

Table 3.1. Areas and stream miles underlain by different geologic units in the Scott River watershed derived from the GIS geology layer of the Geologic Map of California (Saucedo et al., 2000).

<b>Geologic unit</b>	<b>Area (acres)</b>	<b>Area (sq miles)</b>	<b>Area (by percent)</b>	<b>Stream Miles</b>
<b>Quaternary</b>	51218	80	10%	199
<b>Granitic</b>	54938	86	11%	259
<b>Mafic</b>	87370	137	17%	401
<b>Sed &amp; Met</b>	326657	510	63%	1641
<b><i>TOTALS</i></b>	<b><i>520184</i></b>	<b><i>813</i></b>	<b><i>100%</i></b>	<b><i>2500</i></b>

Table 3.2. Areas and stream miles underlain by different geologic units in the seven subwatersheds of the Scott River watershed derived from the GIS geology layer of the Geologic Map of California (Saucedo et al., 2000).

Subwatershed	Geologic Unit	Area (sq miles)	Total Area (sq miles)	Total Area (% watershed)	Geology type (% subwatershed)	Stream Miles	Total subwatershed stream miles
<b>West Canyon</b>	Quaternary	1.3	99	12.1%	1.4%	5	314
	Granitic	7.3			7.4%	26	
	Mafic	24.1			24.4%	78	
	Sed & Met	65.9			66.8%	205	
<b>East Canyon</b>	Quaternary	0.5	100	12.3%	0.5%	4	356
	Granitic	0.0			0.0%	0	
	Mafic	5.0			5.0%	16	
	Sed & Met	94.7			94.5%	336	
<b>Eastside</b>	Quaternary	0.0	121	14.8%	0.0%	0	416
	Granitic	0.0			0.0%	0	
	Mafic	9.6			8.0%	33	
	Sed & Met	110.9			92.0%	383	
<b>East Headwater</b>	Quaternary	4.7	115	14.2%	4.1%	17	362
	Granitic	7.0			6.1%	20	
	Mafic	49.4			42.9%	148	
	Sed & Met	54.1			47.0%	177	
<b>West Headwater</b>	Quaternary	0.8	44	5.4%	1.9%	3	122
	Granitic	21.2			48.3%	59	
	Mafic	16.0			36.4%	41	
	Sed & Met	5.9			13.4%	19	
<b>Westside</b>	Quaternary	7.1	179	22.0%	4.0%	20	528
	Granitic	50.3			28.2%	154	
	Mafic	21.2			11.9%	61	
	Sed & Met	100.0			56.0%	294	
<b>Scott Valley</b>	Quaternary	65.5	156	19.2%	42.1%	150	401
	Granitic	0.0			0.0%	0	
	Mafic	11.2			7.2%	23	
	Sed & Met	79.0			50.7%	227	
<b>TOTALS</b>		<b>813</b>	<b>813</b>	<b>100%</b>		<b>2500</b>	<b>2500</b>

Table 3.3. Mileage of paved and unpaved roads at different distances from streams in the Scott River watershed (VESTRA developed roads layer)

Geologic Unit	Road proximity to stream network										Road Density			
	No. of Stream Crossings	Direct Delivery	0 - 100 ft	100 - 200 ft	> 200 ft	No. of Stream Crossings	Direct Delivery	0 - 100 ft	100 - 200 ft	> 200 ft	0 - 100 ft	100 - 200 ft	> 200 ft	Overall
	Paved Roads (miles)					Unpaved Roads (miles)					(miles / sq. mile)			
Quaternary	73	3.1	5.8	5.3	90.6	142	6.0	15.2	17.8	147.9	3.1	3.7	3.6	3.5
Granitic	12	0.5	0.7	1.1	3.2	401	16.9	26.1	36.0	178.1	3.7	5.3	2.5	2.9
Mafic	93	3.9	4.3	7.0	27.3	565	23.8	43.0	50.4	281.0	4.8	6.1	2.6	3.0
Sed & Met	181	7.6	11.7	17.8	47.8	2944	124.0	258.7	247.4	1166.6	8.4	8.4	2.7	3.4
<b>TOTALS</b>	<b>359</b>	<b>15</b>	<b>23</b>	<b>31</b>	<b>169</b>	<b>4052</b>	<b>171</b>	<b>343</b>	<b>352</b>	<b>1774</b>	<b>6.5</b>	<b>7.0</b>	<b>2.8</b>	<b>3.3</b>

  

Subwatershed	Road proximity to stream network										Road Density			
	No. of Stream Crossings	Direct Delivery	0 - 100 ft	100 - 200 ft	> 200 ft	No. of Stream Crossings	Direct Delivery	0 - 100 ft	100 - 200 ft	> 200 ft	0 - 100 ft	100 - 200 ft	> 200 ft	Overall
	Paved Roads (miles)					Unpaved Roads (miles)					(miles / sq. mile)			
West Canyon	55	2.3	2.6	4.4	10.9	312	13.1	18.2	23.4	182.8	2.6	3.5	2.3	2.5
East Canyon	44	1.9	2.5	5.9	4.7	952	40.1	71.0	73.0	355.9	8.4	9.3	4.3	5.1
Eastside	42	1.8	2.4	2.5	11.6	807	34.0	92.5	68.2	260.8	45.0	34.4	2.3	3.6
East Headwater	67	2.8	4.6	5.3	16.3	473	19.9	40.5	46.4	190.1	5.7	6.7	2.1	2.6
West Headwater	23	1.0	1.3	1.9	9.6	208	8.8	13.0	17.9	99.4	4.4	6.3	2.9	3.3
Westside	51	2.1	3.3	5.5	22.5	937	39.5	70.0	88.8	445.0	5.2	6.9	3.1	3.6
Scott Valley	77	3.2	5.8	5.7	93.3	363	15.3	37.9	34.0	239.6	3.6	3.4	2.5	2.7
<b>TOTALS</b>	<b>359</b>	<b>15</b>	<b>23</b>	<b>31</b>	<b>169</b>	<b>4052</b>	<b>171</b>	<b>343</b>	<b>352</b>	<b>1774</b>	<b>6.5</b>	<b>7.0</b>	<b>2.8</b>	<b>3.3</b>

Table 3.4. Mileage of paved and unpaved roads at different distances from streams in subwatersheds of the Scott River watershed (VESTRA developed roads layer)

