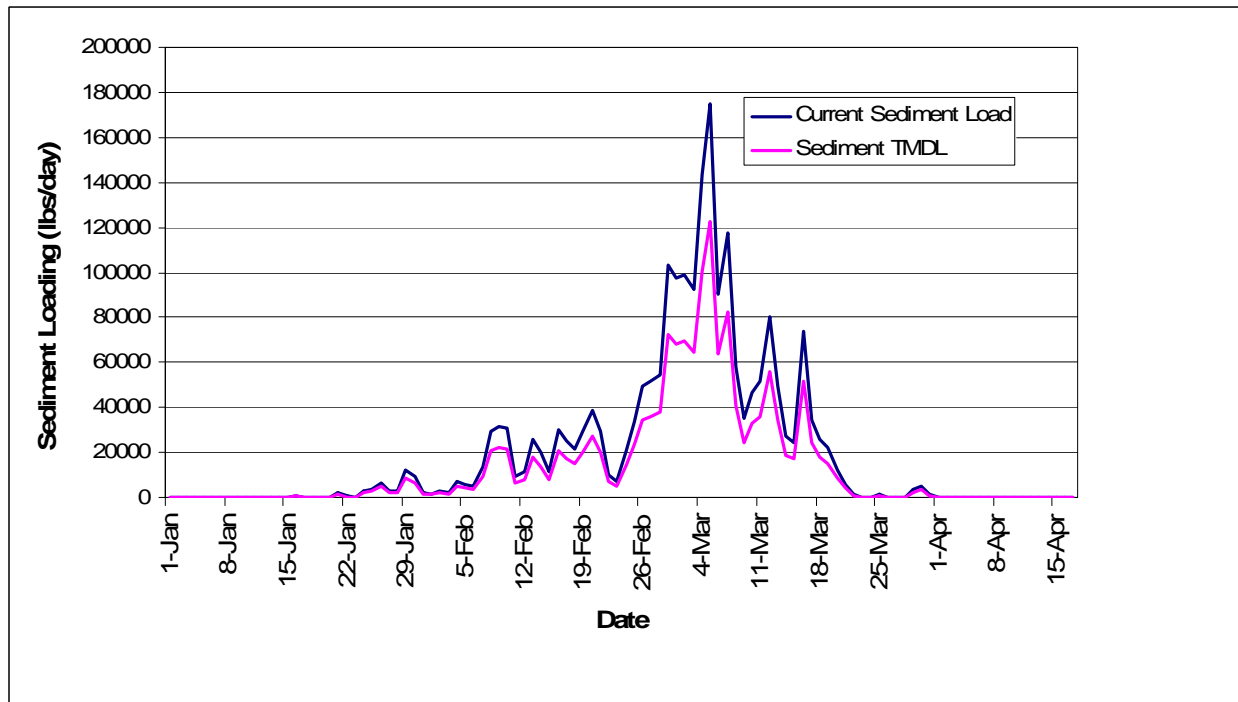


## APPENDIX K

### EXAMPLE OF DAILY SEDIMENT TMDLS, BELMONT CREEK

As described in **Section 8.1.8**, a current annual sediment load of 1,068 tons per year was estimated for Belmont Creek. This value is the sum of 510 tons from hillslope erosion 83 tons from bank erosion, 241 tons from road surface erosion, and 234 tons from culvert failure. **Figure K-1** below illustrates the current and total maximum daily sediment loading for Belmont Creek.



**Figure K-1. Current and Maximum Daily Sediment Loading For Belmont Creek**

The sediment TMDL for upper Nevada Creek is a 30 percent reduction in annual loading. The reduction is allocated to each of four land use categories as specified in **Table 8-6**. To satisfy the requirement for daily loads and allocations, the reduction in sediment loading needed each day is calculated for each of the five land use categories according to the values in **Table 8-6**. **Table K-1** below contains the daily sediment load reductions allocated to each land use category. **Table K-1** serves as an example of daily load reductions allocated to land uses. Daily sediment reduction allocations for other sediment impaired streams and land uses can be produced in a similar fashion. The upper Nevada Creek example is used here to demonstrate the daily allocation process while saving the material costs required for such a table for each of the remaining 30 sediment impaired streams.

