4. Miscellaneous Tables

Shading indicates the potential for sediment impacts: medium gray = high; light gray = medium; none = low.

Table A3.3 -18 – Ranking of Sediment Potential for 5th Field Watersheds

Watershed	High Sediment HUC7's		Cumulative Sediment Rating		Overall Ranking
	% of Watershed[1]	Rating[2]	Weighted Score[3]	Rating[4]	
Bear Creek	0	1	2.0	1	L
Black Butte River	36	3	7.8	3	H
Briscoe Creek	48	3	8.1	3	H
Coyote Creek	0	1	5.1	1	L
Elder Creek	24	3	6.9	2	H
Elk Creek	0	1	5.3	1	L
Grindstone Creek	34	3	6.9	2	H
Lakeport	0	1	0.8	1	L
Little Stony Creek	0	1	6.6	2	M
Lucern	0	1	6.1	2	M
Middle Fk Stony Cr	9	2	6.1	2	M
North Fk Cache Creek	23	2	5.9	2	M
North Fk Stony Creek	0	1	4.4	1	L
North Fork Eel River	0	1	0	1	L
Red Bank Creek	63	3	7.5	3	H
Rice Fork	55	3	7.1	3	H
Soda Creek	63	3	9.7	3	H
S Fk Cottonwood Cr	0	1	2.4	1	L
Thomes Creek	69	3	9.1	3	H

[1] Percent of the HUC5 watershed occupied by 'high sediment' HUC7s – those that have summary ratings of 9 or above (upper 1/3 of summary rating values).
[2] 3 = HUC5 has above average percentage of area occupied by high sediment HUC7s; 2 = below average but greater than 0%; 1 = HUC5 with no high sediment HUC7s.
[3] Calculated by summing the products of the HUC7 square miles x summary rating (from Table A3.3 -19), and then dividing by the square miles in the HUC5. This weights the HUC7 summary ratings according to their size relative to the entire HUC5 watershed.
[4] 3 = upper 1/3 of "weighted score" values; 2 = middle 1/3; 1 = lower 1/3.

Table A3.3 -18 – Ranking of Sediment Potential for 5th Field Watersheds					
	High Sediment HUC7's		Cumulative Sediment Rating		
Watershed	% of Watershed[1]	Rating[2]	Weighted Score[3]	Rating[4]	Overall Ranking
Tomki Creek	0	1	3.2	1	L
Upper Lake	0	1	6.3	2	M
Upper Main Eel River	58	3	8.3	3	H
Upper Middle Fork Eel	17	2	3.9	1	M
Williams-Thatcher	18	2	5.8	2	M

Shading indicates the potential for sediment impacts: medium gray = high; light gray = medium; none = low.

Table A3.3 -19 – Indicators of Road Generated Sediment for 7th Field Watersheds

HUC (7th Field)	Size (sq mi)	Road Miles	Road Density		Road on Unstable[5]		Roads w/in 150 ft. of Stream			Stream Crossings			Summary Rating[6]
			Miles per Sq Mi	Rating[7]	Miles	Rating[8]	Miles	Miles per Sq Mi	Rating[9]	Total Number	Xings per Sq Mile	Rating[10]	
Bear Creek													
18020116040101	6.41	3.60	0.56	1		0	0.75	0.12	1			0	2
Black Butte River													
18010104020101	13.43	49.03	3.65	3	0.71	2	11.36	0.85	3	133	9.91	3	11
18010104020102	13.26	41.44	3.13	3	2.44	3	7.91	0.60	3	87	6.56	3	12
18010104020201	18.08	38.73	2.14	2	0.80	2	8.93	0.49	2	75	4.15	2	8
18010104020202	18.07	37.83	2.09	2	0.68	2	6.70	0.37	2	108	5.98	3	9
18010104020301	8.46	6.28	0.74	1		0	1.95	0.23	1	9	1.06	1	3
18010104020302	13.84	33.70	2.43	2	0.08	1	3.82	0.28	1	38	2.75	1	5
18010104020401	18.08	42.89	2.37	2	0.63	2	7.12	0.39	2	92	5.09	2	8
18010104020402	12.20	26.81	2.20	2	0.16	1	5.33	0.44	2	55	4.51	2	7
18010104020501	13.20	20.84	1.58	2	1.06	3	4.66	0.35	2	55	4.17	2	9
18010104020502	10.17	4.58	0.45	1		0	0.92	0.09	1	4	0.39	1	3
18010104020601	13.03	20.20	1.55	2	0.79	2	4.05	0.31	2	51	3.91	2	8
18010104020602	7.21	7.09	0.98	1	0.60	2	2.17	0.30	1	25	3.47	2	6
Brisco Creek													
18020115030101	11.15	17.25	1.55	2		0	3.55	0.32	2	29	2.60	1	5
18020115030102	10.88	16.63	1.53	2	0.72	2	3.54	0.33	2	41	3.77	2	8
18020115030103	2.42	8.55	3.53	3	0.03	1	1.46	0.60	3	9	3.71	2	9
18020115030104	5.13	11.67	2.28	2	0.13	1	3.09	0.60	3	37	7.22	3	9

[5] Includes active landslides and inner gorge.
[6] Medium gray shading indicates 7th field watersheds that ranked in the upper 1/3 of summary rating values; light gray is middle 1/3; un-shaded is lower 1/3.
[7] 3 = more than 3 miles per square mile; 2 = 1.5 to 3 miles per square mile; 1 = less than 1.5 miles per square mile.
[8] 3 = upper 1/3 of mileage-on-unstable values; 2 = middle 1/3; 1 = lower 1/3; 0 = no roads on unstable.
[9] 3 = upper 1/3 of "miles per square mile" values; 2 = middle 1/3; 1 = lower 1/3; 0 = no roads within 150 ft of a stream.
[10] 3 = upper 1/3 of "crossings per square mile" values; 2 = middle 1/3; 1 = lower 1/3; 0 = no stream crossings.

Table A3.3 -19 – Indicators of Road Generated Sediment for 7th Field Watersheds

HUC (7th Field)	Size (sq mi)	Road Miles	Road Density		Road on Unstable[5]		Roads w/in 150 ft. of Stream			Stream Crossings			Summary Rating[6]
			Miles per Sq Mi	Rating[7]	Miles	Rating[8]	Miles	Miles per Sq Mi	Rating[9]	Total Number	Xings per Sq Mile	Rating[10]	
18020115030201	15.49	28.60	1.85	2		0	5.45	0.35	2	67	4.33	2	6
18020115030202	12.27	37.93	3.09	3	3.79	3	9.48	0.77	3	123	10.02	3	12
18020115030301	16.25	32.30	1.99	2	0.85	2	7.71	0.47	2	99	6.09	3	9
18020115030302	0.82	0.27	0.32	1		0	0.20	0.25	1	3	3.66	2	4
Coyote Creek													
18010110010201	0.90	1.45	1.62	2		0	0.51	0.57	3	1	1.11	1	6
Elder Creek													
18020114020101	16.04	13.59	0.85	1		0	2.56	0.16	1	21	1.31	1	3
18020114020102	4.52	7.15	1.58	2	0.03	1	1.85	0.41	2	10	2.21	1	6
18020114020201	13.17	20.33	1.54	2	0.51	2	5.12	0.39	2	56	4.25	2	8
18020114020202	11.00	45.46	4.13	3	1.01	3	12.90	1.17	3	133	12.10	3	12
Elk Creek													
18010104040101	9.18	1.77	0.19	1		0	0.30	0.03	1	3	0.33	1	3
18010104040102	8.84	8.17	0.92	1		0	1.97	0.22	1	14	1.58	1	3
18010104040103	15.54	26.24	1.69	2	0.35	2	6.44	0.41	2	59	3.80	2	8
18010104040104	8.34	4.17	0.50	1	0.02	1	0.82	0.10	1	6	0.72	1	4
18010104040201	1.71	1.79	1.05	1		0	0.17	0.10	1			0	2
18010104040202	7.26	10.83	1.49	1	0.34	2	2.21	0.31	1	24	3.31	2	6
18010104040203	3.34	9.21	2.76	2		0	2.55	0.76	3	23	6.89	3	8
Grindstone Creek													
18020115040101	10.32	36.70	3.56	3	0.96	3	9.39	0.91	3	134	12.99	3	12
18020115040102	11.70	35.67	3.05	3	0.65	2	4.67	0.40	2	58	4.96	2	9
18020115040103	16.40	32.55	1.98	2	0.16	1	3.68	0.22	1	45	2.74	1	5
18020115040201	12.34	19.68	1.59	2	0.04	1	2.92	0.24	1	38	3.08	1	5
18020115040202	10.46	20.49	1.96	2	0.63	2	2.00	0.19	1	32	3.06	1	6
18020115040203	9.86	24.63	2.50	2	0.02	1	9.65	0.98	3	109	11.06	3	9
18020115040301	15.92	17.16	1.08	1		0	2.90	0.18	1	16	1.00	1	3
18020115040302	14.10	21.99	1.56	2	0.49	2	3.23	0.23	1	32	2.27	1	6
18020115040303	9.41	20.14	2.14	2	0.01	1	5.66	0.60	3	58	6.16	3	9
18020115040304	10.24	22.88	2.24	2	0.06	1	5.63	0.55	3	61	5.96	3	9