Subwatershed	Geologic unit	Road proximity to stream network										Road Density		
		No. of Stream Crossings	Direct Delivery	0 - 100 ft	100 - 200 ft	> 200 ft	No. of Stream Crossings	Direct Delivery	0 - 100 ft	100 - 200 ft	> 200 ft	0 - 100 ft	100 - 200 ft	> 200 ft
		Paved Roads (miles)					Unpaved Roads (miles)					(miles / sq. mile)		
West Canyon	Quaternary			0.1	0.2	0.3	5	0.2	0.4	0.5	3.0	3.5	4.3	3.2
	Granitic						36	1.5	2.0	2.6	23.2	2.8	3.8	3.9
	Mafic	12	0.5	0.4	1.6	0.8	52	2.2	3.1	4.6	37.2	1.9	3.5	1.9
	Sed & Met	43	1.8	2.0	2.6	9.8	219	9.2	12.6	15.7	119.4	2.7	3.5	2.3
East Canyon	Quaternary	5	0.2	0.4	0.3	0.9	2	0.1	0.3	0.5	0.9	5.8	8.0	6.4
	Granitic													
	Mafic	2	0.1	0.0	0.0	0.1	26	1.1	1.4	1.7	13.8	4.0	4.8	3.3
	Sed & Met	37	1.6	2.0	5.6	3.8	924	38.9	69.3	70.8	341.1	8.6	9.5	4.4
Eastside	Quaternary					0.2						0.0	0.0	10.3
	Granitic													
	Mafic	17	0.7	0.9	1.1	3.5	61	2.6	6.9	5.3	15.4	7.5	6.4	2.5
	Sed & Met	25	1.1	1.6	1.4	7.9	746	31.4	85.5	62.8	245.5	82.6	62.6	2.3
East Headwater	Quaternary						20	0.8	2.0	3.6	10.6	4.3	8.4	2.8
	Granitic						23	1.0	1.5	1.7	10.2	2.5	2.9	1.7
	Mafic	37	1.6	1.9	2.7	9.9	233	9.8	17.1	22.5	110.2	5.8	8.0	2.8
	Sed & Met	30	1.3	2.7	2.6	6.3	197	8.3	19.9	18.6	59.2	6.2	6.1	1.4
West Headwater	Quaternary						11	0.5	0.5	0.8	2.3	6.4	10.5	3.4
	Granitic						83	3.5	5.4	7.5	38.7	3.3	4.9	2.1
	Mafic	15	0.6	0.6	0.8	7.0	85	3.6	4.8	6.5	45.3	5.3	7.4	3.7
	Sed & Met	8	0.3	0.8	1.1	2.6	29	1.2	2.3	3.1	13.1	5.7	8.3	3.2
Westside	Quaternary	6	0.3	0.3	0.5	8.4	31	1.3	2.5	3.2	29.2	4.0	5.6	6.5
	Granitic	12	0.5	0.7	1.1	3.2	259	10.9	17.1	24.2	106.1	4.1	6.0	2.6
	Mafic	9	0.4	0.5	0.6	2.9	94	4.0	8.0	8.1	41.5	5.6	6.0	2.4
	Sed & Met	24	1.0	1.8	3.3	8.0	553	23.3	42.4	53.4	268.3	5.9	7.8	3.2
Scott Valley	Quaternary	62	2.6	5.0	4.4	80.8	73	3.1	9.6	9.2	101.9	2.7	2.8	3.3
	Granitic													
	Mafic	1	0.0	0.0	0.1	3.1	14	0.6	1.7	1.8	17.6	2.3	2.6	2.1
	Sed & Met	14	0.6	0.8	1.3	9.4	276	11.6	26.7	23.0	120.1	4.6	4.1	1.9
<b>TOTALS</b>		<b>359</b>	<b>15</b>	<b>23</b>	<b>31</b>	<b>169</b>	<b>4052</b>	<b>171</b>	<b>343</b>	<b>352</b>	<b>1774</b>			

Table 3.5. Rates of road-related sediment contribution in South Fork Scott River watershed, estimated using SEDMODL2 and RM road survey

Rates of road-related sediment contribution in Scott River watershed, estimated through SEDMODL2 and RM road survey.												
Geologic Unit	Distance from a stream	Stream Crossing Failures (tons/xing-yr)	Road-Related Gullies	Fill Failures	Cutbank Failures	Road-Associated Mass Movement	Road Tread Sediment Direct Delivery	Road Tread Sediment Delivery 0 - 100 ft	Road Tread Sediment Delivery 100 - 200 ft	Cut-slope Sediment Direct Delivery	Cut-slope Sediment Delivery 0 - 100 ft	Cut-slope Sediment Delivery 100 - 200 ft
							Road Survey results (tons/mi-yr)				SEDMODL results (tons/mi-yr)	
Quaternary	≤ 200 ft	1.14	0.40	0.95			69.14	5.18	4.24	5.10	0.40	0.33
	> 200 ft		0.01				1.24			0.05		
Mafic	≤ 200 ft	1.06	3.28	0.10	0.03	2.84	18.36	1.61	0.94	1.71	0.16	0.10
	> 200 ft	0.00	0.14				0.53			0.03		
Sed & Met	≤ 200 ft	0.57	0.20	0.48			9.08	0.78	0.51	0.93	0.09	0.06
	> 200 ft	0.00	0.00				0.73			0.05		
Granitic	≤ 200 ft	0.11	2.66	0.43	0.05		57.22	5.49	2.96	18.83	2.01	1.08
	> 200 ft	0.00	0.17				2.52			0.60		

  

Rates of road-related granitic sediment contribution in Scott River watershed, estimated through GSS										
Geologic Unit		Fill-slope Sediment Direct Delivery	Fill-slope Sediment Delivery 0 - 100 ft	Fill-slope Sediment Delivery 100 - 200 ft	Road Tread Sediment Direct Delivery	Road Tread Sediment Delivery 0 - 100 ft	Road Tread Sediment Delivery 100 - 200 ft	Cut-slope Sediment Direct Delivery	Cut-slope Sediment Delivery 0 - 100 ft	Cut-slope Sediment Delivery 100 - 200 ft
		Granitic Sediment Study (Sommarstrom et. al., 1990) (tons/mi-yr)								
Granitic		3.85	1.35	0.38	37.01	12.95	3.70	98.87	34.61	9.89

Table 3.6. Rates of road-related sediment contribution in Scott River watershed estimated by extrapolation of rates estimated in South Fork watershed (West Headwater subwatershed) (Table 3.5).

<b>Rates of road-related sediment contribution in Scott River watershed, estimated through SEDMODL2 and RM road survey.</b>														
Geologic Unit	Distance from a stream	Stream Crossing Failures	Road-Related Gullies	Fill Failures	Cutbank Failures	Road-Associated Mass Movement	Road Tread Sediment Direct Delivery	Road Tread Sediment Delivery 0 - 100 ft	Road Tread Sediment Delivery 100 - 200 ft	Cut-slope Sediment Direct Delivery	Cut-slope Sediment Delivery 0 - 100 ft	Cut-slope Sediment Delivery 100 - 200 ft	Total Sediment Delivery (tons/yr)	Total Sediment Delivery (tons/sq mi-yr)
Quaternary	≤ 200 ft	244	21	51			414	79	76	46	9	8	947	12
	> 200 ft		2										2	
Mafic	≤ 200 ft	694	434	13	4	376	437	69	47	47	8	6	2137	16
	> 200 ft		44										44	
Sed & Met	≤ 200 ft	1775	134	317			1126	202	125	122	24	15	3840	8
	> 200 ft		4										4	
Granitic	≤ 200 ft	44	216	35	4		967	143	106	328	54	40	1936	23
	> 200 ft		31										31	

  

