	A	B	C
1	**Sediment Risk Factor Worksheet**		**Entry**
2	**A) R Factor**		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm		
5	**R Factor Value**		98.35
6	**B) K Factor Value**		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	Site-specific K factor guidance		
9	**K Factor Value**		0.32
10	**C) LS Factor (weighted average, by area, for all slopes)**		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	LS Table		
13	**LS Factor Value**		0.12
14			
15	**Watershed Erosion Estimate (=RxKxLS) in tons/acre**	3.77664	
16	**Site Sediment Risk Factor**	**Low**	
17	Low Sediment Risk: < 15 tons/acre		
18	Medium Sediment Risk: >=15 and <75 tons/acre		
19	High Sediment Risk: >= 75 tons/acre		
20			

	A	B	C
1	**Receiving Water (RW) Risk Factor Worksheet**	**Entry**	**Score**
2			
3	**A. Watershed Characteristics**	**yes/no**	
4	A.1. Does the disturbed area discharge (either directly or indirectly) to a **303(d)-listed waterbody impaired by sediment**? For help with impaired waterbodies please check the attached worksheet or visit the link below:	**no**	**Low**
5	2006 Approved Sediment-impared WBs Worksheet		
6	http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml		
7	**OR**		
8	A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY?		
9	http://www.ice.ucdavis.edu/geowbs/asp/wbquse.asp		

Combined Risk Level Matrix

		Sediment Risk		
		Low	**Medium**	**High**
Receiving Water Risk	**Low**	Level 1	Level 2	
	High	Level 2		Level 3

Project Sediment Risk: **Low**

0.24 **Low**

Project Combined Risk: **Level 1**

Sheet Flow Length (ft)	Average Watershed Slope (%)								
	0.2	**0.5**	**1.0**	**2.0**	**3.0**	**4.0**	**5.0**	**6.0**	**8.0**
<3	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32
6	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32
9	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32
12	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32
15	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32
25	0.05	0.07	0.10	0.16	0.21	0.26	0.31	0.36	0.45
50	0.05	0.08	0.13	0.21	0.30	0.38	0.46	0.54	0.70
75	0.05	0.08	0.14	0.25	0.36	0.47	0.58	0.69	0.91
100	0.05	0.09	0.15	0.28	0.41	0.55	0.68	0.82	1.10
150	0.05	0.09	0.17	0.33	0.50	0.68	0.86	1.05	1.43
200	0.06	0.10	0.18	0.37	0.57	0.79	1.02	1.25	1.72
250	0.06	0.10	0.19	0.40	0.64	0.89	1.16	1.43	1.99
300	0.06	0.10	0.20	0.43	0.69	0.98	1.28	1.60	2.24
400	0.06	0.11	0.22	0.48	0.80	1.14	1.51	1.90	2.70
600	0.06	0.12	0.24	0.56	0.96	1.42	1.91	2.43	3.52
800	0.06	0.12	0.26	0.63	1.10	1.65	2.25	2.89	4.24
1000	0.06	0.13	0.27	0.69	1.23	1.86	2.55	3.30	4.91

LS Factors for Construction Sites. *Table from Renard et. al., 1997.*

10.0	12.0	14.0	16.0	20.0	25.0	30.0	40.0	50.0	60.0
0.35	0.36	0.38	0.39	0.41	0.45	0.48	0.53	0.58	0.63
0.37	0.41	0.45	0.49	0.56	0.64	0.72	0.85	0.97	1.07
0.38	0.45	0.51	0.56	0.67	0.80	0.91	1.13	1.31	1.47
0.39	0.47	0.55	0.62	0.76	0.93	1.08	1.37	1.62	1.84
0.40	0.49	0.58	0.67	0.84	1.04	1.24	1.59	1.91	2.19
0.57	0.71	0.85	0.98	1.24	1.56	1.86	2.41	2.91	3.36
0.91	1.15	1.40	1.64	2.10	2.67	3.22	4.24	5.16	5.97
1.20	1.54	1.87	2.21	2.86	3.67	4.44	5.89	7.20	8.37
1.46	1.88	2.31	2.73	3.57	4.59	5.58	7.44	9.13	10.63
1.92	2.51	3.09	3.68	4.85	6.30	7.70	10.35	12.75	14.89
2.34	3.07	3.81	4.56	6.04	7.88	9.67	13.07	16.16	18.92
2.72	3.60	4.48	5.37	7.16	9.38	11.55	15.67	19.42	22.78
3.09	4.09	5.11	6.15	8.23	10.81	13.35	18.17	22.57	26.51
3.75	5.01	6.30	7.60	10.24	13.53	16.77	22.95	28.60	33.67
4.95	6.67	8.45	10.26	13.94	18.57	23.14	31.89	39.95	47.18
6.03	8.17	10.40	12.69	17.35	23.24	29.07	40.29	50.63	59.93
7.02	9.57	12.23	14.96	20.57	27.66	34.71	48.29	60.84	72.15