Table A3.3 -19 – Indicators of Road Generated Sediment for 7th Field Watersheds

HUC (7th Field)	Size (sq mi)	Road Miles	Road Density		Road on Unstable[5]		Roads w/in 150 ft. of Stream			Stream Crossings			Summary Rating[6]
			Miles per Sq Mi	Rating[7]	Miles	Rating[8]	Miles	Miles per Sq Mi	Rating[9]	Total Number	Xings per Sq Mile	Rating[10]	
18020115040401	7.00	9.76	1.39	1	0.07	1	2.37	0.34	2	10	1.43	1	5
18020115040402	15.55	29.48	1.90	2	0.68	2	8.69	0.56	3	26	1.67	1	8
18020115040501	5.11	11.44	2.24	2	0.06	1	3.60	0.70	3	26	5.09	2	8
18020115040502	5.01	7.75	1.55	2	0.09	1	1.80	0.36	2	11	2.19	1	6
Lakeport													
18020116050205	0.94	0.24	0.26	1		0			0			0	1
Little Stony Creek													
18020115010101	10.67	21.82	2.04	2	1.22	3	3.52	0.33	2	33	3.09	1	8
18020115010102	5.85	13.34	2.28	2		0	3.65	0.62	3	40	6.84	3	8
18020115010103	8.71	9.74	1.12	1	2.74	3	3.58	0.41	2	33	3.79	2	8
18020115010104	8.75	10.93	1.25	1	0.03	1	1.33	0.15	1	7	0.80	1	4
18020115010201	8.68	9.00	1.04	1	3.70	3	4.03	0.46	2	32	3.69	2	8
18020115010202	3.79	3.14	0.83	1		0	0.39	0.10	1			0	2
Lucern													
18020116030101	1.81	4.83	2.66	2		0	1.83	1.01	3	20	11.03	3	8
18020116030102	1.65	3.01	1.82	2		0	0.43	0.26	1	4	2.42	1	4
18020116030201	0.03	0.18	6.40	3		0			0			0	3
Middle Fork Stony Creek													
18020115020101	11.48	36.24	3.16	3	0.90	3	11.43	1.00	3	130	11.32	3	12
18020115020102	15.48	32.99	2.13	2	0.80	2	7.20	0.46	2	68	4.39	2	8
18020115020103	12.82	15.72	1.23	1	1.99	3	4.57	0.36	2	42	3.28	2	8
18020115020201	13.18	6.98	0.53	1	0.07	1	1.02	0.08	1	15	1.14	1	4
18020115020203	4.15	0.43	0.10	1		0			0			0	1
18020115020301	9.39	13.39	1.43	1	0.92	3	2.68	0.29	1	30	3.19	2	7
18020115020302	13.21	17.98	1.36	1	3.78	3	4.99	0.38	2	45	3.41	2	8
18020115020401	5.43	4.93	0.91	1		0	1.17	0.22	1	9	1.66	1	3
18020115020402	11.26	19.39	1.72	2	0.66	2	5.32	0.47	2	39	3.46	2	8
18020115020501	9.65	13.80	1.43	1		0	3.85	0.40	2	28	2.90	1	4
18020115020502	1.21	0.07	0.06	1		0	0.04	0.03	1			0	2
18020115020601	0.19	0.37	1.94	2		0	0.02	0.12	1			0	3

Table A3.3 -19 – Indicators of Road Generated Sediment for 7th Field Watersheds

HUC (7th Field)	Size (sq mi)	Road Miles	Road Density		Road on Unstable[5]		Roads w/in 150 ft. of Stream			Stream Crossings			Summary Rating[6]
			Miles per Sq Mi	Rating[7]	Miles	Rating[8]	Miles	Miles per Sq Mi	Rating[9]	Total Number	Xings per Sq Mile	Rating[10]	
North Fork Cache Creek													
18020116020101	12.86	22.15	1.72	2	1.82	3	7.33	0.57	3	48	3.73	2	10
18020116020102	7.28	17.72	2.43	2		0	6.25	0.86	3	63	8.65	3	8
18020116020201	12.15	15.27	1.26	1		0	5.87	0.48	2	48	3.95	2	5
18020116020202	4.21	4.80	1.14	1	1.84	3	1.63	0.39	2	20	4.75	2	8
18020116020301	10.43	9.38	0.90	1	1.07	3	3.56	0.34	2	32	3.07	1	7
18020116020302	6.77	2.89	0.43	1		0	0.25	0.04	1			0	2
18020116020303	9.91	15.97	1.61	2	0.87	3	3.83	0.39	2	40	4.04	2	9
18020116020304	1.16	0.40	0.34	1		0	0.11	0.10	1			0	2
18020116020401	1.93	0.74	0.38	1		0	0.18	0.09	1			0	2
18020116020601	5.24	4.97	0.95	1		0	1.47	0.28	1	11	2.10	1	3
18020116020602	4.82	4.31	0.89	1		0	1.49	0.31	1	10	2.07	1	3
18020116020701	17.30	29.40	1.70	2		0	7.50	0.43	2	50	2.89	1	5
18020116020702	3.12	4.03	1.29	1		0	0.83	0.27	1	5	1.60	1	3
18020116020703	0.02	0.14	9.14	3		0	0.04	2.22	3			0	6
North Fork Stony Creek													
18020115050201	17.02	19.50	1.15	1		0	7.22	0.42	2	77	4.52	2	5
18020115050203	6.55	6.83	1.04	1		0	1.93	0.29	1	13	1.98	1	3
Red Bank Creek													
18020114030101	1.02	3.67	3.59	3		0	1.09	1.07	3	11	10.74	3	9
18020114030102	0.60	0.87	1.44	1		0	0.31	0.51	2	2	3.31	2	5
Rice Fork													
18010103020101	11.75	16.14	1.37	1	2.49	3	7.04	0.60	3	44	3.74	2	9
18010103020102	5.78	8.11	1.40	1	0.11	1	1.14	0.20	1	10	1.73	1	4
18010103020103	10.02	25.29	2.52	2	0.23	2	6.49	0.65	3	56	5.59	3	10
18010103020201	11.63	18.86	1.62	2		0	5.92	0.51	2	51	4.38	2	6
18010103020202	15.10	24.21	1.60	2	3.65	3	5.84	0.39	2	58	3.84	2	9
18010103020301	7.19	11.70	1.63	2	0.72	2	4.51	0.63	3	39	5.42	3	10
18010103020302	11.52	4.81	0.42	1		0	1.71	0.15	1	17	1.48	1	3
18010103020401	8.20	5.31	0.65	1		0	1.96	0.24	1	16	1.95	1	3