<b>Rates of road-related granitic sediment contribution in Scott River watershed, determined through GSS</b>													
Geologic Unit		Fill-slope Sediment Direct Delivery	Fill-slope Sediment Delivery 0 - 100 ft	Fill-slope Sediment Delivery 100 - 200 ft	Road Tread Sediment Direct Delivery	Road Tread Sediment Delivery 0 - 100 ft	Road Tread Sediment Delivery 100 - 200 ft	Cut-slope Sediment Direct Delivery	Cut-slope Sediment Delivery 0 - 100 ft	Cut-slope Sediment Delivery 100 - 200 ft	Total Sediment Delivery (tons/yr)	Total Sediment Delivery (tons/sq mi-yr)	
													Granitic Sediment Study (Sommarstrom et. al.) (tons/year)
Granitic		67	36	14	625	337	133	1720	927	367	4227	49	

  

Watershed Totals (tons/yr) (SEDMODL2 & RM road survey delivery rates for all geologic units)	2757	886	416	8	376	2943	493	355	544	94	69	8940	11
Watershed Totals (tons/yr) (substituting Granitic Sediment Study delivery rates for granitic geologic unit)	2714	639	498	4	376	2601	687	381	1936	967	396	11200	14

Table 3.7. Road-related sediment contribution in Scott River watershed estimated by extrapolation of rates estimated in South Fork watershed (West Headwater subwatershed)(Table 3.5). (Tons/yr)

Road-related non-granitic sediment contribution in Scott River watershed derived from SEDMODL2 & RM road survey.		Stream Crossing Failures	Road-Related Gullies	Fill Failures	Cutbank Failures	Road Related Mass Movement	Road Tread Sediment Delivery	Cut-slope Sediment Delivery	Total Delivery / Geol. unit
West Canyon	Quaternary	5.7	0.6	1.4			18.8	1.5	28
	Mafic	67.5	46.3	1.2	0.4	35.4	49.5	5.8	206
	Sed & Met	148.8	9.2	20.9			101.5	12.6	293
East Canyon	Quaternary	8.0	0.7	1.7			9.5	2.1	22
	Mafic	29.5	16.2	0.4	0.1	9.2	24.0	2.4	82
	Sed & Met	545.8	38.9	89.5			443.2	48.4	1166
Eastside	Quaternary		0.0						0
	Mafic	82.3	60.3	1.7	0.6	50.0	63.4	7.5	266
	Sed & Met	437.9	37.7	87.4			383.7	41.6	988
East Headwater	Quaternary	22.7	2.7	6.1			83.9	6.3	122
	Mafic	284.9	199.1	5.5	1.8	157.9	228.9	25.0	903
	Sed & Met	128.9	10.9	25.4			100.3	12.1	278
West Headwater	Quaternary	12.5	0.7	1.7			35.3	2.8	53
	Mafic	105.5	62.8	1.7	0.6	48.1	79.5	8.8	307
	Sed & Met	21.0	1.9	4.2			14.4	2.0	43
Westside	Quaternary	42.0	3.4	7.6			116.6	10.3	180
	Mafic	108.7	76.6	2.1	0.7	61.0	93.1	9.6	352
	Sed & Met	327.7	26.0	59.5			271.5	29.8	715
Scott Valley	Quaternary	153.4	14.8	32.2			301.4	39.4	541
	Mafic	15.8	16.6	0.4	0.1	11.9	15.2	1.5	62
	Sed & Met	164.7	13.2	30.4			137.9	15.2	361

Road-related granitic sediment contribution in Scott River watershed derived from SEDMODL2 & RM road survey.		Stream Crossing Failures	Road-Related Gullies	Fill Failures	Cutbank Failures	Road Related Mass Movement	Road Tread Sediment Delivery	Cut-slope Sediment Delivery	Total Delivery
West Canyon	Granitic	3.8	20.3	2.7	0.3		105.7	35.5	168
East Canyon									
Eastside									
East Headwater		2.4	12.8	1.8	0.2		68.7	23.1	109
West Headwater		8.8	50.2	7.1	0.8		252.0	84.8	404
Westside		28.6	163.7	23.5	2.7		789.9	278.2	1287
Scott Valley									

Road-related granitic sediment contribution in Scott River watershed derived from Granitic Sediment Study.		Fill - slope Sediment Delivery	Road Tread Sediment Delivery	Cut-slope/ Cutbank Sediment Delivery	Total Delivery
West Canyon	Granitic	9.6	92.1	246.1	348
East Canyon					
Eastside					
East Headwater		6.4	61.5	164.3	232
West Headwater		23.6	227.2	606.9	858
Westside		77.7	715.1	1997.0	2790
Scott Valley					

**Estimated Total Sediment Delivery by Subwatershed**

Watershed Totals using SEDMODL2 & RM road survey delivery rates for all geologic units								Sediment contribution by subwatershed (tons/yr)	Sediment contribution by subwatershed (tons/sq mi-yr)
	West Canyon	East Canyon	Eastside	East Headwater	West Headwater	Westside	Scott Valley		
Total Contribution by subwatershed (tons/yr)	695	1270	1254	1411	807	2533	964	<b>8940</b>	<b>11</b>
subwatershed (tons/sq mi-yr)	7	11	11	32	5	16	1		

Watershed Totals using SEDMODL2 & RM road survey delivery rates for all geologic units except granitic substrate. Delivery rates for granitic substrate derived from Granitic Sediment Study.								Sediment contribution by subbasin (tons/yr)	Sediment contribution by subwatershed (tons/sq mi-yr)
	West Canyon	East Canyon	Eastside	East Headwater	West Headwater	Westside	Scott Valley		
Total Contribution by subwatershed (tons/yr)	875	1270	1254	1535	1261	4036	964	<b>11200</b>	<b>14</b>
subwatershed (tons/sq mi-yr)	9	11	11	35	7	26	1		

Table 3.8. Comparison of granitic sediment delivery in the Scott River watershed relying only on SEDMODL2 and road survey versus incorporating results of Granitic Sediment Study (Sommarstrom et al., 1990) for granitic areas.

	<b>Not using GSS (Source: Table 3.7)</b>	<b>Using GSS (Source: Table 3.7)</b>	<b>Percent greater using GSS</b>
<b>West Canyon (tons/yr)</b>	695	875	<b>26%</b>
<b>East Headwater (tons/yr)</b>	1411	1535	<b>9%</b>
<b>West Headwater (tons/yr)</b>	807	1261	<b>56%</b>
<b>Westside (tons/yr)</b>	2533	4036	<b>59%</b>



Table 3.9. Summary of the number of features photointerpreted as possible landslides in Vestra photoanalysis.

