.0 **EMP** 32.65
Design Traffic Logging

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	5			X
Prudent Driver Average Speed (MPH)	>40	25 or less	20			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	18			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	20			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	9%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
Yes or No

Overall Severity Assessed Ranking Low

Engineering Report

Klamath National Forest

Salmon River Ranger District

Analysis of Crawford Creek Road

#39N23

for Motorized Mixed Use Designation

Forest: **Klamath** District: **54 Salmon River**

Road Number: **39N23** Road Name: **Crawford Creek**

Beginning Mile Post: 0.0 Ending Mile Post 13.2

Traffic Service Level: C

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Subject to Regional Forester approval

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Because the section of road being considered would be greater than three miles, and because non-highway legal motor vehicles would be driven by unlicensed operators, designating the section of road for motorized mixed use would require Regional Forester approval.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF **Road #** 39N23
Surface Type Agg, Pit Run

BMP 0.0 **EMP** 13.2
Design Traffic Logging

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	10			X
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	18			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	3%, one 7% pitch			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
Yes or No

Overall Severity Assessed Ranking Low

Engineering Report

Klamath National Forest

Salmon River Ranger District

Analysis of Black Bear Summit Road

#39N60

for Motorized Mixed Use Designation

Forest: **Klamath** District: **54 Salmon River**

Road Number: **39N60** Road Name: **Black Bear Summit Road**

Beginning Mile Post: 0.0 Ending Mile Post 2.3

Traffic Service Level: C

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: County

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? ?

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Yes

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF
Surface Type

Road # 39N60
Native

BMP 0.0 **EMP** 2.3
Design Traffic Logging

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	10			X
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	17			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	3%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
Yes or No

Overall Severity Assessed Ranking Low

Engineering Report

Klamath National Forest

Scott River Ranger District

Analysis of Kangaroo Creek Road

#40N08

for Motorized Mixed Use Designation

Forest: **Klamath** District: **55 Scott River**

Road Number: **40N08** Road Name: **Kangaroo Creek**

Beginning Mile Post: 1.18 Ending Mile Post 14.39

Traffic Service Level: C

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Subject to Regional Forester approval

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Because the section of road being considered would be greater than three miles, and because non-highway legal motor vehicles would be driven by unlicensed operators, designating the section of road for motorized mixed use would require Regional Forester approval.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF **Road #** 40N08
Surface Type Native, Agg

BMP 1.18 **EMP** 14.39
Design Traffic Logging

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	5			X
Prudent Driver Average Speed (MPH)	>40	25 or less	20			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	18			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	20			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	4%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
Yes or No

Overall Severity Assessed Ranking Low

Engineering Report
Klamath National Forest
Scott River Ranger District
Analysis of Rail Creek Road

for Motorized Mixed Use Designation

Forest: **Klamath** District: **55 Scott River**

Road Number: **41N08** Road Name: **Rail Creek**

Beginning Mile Post: 3.26 Ending Mile Post 6.1

Traffic Service Level: B

Objective Maintenance Level: 4

Operational Maintenance Level: 4

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Yes

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF **Road #** 41N08
Surface Type Chip Seal

BMP 3.26 **EMP** 6.1
Design Traffic Logging

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	10			X
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	18			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	6%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
Yes or No

Overall Severity Assessed Ranking Low

Engineering Report

Klamath National Forest

Goosenest Ranger District

Analysis of Stephens Pass Road

#6

for Motorized Mixed Use Designation

Forest: **Klamath** District: **57 Goosenest**

Road Number: **6** Road Name: **Stephens Pass**

Beginning Mile Post: 0.0 Ending Mile Post 2.66

Traffic Service Level: C

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Yes

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

(1) Operate an off-highway motor vehicle on the highway during the hours of darkness.

(2) Operate any vehicle on the highway which does not have an operational stoplight.

(3) Operate any vehicle on the highway which does not have rubber tires.

(4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.