**Table K-2** contains example TMDLs and land use allocations for the remaining eight sediment impaired stream segments. For each segment the TMDLs and allocations are given for mid-winter, peak runoff, and mid-summer dates.

**Table K-1. Daily Allocation of Sediment Load Reductions for Belmont Creek**

<b>Julian Day</b>	<b>Daily Load from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction Allocation for Livestock Grazing (lbs/day)</b>	<b>Daily Load Reduction Allocation for Hay Production (lbs/day)</b>	<b>Daily Load Reduction Allocation for Silviculture (lbs/day)</b>	<b>Daily Load Reduction Allocation for Road Erosion (lbs/day)</b>
1	0	0	0	0	0	0
2	0	0	0	0	0	0
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	0	0	0	0	0	0
7	0	0	0	0	0	0
8	0	0	0	0	0	0
9	0	0	0	0	0	0
10	0	0	0	0	0	0
11	0	0	0	0	0	0
12	0	0	0	0	0	0
13	0	0	0	0	0	0
14	0	0	0	0	0	0
15	0	0	0	0	0	0
16	0	0	0	0	0	0
17	0	0	0	0	0	0
18	0	0	0	0	0	0
19	0	0	0	0	0	0
20	0	0	0	0	0	0
21	0	0	0	0	0	0
22	0	0	0	0	0	0
23	0	0	0	0	0	0
24	0	0	0	0	0	0
25	0	0	0	0	0	0
26	0	0	0	0	0	0
27	0	0	0	0	0	0
28	0	0	0	0	0	0
29	0	0	0	0	0	0
30	0	0	0	0	0	0
31	0	0	0	0	0	0
32	0	0	0	0	0	0
33	0	0	0	0	0	0
34	0	0	0	0	0	0

**Table K-1. Daily Allocation of Sediment Load Reductions for Belmont Creek**

<b>Julian Day</b>	<b>Daily Load from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction Allocation for Livestock Grazing (lbs/day)</b>	<b>Daily Load Reduction Allocation for Hay Production (lbs/day)</b>	<b>Daily Load Reduction Allocation for Silviculture (lbs/day)</b>	<b>Daily Load Reduction Allocation for Road Erosion (lbs/day)</b>
35	0	0	0	0	0	0
36	0	0	0	0	0	0
37	0	0	0	0	0	0
38	0	0	0	0	0	0
39	0	0	0	0	0	0
40	0	0	0	0	0	0
41	0	0	0	0	0	0
42	0	0	0	0	0	0
43	0	0	0	0	0	0
44	0	0	0	0	0	0
45	0	0	0	0	0	0
46	0	0	0	0	0	0
47	0	0	0	0	0	0
48	0	0	0	0	0	0
49	0	0	0	0	0	0
50	0	0	0	0	0	0
51	0	0	0	0	0	0
52	0	0	0	0	0	0
53	0	0	0	0	0	0
54	0	0	0	0	0	0
55	0	0	0	0	0	0
56	0	0	0	0	0	0
57	0	0	0	0	0	0
58	0	0	0	0	0	0
59	0	0	0	0	0	0
60	0	0	0	0	0	0
61	0	0	0	0	0	0
62	0	0	0	0	0	0
63	0	0	0	0	0	0
64	0	0	0	0	0	0
65	0	0	0	0	0	0
66	0	0	0	0	0	0
67	0	0	0	0	0	0
68	0	0	0	0	0	0
69	0	0	0	0	0	0