Subwatershed	Feature type	Photo-interpreted features that have been field verified											Active Delivering	NOT Delivering	
		No. of Active slide features Delivering			No. of Active slide features Not delivering			No. of Inactive slide features (Not delivering)			No. of slide features that are NOT slides not delivering				
		Line	Point	Polygon	Line	Point	Polygon	Line	Point	Polygon	Line	Point			Polygon
WEST CANYON	Granitic	1	2	2		1	1		2					5	4
	Mafic	2		3	2	4	3	1		3	1	1	6	5	21
	Sed & Met	2	5	4	4	2	1			10		3	6	11	26
EAST CANYON	Granitic														
	Mafic							4	1	2					7
	Sed & Met							1	1			1			3
EASTSIDE	Granitic														
	Mafic														
	Sed & Met														
EAST HEADWATER	Granitic														
	Mafic	1				1		1	1					1	3
	Sed & Met														
WEST HEADWATER	Granitic			1					1					1	1
	Mafic				1	3	1				1				6
	Sed & Met														
WESTSIDE	Granitic														
	Mafic														
	Sed & Met														
SCOTT VALLEY	Granitic														
	Mafic														
	Sed & Met														
											<b>TOTALS</b>			<b>23</b>	<b>71</b>

Subwatershed	Feature type	Photo-interpreted features that have NOT been field verified									Full connect	Partial connect	NON connect			
		No. of features interpreted to be fully hydrologically connected			No. of features interpreted to be partially hydrologically connected			No. of features interpreted NOT to be hydrologically connected								
		Line	Point	Polygon	Line	Point	Polygon	Line	Point	Polygon						
WEST CANYON	Granitic								1					1		
	Mafic	8	5	9	11	12	4	2	5		22	27	7			
	Sed & Met	11	20	18	6	8	13	1	7	8	49	27	16			
EAST CANYON	Granitic															
	Mafic															
	Sed & Met	1	2	2		2	1		1	1	5	3	2			
EASTSIDE	Granitic															
	Mafic															
	Sed & Met					1		1		2		1	3			
EAST HEADWATER	Granitic															
	Mafic	2						2	1	1	2		4			
	Sed & Met	1				1				1	1	1	1			
WEST HEADWATER	Granitic		1							1			1			
	Mafic					1						1				
	Sed & Met															
WESTSIDE	Granitic	6	7	8	1	8	3	2	4	2	21	12	8			
	Mafic		1		1	1	1				1	3				
	Sed & Met	1	5	6	7	5	9	1	4	3	12	21	8			
SCOTT VALLEY	Granitic															
	Mafic															
	Sed & Met				1	1		1		1		2	2			
											<b>TOTALS</b>			<b>114</b>	<b>98</b>	<b>53</b>

Table 3.10. Summary of the sediment delivery from features photointerpreted as possible landslides in Vestra photoanalysis.

Human activity related		Photo-interpretation of slide features															
Subwatershed	Geologic Unit	Features field verified			Features that have NOT been field verified									TONS Delivered			
		Tons/yr sediment delivered			Tons/yr sediment delivered from features interpreted as "fully hydrologically connected"			Tons/yr sediment delivered from features interpreted as "partially hydrologically connected"			Tons/yr sediment delivered from features interpreted as "not hydrologically connected"			Tons/ year-geology	Tons/ year-subwatershed	Tons/ year-sq mi-subwatershed	Tons/ year-sq mi-Scott River
		Line	Point	Polygon	Line	Point	Polygon	Line	Point	Polygon	Line	Point	Polygon				
WEST CANYON	Granitic		3	2906										2909	22555	229	36
	Mafic	36		953	32	1	1844	10	0	1109				3987			
	Sed & Met	118	1	7108	13	6	7055	23	1	907				15660			
EAST CANYON	Granitic														1896	19	
	Mafic																
	Sed & Met				30	2	1800			1			64	1896			
EASTSIDE	Granitic														0	0	
	Mafic																
	Sed & Met									0				0			
EAST HEADWATER	Granitic														82	1	
	Mafic	19			52					10	0		81				
	Sed & Met												0				
WEST HEADWATER	Granitic														1527	35	
	Mafic			1526										1527			
	Sed & Met																
WESTSIDE	Granitic				89	1	571			2	228			890	3244	18	
	Mafic												1				
	Sed & Met							16	1	2335			0	2353			
SCOTT VALLEY	Granitic														70	0	
	Mafic																
	Sed & Met								0		3		66	70			

  

Not human activity related		Photo-interpretation of slide features															
Subwatershed	Geologic Unit	Features field verified			Features that have NOT been field verified									Tons Delivered			
		Tons/yr sediment delivered			Tons/yr sediment delivered from features interpreted as "fully hydrologically connected"			Tons/yr sediment delivered from features interpreted as "partially hydrologically connected"			Tons/yr sediment delivered from features interpreted as "not hydrologically connected"			Tons/ year-geology	Tons/ year-subwatershed	Tons/ year-sq mi-subwatershed	Tons/ year-sq mi-Scott River
		Line	Point	Poly	Line	Point	Poly	Line	Point	Poly	Line	Point	Poly				
WEST CANYON	Granitic			398										398	10982	111	23
	Mafic			812	143	4	3993	85	4		11	1		5053			
	Sed & Met		5		132	13	5345	28	1		8	0		5531			
EAST CANYON	Granitic														6	0	
	Mafic																
	Sed & Met											6	0	6			
EAST HEADWATER	Granitic														34	0	
	Mafic				17								17				
	Sed & Met				17									17			
WEST HEADWATER	Granitic			364										365	365	8	
	Mafic																
	Sed & Met																
WESTSIDE	Granitic				165	6	4282	10	0		16	1		4479	7176	40	
	Mafic												16				
	Sed & Met				58	4	2539	70	1		9	0		2681			
SCOTT VALLEY	Granitic														8	0	
	Mafic																
	Sed & Met							8	0					8			

Table 3.11. Tons/year of landslide sediment interpreted to be human-activity related.

Subwatershed	Geologic Unit	Mining Association (tons/yr)	Road Association (tons/yr)			Harvest Association (tons/yr)			Road and Harvest Association (tons/yr)			Tons/ geology-year	Tons/ subwatershed-year	Tons/ sq mi-year subwatershed	Tons/ sq mi-year Scott River
			Line	Point	Polygon	Line	Point	Polygon	Line	Point	Polygon				
WEST CANYON	Granitic			0					3	2906	2909	22554	229	36	
	Mafic			817	42	1	3090	36	0	3987					
	Sed & Met		80	5	8605	36	1	425	38	2	6465				15659
EAST CANYON	Granitic											1896	19		
	Mafic														
	Sed & Met		30	2	1800		0	64		0	1896				
EASTSIDE	Granitic											0	0		
	Mafic														
	Sed & Met						0				0				
EAST HEADWATER	Granitic											82	1		
	Mafic		19		52			10	0	81					
	Sed & Met			0						0					
WEST HEADWATER	Granitic											1527	35		
	Mafic	1526							0	1527					
	Sed & Met														
WESTSIDE	Granitic			1	75	1	798	13	1	890	3244	18			
	Mafic									1					
	Sed & Met		5	1	1126		1	11	1	1209			2353		
SCOTT VALLEY	Granitic											70	0		
	Mafic														
	Sed & Met		3						0	66	70				
<b>Total (tons/yr)</b>		<b>1526</b>	<b>Total (tons/yr)</b>			<b>12495</b>	<b>Total (tons/yr)</b>			<b>4589</b>	<b>Total (tons/yr)</b>			<b>10763</b>	

Table 3.12. Comparison of soil creep contribution estimates

Source of Estimate	South Fork Scott River SEDMODL2	S. Fork Eel*	Trinity R.**	Scott River Estimate Used
<b>Tons/sq mi/year</b>	<b>24</b>	<b>21</b>	<b>30</b>	<b>29</b>

\*Stillwater Sciences (1999)

\*\*Graham Matthews & Associates (2001)

Table 3.13. Soil creep contribution estimates in seven subwatersheds Scott River watershed including stream miles in granite bedrock.

