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Ex. 277-US-459

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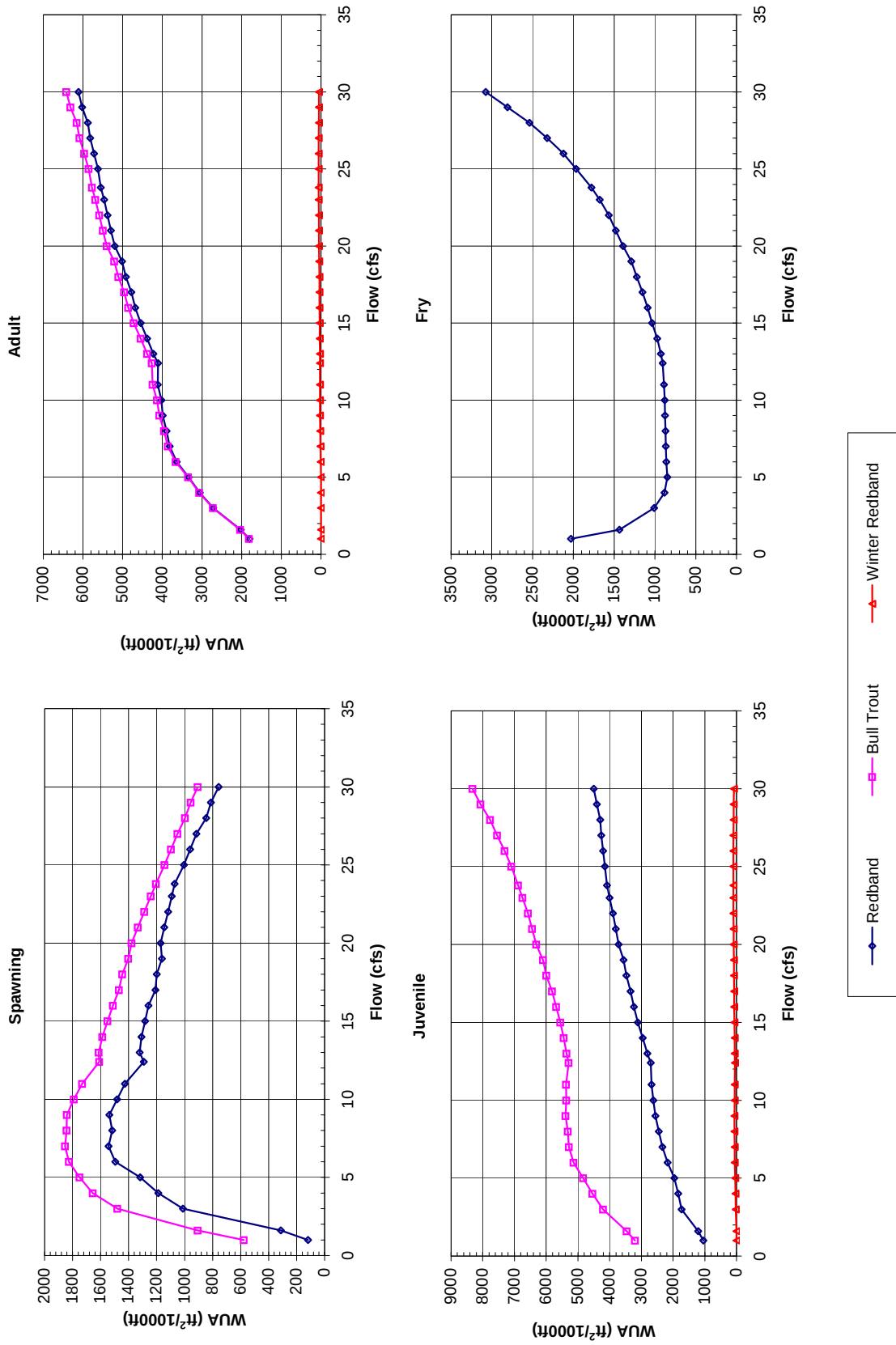