(5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF **Road #** **6**
Surface Type **Pit Run**

BMP 0.0 **EMP** 2.66
Design Traffic **Logging**

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	10			X
Prudent Driver Average Speed (MPH)	>40	25 or less	20			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	17			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	20			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	3%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
 Yes or No

Overall Severity Assessed Ranking Low

Engineering Report

Klamath National Forest

Goosenest Ranger District

Analysis of South Deer Tie Road

#43N69

for Motorized Mixed Use Designation

Forest: **Klamath** District: **57 Goosenest**

Road Number: **43N69** Road Name: **South Deer Tie**

Beginning Mile Post: 0.0 Ending Mile Post 1.5
4.42 5.6

Traffic Service Level: C

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Yes

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF **Road #** 43N69
Surface Type Cinders, Nat., Pit Run

BMP 0.0 /4.42 **EMP** 1.5/5.6
Design Traffic Logging

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	5			X
Prudent Driver Average Speed (MPH)	>40	25 or less	10			X
Intersections with Sight Problems	>5	0	2			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	2			X
Travel Way Widths (feet)	<10'	14 or more	16			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	105%			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%				X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
 Yes or No

Overall Severity Assessed Ranking Low

Engineering Report

Klamath National Forest

Goosenest Ranger District

Analysis of Cold Bottle Spring Road

#46N09

for Motorized Mixed Use Designation

Forest: **Klamath** District: **57 Goosenest**

Road Number: **46N09** Road Name: **Cold Bottle Spring**

Beginning Mile Post: 0.0 Ending Mile Post 2.12

Traffic Service Level: C

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Yes

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Description of road management objectives, existing use, and proposed use.

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Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

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- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

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- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
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CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

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Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF Road # 46N09
 Surface Type Agg

BMP 0.0 EMP 2.12
 Design Traffic Logging

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	15			X
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	17			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	3%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
 Yes or No

Overall Severity Assessed Ranking Low

Engineering Report
Klamath National Forest
Ukonom Ranger District
Analysis of Sandy Bar Road
#13N11
for Motorized Mixed Use Designation

Forest: **Klamath** District: **58 Ukonom**

Road Number: **13N11** Road Name: **Sandy Bar**

Beginning Mile Post: 4.67 Ending Mile Post 16.44

Traffic Service Level: C

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Subject to Regional Forester approval

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Because the section of road being considered would be greater than three miles, and because non-highway legal motor vehicles would be driven by unlicensed operators, designating the section of road for motorized mixed use would require Regional Forester approval.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF **Road #** 13N11
Surface Type **Agg**

BMP 4.67 **EMP** 16.44
Design Traffic **Logging**

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	5			X
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	16			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	2%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
 Yes or No

Overall Severity Assessed Ranking Low

Engineering Report
Klamath National Forest
Ukonom Ranger District
Analysis of Ten Bear Road
#14N01
for Motorized Mixed Use Designation

Forest: **Klamath** District: **58 Ukonom**

Road Number: **14N01** Road Name: **Ten Bear**

Beginning Mile Post: 0.0 Ending Mile Post 10.2

Traffic Service Level: C

Objective Maintenance Level: 4

Operational Maintenance Level: 4

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Subject to Regional Forester approval

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Because the section of road being considered would be greater than three miles, and because non-highway legal motor vehicles would be driven by unlicensed operators, designating the section of road for motorized mixed use would require Regional Forester approval.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

1. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any

campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

CVC 38503. No person under the age of 18 years, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the following conditions:

- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
- (c) The person has in possession an appropriate safety certificate issued by this state or issued under the authority of another state.

CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF Road # 14N01
 Surface Type AC

BMP 0.0 EMP 10.2
 Design Traffic Logging

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	5			X
Prudent Driver Average Speed (MPH)	>40	25 or less	10			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	16			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	10			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	4%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PU's	Cars, SUVs, PU's			X

MIXED USE RECOMMENDATION Yes
 Yes or No

Overall Severity Assessed Ranking Low

Engineering Report
Klamath National Forest
Ukonom Ranger District
Analysis of Camp Three Road
#15N17
for Motorized Mixed Use Designation

Forest: **Klamath** District: **58 Ukonom**

Road Number: **15N17** Road Name: **Camp Three**

Beginning Mile Post: 6.9 Ending Mile Post 22.0

Traffic Service Level: C

Objective Maintenance Level: 3

Operational Maintenance Level: 3

Maintenance by: FS

Non-Forest ROW or jurisdiction: No

Any road use agreements, maintenance agreements, or other encumbrances? No

Description of agreements or encumbrances: None

Subject to Highway Safety Act? Yes

Non-highway-legal vehicles currently permitted? No

Is motorized mixed use consistent with State and local laws? Subject to Regional Forester approval

Section 38026 of the California Vehicle Code (CVC) permits designation of highways for "combined use" when it provides a connecting link between off-highway motor vehicle trail segments, between an off-highway motor vehicle recreational use area and necessary service facilities, or between lodging facilities and an off-highway motor vehicle recreational facility and if it is found that the highway is designed and constructed so as to safely permit the use of regular vehicular traffic and also the driving of off-highway motor vehicles on that highway. No highway, or portion thereof, shall be so designated for a distance of more than three miles.