**Table K-1. Daily Allocation of Sediment Load Reductions for Belmont Creek**

<b>Julian Day</b>	<b>Daily Load from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction Allocation for Livestock Grazing (lbs/day)</b>	<b>Daily Load Reduction Allocation for Hay Production (lbs/day)</b>	<b>Daily Load Reduction Allocation for Silviculture (lbs/day)</b>	<b>Daily Load Reduction Allocation for Road Erosion (lbs/day)</b>
70	0	0	0	0	0	0
71	0	0	0	0	0	0
72	0	0	0	0	0	0
73	0	0	0	0	0	0
74	0	0	0	0	0	0
75	0	0	0	0	0	0
76	0	0	0	0	0	0
77	0	0	0	0	0	0
78	0	0	0	0	0	0
79	0	0	0	0	0	0
80	0	0	0	0	0	0
81	0	0	0	0	0	0
82	0	0	0	0	0	0
83	0	0	0	0	0	0
84	0	0	0	0	0	0
85	0	0	0	0	0	0
86	0	0	0	0	0	0
87	0	0	0	0	0	0
88	0	0	0	0	0	0
89	3	1	0	0	0	1
90	956	287	40	1	17	227
91	237	71	10	0	4	56
92	56	17	2	0	1	13
93	13	4	1	0	0	3
94	25	8	1	0	0	6
95	1879	564	79	2	34	445
96	510	153	21	0	9	121
97	287	86	12	0	5	68
98	3209	963	135	3	58	760
99	3778	1133	159	3	68	895
100	6697	2009	281	6	121	1587
101	2877	863	121	3	52	682
102	2711	813	114	2	49	642
103	12286	3686	516	11	221	2912
104	9082	2725	381	8	163	2152

**Table K-1. Daily Allocation of Sediment Load Reductions for Belmont Creek**

<b>Julian Day</b>	<b>Daily Load from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction Allocation for Livestock Grazing (lbs/day)</b>	<b>Daily Load Reduction Allocation for Hay Production (lbs/day)</b>	<b>Daily Load Reduction Allocation for Silviculture (lbs/day)</b>	<b>Daily Load Reduction Allocation for Road Erosion (lbs/day)</b>
105	2118	635	89	2	38	502
106	1579	474	66	1	28	374
107	2935	880	123	3	53	696
108	2118	635	89	2	38	502
109	7311	2193	307	7	132	1733
110	5826	1748	245	5	105	1381
111	5162	1548	217	5	93	1223
112	13298	3989	559	12	239	3152
113	29740	8922	1249	27	535	7048
114	31357	9407	1317	28	564	7432
115	30917	9275	1299	28	557	7327
116	9565	2870	402	9	172	2267
117	11385	3416	478	10	205	2698
118	25634	7690	1077	23	461	6075
119	19836	5951	833	18	357	4701
120	11545	3463	485	10	208	2736
121	29782	8935	1251	27	536	7058
122	24889	7467	1045	22	448	5899
123	21424	6427	900	19	386	5078
124	29101	8730	1222	26	524	6897
125	38762	11629	1628	35	698	9187
126	29144	8743	1224	26	525	6907
127	9819	2946	412	9	177	2327
128	7115	2135	299	6	128	1686
129	20808	6243	874	19	375	4932
130	34040	10212	1430	31	613	8067
131	49608	14882	2084	45	893	11757
132	51686	15506	2171	47	930	12249
133	54602	16381	2293	49	983	12941
134	103172	30952	4333	93	1857	24452
135	97605	29281	4099	88	1757	23132
136	99014	29704	4159	89	1782	23466
137	92135	27641	3870	83	1658	21836
138	143287	42986	6018	129	2579	33959
139	175243	52573	7360	158	3154	41533

**Table K-1. Daily Allocation of Sediment Load Reductions for Belmont Creek**

<b>Julian Day</b>	<b>Daily Load from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction Allocation for Livestock Grazing (lbs/day)</b>	<b>Daily Load Reduction Allocation for Hay Production (lbs/day)</b>	<b>Daily Load Reduction Allocation for Silviculture (lbs/day)</b>	<b>Daily Load Reduction Allocation for Road Erosion (lbs/day)</b>
140	90677	27203	3808	82	1632	21491
141	117833	35350	4949	106	2121	27926
142	57926	17378	2433	52	1043	13728
143	35176	10553	1477	32	633	8337
144	46774	14032	1965	42	842	11085
145	51665	15500	2170	46	930	12245
146	80047	24014	3362	72	1441	18971
147	49135	14741	2064	44	884	11645
148	26948	8084	1132	24	485	6387
149	24295	7288	1020	22	437	5758
150	73864	22159	3102	66	1330	17506
151	34668	10400	1456	31	624	8216
152	25949	7785	1090	23	467	6150
153	21890	6567	919	20	394	5188
154	12426	3728	522	11	224	2945
155	5875	1762	247	5	106	1392
156	1491	447	63	1	27	353
157	357	107	15	0	6	85
158	86	26	4	0	2	20
159	1282	384	54	1	23	304
160	298	89	13	0	5	71
161	70	21	3	0	1	17
162	17	5	1	0	0	4
163	3268	981	137	3	59	775
164	4846	1454	204	4	87	1148
165	1107	332	46	1	20	262
166	259	78	11	0	5	61
167	62	19	3	0	1	15
168	15	4	1	0	0	4
169	4	1	0	0	0	1
170	1	0	0	0	0	0
171	0	0	0	0	0	0
172	0	0	0	0	0	0
173	0	0	0	0	0	0
174	0	0	0	0	0	0