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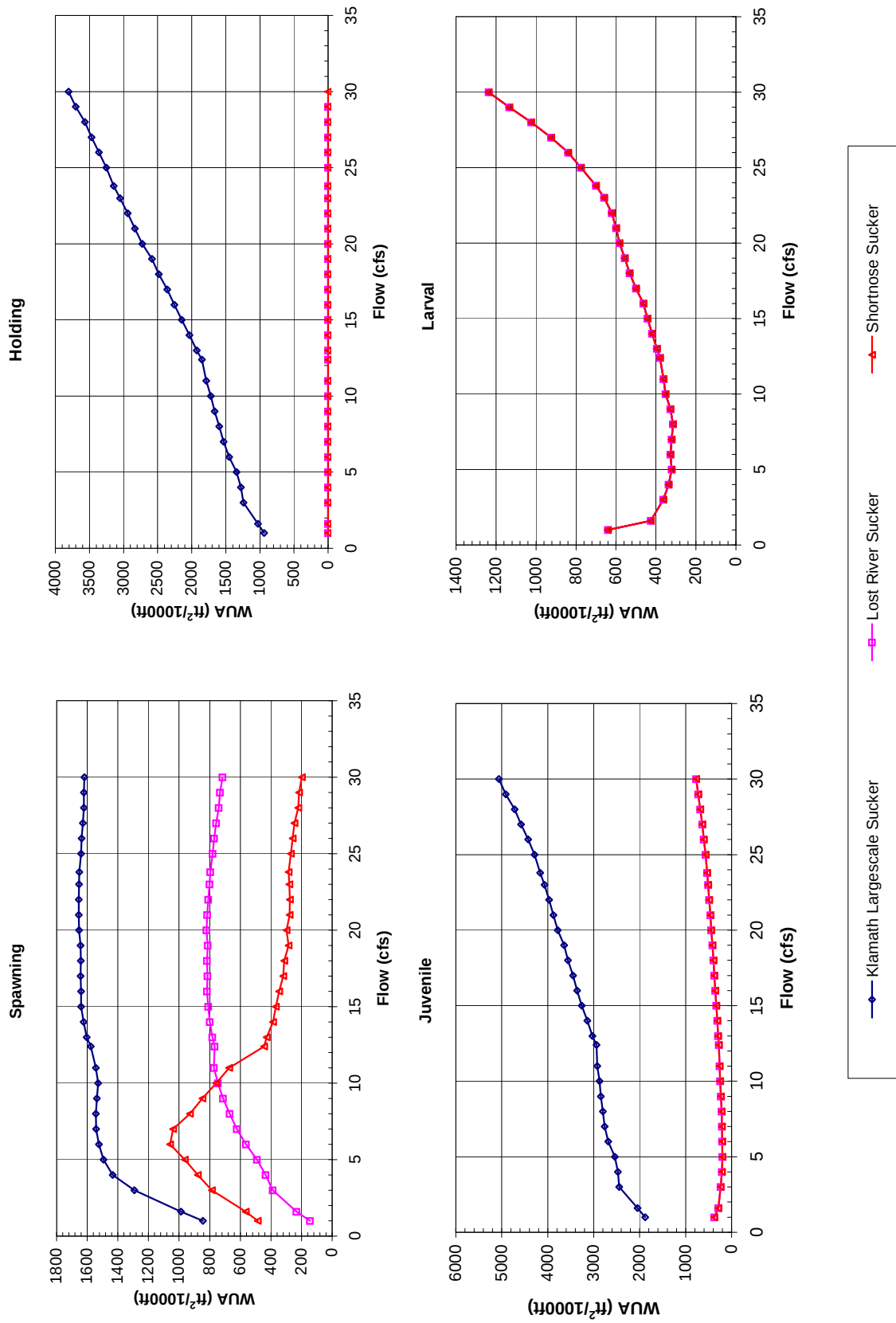
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