Because the section of road being considered would be greater than three miles, and because non-highway legal motor vehicles would be driven by unlicensed operators, designating the section of road for motorized mixed use would require Regional Forester approval.

Description of road management objectives, existing use, and proposed use.

The road was originally developed for timber removal. Currently, the Road Management Objective for this road is for land and resources management, including timber, fire and recreation.

Existing Use: Use is very low. It consists primarily of USFS employees involved with resource management. There is some occasional driving for pleasure. In the fall, hunters and wood cutters can be seen.

During public workshops held throughout Siskiyou County, it became apparent that many OHV users were not aware of the difference between ML 2 and ML 3 roads, and the associated vehicle restrictions. Their frame of reference is focused on the road surface - whether the road is paved or gravel/dirt. OHV users agreed that paved roads were not open to OHV's, but did not know the distinction between ML2 and ML3 or unpaved ML4. (This situation is exacerbated by the difficulty in maintaining signage in many areas of the Forest.) It is clear that some OHV use has occurred on ML3 and ML 4 roads, not because it was sanctioned by the Forest Service, but due to public misperception and historical practices on a large remote road system. An important aspect of implementing any alternative and publishing the Motor Vehicle Use Map will be educating the public on when and where use of non-highway legal vehicles is allowed.

Proposed use: Designate use by highway legal and non-highway legal vehicles operated by drivers of all ages. This would provide continuous access to other roads and trails where use by non-highway legal vehicles is currently taking place (consistent with state law.)

Summary of Findings: If mixed use is allowed to continue, the crash probability and crash severity is estimated to be low. Installation of warning signs to alert drivers to mixed use and to maintain stopping sight distance on curves by periodic vegetation removal would be beneficial.

Factors Considered:

2. Operator Considerations:

State regulations:

CVC 12500. (a) – Only licensed operators and highway legal vehicles can operate on highways unless the highways have been designated for combined use (must be less than three miles in length).

CVC 38026.5 (b) – It is unlawful for any person using an off-highway vehicle on a combined use highway to do the following:

- (1) Operate an off-highway motor vehicle on the highway during the hours of darkness.
- (2) Operate any vehicle on the highway which does not have an operational stoplight.
- (3) Operate any vehicle on the highway which does not have rubber tires.
- (4) Operate any vehicle without a valid driver's license of the appropriate class for the vehicle operation in possession.
- (5) Operate any vehicle on the highway without complying with the provisions of Article 2 (commencing with Section 16020) of Chapter 1 of Division 7.

CVC 38310 – The prima facie speed limit for off-highway vehicles within 50 feet of any campground, campsite, or concentration of people or animals shall be 15 miles per hour unless changed as authorized by this code and, if so changed, only when signs have

been erected giving notice thereof.

Division 16.5 Chapter 7 OHV Safety, education and certificates

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- (a) The person is taking a prescribed safety training course under the direct supervision of a certified all-terrain vehicle safety instructor.
- (b) The person is under the direct supervision of an adult who has in their possession an appropriate safety certificate issued by this state, or issued under the authority of another state.
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CVC 38504. No person under 14 years of age, on and after January 1, 1990, shall operate an all-terrain vehicle on public lands of this state unless the person satisfies one of the conditions set forth in Section 38503 and, in addition, is accompanied by and under the direct supervision of a parent or guardian or is accompanied by and under the direct supervision of an adult who is authorized by the parent or guardian.

CVC 38504.1 (a). Neither a parent or guardian of a child who is under 14 years of age, nor an adult who is authorized by the parent or guardian to supervise that child shall grant permission to, or knowingly allow, that child to operate an all-terrain vehicle in a manner that violates Section 38504.

2. Crash History:

There are no records or knowledge of any mixed-use accidents occurring on this NFS road.

3. Traffic Volume and Type:

There is no recent statistically sound ADT data or vehicle classification information available. The data in the transportation records (INFRA) generally reflects values used for design before the road was constructed.

