

12-4-2009

Ex. 280-US-464

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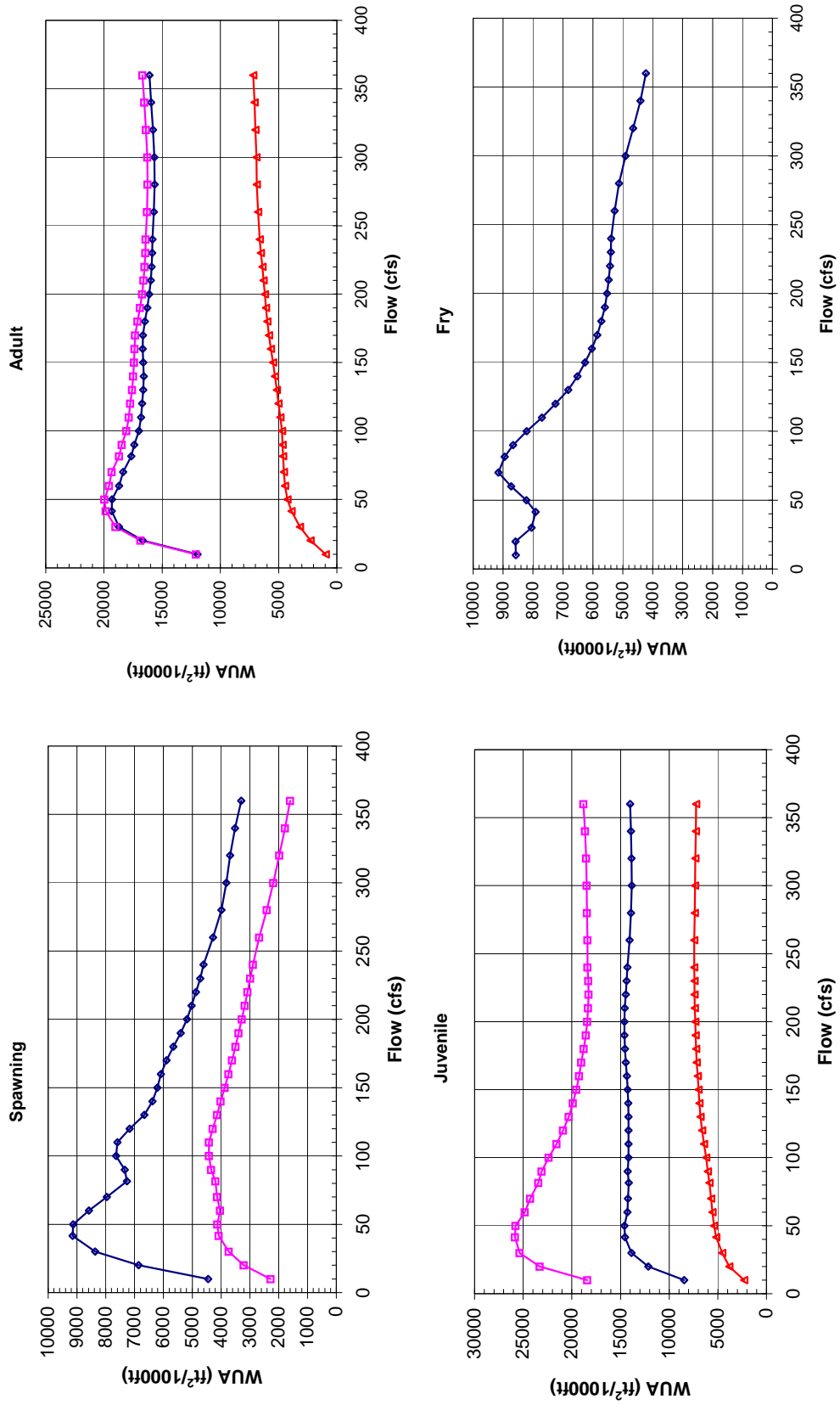
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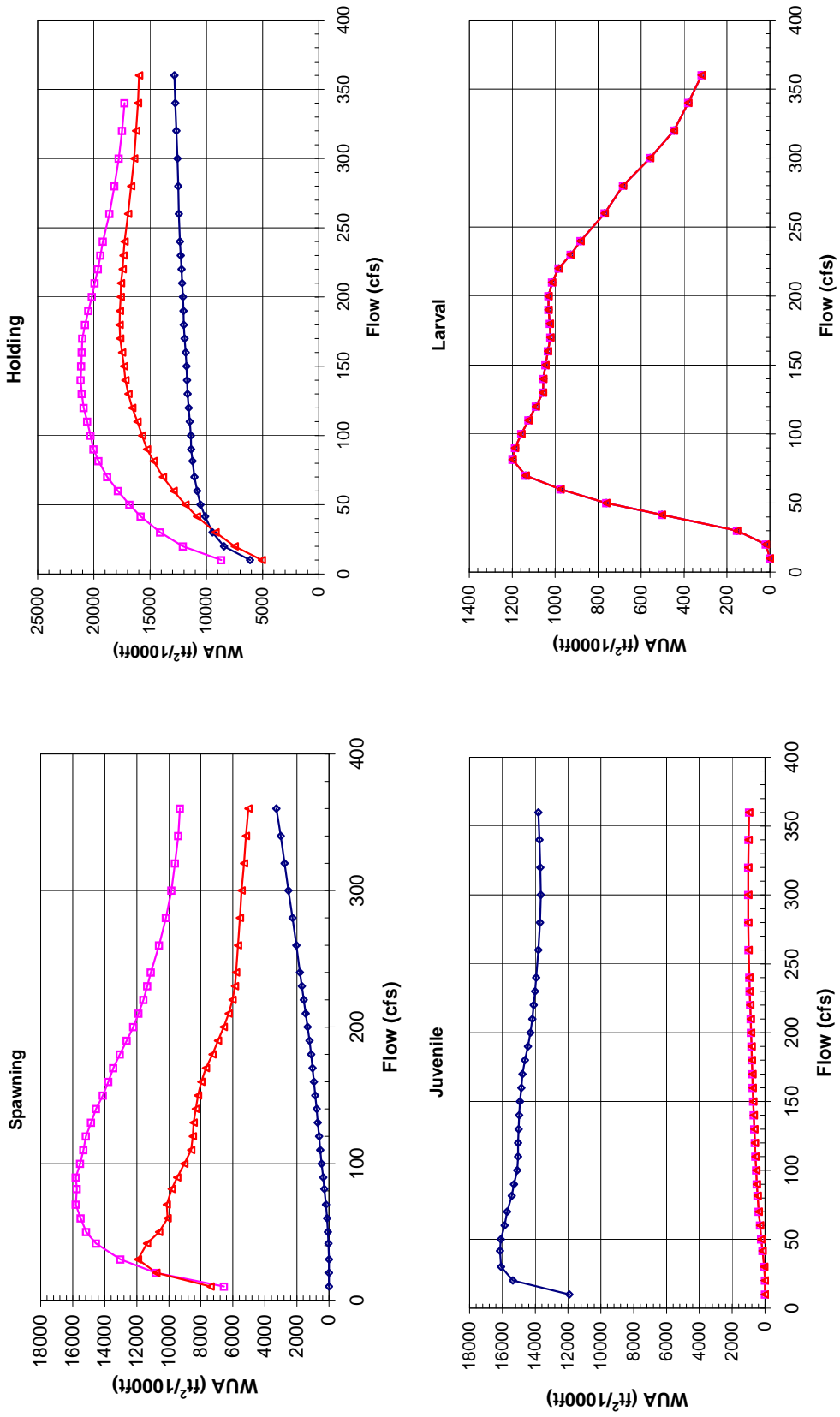