Subwatershed	Stream Miles	Area (sq mi)	Total Delivery (tons/yr)	Soil Creep (tons/sq mi-yr)
West Canyon	314	99	3267	33
East Canyon	356	100	3699	37
Eastside	416	121	4322	36
East Headwater	362	115	3767	33
West Headwater	122	44	1271	29
Westside	528	179	5491	31
Scott Valley	401	156	2084	13
<b>Totals</b>	<b>2500</b>	<b>813</b>	<b>23902</b>	<b>29</b>

Table 3.14. Soil creep contribution estimates in seven subwatersheds Scott River watershed. Stream miles and area in granite are not included here but are included in Table 3.19 in the calculation of granite streamside contribution.

Subwatershed	Stream Miles	Area (sq mi)	Total Delivery (tons)	Soil Creep (tons/sq mi-yr)
West Canyon	289	75	3001	40
East Canyon	356	95	3699	39
Eastside	416	111	4322	39
East Headwater	342	66	3554	54
West Headwater	63	28	657	24
Westside	375	157	3893	25
Scott Valley	401	144	2084	14
<b>Totals</b>	<b>2241</b>	<b>676</b>	<b>21211</b>	<b>31</b>

Table 3.15. Summary of estimated management contribution to stream sediment by large and small discrete features along stratified random samples of stream segments in the Scott River watershed.

Stream reach ID	Total Contribution (tons)	Human-Activity Related Contribution	Upslope management influences and comments
<b>QUATERNARY</b>			
Q-01-04	110	0	No visible anthropogenic influences in the field or on aerial photos
Q-02-04	1539	1	Sample survey reach is within the bounds of a timber harvest unit. Documented management-related slide and sediment inputs.
Q-03-04	105	1	Field observations indicate 2 failed stream crossings, also indicate channel torrented, but not included in USFS flood altered inventory.
Q-04-04	1809	0.5	Field observation, landslide has road passing through unstable area, visited in May 2004. Also documented road damage delivery to stream.
Q-05-04	0	0.25	Small percentage of high impact 90's harvests. Moderately high road density. No documented management related slides or sediment inputs.
Q-06-04	0	1	Failed stream crossing at top of sample survey reach : Low impact 1995 timber harvest units within 150-500 ft upslope of entire survey length.
Q-07-04	0	0	Minimal harvest activity. Moderately high road density. No documented management related slides or sediment inputs.
Q-08-04	1013	1	Numerous management related slides documented within the subbasin
Q-09-04	0	1	Low impact 90's and medium to high impact 2000 timber harvest units. Moderate road density and stream crossings. Extensive past mining activity.
Q-10-04	0	N/A	Mainstem Scott River. Not included in calculation.
Q-11-04	0	0	Low percentage of roads, stream crossings, and (low impact) timber harvest activity. No documented management related slides or sediment inputs.
Q-12-04	0	N/A	Mainstem Scott River. Not included in calculation.
	<b>4576</b>	<b>0.78</b>	<b>Streamside sampling percentage : 3.4 miles of 199.3 miles (1.7%)</b>
<b>GRANITIC</b>			
G-01-03			Subbasin area above sampled reach of insufficient size to be included.
G-02-03			Subbasin area above sampled reach of insufficient size to be included.
G-03-03	0	0	No visible anthropogenic influences in the field or on aerial photos
G-04-04	32	0	Low percentage of roads, stream crossings, and (low impact) timber harvest activity. No documented management related slides or sediment inputs.
G-05-04	0	0	No visible anthropogenic influences in the field or on aerial photos
G-06-04	1013	0	Limited logging, wilderness area, slides within subbasin appear to be from natural causes.
G-07-04	3048	0	Some legacy roads visible on aerial photos, no other visible anthropogenic influences in the field or on aerial photos
G-08-04	1884	0	Small, medium impact 1979 harvest adjacent survey reach. No documented roads, management related slides or sediment inputs.
G-09-04	899	0	Some legacy roads visible on aerial photos, no other visible anthropogenic influences in the field or on aerial photos
G-10-04	2106	0	No visible anthropogenic influences in the field or on aerial photos
G-11-04	0	0	Some pre-1990 harvest activity, moderate road density. No documented management related slides or sediment inputs.
G-12-04	0	0	Some legacy roads visible on aerial photos, no other visible anthropogenic influences in the field or on aerial photos
G-13-04	1836	0.25	1996 timber harvest located just upstream of sample survey reach.
G-14-04	2856	0.5	Sample survey reach is completely within the bounds of a timber harvest unit.
G-15-04	2003	0	Low impact 1980 harvest, low road density. Slides attributed to natural causes. No documented management related slides or sediment inputs.
G-16-04	11	0.25	2001 harvest activity, moderate road density, high number of stream crossings.
G-17-04	34	0.5	45% post 1990 medium to high impact timber harvest activity. Moderate road density.
G-18-04	809	0.75	High impact timber harvest activity post 1987 fire. Numerous documented management related slides and sediment inputs.
G-19-04	741	0.75	High impact timber harvest activity post 1987 fire. Numerous documented management related slides and sediment inputs.
	<b>17270</b>	<b>0.18</b>	<b>Streamside sampling percentage : 6.2 miles of 258.9 miles (2.4%)</b>
<b>MAFIC / ULTRAMAFIC</b>			
M-01-03	108	0.5	Approximately 65-70% high impact timber harvest activity post 1987 fire.
M-02-03	5702	1	Field observations indicate mudflow deposits being excavated by stream, at bottom end of large clearcut.
M-03-03			Subbasin area above sampled reach of insufficient size to be included.
M-04-03			Subbasin area above sampled reach of insufficient size to be included.
M-05-03	0	0.25	Approximately 80% pre 1990 timber harvest activity within the subbasin.
M-06-03	0	0.25	High road density, moderate amount of stream crossings and length of roads within 100ft of the stream channel.
M-07-03	50	0.25	Field observation: stumps and cut logs buried in sediments, indications of mudflows post harvest
M-08-03	18	0	Low road density, minimal timber harvest activity. No documented management related slides or sediment inputs.
M-09-04	564	0	Low road density, minimal timber harvest activity. No documented management related slides or sediment inputs.
M-10-04	0	0.5	Moderate road density and number of stream crossings. Past mining activity and documented management related slides and sediment inputs.
M-11-04	193	0.5	Moderate road density and number of stream crossings. Past mining activity and documented management related slides and sediment inputs.
M-12-04	122	0	Some legacy roads visible on aerial photos, no other visible anthropogenic influences in the field or on aerial photos
M-13-04	0	0	Low road density, minimal 40 year old timber harvest activity. No documented management related slides or sediment inputs.
M-14-04	0	0.75	Medium to high impact mid 80's and 2000 timber harvest activity. Numerous documented management related slides and sediment inputs.
M-15-04	134	0.75	Moderate amount of timber harvest activity. High road density and number of stream crossings. Documented management related slides.
M-16-04	0	N/A	Mainstem Scott River. Not included in calculation.
M-17-04	184	0.75	Documented sediment inputs from State Highway 3 seen in the field. Moderate amount of medium to high impact 1999 timber harvest activity.
M-18-04	509	0.75	High impact timber harvest activity post 1987 fire. Numerous documented management related slides and sediment inputs.
M-19-04	3629	0.25	Sample survey reach is completely within the bounds of a timber harvest unit. Moderate road density and number of stream crossings.
	<b>11212</b>	<b>0.66</b>	<b>Streamside sampling percentage : 7.5 miles of 400.5 miles (1.9%)</b>
<b>SEDIMENTARY / METAMORPHIC</b>			
S-01-03	0	0.75	Sample survey reach is completely within the bounds of a 1993 timber harvest unit. Approximately 36% of the subbasin previously harvested.
S-02-03	0	0.75	High impact 1990 timber harvest. High road density and number of stream crossings. Approximately 38% of the subbasin previously harvested.
S-03-04	0	0.5	Moderate road density and stream crossings. Numerous documented management related slides and sediment inputs. Extensive past mining activity.
S-04-04	0	0	No visible anthropogenic influences in the field or on aerial photos
S-05-04	313	0.25	Approximately 60% of the subbasin in 1997 low impact timber harvest. Slides related to management causes, but determined to be partially delivering.
S-06-04	13	0.25	Moderate road density and stream crossings. Documented management related sediment input.
S-07-04	4806	0	No visible anthropogenic influences in the field or on aerial photos
S-08-04	0	0	No visible anthropogenic influences in the field or on aerial photos
S-09-04	1245	0.75	Moderate road density and stream crossings. Approximately 25% harvested. Documented management related slides and sediment inputs.
S-10-04	182	0	No visible anthropogenic influences in the field or on aerial photos
S-11-04	0	0	No visible anthropogenic influences in the field or on aerial photos
S-12-04	101	0	Minimal harvest, low road density, slide activity related to natural causes.
S-13-04	1292	0.25	Low impact 1999 and 200 timber harvests. Low road density and stream crossings. Documented slides from natural causes.
	<b>7952</b>	<b>0.17</b>	<b>Streamside sampling percentage : 4.2 miles of 1641.4 miles (0.3%)</b>