Table A3.3 -19 – Indicators of Road Generated Sediment for 7th Field Watersheds

HUC (7th Field)	Size (sq mi)	Road Miles	Road Density		Road on Unstable[5]		Roads w/in 150 ft. of Stream			Stream Crossings			Summary Rating[6]
			Miles per Sq Mi	Rating[7]	Miles	Rating[8]	Miles	Miles per Sq Mi	Rating[9]	Total Number	Xings per Sq Mile	Rating[10]	
18010103020402	6.34	7.97	1.26	1	0.02	1	2.10	0.33	2	15	2.37	1	5
18010103020403	8.87	21.05	2.37	2	0.49	2	5.49	0.62	3	50	5.64	3	10
Soda Creek													
18010103030101	7.97	12.07	1.51	2	0.21	2	2.50	0.31	2	35	4.39	2	8
18010103030102	5.48	13.72	2.51	2	0.44	2	5.81	1.06	3	69	12.60	3	10
18010103030201	9.06	21.21	2.34	2	2.05	3	5.56	0.61	3	73	8.06	3	11
18010103030202	5.33	14.10	2.64	2	0.04	1	4.90	0.92	3	54	10.12	3	9
18010103030301	8.37	25.30	3.02	3	2.92	3	10.48	1.25	3	99	11.82	3	12
18010103030302	8.50	10.20	1.20	1	1.55	3	3.13	0.37	2	40	4.70	2	8
South Fork Cottonwood Creek													
18020113030201	8.17	0.45	0.06	1		0	0.06	0.01	1	1	0.12	1	3
18020113030202	6.03	10.16	1.69	2	0.05	1	3.02	0.50	2	38	6.30	3	8
18020113030203	0.50	1.61	3.25	3		0			0			0	3
Thomes Creek													
18020114010101	12.70	11.51	0.91	1	2.65	3	3.87	0.30	1	40	3.15	1	6
18020114010102	6.14	5.39	0.88	1		0	1.02	0.17	1	16	2.61	1	3
18020114010103	15.61	37.17	2.38	2	1.94	3	7.69	0.49	2	84	5.38	3	10
18020114010201	15.33	21.59	1.41	1	0.60	2	6.09	0.40	2	75	4.89	2	7
18020114010202	10.59	24.91	2.35	2	0.04	1	5.53	0.52	3	64	6.04	3	9
18020114010203	12.40	22.02	1.78	2	0.14	1	6.93	0.56	3	92	7.42	3	9
18020114010204	13.54	34.96	2.58	2	1.33	3	7.70	0.57	3	91	6.72	3	11
18020114010301	11.81	31.66	2.68	2	0.28	2	6.06	0.51	2	79	6.69	3	9
18020114010302	9.20	27.84	3.03	3	0.27	2	3.91	0.43	2	54	5.87	3	10
18020114010303	18.67	57.19	3.06	3	0.91	3	11.40	0.61	3	119	6.37	3	12
18020114010304	12.43	42.06	3.38	3	1.09	3	10.00	0.80	3	90	7.24	3	12
18020114010401	14.97	25.67	1.71	2	0.06	1	6.11	0.41	2	72	4.81	2	7
18020114010402	5.89	13.26	2.25	2	0.04	1	3.81	0.65	3	42	7.13	3	9
18020114010403	9.79	18.44	1.88	2	0.62	2	7.03	0.72	3	70	7.15	3	10
18020114010404	3.36	17.16	5.11	3	0.17	1	4.58	1.36	3	43	12.80	3	10
18020114010405	5.28	14.55	2.76	2		0	5.30	1.00	3	41	7.77	3	8
18020114010406	0.42	0.77	1.81	2		0	0.04	0.10	1			0	3

Table A3.3 -19 – Indicators of Road Generated Sediment for 7th Field Watersheds

HUC (7th Field)	Size (sq mi)	Road Miles	Road Density		Road on Unstable[5]		Roads w/in 150 ft. of Stream			Stream Crossings			Summary Rating[6]
			Miles per Sq Mi	Rating[7]	Miles	Rating[8]	Miles	Miles per Sq Mi	Rating[9]	Total Number	Xings per Sq Mile	Rating[10]	
Tomki Creek													
18010103040101	3.26	0.35	0.11	1		0	0.04	0.01	1			0	2
18010103040103	12.66	11.82	0.93	1	0.02	1	2.81	0.22	1	30	2.37	1	4
18010103040401	8.60	3.59	0.42	1		0	0.30	0.03	1	4	0.47	1	3
Upper Lake													
18020116010101	6.75	4.43	0.66	1	0.20	1	1.85	0.27	1	29	4.30	2	5
18020116010102	9.25	6.50	0.70	1	0.43	2	2.06	0.22	1	25	2.70	1	5
18020116010201	9.72	16.94	1.74	2	0.69	2	4.62	0.48	2	38	3.91	2	8
18020116010202	9.25	12.06	1.30	1	0.02	1	4.40	0.48	2	46	4.97	2	6
18020116010301	9.86	14.04	1.42	1		0	3.94	0.40	2	50	5.07	2	5
18020116010401	9.81	14.94	1.52	2		0	5.44	0.55	3	47	4.79	2	7
18020116010402	9.10	15.68	1.72	2	0.11	1	5.25	0.58	3	48	5.27	2	8
Upper Main Eel River													
18010103010101	13.65	37.78	2.77	2	0.51	2	7.35	0.54	3	85	6.23	3	10
18010103010102	7.08	22.07	3.12	3	0.88	3	7.75	1.09	3	77	10.88	3	12
18010103010103	7.15	18.65	2.61	2	1.74	3	4.15	0.58	3	46	6.44	3	11
18010103010201	13.25	43.82	3.31	3	3.48	3	9.54	0.72	3	96	7.25	3	12
18010103010202	17.37	53.24	3.07	3	4.26	3	9.97	0.57	3	130	7.48	3	12
18010103010203	12.97	32.44	2.50	2	5.08	3	6.92	0.53	3	83	6.40	3	11
18010103010301	6.17	18.80	3.05	3		0	1.99	0.32	2	22	3.57	2	7
18010103010302	5.91	15.22	2.58	2	0.02	1	2.32	0.39	2	23	3.89	2	7
18010103010303	14.67	32.46	2.21	2	0.02	1	4.88	0.33	2	39	2.66	1	6
18010103010304	8.65	27.06	3.13	3	1.04	3	9.40	1.09	3	94	10.87	3	12
18010103010305	7.38	17.25	2.34	2	1.64	3	4.85	0.66	3	43	5.83	3	11
18010103010306	13.82	11.27	0.82	1		0	3.12	0.23	1	22	1.59	1	3
18010103010401	12.96	6.30	0.49	1	0.49	2	1.33	0.10	1	12	0.93	1	5
18010103010402	11.52	2.37	0.21	1		0	0.86	0.07	1	8	0.69	1	3
18010103010501	15.49	20.37	1.32	1		0	5.10	0.33	2	45	2.91	1	4
18010103010502	15.20	30.85	2.03	2	0.15	1	8.11	0.53	3	89		3	9
18010103010503	9.16	16.69	1.82	2	0.86	2	5.59	0.61	3	46	5.02	2	9

Table A3.3 -19 – Indicators of Road Generated Sediment for 7th Field Watersheds

HUC (7th Field)	Size (sq mi)	Road Miles	Road Density		Road on Unstable[5]		Roads w/in 150 ft. of Stream			Stream Crossings			Summary Rating[6]
			Miles per Sq Mi	Rating[7]	Miles	Rating[8]	Miles	Miles per Sq Mi	Rating[9]	Total Number	Xings per Sq Mile	Rating[10]	
Upper Middle Fork Eel River													
18010104010105	11.52	8.55	0.74	1	0.01	1	1.68	0.15	1	14	1.22	1	4
18010104010301	10.64	1.24	0.12	1		0			0			0	1
18010104010302	11.94	3.87	0.32	1		0	1.15	0.10	1	19	1.59	1	3
18010104010401	6.93	0.44	0.06	1		0			0			0	1
18010104010402	4.64	7.66	1.65	2	0.21	1	1.52	0.33	2	19	4.09	2	7
18010104010403	7.96	12.47	1.57	2		0	3.70	0.46	2	49	6.15	3	7
18010104010404	4.10	8.24	2.01	2	0.34	2	1.08	0.26	1	15	3.66	2	7
18010104010405	3.53	3.36	0.95	1	0.04	1	0.62	0.17	1	4	1.13	1	4
18010104010406	5.35	10.90	2.04	2	0.54	2	2.98	0.56	3	38	7.10	3	10
18010104010501	6.41	9.88	1.54	2	0.51	2	1.98	0.31	1	16	2.50	1	6
18010104010502	11.09	33.04	2.98	2	2.27	3	7.55	0.68	3	77	6.94	3	11
18010104010503	17.92	48.12	2.68	2	2.60	3	12.27	0.68	3	130	7.25	3	11
18010104010601	10.69	13.75	1.29	1	0.13	1	3.02	0.28	1	35	3.27	2	5
18010104010602	13.18	17.36	1.32	1	0.72	2	4.12	0.31	2	53	4.02	2	7
Williams / Thatcher													
18010104050101	6.31	3.48	0.55	1		0	1.28	0.20	1	23	3.64	2	4
18010104050202	0.43	0.94	2.17	2	0.02	1	0.31	0.71	3	2	4.63	2	8
18010104050204	2.64	4.80	1.82	2		0	1.09	0.41	2	14	5.30	2	6
18010104050301	8.70	9.54	1.10	1		0	1.46	0.17	1	12	1.38	1	3
18010104050302	6.81	16.08	2.36	2	1.40	3	4.19	0.62	3	45	6.61	3	11
18010104050303	8.39	16.05	1.91	2		0	3.08	0.37	2	45	5.37	2	6
18010104050304	5.58	6.77	1.21	1	0.30	2	1.31	0.23	1	3	0.54	1	5
Statistics													
Average			1.79		0.90		4.05	0.45		44.66	4.63		6.72
Minimum			0.06		0.01		0.02	0.01		1.00	0.12		1.00
Maximum			9.14		5.08		12.90	2.22		134.00	12.99		12.00
Std Deviation			1.14		1.08		2.98	0.30		32.94	2.88		3.02
67th Percentile			2.13		0.87		5.23	0.52		50.51	5.37		8.00
33rd Percentile			1.30		0.21		2.01	0.31		25.00	3.17		5.00
Count			171		109		165	165		154	154		171