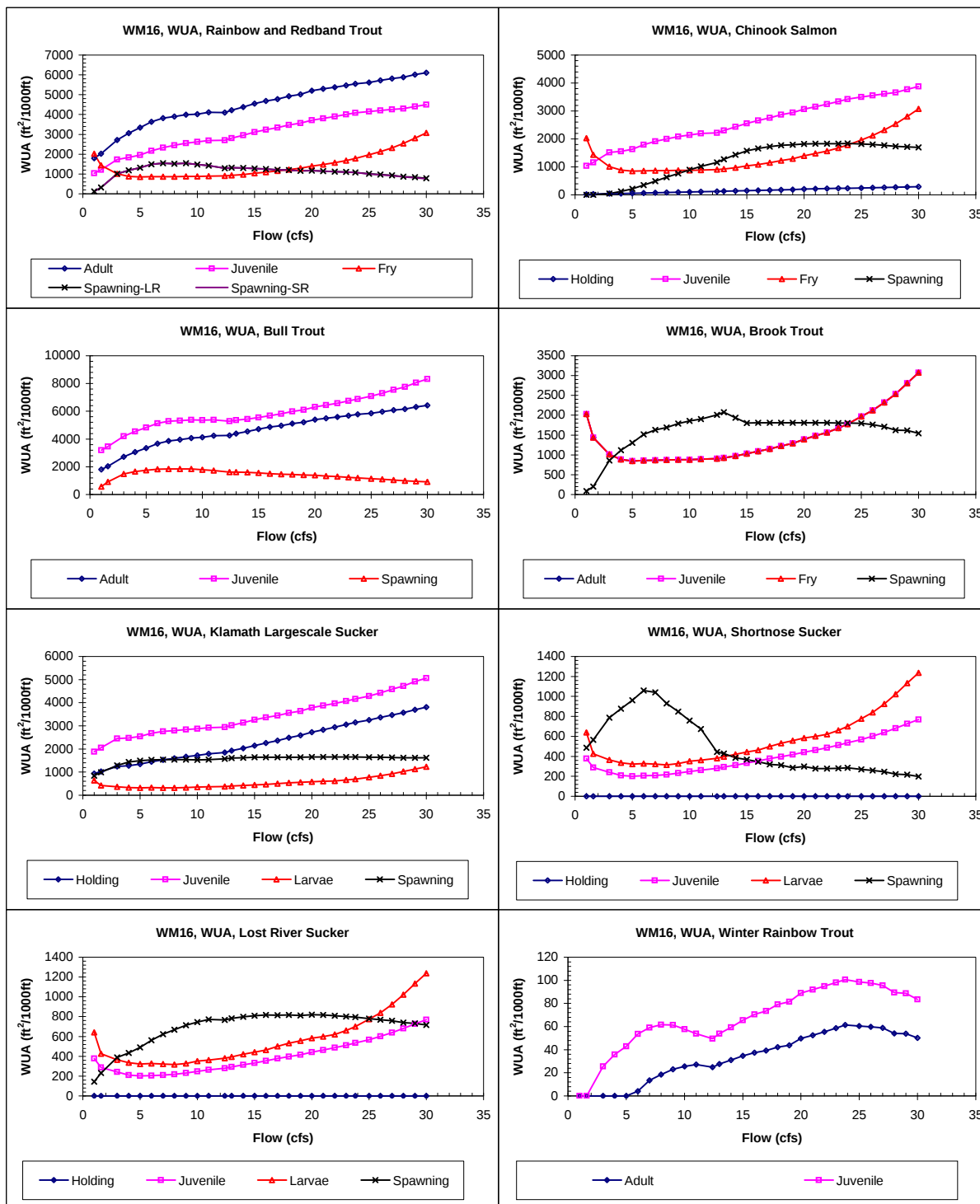
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Site WM 16 Priority Species Habitat - Flow Curves