The estimated ADT is shown on the Mixed Use Crash Assessment form. The following percentages of vehicle classification were estimated collectively by the forest engineer, transportation planner and roads operation and maintenance engineer.

Highway-Legal:	Passenger car	2%
	High-clearance	90%
Non-highway-legal:	Quads	6%
	Dirt bikes	2%

Commercial, i.e., logging, traffic has been infrequent in the last few years. A temporary road order prohibiting OHV use will be used when commercial traffic is scheduled on the road.

4. Speed – Anticipated average speed (85th percentile):

The average speed for this road, as shown on the Mixed Use Crash Assessment form. It was determined by the driver traveling at a speed that, in his/her opinion, was representative of all traffic at the time. It was found that the existing surface condition of the roadway was the controlling factor relating to speed.

5. Road surface type:

The surface material originally used for this road is shown on the following Mixed Use Crash Assessment form.

6. Intersections with other roads and trails:

The key factor here is stopping sight distance for all operators. We assume normal situations are where the operator on the main or through road has the right-of-way and the operator making the turn has the responsibility to yield or stop. As a general rule, the Klamath NF does not provide intersection controls when an unpaved road meets another unpaved road. When an unpaved road meets a paved road, then intersection control is generally required. Control is established by use of a yield or stop sign.

7. Other roadway factors:

The road was designed for efficient travel for log haul. Roadway alignment and stopping sight distance were reviewed and conditions noted on the following Mixed Use Crash Assessment form.

Nearly all traffic occurs during daylight hours and in the dry season.

Wind deposited branches/limbs may, on occasion, get on the road. And during the spring freeze and thaw conditions, stumps and rocks can be pushed out of the cut slopes and end up on the roadway. These are common conditions.

8. Roadside conditions:

Immediate roadway hazards have been removed. The physical lay-of-land on the majority of the Klamath NF is steep topography. Operators that travel this road know of this condition and drive accordingly.

9. Risk without mitigation:

See the following Mixed Use Crash Assessment form.

10. Mitigation Measures Recommended:

Signing is the principal method to alert all users to the driving conditions:

- a. Proper route number identifications
- b. Share the Road signs

And maintain adequate stopping sight distance on curves over time.

11. Mixed use is currently taking place on this road, there have been no reported mixed use crashes and traffic volumes and speed are low, therefore crash probability is low.

Approved by:
Qualified Engineer

Date:

Mixed Use Crash Assessment

Klamath NF **Road #** 15N17
Surface Type **Agg.**

BMP 6.9 **EMP** 20.0
Design Traffic **Logging**

Probability of a crash	Benchmark Rankings		Summary Observations Dates 2008 to 3/09	Assessed Rankings		
	High	Low		H	M	L
Crash History (5 yr period)	>4 per site	0	0			X
Average Daily Traffic (ADT)	>150	30 or less	5			X
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Intersections with Sight Problems	>5	0	0			X
Curvature–stopping sight distance not met	Many >10/mile	Few <4/mile	0			X
Travel Way Widths (feet)	<10'	14 or more	16			X

Overall Probability Assessed Ranking Low

Severity of a crash	Benchmark Rankings		Summary Observations	Assessed Rankings		
	High	Low		H	M	L
Prudent Driver Average Speed (MPH)	>40	25 or less	15			X
Clearance from Hazards	Little or none	Adequate	Adequate			X
Alignment & Sight Distance	Poor	Adequate	Adequate			X
Roadway Gradient	>12%	<12%	2%			X
Multi-passenger Vehicles	Buses, Motorhomes	Cars, SUVs, PUs	Cars, SUVs, PUs			X

MIXED USE RECOMMENDATION Yes
 Yes or No

Overall Severity Assessed Ranking Low

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Appendix D: Law Enforcement

Introduction

Forest Service Law Enforcement and Investigations (LEI) personnel are responsible for protecting the public, employees, natural resources, and other property under the Agency's jurisdiction. Additionally, LEI investigates and enforces applicable laws and regulations that affect the National Forest System (NFS) lands, and prevents criminal violations. The new Travel Management Rule is one such regulation.

The Travel Management Rule requires designation of roads, trails, and areas open to motor vehicle use, and the prohibition of cross-country wheeled motorized vehicle travel by the public. This is a considerable change in public motorized access management from previous conditions where most Forests were managed as "open to cross-country travel." The implementation of designated routes and areas for motorized vehicles would be the responsibility of all Agency employees, especially in the area of education and enforcement. The law enforcement program is primarily responsible for issuing violations to the Travel Management Rule.