**Table K-1. Daily Allocation of Sediment Load Reductions for Belmont Creek**

<b>Julian Day</b>	<b>Daily Load from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction Allocation for Livestock Grazing (lbs/day)</b>	<b>Daily Load Reduction Allocation for Hay Production (lbs/day)</b>	<b>Daily Load Reduction Allocation for Silviculture (lbs/day)</b>	<b>Daily Load Reduction Allocation for Road Erosion (lbs/day)</b>
175	0	0	0	0	0	0
176	0	0	0	0	0	0
177	0	0	0	0	0	0
178	0	0	0	0	0	0
179	0	0	0	0	0	0
180	0	0	0	0	0	0
181	0	0	0	0	0	0
182	0	0	0	0	0	0
183	0	0	0	0	0	0
184	0	0	0	0	0	0
185	0	0	0	0	0	0
186	0	0	0	0	0	0
187	0	0	0	0	0	0
188	0	0	0	0	0	0
189	0	0	0	0	0	0
190	0	0	0	0	0	0
191	0	0	0	0	0	0
192	0	0	0	0	0	0
193	0	0	0	0	0	0
194	0	0	0	0	0	0
195	0	0	0	0	0	0
196	0	0	0	0	0	0
197	0	0	0	0	0	0
198	0	0	0	0	0	0
199	0	0	0	0	0	0
200	0	0	0	0	0	0
201	0	0	0	0	0	0
202	0	0	0	0	0	0
203	0	0	0	0	0	0
204	0	0	0	0	0	0
205	0	0	0	0	0	0
206	0	0	0	0	0	0
207	0	0	0	0	0	0
208	0	0	0	0	0	0
209	0	0	0	0	0	0

**Table K-1. Daily Allocation of Sediment Load Reductions for Belmont Creek**

<b>Julian Day</b>	<b>Daily Load from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction Allocation for Livestock Grazing (lbs/day)</b>	<b>Daily Load Reduction Allocation for Hay Production (lbs/day)</b>	<b>Daily Load Reduction Allocation for Silviculture (lbs/day)</b>	<b>Daily Load Reduction Allocation for Road Erosion (lbs/day)</b>
210	0	0	0	0	0	0
211	0	0	0	0	0	0
212	12	3	0	0	0	3
213	3	1	0	0	0	1
214	1	0	0	0	0	0
215	0	0	0	0	0	0
216	0	0	0	0	0	0
217	0	0	0	0	0	0
218	0	0	0	0	0	0
219	0	0	0	0	0	0
220	0	0	0	0	0	0
221	0	0	0	0	0	0
222	0	0	0	0	0	0
223	0	0	0	0	0	0
224	0	0	0	0	0	0
225	0	0	0	0	0	0
226	0	0	0	0	0	0
227	0	0	0	0	0	0
228	0	0	0	0	0	0
229	0	0	0	0	0	0
230	0	0	0	0	0	0
231	0	0	0	0	0	0
232	0	0	0	0	0	0
233	0	0	0	0	0	0
234	0	0	0	0	0	0
235	0	0	0	0	0	0
236	0	0	0	0	0	0
237	0	0	0	0	0	0
238	0	0	0	0	0	0
239	0	0	0	0	0	0
240	0	0	0	0	0	0
241	0	0	0	0	0	0
242	0	0	0	0	0	0
243	0	0	0	0	0	0
244	0	0	0	0	0	0