Table 3.16. Estimate of sediment contribution from streamside large discrete features in the Scott River watershed assuming management and non-management contributions in the ratio estimated in Table 3.15.

Geologic unit	Area sq mi	Stream miles	Tons/stream mi-year	Tons/year-Geologic unit	Anthropogenic Contribution factor (Table 3.15)	Tons/year Human-Activity Associated	Tons/year Natural
Quaternary	15	49	14	708	0.78	551	157
Mafic	125	377	132	49947	0.66	32930	17017
Sed & Met	431	1414	29	40435	0.17	6806	33629
<b>Watershed totals (Granitic excluded)</b>	<b>571</b>	<b>1840</b>	<b>175</b>	<b>91089</b>		<b>40287</b>	<b>50802</b>
<b>Tons/sq mile-year</b>						<b>71</b>	<b>89</b>

Geologic unit	Area sq mi	Stream miles	Tons/stream mi-year	Tons/year-Geologic unit	Anthropogenic Contribution factor (Table 3.15)	Tons/year Human-Activity Associated	Tons/year Natural
Granitic	86	259	87	22631	0.18	4022	18609
<b>Tons/sq mile-year</b>						<b>47</b>	<b>217</b>

		Tons/year Human-Activity Associated	Tons/year Natural
<b>Watershed totals (Granitic included)</b>	<b>Tons/year</b>	<b>44309</b>	<b>69411</b>
	<b>Tons/sq mile-year</b>	<b>67</b>	<b>106</b>

Table 3.17. Estimate of sediment contribution from streamside large discrete features in each subwatershed assuming management and non-management contributions in the ratio estimated in Table 3.15.

Subwatershed	Geology Type	Area (sq mi)	Stream Length (miles)	Human-Activity Contribution factor (table 3.15)	Tons/yr Human-Activity Associated	Tons/yr Natural
West Canyon	Quaternary	1	5	0.78	59	17
	Mafic	24	78	0.66	6842	3536
	Sed & Met	66	205	0.17	987	4876
East Canyon	Quaternary	1	4	0.78	41	12
	Mafic	5	16	0.66	1414	731
	Sed & Met	95	336	0.17	1618	7993
Eastside	Quaternary	0	0	0.78	0	0
	Mafic	10	33	0.66	2842	1468
	Sed & Met	111	383	0.17	1845	9116
East Headwater	Quaternary	5	17	0.78	192	55
	Mafic	49	148	0.66	12938	6686
	Sed & Met	54	177	0.17	850	4201
West Headwater	Quaternary	1	3	0.78	36	10
	Mafic	16	41	0.66	3561	1840
	Sed & Met	6	19	0.17	92	456
Westside	Quaternary	7	20	0.78	222	63
	Mafic	21	61	0.66	5334	2756
	Sed & Met	100	294	0.17	1414	6986

Subwatershed	Geology Type	Area (sq mi)	Stream Length (miles)	Human-Activity Contribution factor (table 3.15)	Tons/yr Human-Activity Associated	Tons/yr Natural
West Canyon	Granitic	7	26	0.18	399	1845
East Canyon		0	0		0	0
Eastside		0	0		0	0
East Headwater		7	20		317	1468
West Headwater		21	59		917	4244
Westside		50	154		2389	11053

**Estimated Subwatershed Sediment Delivery Totals**

		Human activity associated		Natural	
		Tons/yr	Tons/sq mi-year	Tons/yr	Tons/sq mi-year
West Canyon	Subwatershed Totals (tons/yr) (SEDMODL2 & RM road survey delivery rates for all geologic units)	8287	84	10274	104
East Canyon		3073	31	8735	87
Eastside		4687	39	10585	88
East Headwater		14297	124	12409	108
West Headwater		4607	105	6550	149
Westside		9358	52	20858	117
<b>TOTALS</b>			<b>44309</b>	<b>55</b>	<b>69411</b>

		Human activity associated		Natural	
		Tons/yr	Tons/sq mi-year	Tons/yr	Tons/sq mi-year
West Canyon	Subwatershed Totals (tons/yr) (SEDMODL2 & RM road survey delivery rates for all geologic units except Granitics)	7888	86	8429	92
East Canyon		3073	34	8735	97
Eastside		4687	66	10585	148
East Headwater		13980	140	10942	109
West Headwater		3690	37	2307	23
Westside		6969	67	9806	94
<b>TOTALS</b>			<b>40287</b>	<b>50</b>	<b>50802</b>

Table 3.18. Computation of sediment contribution by streamside small features using data from stream surveys in all geologic units.