Table A3.3 -20 – WEPP:Road Output Log for ML2 x Rain + Snow Zone

Yrs	Climate	Soil	Surface	Design	Road grad	Road len	Road width	Fill grad	Fill len	Buff grad	Buff len	Precip	RRO	SRO	Sed Road	Sed Profile	Comment
30	NEVADA CITY CA	clay loam	native	insloped bare	4 %	500 ft	17 ft	50 %	15 ft	30 %	300 ft	56.28 in	5.80 in	2.68 in	40751.04 lb	17968.73 lb	
30	NEVADA CITY CA	clay loam	native	insloped bare	6 %	500 ft	17 ft	50 %	15 ft	30 %	300 ft	56.28 in	5.90 in	2.70 in	55229.28 lb	22592.34 lb	
30	NEVADA CITY CA	clay loam	native	insloped bare	8 %	350 ft	17 ft	50 %	15 ft	30 %	300 ft	56.28 in	5.22 in	1.89 in	38130.55 lb	13097.71 lb	
30	NEVADA CITY CA	clay loam	native	insloped bare	10 %	300 ft	17 ft	50 %	15 ft	30 %	300 ft	56.28 in	4.97 in	1.62 in	35040.15 lb	10866.32 lb	
30	NEVADA CITY CA	clay loam	native	insloped vegetated	4 %	500 ft	17 ft	50 %	15 ft	30 %	300 ft	56.28 in	5.80 in	2.68 in	10159.43 lb	8717.49 lb	
30	NEVADA CITY CA	clay loam	native	insloped vegetated	6 %	500 ft	17 ft	50 %	15 ft	30 %	300 ft	56.28 in	5.90 in	2.70 in	15024.14 lb	12526.64 lb	
30	NEVADA CITY CA	clay loam	native	insloped vegetated	8 %	350 ft	17 ft	50 %	15 ft	30 %	300 ft	56.28 in	5.22 in	1.89 in	10812.62 lb	7989.79 lb	
30	NEVADA CITY CA	clay loam	native	insloped vegetated	10 %	300 ft	17 ft	50 %	15 ft	30 %	300 ft	56.28 in	4.97 in	1.62 in	10251.90 lb	7038.49 lb	
30	NEVADA CITY CA	clay loam	native	outsloped unrutted	4 %	100 ft	15 ft	50 %	15 ft	30 %	300 ft	56.28 in	2.84 in	0.46 in	1486.54 lb	968.02 lb	
30	NEVADA CITY CA	clay loam	native	outsloped unrutted	6 %	135 ft	15 ft	50 %	15 ft	30 %	300 ft	56.28 in	2.90 in	0.48 in	2645.27 lb	1307	
30	NEVADA CITY CA	clay loam	native	outsloped unrutted	8 %	170 ft	15 ft	50 %	15 ft	30 %	300 ft	56.28 in	2.95 in	0.50 in	4622.62 lb	1753.89 lb	
30	NEVADA CITY CA	clay loam	native	outsloped unrutted	10 %	200 ft	15 ft	50 %	15 ft	30 %	300 ft	56.28 in	3.01 in	0.52 in	7205.28 lb	2261.97 lb	
30	NEVADA CITY CA	clay loam	native	outsloped rutted	4 %	100 ft	12 ft	50 %	15 ft	30 %	300 ft	56.28 in	3.56 in	0.71 in	2212.71 lb	770.87 lb	
30	NEVADA CITY CA	clay loam	native	outsloped rutted	6 %	135 ft	12 ft	50 %	15 ft	30 %	300 ft	56.28 in	3.85 in	0.85 in	4790.90 lb	1409.24 lb	
30	NEVADA CITY CA	clay loam	native	outsloped rutted	8 %	170 ft	12 ft	50 %	15 ft	30 %	300 ft	56.28 in	4.12 in	1.01 in	8513.90 lb	2337.37 lb	
30	NEVADA CITY	clay	native	outsloped	10 %	200 ft	12 ft	50 %	15 ft	30 %	300 ft	56.28	4.36	1.14	13067.68	3420	

Table A3.3 -20 – WEPP:Road Output Log for ML2 x Rain + Snow Zone

Yrs	Climate	Soil	Surface	Design	Road grad	Road len	Road width	Fill grad	Fill len	Buff grad	Buff len	Precip	RRO	SRO	Sed Road	Sed Profile	Comment
	CA	loam		rutted								in	in	in	lb		
30	NEVADA CITY CA	clay loam	native	outsloped rutted	4 %	500 ft	12 ft	50 %	15 ft	30 %	300 ft	56.28 in	5.81 in	2.68 in	26625.26 lb	10747.19 lb	Heavy Rutting
30	NEVADA CITY CA	clay loam	native	outsloped rutted	6 %	500 ft	12 ft	50 %	15 ft	30 %	300 ft	56.28 in	5.90 in	2.69 in	36508.28 lb	13803.25 lb	Heavy Rutting
30	NEVADA CITY CA	clay loam	native	outsloped rutted	8 %	350 ft	12 ft	50 %	15 ft	30 %	300 ft	56.28 in	5.22 in	1.89 in	26266.81 lb	8285.77 lb	Heavy Rutting
30	NEVADA CITY CA	clay loam	native	outsloped rutted	10 %	300 ft	12 ft	50 %	15 ft	30 %	300 ft	56.28 in	4.97 in	1.62 in	24557.41 lb	7032	Heavy Rutting

Table A3.3 -21a – Sediment Delivery Apportionment – ML2 / Rain + Snow Zone

Grade	Average Annual Sediment Rates by WEPP Design Type and Gradient (pounds per lineal foot)											
	Insloped, Bare Ditch		Insloped, Vegetated Ditch		Outsloped, Unrutted		Outsloped, Light Ruts		Outsloped, Heavy Ruts			
	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile		
4	81.5	35.9	20.3	17.4	14.9	9.7	22.1	7.7	53.3	21.5		
6	110.5	45.2	30.0	25.1	19.6	9.7	35.5	10.4	73.0	27.6		
8	108.9	37.4	30.9	22.8	27.2	10.3	50.1	13.7	75.0	23.7		
10	116.8	36.2	34.2	23.5	36.0	11.3	65.3	17.1	81.9	23.4		
Proportionate Rates by Typical Design Style / Wet Weather Use Regime (WEPP sediment rate – from upper part of table) x (% of Typical represented by the WEPP design type – from Table **A3.3 -10)**											**Sediment Rates by Connectivity Type (pounds per lineal foot)**	
											Connected	**Un-Connected**
Old Style / Unrestricted Use												
4	42.8	18.9	4.6	3.9	0.0	0.0	0.0	0.0	13.3	5.4	60.7	28.2
6	58.0	23.7	6.8	5.6	0.0	0.0	0.0	0.0	18.3	6.9	83.0	36.3
8	57.2	19.6	7.0	5.1	0.0	0.0	0.0	0.0	18.8	5.9	82.9	30.7
10	61.3	19.0	7.7	5.3	0.0	0.0	0.0	0.0	20.5	5.9	89.5	30.2
Old Style / Restricted Use												
4	42.8	18.9	4.6	3.9	0.0	0.0	5.5	1.9	0.0	0.0	52.9	24.7
6	58.0	23.7	6.8	5.6	0.0	0.0	8.9	2.6	0.0	0.0	73.6	32.0
8	57.2	19.6	7.0	5.1	0.0	0.0	12.5	3.4	0.0	0.0	76.7	28.2
10	61.3	19.0	7.7	5.3	0.0	0.0	16.3	4.3	0.0	0.0	85.3	28.6
New Style / Restricted Use												
4	14.3	6.3	1.5	1.3	0.0	0.0	16.6	5.8	0.0	0.0	32.4	13.4
6	19.3	7.9	2.3	1.9	0.0	0.0	26.6	7.8	0.0	0.0	48.2	17.6
8	19.1	6.5	2.3	1.7	0.0	0.0	37.6	10.3	0.0	0.0	58.9	18.6
10	20.4	6.3	2.6	1.8	0.0	0.0	49.0	12.8	0.0	0.0	72.0	20.9
New Style / Recently Closed												
4	14.3	6.3	1.5	1.3	11.2	7.3	0.0	0.0	0.0	0.0	26.9	14.9
6	19.3	7.9	2.3	1.9	14.7	7.3	0.0	0.0	0.0	0.0	36.3	17.0
8	19.1	6.5	2.3	1.7	20.4	7.7	0.0	0.0	0.0	0.0	41.8	16.0
10	20.4	6.3	2.6	1.8	27.0	8.5	0.0	0.0	0.0	0.0	50.0	16.6
New Style / Unrestricted Use												
4	14.3	6.3	1.5	1.3	0.0	0.0	0.0	0.0	39.9	16.1	55.7	23.7
6	19.3	7.9	2.3	1.9	0.0	0.0	0.0	0.0	54.8	20.7	76.3	30.5
8	19.1	6.5	2.3	1.7	0.0	0.0	0.0	0.0	56.3	17.8	77.7	26.0
10	20.4	6.3	2.6	1.8	0.0	0.0	0.0	0.0	61.4	17.6	84.4	25.7