**Table K-1. Daily Allocation of Sediment Load Reductions for Belmont Creek**

<b>Julian Day</b>	<b>Daily Load from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction Allocation for Livestock Grazing (lbs/day)</b>	<b>Daily Load Reduction Allocation for Hay Production (lbs/day)</b>	<b>Daily Load Reduction Allocation for Silviculture (lbs/day)</b>	<b>Daily Load Reduction Allocation for Road Erosion (lbs/day)</b>
245	0	0	0	0	0	0
246	0	0	0	0	0	0
247	0	0	0	0	0	0
248	0	0	0	0	0	0
249	0	0	0	0	0	0
250	28	8	1	0	0	7
251	7	2	0	0	0	2
252	2	0	0	0	0	0
253	0	0	0	0	0	0
254	0	0	0	0	0	0
255	0	0	0	0	0	0
256	0	0	0	0	0	0
257	0	0	0	0	0	0
258	0	0	0	0	0	0
259	0	0	0	0	0	0
260	0	0	0	0	0	0
261	0	0	0	0	0	0
262	0	0	0	0	0	0
263	0	0	0	0	0	0
264	0	0	0	0	0	0
265	0	0	0	0	0	0
266	0	0	0	0	0	0
267	0	0	0	0	0	0
268	0	0	0	0	0	0
269	0	0	0	0	0	0
270	0	0	0	0	0	0
271	0	0	0	0	0	0
272	0	0	0	0	0	0
273	0	0	0	0	0	0
274	910	273	38	1	16	216
275	217	65	9	0	4	51
276	52	16	2	0	1	12
277	13	4	1	0	0	3
278	3	1	0	0	0	1
279	1	0	0	0	0	0

**Table K-1. Daily Allocation of Sediment Load Reductions for Belmont Creek**

<b>Julian Day</b>	<b>Daily Load from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction Allocation for Livestock Grazing (lbs/day)</b>	<b>Daily Load Reduction Allocation for Hay Production (lbs/day)</b>	<b>Daily Load Reduction Allocation for Silviculture (lbs/day)</b>	<b>Daily Load Reduction Allocation for Road Erosion (lbs/day)</b>
280	0	0	0	0	0	0
281	0	0	0	0	0	0
282	0	0	0	0	0	0
283	0	0	0	0	0	0
284	0	0	0	0	0	0
285	0	0	0	0	0	0
286	0	0	0	0	0	0
287	0	0	0	0	0	0
288	0	0	0	0	0	0
289	0	0	0	0	0	0
290	0	0	0	0	0	0
291	0	0	0	0	0	0
292	0	0	0	0	0	0
293	0	0	0	0	0	0
294	0	0	0	0	0	0
295	0	0	0	0	0	0
296	0	0	0	0	0	0
297	0	0	0	0	0	0
298	0	0	0	0	0	0
299	0	0	0	0	0	0
300	0	0	0	0	0	0
301	0	0	0	0	0	0
302	207	62	9	0	4	49
303	49	15	2	0	1	12
304	12	4	0	0	0	3
305	3	1	0	0	0	1
306	1	0	0	0	0	0
307	0	0	0	0	0	0
308	0	0	0	0	0	0
309	0	0	0	0	0	0
310	0	0	0	0	0	0
311	0	0	0	0	0	0
312	0	0	0	0	0	0
313	0	0	0	0	0	0
314	0	0	0	0	0	0

**Table K-1. Daily Allocation of Sediment Load Reductions for Belmont Creek**

<b>Julian Day</b>	<b>Daily Load from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction Allocation for Livestock Grazing (lbs/day)</b>	<b>Daily Load Reduction Allocation for Hay Production (lbs/day)</b>	<b>Daily Load Reduction Allocation for Silviculture (lbs/day)</b>	<b>Daily Load Reduction Allocation for Road Erosion (lbs/day)</b>
315	0	0	0	0	0	0
316	0	0	0	0	0	0
317	0	0	0	0	0	0
318	0	0	0	0	0	0
319	0	0	0	0	0	0
320	0	0	0	0	0	0
321	0	0	0	0	0	0
322	0	0	0	0	0	0
323	0	0	0	0	0	0
324	0	0	0	0	0	0
325	0	0	0	0	0	0
326	0	0	0	0	0	0
327	0	0	0	0	0	0
328	0	0	0	0	0	0
329	0	0	0	0	0	0
330	0	0	0	0	0	0
331	0	0	0	0	0	0
332	0	0	0	0	0	0
333	0	0	0	0	0	0
334	0	0	0	0	0	0
335	0	0	0	0	0	0
336	0	0	0	0	0	0
337	0	0	0	0	0	0
338	0	0	0	0	0	0
339	0	0	0	0	0	0
340	0	0	0	0	0	0
341	0	0	0	0	0	0
342	0	0	0	0	0	0
343	0	0	0	0	0	0
344	0	0	0	0	0	0
345	0	0	0	0	0	0
346	0	0	0	0	0	0
347	0	0	0	0	0	0
348	0	0	0	0	0	0
349	0	0	0	0	0	0