		Associated with Human Activity				Direct Association with Human Activity NOT Observed Within Stream Reach				Contribution	
		Quaternary	Granitic	Mafic	Sedimentary Metamorphic	Quaternary	Granitic	Mafic	Sedimentary Metamorphic	Total Contribution tons/year	Total Contribution tons/sq mi-year
<b>Total number of streamside surveys</b>		12	19	19	13	12	19	19	13		
<b>Survey segments with streamside discrete small features</b>		2	3	6	2	6	12	10	7		
<b>Average sediment input (cubic meters/stream meter/year)</b>		0.005	0.014	0.016	0.009	0.093	0.065	0.022	0.048		
<b>Cubic meters per stream mile</b>		7.8	21.8	25.8	14.9	150.5	104.1	34.8	77.9		
<b>Stream miles</b>		199	259	401	1641	199	259	401	1641		
<b>Cubic meters per year</b>		1550	5653	10336	24505	29990	26949	13937	127920		
<b><u>Tons per year</u></b>		<b>2721</b>	<b>9921</b>	<b>18140</b>	<b>43007</b>	<b>52633</b>	<b>47296</b>	<b>24460</b>	<b>224499</b>		
<b>Human-Activity Related Source</b>	<b>Roads</b>	782	1540	16259							
	<b>Timber Harvest</b>		684		43007						
	<b>Agriculture / Mining</b>			1526							
	<b>EMIHA<sup>1</sup></b>	1939	7698								
<b>Anthropogenic Contribution factor (Table 3.15)</b>						0.78	0.18	0.66	0.17		
<b>Totals Associated with Human Activity (less roads source values)</b>		<b>1939</b>	<b>8382</b>	<b>1526</b>	<b>43007</b>	<b>40966</b>	<b>8405</b>	<b>16127</b>	<b>37788</b>	<b>158140</b>	<b>195</b>
<b>Totals of Natural Contribution</b>						<b>11667</b>	<b>38891</b>	<b>8333</b>	<b>186710</b>	<b>245602</b>	<b>302</b>

<sup>1</sup> EMIHA (Effects of Multiple Interacting Human Activities)



Table 3.19. Computation of sediment contribution by streamside small features using data from stream surveys in Quaternary, Mafic, and Sedimentary/Metamorphic geologic units. The Scott Granitic Sediment Study of Sommarstrom and others (1990) was used in Granitic areas.

		Associated with Human Activity				Direct Association with Human Activity not Observed Within Stream Reach				Contribution		
		Quaternary	Granitic	Mafic	Sedimentary Metamorphic	Quaternary	Granitic	Mafic	Sedimentary Metamorphic	Total Contribution tons/year	Total Contribution tons/sq mi-year	
<b>Total number of streamside surveys</b>		12		19	13	12	<b>Granitic Sediment Study</b>  <b>Includes Streamside Large features, Streamside Small features, and Soil Creep.</b>  <b>In the study, there was no differentiation in contribution due to any human activity.</b>	19	13			
<b>Survey segments with streamside discrete small features</b>		2		6	2	6		10	7			
<b>Average sediment input (cubic meters/stream meter/year)</b>		0.005		0.016	0.009	0.093		0.022	0.048			
<b>Cubic meters per stream mile</b>		7.8		25.8	14.9	150.5		34.8	77.9			
<b>Stream miles</b>		199		401	1641	199		401	1641			
<b>Cubic meters per year</b>		1550		10336	24505	29990		13937	127920			
<b>Tons per year</b>		<b>2721</b>		<b>18140</b>	<b>43007</b>	<b>52633</b>		<b>56016</b>	<b>24460</b>	<b>224499</b>		
<b>Human-Activity Related Source</b>	<b>Roads</b>	782		16259						<b>Total Contribution</b> tons/year	<b>Total Contribution</b> tons/sq mi-year	
	<b>Timber Harvest</b>											43007
	<b>Agriculture / Mining</b>			1526								
	<b>EMIHA<sup>1</sup></b>	1939										
<b>Anthropogenic Contribution factor (Table 3.15)</b>						0.78	0.18	0.66	0.17			
<b>Totals Associated with Human Activity (less roads source values)</b>		<b>1939</b>		<b>1526</b>	<b>43007</b>	<b>40966</b>	<b>9955</b>	<b>16127</b>	<b>37788</b>	<b>151308</b>	<b>186</b>	
<b>Totals of Natural Contribution</b>						<b>11667</b>	<b>46062</b>	<b>8333</b>	<b>186710</b>	<b>252773</b>	<b>311</b>	

<sup>1</sup> EMIHA (Effects of Multiple Interacting Human Activities)

Table 3.20. Estimate of sediment contribution from streamside small discrete features that do not have direct human activity association observed within the stream reach in which they occur.

Subwatershed	Geology Type	Area (sq mi)	Stream Length (miles)	Direct Association with Human Activity NOT Observed Within Stream Reach			
				Total Delivery (tons)	Human-Activity Contribution factor (Table 3.15)	Tons/yr Human-Activity Associated	Tons/yr Natural
West Canyon	Quaternary	1	5	1384	0.78	1077	307
	Mafic	24	78	4789	0.66	3158	1632
	Sed & Met	66	205	28042	0.17	4720	23322
East Canyon	Quaternary	1	4	968	0.78	753	215
	Mafic	5	16	990	0.66	652	337
	Sed & Met	95	336	45964	0.17	7737	38227
Eastside	Quaternary						
	Mafic	10	33	1989	0.66	1311	678
	Sed & Met	111	383	52425	0.17	8824	43600
East Headwater	Quaternary	5	17	4502	0.78	3504	998
	Mafic	49	148	9056	0.66	5971	3085
	Sed & Met	54	177	24160	0.17	4067	20094
West Headwater	Quaternary	1	3	854	0.78	665	189
	Mafic	16	41	2493	0.66	1643	849
	Sed & Met	6	19	2622	0.17	441	2181
Westside	Quaternary	7	20	5192	0.78	4041	1151
	Mafic	21	61	3733	0.66	2461	1272
	Sed & Met	100	294	40177	0.17	6763	33414
Valley Floor	Quaternary	65	150	39733	0.78	30925	8808
	Mafic	11	23	1410	0.66	930	481
	Sed & Met	79	227	31109	0.17	5236	25872

Subwatershed	Geology Type	Area (sq mi)	Stream Length (miles)	Direct Association with Human Activity NOT Observed Within Stream Reach			
				Total Contribution (tons)	Human-Activity Contribution factor (Table 3.15)	Tons/yr Human-Activity Associated	Tons/yr Natural
West Canyon	Granitic	7	26	4690	0.18	833	3856
East Canyon							
Eastside							
East Headwater		7	20	3730		663	3067
West Headwater		21	59	10785		1917	8868
Westside		50	154	28091		4992	23099
Valley Floor							
<b>GSS</b>		86	259	56016	0.18	9955	46062

**Estimated Subwatershed Sediment Delivery Totals**

			Subwatershed Contribution Totals (Natural)			
			Tons/yr	Tons/sq mi-year	Tons/yr	Tons/sq mi-year
West Canyon	SEDMDL2 & RM road survey delivery rates for all geologic units except GSS delivery rates for Granitics		29117	295	29828	302
East Canyon			38779	387	38779	387
Eastside			44278	367	44278	367
East Headwater			27244	236	27810	241
West Headwater			12088	276	13723	313
Westside			58936	330	63195	354
Valley Floor			35161	226	35161	226
<b>TOTALS</b>			<b>245602</b>	<b>302</b>	<b>252773</b>	<b>311</b>

Table 3.21. Estimate of sediment contributions from streamside small discrete features that have documented association with human activity in the stream reach in which they occur.