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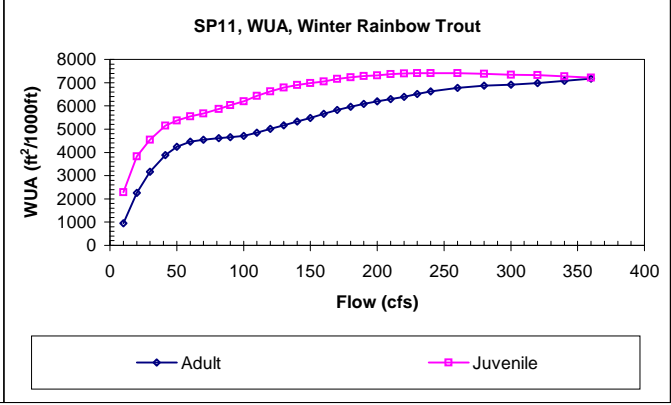
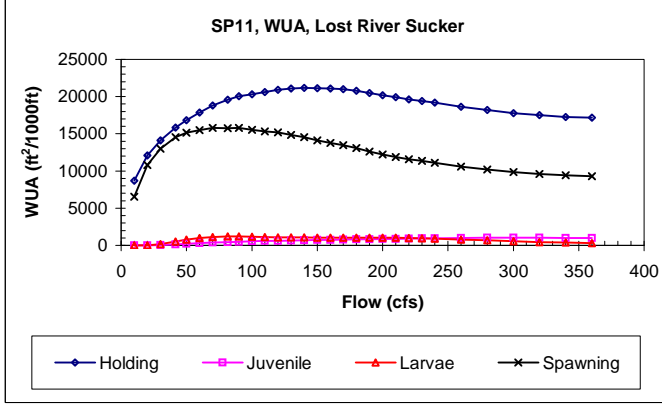
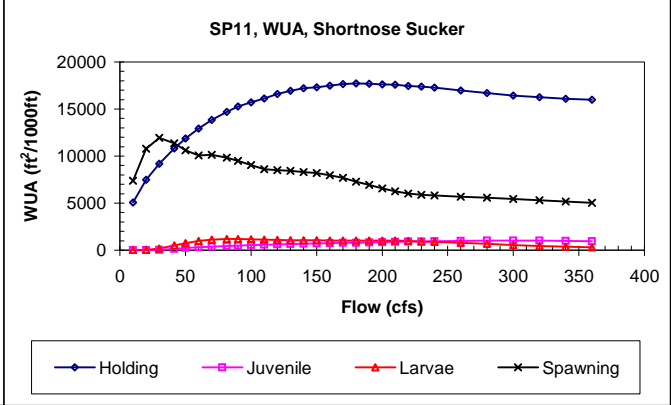
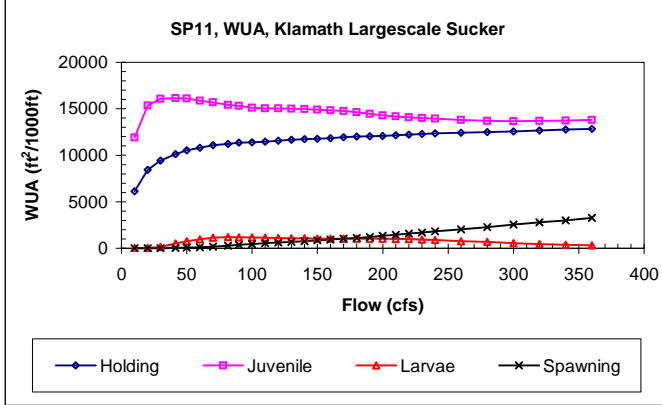
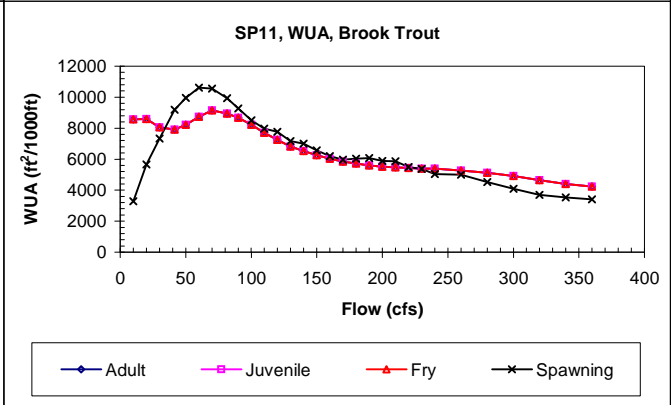