Table A3.3 -21b - Sediment Delivery Apportionment – ML2 / Rain + Snow Zone

Grade	Percent of Typical Road	Aggregate Length per Mile of Road (ft)	Avg Road Segment[11] Length (ft)	Pct Connected	Average Annual Sediment Delivery Rates (pounds per lineal foot)			Sediment Delivered[12] (tons)
					Connected	Unconnected	Weighted Average[13]	
Old Style / Unrestricted Use								
4	40	2112	500	24%	60.7	28.2	35.9	37.9
6	40	2112	500	24%	83.0	36.3	47.3	50.0
8	10	528	350	17%	82.9	30.7	39.4	10.4
10	10	528	300	14%	89.5	30.2	38.6	10.2
			Weighted % Connected--->	**22%**			**Total per Mile of Road--->**	**108.4**
Old Style / Restricted Use								
4	40	2112	400	19%	52.9	24.7	30.1	31.7
6	40	2112	409	19%	73.6	32.0	40.0	42.3
8	10	528	418	20%	76.7	28.2	37.8	10.0
10	10	528	275	13%	85.3	28.6	36.0	9.5
			Weighted % Connected--->	**19%**			**Total per Mile of Road**	**93.5**
New Style / Restricted Use								
4	40	2112	200	9%	32.4	13.4	15.2	16.0
6	40	2112	226	11%	48.2	17.6	20.9	22.1
8	10	528	215	10%	58.9	18.6	22.7	6.0
10	10	528	225	11%	72.0	20.9	26.4	7.0
			Weighted % Connected--->	**10%**			**Total per Mile of Road**	**51.0**
New Style / Recently Closed								
4	40	2112	200	9%	26.9	14.9	16.0	16.9
6	40	2112	226	11%	36.3	17.0	19.1	20.2
8	10	528	215	10%	41.8	16.0	18.6	4.9
10	10	528	225	11%	50.0	16.6	20.1	5.3
			Weighted % Connected--->	**10%**			**Total per Mile of Road**	**47.3**
New Style / Unrestricted Use								
4	40	2112	500	24%	55.7	23.7	31.3	33.0
6	40	2112	500	24%	76.3	30.5	41.3	43.7
8	10	528	350	17%	77.7	26.0	34.6	9.1
10	10	528	300	14%	84.4	25.7	34.0	9.0
			Weighted % Connected--->	**22%**			**Total per Mile of Road**	**94.8**

[11] (insloped road segment length x % insloped) + (outsloped road segment length x % outsloped)
[12] weighted average sediment rate x aggregate length
[13] (connected rate x %connected) + (unconnected rate x (1 - %connected))

Table A3.3 -22a – Sediment Delivery Apportionment – ML2 / Snow Zone

Grade	Average Annual Sediment Rates by WEPP Design Type and Gradient (pounds per lineal foot)											
	Insloped, Bare Ditch		Insloped, Vegetated Ditch		Outsloped, Unrutted		Outsloped, Light Ruts		Outsloped, Heavy Ruts			
	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile		
4	71.3	8.0	5.6	4.0	10.9	0.6	18.6	1.0	49.3	5.1		
6	98.2	10.1	9.6	5.8	14.8	0.7	30.9	1.4	68.3	6.5		
8	94.2	7.2	10.3	4.7	21.4	0.8	44.6	2.2	69.6	5.0		
10	100.9	6.8	11.7	4.7	29.5	0.9	58.8	3.0	75.7	4.8		
	Proportionate Rates by Typical Design Style / Wet Weather Use Regime										Sediment Rates by Connectivity Type (pounds per lineal foot)	
											Connected	Un-Connected
Old Style / Unrestricted Use												
4	37.4	4.2	1.3	0.9	0.0	0.0	0.0	0.0	12.3	1.3	51.0	6.4
6	51.6	5.3	2.2	1.3	0.0	0.0	0.0	0.0	17.1	1.6	70.8	8.2
8	49.4	3.8	2.3	1.0	0.0	0.0	0.0	0.0	17.4	1.2	69.1	6.1
10	53.0	3.5	2.6	1.0	0.0	0.0	0.0	0.0	18.9	1.2	74.5	5.8
Old Style / Restricted Use												
4	37.4	4.2	1.3	0.9	0.0	0.0	4.7	0.2	0.0	0.0	43.3	5.3
6	51.6	5.3	2.2	1.3	0.0	0.0	7.7	0.4	0.0	0.0	61.4	6.9
8	49.4	3.8	2.3	1.0	0.0	0.0	11.2	0.5	0.0	0.0	62.9	5.4
10	53.0	3.5	2.6	1.0	0.0	0.0	14.7	0.7	0.0	0.0	70.3	5.3
New Style / Restricted Use												
4	12.5	1.4	0.4	0.3	0.0	0.0	14.0	0.7	0.0	0.0	26.9	2.4
6	17.2	1.8	0.7	0.4	0.0	0.0	23.2	1.1	0.0	0.0	41.1	3.3
8	16.5	1.3	0.8	0.3	0.0	0.0	33.5	1.6	0.0	0.0	50.7	3.2
10	17.7	1.2	0.9	0.3	0.0	0.0	44.1	2.2	0.0	0.0	62.7	3.8
New Style / Recently Closed												
4	12.5	1.4	0.4	0.3	8.2	0.5	0.0	0.0	0.0	0.0	21.1	2.2
6	17.2	1.8	0.7	0.4	11.1	0.5	0.0	0.0	0.0	0.0	29.0	2.7
8	16.5	1.3	0.8	0.3	16.0	0.6	0.0	0.0	0.0	0.0	33.3	2.2
10	17.7	1.2	0.9	0.3	22.1	0.7	0.0	0.0	0.0	0.0	40.7	2.2
New Style / Unrestricted Use												
4	12.5	1.4	0.4	0.3	0.0	0.0	0.0	0.0	37.0	3.8	49.9	5.5
6	17.2	1.8	0.7	0.4	0.0	0.0	0.0	0.0	51.2	4.9	69.1	7.1
8	16.5	1.3	0.8	0.3	0.0	0.0	0.0	0.0	52.2	3.7	69.4	5.3
10	17.7	1.2	0.9	0.3	0.0	0.0	0.0	0.0	56.7	3.6	75.3	5.1

TableA3.3 -22b - Sediment Delivery Apportionment – ML2 / Snow Zone

Grade	Percent of Typical Road	Aggregate Length per Mile of Road (ft)	Avg Road Segment Length (ft)	Pct Connected	Average Annual Sediment Delivery Rates (pounds per lineal foot)			Sediment Delivered (tons)
					Connected	Unconnected	Weighted Average	
Old Style / Unrestricted Use								
4	40	2112	500	24%	51.0	6.4	16.9	17.9
6	40	2112	500	24%	70.8	8.2	23.0	24.3
8	10	528	350	17%	69.1	6.1	16.5	4.4
10	10	528	300	14%	74.5	5.8	15.6	4.1
			Weighted % Connected--->	**22%**			**Total per Mile of Road--->**	**50.7**
Old Style / Restricted Use								
4	40	2112	400	19%	43.3	5.3	12.5	13.2
6	40	2112	409	19%	61.4	6.9	17.5	18.5
8	10	528	418	20%	62.9	5.4	16.7	4.4
10	10	528	275	13%	70.3	5.3	13.8	3.6
			Weighted % Connected--->	**19%**			**Total per Mile of Road**	**39.8**
New Style / Restricted Use								
4	40	2112	200	9%	26.9	2.4	4.7	5.0
6	40	2112	226	11%	41.1	3.3	7.3	7.7
8	10	528	215	10%	50.7	3.2	8.1	2.1
10	10	528	225	11%	62.7	3.8	10.0	2.6
			Weighted % Connected--->	**10%**			**Total per Mile of Road**	**17.5**
New Style / Recently Closed								
4	40	2112	200	9%	21.1	2.2	3.9	4.2
6	40	2112	226	11%	29.0	2.7	5.5	5.8
8	10	528	215	10%	33.3	2.2	5.4	1.4
10	10	528	225	11%	40.7	2.2	6.3	1.7
			Weighted % Connected--->	**10%**			**Total per Mile of Road**	**13.1**
New Style / Unrestricted Use								
4	40	2112	500	24%	49.9	5.5	16.0	16.9
6	40	2112	500	24%	69.1	7.1	21.8	23.0
8	10	528	350	17%	69.4	5.3	16.0	4.2
10	10	528	300	14%	75.3	5.1	15.1	4.0
			Weighted % Connected--->	**22%**			**Total per Mile of Road**	**48.1**