Subwatershed	Geology Type	Area (sq mi)	Stream Length (miles)	Human Activity Related Source (rates in tons/year)			
				Roads	Timber Harvest	Agriculture/ Mining	EMIHA <sup>1</sup>
West Canyon	Quaternary	1	5	21			51
	Mafic	24	78	3183		299	
	Sed & Met	66	205		5372		
East Canyon	Quaternary	1	4	14			36
	Mafic	5	16	658		62	
	Sed & Met	95	336		8805		
Eastside	Quaternary						
	Mafic	10	33	1322		124	
	Sed & Met	111	383		10043		
East Headwater	Quaternary	5	17	67			166
	Mafic	49	148	6019		565	
	Sed & Met	54	177		4628		
West Headwater	Quaternary	1	3	13			31
	Mafic	16	41	1657		156	
	Sed & Met	6	19		502		
Westside	Quaternary	7	20	77			191
	Mafic	21	61	2482		233	
	Sed & Met	100	294		7697		
Valley Floor	Quaternary	65	150	590			1464
	Mafic	11	23	937		88	
	Sed & Met	79	227		5959		

Subwatershed	Geology Type	Area (sq mi)	Stream Length (miles)	Human Activity Related Source (rate in tons/year)			
				Roads	Timber Harvest	Agriculture/ Mining	EMIHA <sup>1</sup>
West Canyon	Granitic	7	26	153	68		763
East Canyon							
Eastside							
East Headwater		7	20	121	54		607
West Headwater		21	59	351	156		1755
Westside		50	154	914	406		4572
Valley Floor							

**Estimated Subwatershed Sediment Delivery Totals**

Includes Human Activity values from Table 3.20	SEDMDL2 & RM road survey delivery rates for all geologic units (less roads source values)	Subwatershed Contribution Totals			
		Tons/yr	Tons/sq mi-year	Tons/yr	Tons/sq mi-year
West Canyon		16341	166	15664	159
East Canyon		18045	180	18045	180
Eastside		20303	168	20303	168
East Headwater		20224	175	19686	171
West Headwater		7267	166	5709	130
Westside		31357	176	27299	153
Valley Floor		44603	582	44603	287
<b>TOTALS</b>		<b>158140</b>	<b>195</b>	<b>151308</b>	<b>186</b>

Table 3.22 Scott River Watershed Sediment Source Summary (tons/sq mi-year) used for TMDL. Granitic sediment study used for road delivery <sup>1</sup>.

Subwatershed	Natural Processes Delivery (tons/sq mi-year)				
	<sup>2</sup> Landslide	<sup>3</sup> Large Discrete Features	<sup>4</sup> Small Discrete Features	<sup>5</sup> Soil Creep	Unique Landslide Features
West Canyon	111	104	295	33	
East Canyon	0	87	387	37	
Eastside	0	88	367	36	
East Headwaters	0	108	236	33	
West Headwaters	8	149	276	29	140
Westside	40	117	330	31	
Scott Valley	0	0	226	13	
<b>Watershed Totals (Tons/sq mi-yr)</b>	<b>23</b>	<b>85</b>	<b>302</b>	<b>29</b>	<b>8</b>
	(Table 3.10)	(Table 3.17)	(Table 3.20)	(Table 3.12)	(Report Text)

Subwatershed	Human-Activity Processes Related Delivery (tons/sq mi-year)				
	<sup>2</sup> Landslide	<sup>3</sup> Large Discrete Features	<sup>4</sup> Small Discrete Features	<sup>6</sup> Road-Related (granitic contribution derived from Granitic Sediment Study)	Unique Landslide Features
West Canyon	132	84	166	105	
East Canyon	1	31	180	31	
Eastside	0	39	168	10	
East Headwaters	1	124	175	13	
West Headwaters	35	105	166	29	9
Westside	12	52	176	29	
Scott Valley	0	0	287	6	
<b>Watershed Totals (Tons/sq mi-yr)</b>	<b>21</b>	<b>55</b>	<b>195</b>	<b>29</b>	<b>0</b>
	(Table 3.11)	(Table 3.17)	(Table 3.21)	(Table 3.7)	(Report Text)

<b>Sediment Delivery SUMMARY</b>	Total Natural Delivery	Total Human-Activity Related Delivery	Total Delivery	Percentage Above Natural
West Canyon	544	487	1031	<b>90%</b>
East Canyon	511	242	754	<b>47%</b>
Eastside	491	218	709	<b>44%</b>
East Headwaters	377	314	691	<b>83%</b>
West Headwaters	602	343	945	<b>57%</b>
Westside	518	269	786	<b>52%</b>
Scott Valley	239	293	533	<b>123%</b>
<b>Watershed Totals (Tons/sq mi-yr)</b>	<b>447</b>	<b>299</b>	<b>746</b>	<b>67%</b>

1 Minor errors in addition due to rounding differences

2 Landslides derived from VESTRA Resources landslide analysis (excluding road-related landslides)

3 Large Discrete Features derived from Stream Surveys all geologic units

4 Small Discrete Features derived from Stream Surveys all geologic units

5 Soil Creep derived from SEDMODL2 parameters

6 Road Related derived from SEDMODL2 and Resources Management road survey all geologic units except Granitic (including road-related landslides)

Table 3.23. Load Allocations for Sediment

Sources NOT Associated With Human Activity	Current Loading Estimate (tons/sq mi-yr)	Load Allocation (tons/sq mi-yr)	Reduction Needed (%)	
<b>Landslides<sup>1</sup></b>	23	23	0%	(Table 3.10)
<b>Streamside Sediment Delivery</b>				
Large Features	93	93	0%	(Table 3.17)
Small Features	302	302	0%	(Table 3.18)
Soil Creep	29	29	0%	(Table 3.12)
<b>Subtotal (Natural Sources)</b>	<b>448</b>	<b>448</b>	<b>0%</b>	
Sources Associated With Human Activity	Current Loading Estimate (tons/sq mi-yr)	Load Allocation (tons/sq mi-yr)	Reduction Needed (%)	
<b>Road Related</b>				
Road Surface Erosion	4	2	54%	(Table 3.6)
Road-Stream Crossing Failures	3	1	71%	(Table 3.6)
Road Related Gullying	1	1	31%	(Table 3.6)
Road Related Cut/Fill Failures	4	1	76%	(Table 3.6)
Road Related Landslides <sup>1</sup>	16	7	56%	(Table 3.11)
<b>Landslides</b>				
Harvest Related	19	9	52%	(Table 3.11)
Mining Related <sup>1</sup>	2	2	0%	(Table 3.11)
<b>Streamside Sediment Delivery</b>				
Large Features				
EMIHA <sup>2</sup>	55	17	69%	(Table 3.22)
Small Features				
Harvest Related	54	20	63%	(Table 3.18)
Mining Related	2	2	0%	(Table 3.18)
EMIHA <sup>2</sup>	139	50	64%	(Table 3.18)
<b>Subtotal (Human Activity)</b>	<b>299</b>	<b>112</b>	<b>63%</b>	
Total Contribution	747	560		
Percentage Above Natural Sources	67%	25%		
<b>TMDL (tons/sq mi-year)</b>		<b>560</b>		

1 Includes unique landslide features reported in Table 3.22

2 EMIHA (Effects of Multiple Interacting Human Activities)