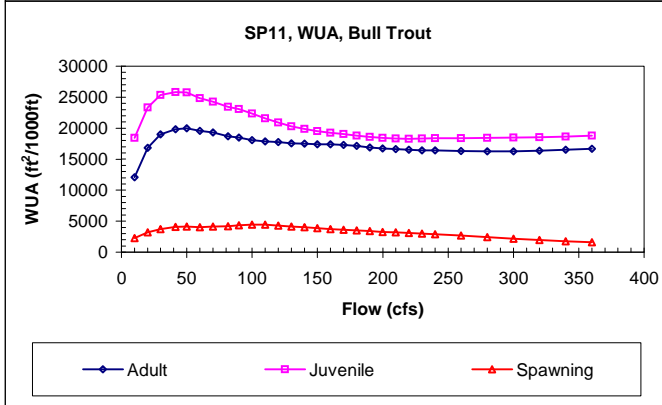
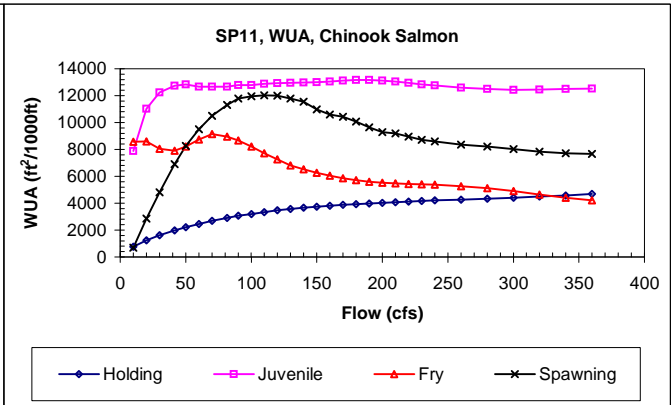
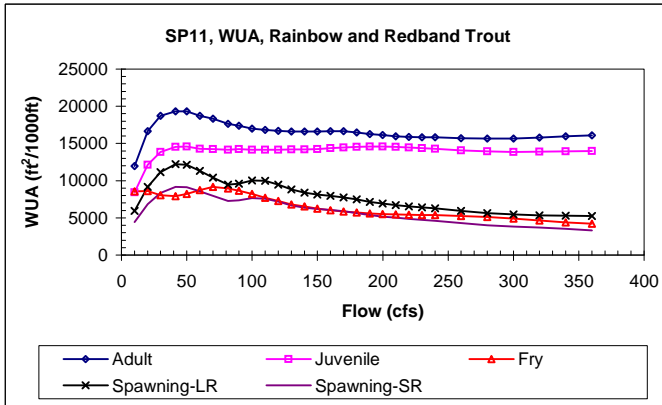
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Site 651 Priority Species Habitat - Flow Curves