Site WM 16 Priority Species Habitat - Flow Curves





Claim Reach 639 Williamson River, Site 16, Composite WUA

Rainbow and Redband Trout		WUA (ft ² /1000ft)				
	Q (cfs)	Adult	Juvenile	Fry	Spawning - Large River	Spawning - Small River
1	1801	1042	2028	119	119	
1.6	2026	1212	1435	313	313	
3	2716	1730	1011	1013	1013	
4	3056	1834	884	1188	1188	
5	3335	1963	848	1317	1317	
6	3634	2175	859	1495	1495	
7	3816	2335	868	1543	1543	
8	3893	2452	871	1518	1518	
9	3988	2555	876	1538	1538	
10	4021	2621	881	1483	1483	
11	4114	2682	890	1427	1427	
12.4	4105	2703	904	1292	1292	
13	4224	2808	926	1320	1320	
14	4380	2958	971	1308	1308	
15	4545	3108	1034	1282	1282	
16	4681	3231	1088	1257	1257	
17	4779	3342	1152	1207	1207	
18	4920	3472	1224	1198	1198	
19	5014	3563	1291	1161	1161	
20	5200	3713	1393	1171	1170	
21	5294	3803	1481	1147	1145	
22	5378	3899	1565	1122	1117	
23	5467	3999	1676	1098	1091	
23.8	5548	4082	1779	1082	1072	
25	5621	4153	1967	1018	1004	
26	5719	4205	2123	977	961	
27	5820	4261	2320	934	915	
28	5877	4293	2538	868	846	
29	6020	4400	2806	837	812	
30	6113	4499	3074	784	756	

Chinook Salmon		WUA (ft ² /1000ft)			
	Q (cfs)	Holding	Juvenile	Fry	Spawning
1	23	1042	2028	0	
1.6	27	1160	1435	0	
3	43	1516	1011	48	
4	49	1553	884	119	
5	57	1630	848	214	
6	67	1790	859	353	
7	77	1912	868	494	
8	86	2001	871	629	
9	96	2087	876	768	
10	105	2144	881	893	
11	114	2196	890	1016	
12.4	125	2217	904	1163	
13	132	2305	926	1272	
14	142	2430	971	1436	
15	153	2553	1034	1576	
16	163	2657	1088	1661	
17	173	2755	1152	1729	
18	183	2864	1224	1773	
19	192	2942	1291	1791	
20	203	3069	1393	1820	
21	212	3152	1481	1831	
22	222	3246	1565	1834	
23	232	3343	1676	1835	
23.8	240	3423	1779	1837	
25	249	3499	1967	1817	
26	257	3554	2123	1800	
27	265	3615	2320	1769	
28	272	3659	2538	1740	
29	281	3769	2806	1721	
30	289	3875	3074	1694	

Bull Trout		WUA (ft ² /1000ft)			
	Q (cfs)	Adult	Juvenile	Fry	Spawning
1	1814	3202		576	
1.6	2037	3463		907	
3	2725	4208		1479	
4	3066	4542		1656	
5	3352	4835		1751	
6	3660	5137		1826	
7	3858	5280		1854	
8	3957	5319		1843	
9	4073	5389		1841	
10	4132	5364		1792	
11	4242	5376		1731	
12.4	4261	5292		1610	
13	4384	5359		1613	
14	4548	5443		1588	
15	4718	5556		1550	
16	4859	5683		1511	
17	4965	5811		1468	
18	5110	5993		1445	
19	5210	6105		1402	
20	5397	6313		1379	
21	5497	6446		1334	
22	5589	6578		1287	
23	5686	6742		1242	
23.8	5773	6887		1205	
25	5859	7098		1144	
26	5968	7308		1097	
27	6083	7548		1052	
28	6157	7766		998	
29	6314	8066		957	
30	6418	8319		907	

Brook Trout		WUA (ft ² /1000ft)			
	Q (cfs)	Adult	Juvenile	Fry	Spawning
1	2028	2028	2028	88	
1.6	1435	1435	1435	202	
3	1011	1011	1011	856	
4	884	884	884	1116	
5	848	848	848	1307	
6	859	859	859	1518	
7	868	868	868	1628	
8	871	871	871	1688	
9	876	876	876	1788	
10	881	881	881	1855	
11	890	890	890	1906	
12.4	904	904	904	2007	
13	926	926	926	2079	
14	971	971	971	1937	
15	1034	1034	1034	1802	
16	1088	1088	1088	1807	
17	1152	1152	1152	1808	
18	1224	1224	1224	1810	
19	1291	1291	1291	1812	
20	1393	1393	1393	1812	
21	1481	1481	1481	1810	
22	1565	1565	1565	1808	
23	1676	1676	1676	1805	
23.8	1779	1779	1779	1802	
25	1967	1967	1967	1798	
26	2123	2123	2123	1761	
27	2320	2320	2320	1707	
28	2538	2538	2538	1622	
29	2806	2806	2806	1616	
30	3074	3074	3074	1543	