The national LEI budget is funded by appropriated dollars from Congress to provide law enforcement services on the NFS lands. The travel management program is one of many Forest programs to benefit from Federal law enforcement funding. For the past few years law enforcement funding has increased, and that has translated into an increase in field law enforcement personnel¹.

To enhance enforcement of the Travel Management Rule, Region 5 Forest recreation programs have applied for and received grant dollars (green sticker funding) from the State of California Off-Highway Motor Vehicle Recreation Division Grants Program. These State funds are earmarked specifically for enforcement of off-highway vehicle (OHV) laws and regulations on the various Forests, and are performed primarily by Forest Protection Officers (FPOs). In addition, Law Enforcement Officers (LEOs) support the FPOs as needed, especially if serious violations have occurred. In recent years, State law enforcement grants have ranged from 3 to 4 million dollars annually with similar funding anticipated for the 2008–2009 grant cycle.

Authority and Jurisdiction

The Forest Service exercises its law enforcement authority when violation of laws or regulations occurs on NFS lands or when incidents affect the NFS. The existing authorities for enforcement are completely adequate and no new laws would be needed to implement the Travel Management Rule.

¹ Region 5 Law Enforcement budget figures for the past 4 years have increased and the number of law enforcement officers has increased by 65.

Every National Forest has a law enforcement plan that is updated annually. All Forest Service employees have a duty to know and understand their authorities and responsibilities, and to properly enforce laws and regulations relating to the Forest within their authority and capability. LEI and Agency personnel provide a regular and recurring presence on vast amounts of public land, roads, trails, and areas, and take appropriate action if illegal activity is discovered. Violations involving motorized vehicles are primarily enforced by FPOs, which patrol OHV use, roads, trails, and areas. These include violations such as operating a motor vehicle in violation of Federal regulations and California vehicle code; parking improperly' resource damage to soils, vegetation or wildlife; and disorderly or unruly behavior. LEOs have discretion when deciding what type of action to initiate when handling violations to the following Federal laws that pertain specifically to motor vehicle use.

- The Act of June 4, 1897 (Title 16 United States Code 551), is the authority for issuing regulations at Title 36 Code of Federal Regulations, Part 261 (36 CFR 261). Specific OHV travel management regulations are in sections 261.9–Property, 261.13–Motor Vehicle Use, and 261.15–Use of Vehicles Off-Road. These CFRs cover a wide array of misdemeanor infractions.
- The Act of March 3, 1905 (Title 16 United States Code 559), authorizes all employees of the Forest Service to make arrests for violation of the laws and regulations pertaining to national forests. Normally, arrest authority is limited to trained law enforcement personnel. (Any employee may take immediate action when necessary to protect life and prevent serious damage to or destruction of property, escape of a suspect, or loss of material evidence when such action can be done with reasonable safety.)

Cooperation

The Forest Service shares responsibility and cooperates with local, State, and other Federal agencies in the execution of its law enforcement program. The authority for cooperation among agencies, especially as it pertains to travel management, is within the following laws:

- The act of August 10, 1971 (Title 16 United States Code 551a), authorizes the Secretary of Agriculture to cooperate with, and provide reimbursement to, any State or political subdivision thereof, for the enforcement of their laws within NFS. This law does not deprive any State or local law enforcement agency from exercising its criminal and civil jurisdiction on lands that are part of the NFS.
- The California Penal Code, Section 830.8, provides that Forest Service law enforcement personnel may exercise State Peace Officer authority where the sheriff of the county wherein the officer works has provided specific written permission for the officer.

- The State vehicle code section 38301 allows State law enforcement officers to enforce any of the Federal CFRs related to motor vehicles on NFS lands².

Each Forest maintains close working relationships with many State and local law enforcement agencies that have law enforcement responsibilities within/and or adjacent to the Forest boundary. Significant cooperating agencies relative to the Travel Management Rule include the local county sheriff departments, the California Department of Fish and Game, California Highway Patrol, California Department of Forestry and Fire Protection, and occasionally one or more Federal agencies depending on the violation. Forest Service law enforcement personnel cooperate fully with these agencies in carrying out their law enforcement responsibilities by providing assistance; liaison, advice, and information.