Table A3.3 -23a – Sediment Delivery Apportionment – ML3 / Rain + Snow Zone

Grade	Average Annual Sediment Rates by WEPP Design Type and Gradient (pounds per lineal foot)													
	Insloped, Bare Ditch		Insloped, Vegetated Ditch		Insloped, Rocked Ditch + Gravel		Outsloped, Heavy Ruts		Outsloped, Light Ruts		Outsloped, Light Ruts + Gravel			
	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile		
4	128.6	60.4	40.7	31.5	24.6	22.5	83.6	35.3	47.9	17.1	20.4	15.2		
6	174.7	75.2	56.3	43.6	34.1	29.5	114.6	45.0	74.6	23.8	29.2	19.7		
8	171.8	62.6	58.3	39.6	37.5	29.7	118.0	38.7	104.4	32.3	39.1	25.0		
	Proportionate Rates by Typical Design Style / Wet Weather Use Regime												**Sediment Rates by Connectivity Type (pounds per lineal foot)**	
													Connected	**Connected**
Old Style / Unrestricted Use														
4	77.1	24.4	3.7	4.7	0.0	0.0	20.9	8.8	0.0	0.0	0.0	0.0	101.7	38.0
6	104.8	33.8	5.1	6.5	0.0	0.0	28.6	11.2	0.0	0.0	0.0	0.0	138.6	51.5
8	103.1	35.0	5.6	5.9	0.0	0.0	29.5	9.7	0.0	0.0	0.0	0.0	138.2	50.6
Old Style / Restricted Use														
4	77.1	24.4	3.7	4.7	0.0	0.0	0.0	0.0	12.0	4.3	0.0	0.0	92.8	33.4
6	104.8	33.8	5.1	6.5	0.0	0.0	0.0	0.0	18.7	5.9	0.0	0.0	128.6	46.2
8	103.1	35.0	5.6	5.9	0.0	0.0	0.0	0.0	26.1	8.1	0.0	0.0	134.8	49.0
New Style / Unrestricted use														
4	51.4	16.3	2.5	3.2	0.0	0.0	41.8	17.7	0.0	0.0	0.0	0.0	95.7	37.1
6	69.9	22.5	3.4	4.4	0.0	0.0	57.3	22.5	0.0	0.0	0.0	0.0	130.6	49.3
8	68.7	23.3	3.8	4.0	0.0	0.0	59.0	19.4	0.0	0.0	0.0	0.0	131.4	46.7
New Style / Restricted Use														
4	51.4	16.3	2.5	3.2	0.0	0.0	0.0	0.0	23.9	8.6	0.0	0.0	77.8	28.0
6	69.9	22.5	3.4	4.4	0.0	0.0	0.0	0.0	37.3	11.9	0.0	0.0	110.6	38.8
8	68.7	23.3	3.8	4.0	0.0	0.0	0.0	0.0	52.2	16.2	0.0	0.0	124.6	43.5
New Style / Unrestricted Use +Gravel														
4	0.0	0.0	0.0	0.0	12.3	11.2	0.0	0.0	0.0	0.0	10.2	7.6	22.5	18.8
6	0.0	0.0	0.0	0.0	17.0	14.8	0.0	0.0	0.0	0.0	14.6	9.8	31.6	24.6
8	0.0	0.0	0.0	0.0	18.8	14.8	0.0	0.0	0.0	0.0	19.6	12.5	38.3	27.3

Table A3.3 -23b - Sediment Delivery Apportionment – ML3 / Rain + Snow Zone

Grade	Percent of Typical Road	Aggregate Length per Mile of Road (ft)	Avg Road Segment Length (ft)	Pct Connected	Average Annual Sediment Delivery Rates (pounds per lineal foot)			Sediment Delivered (tons)
					Connected	Unconnected	Weighted Average	
Old Style / Unrestricted Use								
4	45	2376	500	24%	101.7	38.0	53.1	63.0
6	45	2376	500	24%	138.6	51.5	72.1	85.7
8	10	528	350	17%	138.2	50.6	65.1	17.2
			Weighted % Connected--->	**23%**			**Total per Mile of Road--->**	**166.0**
Old Style / Restricted Use								
4	45	2376	419	20%	92.8	33.4	45.2	53.7
6	45	2376	431	20%	128.6	46.2	63.1	74.9
8	10	528	445	21%	134.8	49.0	67.1	17.7
			Weighted % Connected--->	**20%**			**Total per Mile of Road**	**146.3**
New Style / Unrestricted Use								
4	45	2376	500	24%	95.7	37.1	51.0	60.5
6	45	2376	500	24%	130.6	49.3	68.6	81.5
8	10	528	350	17%	131.4	46.7	60.7	16.0
			Weighted % Connected--->	**23%**			**Total per Mile of Road**	**158.0**
New Style / Restricted Use								
4	45	2376	338	16%	77.8	28.0	36.0	42.7
6	45	2376	363	17%	110.6	38.8	51.1	60.7
8	10	528	390	18%	124.6	43.5	58.4	15.4
			Weighted % Connected--->	**17%**			**Total per Mile of Road**	**118.8**
New Style / Unrestricted Use + Gravel								
4	45	2376	338	16%	22.5	18.8	19.4	23.1
6	45	2376	363	17%	31.6	24.6	25.8	30.7
8	10	528	390	18%	38.3	27.3	29.4	7.8
			Weighted % Connected--->	**17%**			**Total per Mile of Road**	**61.5**

Table A3.3 -24a – Sediment Delivery Apportionment – ML3 / Snow Zone

Grade	Average Annual Sediment Rates by WEPP Design Type and Gradient (pounds per lineal foot)													
	Insloped, Bare Ditch		Insloped, Vegetated Ditch		Insloped, Rocked Ditch + Gravel		Outsloped, Heavy Ruts		Outsloped, Light Ruts		Outsloped, Light Ruts + Gravel			
	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile	Sed Road	Sed Profile		
4	112.6	13.2	10.8	6.9	5.8	4.0	77.4	8.2	41.7	2.6	7.2	1.8		
6	155.2	16.4	17.3	9.7	8.7	5.4	107.3	10.4	66.8	4.2	10.5	2.4		
8	149.1	12.0	18.4	7.9	9.7	4.7	109.3	8.1	95.7	6.2	14.1	3.4		
Proportionate Rates by Typical Design Style / Wet Weather Use Regime													**Sediment Rates by Connectivity Type (pounds per lineal foot)**	
													Connected	**Connected**
Old Style / Unrestricted Use														
4	67.5	6.5	0.9	1.0	0.0	0.0	19.4	2.1	0.0	0.0	0.0	0.0	87.8	9.6
6	93.1	10.4	1.3	1.5	0.0	0.0	26.8	2.6	0.0	0.0	0.0	0.0	121.2	14.4
8	89.5	11.0	1.5	1.2	0.0	0.0	27.3	2.0	0.0	0.0	0.0	0.0	118.2	14.2
Old Style / Restricted Use														
4	67.5	6.5	0.9	1.0	0.0	0.0	0.0	0.0	10.4	0.6	0.0	0.0	78.8	8.1
6	93.1	10.4	1.3	1.5	0.0	0.0	0.0	0.0	16.7	1.1	0.0	0.0	111.1	12.9
8	89.5	11.0	1.5	1.2	0.0	0.0	0.0	0.0	23.9	1.6	0.0	0.0	114.8	13.8
New Style / Unrestricted use														
4	45.0	4.3	0.6	0.7	0.0	0.0	38.7	4.1	0.0	0.0	0.0	0.0	84.3	9.1
6	62.1	6.9	0.9	1.0	0.0	0.0	53.7	5.2	0.0	0.0	0.0	0.0	116.6	13.1
8	59.6	7.4	1.0	0.8	0.0	0.0	54.7	4.0	0.0	0.0	0.0	0.0	115.3	12.2
New Style / Restricted Use														
4	45.0	4.3	0.6	0.7	0.0	0.0	0.0	0.0	20.8	1.3	0.0	0.0	66.4	6.3
6	62.1	6.9	0.9	1.0	0.0	0.0	0.0	0.0	33.4	2.1	0.0	0.0	96.3	10.0
8	59.6	7.4	1.0	0.8	0.0	0.0	0.0	0.0	47.9	3.1	0.0	0.0	108.5	11.3
New Style / Unrestricted Use +Gravel														
4	0.0	0.0	0.0	0.0	2.9	2.0	0.0	0.0	0.0	0.0	3.6	0.9	6.5	2.9
6	0.0	0.0	0.0	0.0	4.3	2.7	0.0	0.0	0.0	0.0	5.2	1.2	9.6	3.9
8	0.0	0.0	0.0	0.0	4.8	2.4	0.0	0.0	0.0	0.0	7.0	1.7	11.9	4.1