Claim Reach 639 Williamson River, Site 16, Composite WUA

	Q (cfs)	WUA (ft ² /1000ft)			
		Holding	Juvenile	Larvae	Spawning
Klamath Largescale Sucker	1	939	1878	641	844
	1.6	1026	2048	426	988
	3	1242	2447	363	1292
	4	1277	2476	336	1433
	5	1341	2541	321	1493
	6	1451	2682	327	1524
	7	1531	2760	322	1542
	8	1597	2800	316	1543
	9	1665	2845	328	1537
	10	1720	2871	352	1529
	11	1786	2925	362	1544
	12.4	1851	2941	379	1577
	13	1924	3026	395	1603
	14	2033	3140	420	1624
	15	2147	3262	443	1641
	16	2254	3363	463	1640
	17	2360	3451	499	1643
	18	2481	3560	531	1642
	19	2584	3643	556	1643
	20	2726	3782	583	1653
	21	2832	3874	599	1656
	22	2940	3968	621	1654
	23	3052	4071	659	1653
	23.8	3146	4167	701	1652
	25	3252	4286	776	1640
	26	3361	4426	839	1638
	27	3470	4582	924	1629
	28	3565	4721	1023	1622
	29	3701	4913	1133	1622
	30	3807	5064	1237	1618

	Q (cfs)	WUA (ft ² /1000ft)			
		Holding	Juvenile	Larvae	Spawning
Shorthose Sucker	1	0	379	641	486
	1.6	0	287	426	564
	3	0	241	363	787
	4	0	210	336	878
	5	0	201	321	962
	6	0	206	327	1059
	7	0	210	322	1039
	8	0	218	316	930
	9	0	233	328	848
	10	0	249	352	757
	11	0	262	362	673
	12.4	0	279	379	444
	13	0	292	395	427
	14	0	313	420	386
	15	0	334	443	367
	16	0	353	463	346
	17	0	377	499	319
	18	0	396	531	312
	19	0	416	556	285
	20	0	441	583	298
	21	0	463	599	278
	22	0	486	621	276
	23	0	512	659	280
	23.8	0	535	701	284
	25	0	567	776	270
	26	0	602	839	258
	27	0	639	924	246
	28	0	680	1023	221
	29	0	727	1133	216
	30	0	770	1237	198

	Q (cfs)	WUA (ft ² /1000ft)			
		Holding	Juvenile	Larvae	Spawning
Lost River Sucker	1	0	379	641	144
	1.6	0	287	426	233
	3	0	241	363	388
	4	0	210	336	434
	5	0	201	321	491
	6	0	206	327	562
	7	0	210	322	622
	8	0	218	316	669
	9	0	233	328	712
	10	0	249	352	745
	11	0	262	362	773
	12.4	0	279	379	767
	13	0	292	395	783
	14	0	313	420	799
	15	0	334	443	810
	16	0	353	463	817
	17	0	377	499	814
	18	0	396	531	818
	19	0	416	556	812
	20	0	441	583	820
	21	0	463	599	816
	22	0	486	621	809
	23	0	512	659	801
	23.8	0	535	701	796
	25	0	567	776	781
	26	0	602	839	770
	27	0	639	924	758
	28	0	680	1023	740
	29	0	727	1133	732
	30	0	770	1237	716

	Q (cfs)	WUA (ft ² /1000ft)			
		Adult	Juvenile	Fry	Spawning
Winter Rainbow Trout	1	0	0		
	1.6	0	0		
	3	0	25		
	4	0	36		
	5	0	43		
	6	4	54		
	7	14	59		
	8	19	62		
	9	23	61		
	10	25	58		
	11	27	54		
	12.4	25	50		
	13	28	54		
	14	31	59		
	15	35	65		
	16	37	71		
	17	39	73		
	18	42	79		
	19	44	81		
	20	50	89		
	21	52	92		
	22	55	95		
	23	59	98		
	23.8	61	101		
	25	60	99		
	26	60	98		
	27	59	96		
	28	54	89		
	29	54	89		
	30	50	83		