Forests maintain cooperative law enforcement agreements with their respective county sheriff's office. In Region 5, the total cost for the 2008 cooperative law enforcement agreements was \$891,397³. These dollars are for performance of duties in addition to the normal activities in which the sheriff's deputies handle crimes against persons and their property that may occur within the NFS boundary. In these agreements, both parties recognize that public use of NFS lands is usually located in areas that are remote or sparsely populated and the enforcement of State and local law is related to the administration and regulation of NFS lands. Within the cooperative law enforcement agreements, an operating plan is developed outlining the supplemental work to be performed by the cooperating agency. Relative to the Travel Management Rule, operating plans may provide:

- Supplemental patrols in areas of high use.
- Supplemental patrols on weekends or during particular months of high use.
- Additional officers for large group gatherings or events (such as enduro motorcycle events)
- Vehicle checkpoints for vehicle registration, spark arrestors, and other miscellaneous items.

Implementation and Tracking

Implementation of the Forest Service law enforcement program is continually adapting as law enforcement personnel assess the changing patterns of visitor use and attitudes, and the trends in violations, especially for property and resource damage. One method of assessment is the analysis of Law Enforcement and Investigations Management Attainment Reporting System (LEIMARS) data. LEIMARS tracks all known violations of criminal law or regulation on NFS lands (FSH 5309.11, chapter 40 and FSM 5340). Additionally, imbedded in LEIMARS is the case tracking system, which tracks all felony and serious misdemeanor cases. These tracking systems:

² State Vehicle code section 38301. (a) It is unlawful to operate a vehicle in violation of special regulations which have been promulgated by the governmental agency having jurisdiction over public lands, including, but not limited to, regulations governing access, routes of travel, plants, wildlife habitat, water resources and historical sites.

³ Region 5 Law Enforcement Cooperative Agreement 2008 spreadsheet.

- Capture and record information on location, volume, damages, and type of violations occurring on NFS lands.
- Provide a retrieval system of data on incidents and violations that is responsive to the needs of all organizational levels.
- Provide agency managers with a means to identify and monitor law enforcement activities.
- Specifically identify problem areas and periods of activity.
- Provide a method to record and analyze incidents involving violations or suspected violations on NFS lands.

Trends in violations related to the Travel Management Rule can be analyzed and appropriate action(s) taken, if needed. Appropriate action(s) may involve one or more techniques or adaptive strategies. In the law enforcement community, this is often referred to as the “three E strategy” of engineering, education, and enforcement. With the change in the Travel Management Rule, it is anticipated that the law enforcement program would use a combination of strategies, especially during the first 5 years of the rule implementation.

Implementation Strategy

Engineering – Education – Enforcement

The engineering strategy is designed to prevent or reduce inadvertent violations, resource damage, and crime vulnerability. The strategy’s goal is to remove the opportunity to commit a violation. LEI personnel work with each Forest, particularly the recreation and engineering programs, to implement some or all of the following specific tactics:

- Proper design of improvements and facilities.
- Facility security measures such as installation of barricades, gates, and other natural obstacles.
- Forest signing, both directional and informational, to assist the public to ensure they stay on designated trails, and out of the wilderness and other sensitive areas.
- Physically close and rehabilitate decommissioned roads and trails.

The educational strategy focuses on specific user groups, school groups, recreation users, and the public. The goal is to develop responsible and concerned public land use attitudes in forest users to prevent violations. Forest LEOs and FPOs make regular contacts in the field informing the users of the regulations and need for the prohibition. The LEI personnel work with each Forest, particularly the recreation and public information programs, to identify and implement some or all of the following specific tactics:

- Have motor vehicle use maps easily available to public.
- Have route numbers visually marked on the ground.
- Distribute maps and brochures promoting responsible use.

- Conduct environmental interpretation activities in local communities, at schools, and with special interest groups.
- Use of all forms of the media (television, radio, and newspapers), especially prior to, and during, the high use periods.
- Ensure all employees understand the Travel Management Rule.
- Utilize high visibility prevention patrols and public information checkpoints, especially during the peak use periods.
- Encourage cooperating law enforcement agencies to make visitor contacts and provide violator information to Forest officers.
- Ride with other agency officers to demonstrate solidarity to the public.
- Issue news releases of arrests and successful prosecutions, including offender names, criminal penalties, and court-ordered restitution.