Table A3.3 -24b - Sediment Delivery Apportionment – ML3 / Snow Zone

Grade	Percent of Typical Road	Aggregate Length per Mile of Road (ft)	Avg Road Segment Length (ft)	Pct Connected	Average Annual Sediment Delivery Rates (pounds per lineal foot)			Sediment Delivered (tons)
					Connected	Unconnected	Weighted Average	
Old Style / Unrestricted Use								
4	45	2376	500	24%	87.8	9.6	28.1	33.4
6	45	2376	500	24%	121.2	14.4	39.7	47.2
8	10	528	350	17%	118.2	14.2	31.5	8.3
			Weighted % Connected--->	**23%**			**Total per Mile of Road--->**	**88.8**
Old Style / Restricted Use								
4	45	2376	419	20%	78.8	8.1	22.2	26.3
6	45	2376	431	20%	111.1	12.9	32.9	39.1
8	10	528	445	21%	114.8	13.8	35.1	9.3
			Weighted % Connected--->	**20%**			**Total per Mile of Road**	**74.7**
New Style / Unrestricted Use								
4	45	2376	500	24%	84.3	9.1	26.9	32.0
6	45	2376	500	24%	116.6	13.1	37.6	44.7
8	10	528	350	17%	115.3	12.2	29.3	7.7
			Weighted % Connected--->	**23%**			**Total per Mile of Road**	**84.4**
New Style / Restricted Use								
4	45	2376	338	16%	66.4	6.3	15.9	18.9
6	45	2376	363	17%	96.3	10.0	24.8	29.5
8	10	528	390	18%	108.5	11.3	29.2	7.7
			Weighted % Connected--->	**17%**			**Total per Mile of Road**	**56.1**
New Style / Unrestricted Use + Gravel								
4	45	2376	338	16%	6.5	2.9	3.5	4.1
6	45	2376	363	17%	9.6	3.9	4.9	5.8
8	10	528	390	18%	11.9	4.1	5.5	1.5
			Weighted % Connected--->	**17%**			**Total per Mile of Road**	**11.4**

Table A3.3 -25 – Rating of Key Routes for Potential Sediment Impacts (Only high and medium ranked key routes are displayed)			
Map Label	**Route Description**	**Summary Indicator Rating / 5th Field Watershed**	**Score**
M2	M2	• H – Thomes	H
23N39	23N39 Espee Ridge tie through	• H – Upper Middle Fork Eel	H
24N01	East 24N01 from jct w/M2 to Kingsley Glade	• H – Thomes	H
M1b	M1 from Eel River Station to jct w/M21	• H - Upper Main Eel	H
24N21b	24N21 from jct w/Hwy 162 to jct w/24N13 near Blands Cove	• H - Upper Middle Fork Eel	H
FH7	FH7	• H – Black Butte	H
M6	M6	• H – Upper Main Eel	H
M3d	M3 from Ivory Mill Saddle to jct w/Crockett Trailhead spur.	• M – Middle Fork Stony • H – Upper Main Eel	H
M1e	M1 from Cabbage Patch to Soda Creek	• H – Soda	H
CR301	Lake CR301 from Soda Creek to jct with Mendocino CR 240B	• H - Soda	H
M1f	M1 from Soda Creek to Forest boundary (Lake CR301) Access from Upper Lake to Pillsbury Basin	• H – Soda • M – Upper Lake	H
M10	M10	• M – Middle Fork Stony	M
17N02	17N02	• M – Middle Fork Stony	M
16N30	16N30 form Sam Alley Ridge to near High Glade	• M – Upper Lake	M
M5a	M5 from jct w/M10 to jct w/Little Stony Rd	• M – Little Stony	M
M5b	M5 from jct w/ Little Stony Rd to Pacific Ridge Station	• M – Little Stony	M

Table A3.3 -25 – Rating of Key Routes for Potential Sediment Impacts (Only high and medium ranked key routes are displayed)			
Map Label	**Route Description**	**Summary Indicator Rating / 5th Field Watershed**	**Score**
M12	M12 (CR303 – Lake)	• M – North Fork Cache	M

Table A3.2- 26 displays the sediment indicators and overall priority rating for the key routes. This is the information upon which Table 3.3- 25 is based. The criteria we used for the rankings were:

- **High (H)** – Key routes that have an above average cumulative sediment indicator rating and which are located within a 5th field watershed that is rated either high for both sediment potential and aquatic resource value, or high for one and medium for the other.
- **Medium (M)** – Key routes that have an above average cumulative sediment indicator rating and which are located within a 5th field watershed that is rated moderate for both sediment potential and aquatic resource value.
- **Low (L)** – All other key routes.

Shading indicates the potential for sediment impacts: medium gray = high; light gray = medium; none = low.

Table A3.3- 26. Indicators of Potential Sediment Impacts from Key Routes on Aquatic Resources

Key Route	5th Field Watershed	Miles	Sediment Indicators								
			Proximity[14] (mi/mi)	Proximity Rating[15]	Crossings[16] (per mile)	Crossing Rating[17]	Sensitve[18] (mi/mi)	Sensitive Rating[19]	Cumulative Rating[20]	Above Avg?[21]	
16N01	**N.Fk. Cache**	1.59	0.04	0.17		0.00	0.00	0.00	0.17	N	L
16N01	**Rice Fork**	3.03	0.29	1.13	0.99	0.37	0.00	0.00	1.50	N	L
16N01	**Upper Lake**	5.6	0.25	0.95	1.25	0.47	0.00	0.00	1.42	N	L
16N30	**Upper Lake**	4.72	0.36	1.39	2.12	0.80	0.00	0.00	2.18	N	L

[14] Miles of road within 150 feet of a stream per miles of road within the watershed.
[15] Proximity value divided by the average proximity value for key routes (0.26).
[16] Stream crossings per mile.
[17] Crossings value divided by average crossings per mile for key routes (2.66).
[18] Miles of road located on unstable landforms per mile of road in the watershed.
[19] Sensitive rating divided by average rating for key routes (0.02).
[20] Sum of proximity, crossing, and sensitive ratings.
[21] Is the cumulative rating above the average for key routes?

Table A3.3- 26. Indicators of Potential Sediment Impacts from Key Routes on Aquatic Resources											
			Sediment Indicators								
Key Route	5th Field Watershed	Miles	Proximity[14] (mi/mi)	Proximity Rating[15]	Crossings[16] (per mile)	Crossing Rating[17]	Sensitve[18] (mi/mi)	Sensitive Rating[19]	Cumulative Rating[20]	Above Avg?[21]	
17N02	**Middle Fk Stony**	2.89	0.40	1.56	4.50	1.69	0.00	0.17	3.42	Y	M
23N39	**Upper MF Eel**	3.93	0.09	0.34	1.02	0.38	0.00	0.13	0.85	N	L
24N01	**Thomes Creek**	4.88	0.38	1.46	4.10	1.54	0.11	5.33	8.33	Y	**H**
24N21b	**Upper MF Eel**	3.34	0.29	1.13	4.49	1.69	0.01	0.45	3.27	Y	**H**
	Soda Creek	6.44	0.34	1.31	4.97	1.87	0.11	5.75	8.92	Y	**H**
CR311	**Briscoe**	1.59	0.12	0.46	0.63	0.24	0.00	0.00	0.70	N	L
CR311	**Grindstone**	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N	L
FH7	**Black Butte**	21.76	0.34	1.30	3.91	1.47	0.03	1.47	4.24	Y	**H**
FH7	**Briscoe**	4.78	0.29	1.13	3.77	1.42	0.01	0.42	2.97	N	L
FH7	**Grindstone**	13.42	0.22	0.84	2.83	1.06	0.00	0.11	2.02	N	L
M10	**Middle Fk Stony**	19.51	0.32	1.22	4.20	1.58		4.15	6.95	Y	**M**
M10	**Rice Fork**	16.01	0.25	0.96	2.12	0.80	0.09	4.47	6.23	Y	**H**
M12	**Lucerne**	3.4	0.46	1.75	5.00	1.88	0.00	0.00	3.63	Y	L
M12	**N.Fk. Cache**	11.92	0.44	1.71	4.11	1.55	0.09	4.36	7.61	Y	**M**
M12	**Upper Lake**	1.08	0.18	0.68	1.85	0.70	0.00	0.00	1.37	N	L
M1b	**Upper MF Eel**	18.49	0.31	1.20	4.54	1.71	0.10	4.98	7.88	Y	**H**
M1c	**Black Butte**	5.16	0.24	0.91	0.97	0.36	0.00	0.00	1.27	N	L
M1c	**Williams/Thatcher**	10.84	0.07	0.27	0.28	0.10	0.00	0.00	0.38	N	L