**Table K-1. Daily Allocation of Sediment Load Reductions for Belmont Creek**

<b>Julian Day</b>	<b>Daily Load from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction from Hillslope, Stream Bank and Road Erosion (lbs/day)</b>	<b>Daily Load Reduction Allocation for Livestock Grazing (lbs/day)</b>	<b>Daily Load Reduction Allocation for Hay Production (lbs/day)</b>	<b>Daily Load Reduction Allocation for Silviculture (lbs/day)</b>	<b>Daily Load Reduction Allocation for Road Erosion (lbs/day)</b>
350	0	0	0	0	0	0
351	0	0	0	0	0	0
352	0	0	0	0	0	0
353	0	0	0	0	0	0
354	0	0	0	0	0	0
355	0	0	0	0	0	0
356	0	0	0	0	0	0
357	0	0	0	0	0	0
358	0	0	0	0	0	0
359	0	0	0	0	0	0
360	0	0	0	0	0	0
361	0	0	0	0	0	0
362	0	0	0	0	0	0
363	0	0	0	0	0	0
364	0	0	0	0	0	0
365	0	0	0	0	0	0
Total (lbs/yr)	2136000	640800	89712	1922	38448	506232
Total (tons/yr)	1068	320	45	1	19	253

**Table K-2. Sediment TMDLs and Load Allocations by Listed Segment for Mid-Winter, Peak Runoff and Mid-Summer Dates**

Stream Name	TMDLs (lbs/day) Mid-Winter Peak Runoff Mid-Summer	Land Use Allocations as Allowable Loading (lbs/day)					
		Livestock Grazing	Hay Production	Silviculture	Placer Mining	Road Erosion	Rural Residential
Ashby Creek, East Fork	1.6E-03	6.3E-05	NA	3.5E-05	5.8E-06	1.8E-03	5.8E-06
	7778	257	NA	140	23	7342	23
	13.8	0.45	NA	0.25	0.04	12.99	0.04
Ashby Creek, West Fork	2.1E-03	8.3E-05	NA	1.0E-04	NA	1.8E-03	6.2E-05
	8405	336	NA	420	NA	7397	252
	14.9	0.60	NA	0.7	NA	13.1	0.70
Camas Creek	2.1E-02	1.5E-03	3.5E-03	8.3E-04	NA	1.4E-02	1.0E-03
	84333	5903	14337	3373	NA	56503	4217
	149.1	10.4	25.4	5.9	NA	99.9	7.5
Upper Elk Creek	1.3E-02	1.3E-04	NA	3.1E-03	1.4E-03	8.4E-03	NA
	11876	119	NA	2850	1306	7601	NA
	1.5E-02	1.5E-04	NA	3.5E-03	1.6E-03	9.4E-03	NA
Lower Elk Creek	1.7E-05	2.2E-06	5.5E-06	1.7E-07	1.0E-06	7.7E-06	1.7E-07
	8549	1111	2821	85	513	3932	85
	5.2E-01	6.7E-02	1.7E-01	5.2E-03	3.1E-02	2.4E-01	5.2E-03
Keno Creek	1.7E-03	NA	NA	5.0E-05	NA	1.6E-03	NA
	1519	NA	NA	46	NA	1474	NA
	1.9E-03	NA	NA	5.6E-05	NA	1.8E-03	NA
Union Creek	2.7E-04	2.4E-05	1.4E-04	1.1E-05	NA	7.5E-05	2.2E-05
	375336	33780	191421	15013	NA	105094	30027
	252	23	128	10	NA	71	20
Washoe Creek	1.7E-01	1.9E-02	1.7E-02	4.7E-02	NA	4.9E-02	4.2E-02
	4803	528	480	1297	NA	1345	1153
	1.7E-01	1.9E-02	1.7E-02	4.7E-02	NA	4.8E-02	4.1E-02