The enforcement strategy is to affect crime prevention measures that are designed to reduce specific criminal activity, deter potential and repeat offenders, maximize enforcement actions and visibility, and increase prosecutorial successes. All enforcement actions should result in a better understanding of regulations pertaining to the management of NFS lands. LEI personnel work with each Forest to identify and implement some or all of the following specific tactics:

- Schedule officers to work during the identified problem periods, including holidays and weekends.
- Utilize high profile “saturation patrols” and stationary surveillance posts in the identified problem areas.
- Utilize the most effective and efficient means of patrol, including foot, horseback, all-terrain vehicle, snowmobile, watercraft, and aircraft.
- Aerial over-flights to enforce restriction under Travel Management Rule.
- Enlist the aid of volunteers.
- Initiate an awards program.
- Supplement patrols with cooperating law enforcement agencies in areas of concern.
- Use technical investigative equipment (cameras, monitors, sensors) to assist officers with detecting and monitoring violations at known or suspected violation sites.
- Conduct planned and approved compliance checkpoints.
- Follow-up on complaints to document violations, damages, and identify suspect vehicles or persons.
- Require cooperating law enforcement agencies to assist with reporting and/or enforcing violations within their authority.
- Patrol with other cooperating law enforcement agency officers.
- Conduct unpredictable patrol schedules.

- Conduct special enforcement actions (unmarked vehicle deployment, surveillance, traffic check-points).
- Utilize LEIMARS and Central Violations Bureau databases along with the State motor vehicle data, to identify repeat offenders for enhanced prosecution.
- Pursue court-ordered restitution or civil collections for resource and property damages.
- Encourage prosecutorial and judicial support.
- Execute bench warrants for OHV violations.

Assumptions

Based on many years of enforcing OHVs, implementation of the Travel Management Rule from a law enforcement perspective assumes the following to be true. Additionally, these assumptions are based on several case studies in Region 5. These assumptions may change in time with analysis of the LEIMARS database.

Enforcement Assumptions:

- Enforcement of the laws and regulations related to Travel Management would be enforced equally in authority and weight as with all other Federal laws and regulations.
- As with any change in a regulation on NFS lands, there is usually a transitional period for the public to understand the changes. It is anticipated there would be a higher number of violations to the Travel Management Rule the first few years, then the number of violations would decline as the users understand and comply with the rules. It is assumed :
 - Users in communities adjacent to the Forest would comply within 1 to 2 years.
 - Frequent users, but further away from the Forest, would comply within 2 to 3 years.
 - Infrequent users regardless of distant may take up to 5 years to comply.
- Law enforcement officer and agency personnel's presence and enforcement actions would positively affect OHV users' behaviors and attitudes.
- The Travel Management Rule and associated motor vehicle use map clearly define the designated routes; therefore, making violations to the rule unequivocal.
- Once the motor use vehicle map is published, the implementation of the established dedicated network of roads, trails, and areas with signs, and user education programs, would reduce the number of violations.
- FPOs spend 30 to 50 percent of their time, depending on the Forest, on Travel Management issues. LEOs spend approximately 10 to 20 percent of their time on enforcement of OHV issues⁴.

⁴ Barnett, G. 2004-2005 Law Enforcement Workload Analysis.

Agency Funding Assumptions:

- Appropriated program funding levels and number of law enforcement personnel does not affect enforcement of the Travel Management Rule. All laws and regulations are enforced equally.
- Appropriated funds would remain level or increase slightly in the next 5 years.
- The State of California Off-Highway Motor Vehicle Recreation Division Grants Program (green sticker funding) enhances and provides additional law enforcement presence in the field at the Forest level.

Public Attitude and Compliance Assumptions:

- Forest users want to do the right thing and would obey the rule, once they understand the rule and motor vehicle use map.
- User compliance is based on the State of California Off-Highway Motor Vehicle Recreation Division data and is anticipated to be:
 - 95 percent of the users are fully compliant.
 - 2 to 3 percent of the users think about and may violate a law.
 - 1 to 2 percent of the users would violate the law.

Measure of Success

Measuring the success of the Travel Management Rule from a law enforcement perspective would be done using the LEIMARS database. An analysis of the data may alert a Forest to a particular problem area for violations, such as a group campsite area that may be surrounded by flat meadow areas inviting riders to potentially violate the regulation. A successful program would see a positive change in the following measures:

- Measure 1: A reduction in the number of off-route travel violations.
- Measure 2: A reduction in the number of resource damage violations