Table A3.3- 26. Indicators of Potential Sediment Impacts from Key Routes on Aquatic Resources											
			Sediment Indicators								
Key Route	5th Field Watershed	Miles	Proximity[14] (mi/mi)	Proximity Rating[15]	Crossings[16] (per mile)	Crossing Rating[17]	Sensitve[18] (mi/mi)	Sensitive Rating[19]	Cumulative Rating[20]	Above Avg?[21]	
M1e	**Soda Creek**	0.74	0.47	1.82	4.05	1.52	0.00	0.00	3.34	Y	**H**
M1e	**Upper Main Eel**	6.53	0.39	1.48	3.83	1.44	0.00	0.00	2.92	N	L
M1f	**Rice Fork**	4.76	0.16	0.61	0.84	0.32		0.00		N	L
M1f	**Soda Creek**	8.56	0.41	1.57	3.74	1.41	0.01	0.41	3.39	Y	**H**
M1f	**Upper Lake**	9.95	0.43	1.65	6.63	2.49	0.00	0.00	4.14	Y	**M**
M2	**Grindstone**	1.94	0.26	0.99	2.58	0.97	0.00	0.00	1.96	N	L
M2	**Thomes Creek**	47.67	0.28	1.06	3.19	1.20	0.04	2.14	4.40	Y	**H**
M2	**Upper MF Eel**	2.03	0.00	0.00	0.49	0.19	0.00	0.00	0.19	N	L
M22	**Elder**	9.64	0.21		1.87	0.70	0.00	0.00	1.50	N	L
M22	**Red Bank**	4.14	0.29	1.12	2.66	1.00	0.00	0.00	2.12	N	
M22	**Thomes Creek**	4.3	0.24	0.92	1.63	0.61	0.00		1.53	N	L
M3b	**Briscoe**	0.92	0.07	0.25	1.09	0.41	0.00	0.00	0.66	N	L
M3c	**Briscoe**	3.68	0.13	0.48	1.36	0.51	0.00	0.00	0.99	N	L
M3c	**Upper Main Eel**	2.06	0.19	0.75	2.43	0.91	0.00	0.00	1.66	N	L
M3d	**Briscoe**	5.19		0.27	0.77	0.29	0.00	0.00	0.56	N	L
M3d	**Middle Fk Stony**	1.69	0.21	0.80	2.96	1.11	0.06	2.96	4.87	Y	**M**
M3d	**Upper Main Eel**	5.73	0.40	1.54	2.97	1.12	0.12	6.02	8.68	Y	**H**
M4	**Grindstone**	3.08	0.13	0.51	1.30	0.49	0.01	0.32	1.32	N	L

Table A3.3- 26. Indicators of Potential Sediment Impacts from Key Routes on Aquatic Resources											
			Sediment Indicators								
Key Route	5th Field Watershed	Miles	Proximity[14] (mi/mi)	Proximity Rating[15]	Crossings[16] (per mile)	Crossing Rating[17]	Sensitve[18] (mi/mi)	Sensitive Rating[19]	Cumulative Rating[20]	Above Avg?[21]	
M4	**Thomes Creek**	22.66	0.25	0.94	2.69	1.01	0.00	0.24	2.20	N	L
M5a	**Little Stony**	1.85	0.49	1.87	6.49	2.44	0.01	0.27	4.58	Y	**M**
M5a	**Middle Fk Stony**	9.25	0.16	0.63	0.86	0.33	0.00	0.00		N	L
M5b	**Little Stony**	2.52	0.43	1.66	6.35	2.39	0.00	0.00	4.05	Y	**M**
M6	**Black Butte**	5.8	0.19	0.72	2.41	0.91	0.00	0	1.62	N	L
M6	**Upper Main Eel**	18.8	0.34	1.32	4.57	1.72	0.24	11.97	15.01	Y	**H**
M61	**Black Butte**	1.6	0.34	1.32	1.25	0.47	0.00	0.00	1.79	N	L
M61	**Upper Main Eel**	7.44	0.18	0.70	0.94	0.35	0.00	0.00	1.05	N	L

Because these ratings are based only on indicators of *potential* sediment problems, they may not reflect actual conditions. The priority ratings are useful for prioritizing inventory and assessment on key routes, in order to help identify and prioritize actual improvement needs.

5. The 71 Questions from the RAP Book

This issue is relevant at both the forest scale and watershed/project scale. All 14 of the questions relating to aquatic, riparian zone, and water quality (designated 'AQ 1 – 14' in the book) are relevant to this issue. Table A3.3 -26 displays which of the 14 questions were addressed in the forest scale analysis, and which will need to be addressed at the watershed/project scale. Some of the questions must be addressed at both scales.

Table A3.3 -26 – RAP Book Questions Relevant to Water Quality / Aquatic Habitat Issue

Question	Scale of Analysis	
	Forest	WS/Proj
AQ1 – How and where does the road system modify the surface and subsurface hydrology of the area?		x
AQ2 – How and where does the road system generate surface erosion?	x	x
AQ3 – How and where does the road system affect mass wasting?	x	x
AQ4 – How and where do road stream crossings influence local stream channels and water quality?		x
AQ5 – How and where does the road system create potential for pollutants, such as chemical spills, oils, deicing salts, or herbicides to enter surface waters?		x
AQ6 – How and where is the road system 'hydrologically connected' to the stream system? How do the connections affect water quality and quantity (such as delivery of sediments, thermal increases, elevated peak flows)?	x	x
AQ7 – What downstream beneficial uses of water exist in the area? What changes in uses and demand are expected over time? Wow are they affected or put at risk by road-derived pollutants?	x	x
AQ8 – How and where does the road system affect wetlands?		x
AQ9 – How does the road system alter physical channel dynamics, including isolation of floodplains; constraints on channel migration; and the movement of large wood, fine organic matter and sediment?		x
AQ10 – How and where does the road system restrict the migration and movement of aquatic organisms? What aquatic species are affected and to what extent?	x	x
AQ11 – How does the road system affect shading, litterfall, and riparian plant communities?		x

Table A3.3 -26 – RAP Book Questions Relevant to Water Quality / Aquatic Habitat Issue		
	Scale of Analysis	
Question	Forest	WS/Proj
AQ12 – How and where does the road system contribute to fishing, poaching, or direct habitat loss for at-risk aquatic species?	x	x
AQ13 – How and where does the road system facilitate the introduction of non-native aquatic species?		x
AQ14 – To what extent does the road system overlap with areas of exceptionally high aquatic diversity or productivity, or areas containing rare or unique aquatic species or species of interest?	x	x

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GIS Information Sources

Elevation – 30-meter Digital Elevation Model, USGS, 1993.

Fish Habitat – Delineated on Cartographic Feature File streams, based on fish presence as determined by stream surveys; 1:24,000.

Geology – Various sources at scales from 1:4,000 to 1:250,000.

Inner Gorge – Derived from stream surveys and aerial photograph interpretation. Data captured at 1:24,000 scale.

Landslides – Derived from aerial photograph interpretation, 1969 – 1984. Data captured at 1:24,000 scale

Roads – Cartographic Feature Files, with feature realignments based upon Digital Ortho Quads.

Slope Class – Digital Elevation Model, USGS, 1993.

Streams – Cartographic Feature Files, augmented to show predicted occurrence of intermittent streams from contour crenulations; 1:24,000.

Watersheds – CALWATER from California Department of forestry, 1:24,000 scale.

Database Sources

Roads - INFRA database. Includes all roads under FS or County jurisdiction, current as of August 2002. Contains no data for private roads.

Persons Cited as Personal Communication

Name	Discipline	Agency
Smith, Bruce	Engineer	Forest Service
Stevens, Mark	Engineer	Forest Service

Glossary

Anadromous fish – Salmon and steelhead are the species that spend part of their lives at sea and return to their natal stream to spawn.

Climate Zone – term used in this report to indicate a zone of characteristic precipitation. **Rain + snow zone** (500 to 5000 feet elevation) includes elevations predominated by rainfall or mixed rain and snow in the winter wet season: **snow zone** (over 5000 feet elevation) is predominated by snowfall in the winter wet season.

Design Style – term used in this report to refer to the predominant surface drainage characteristics of a road segment. **Old style** roads are predominantly of a confined drainage design, characterized by an insloped running surface, inboard ditches and outboard berms. **New style** roads are predominantly of an unconfined drainage design, characterized by an outsloped running surface, and with minimal inboard ditches and outboard berms

Hydrologically connected – a road segment is hydrologically connected if its surface drainage enters a stream channel directly without first passing through a vegetated buffer. Examples: 1) insloped roads with ditches that drain into a stream channel; 2) outsloped, rutted road with concentrated runoff that is conveyed by an erosion channel that connects to a stream

Intermittent Stream – A channel with intermittent or ephemeral flow that has evidence of annual scour or deposition.

Resident fish - A fish that spends its entire life in a stream or lake and does not have an ocean life phase.

Stream channel – any natural channel that carries either perennial flow or intermittent flow that has evidence of annual scour or deposition.

Watershed, 5th Field – 5th field watersheds range in size from 40,000 to 250,000 acres. They are subdivided into 6th field watersheds.

Watershed, 6th Field – 6th field watersheds range in size from 10,000 to 40,000 acres. They are subdivided into 7th field watersheds.

Watershed, 7th Field – 7th field subwatersheds range in size from 3,000 to 10,000 acres.