Site 651
Priority Species Habitat - Flow Curves





Claim Reach 651 Sprague River, Site 11, Composite WUA (EA Field Data, Recalibrated in April, 2007)

	WUA (ft ² /1000ft)					
	Q	Adult	Juvenile	Fry	Spawning - Large River	Spawning - Small River
	(cfs)					
Rainbow and Redband Trout	10	11962	8447	8575	5937	4452
	20	16674	12129	8585	9151	6863
	30	18710	13858	8046	11156	8367
	41.5	19340	14538	7915	12206	9155
	50	19309	14598	8221	12147	9133
	60	18700	14291	8728	11330	8583
	70	18348	14239	9153	10434	7967
	81.5	17659	14156	8945	9487	7262
	90	17399	14263	8668	9605	7343
	100	17007	14174	8211	10008	7639
	110	16810	14178	7706	9991	7594
	120	16716	14175	7253	9482	7169
	130	16619	14184	6820	8808	6661
	140	16591	14213	6520	8392	6380
	150	16617	14264	6258	8129	6211
	160	16663	14350	6036	7962	6088
	170	16642	14460	5855	7750	5890
	180	16478	14549	5716	7469	5652
	190	16275	14607	5603	7151	5396
	200	16120	14607	5522	6911	5185
	210	15985	14561	5474	6720	5021
	220	15896	14464	5425	6554	4868
	230	15847	14362	5398	6407	4726
	240	15840	14280	5390	6289	4613
	260	15717	14068	5270	5947	4282
	280	15642	13929	5127	5640	3988
	300	15661	13849	4908	5445	3821
	320	15788	13879	4654	5346	3689
	340	15952	13933	4406	5295	3512
	360	16083	14002	4226	5233	3295

	WUA (ft ² /1000ft)				
	Q	Holding	Juvenile	Fry	Spawning
	(cfs)				
Chinook Salmon	10	768	7874	8575	689
	20	1234	11019	8585	2849
	30	1609	12236	8046	4821
	41.5	1976	12745	7915	6916
	50	2211	12839	8221	8265
	60	2448	12666	8728	9489
	70	2681	12675	9153	10503
	81.5	2904	12677	8945	11305
	90	3060	12795	8668	11796
	100	3200	12795	8211	11960
	110	3338	12876	7706	12015
	120	3474	12932	7253	12006
	130	3582	12956	6820	11786
	140	3671	12979	6520	11543
	150	3734	13010	6258	10978
	160	3805	13059	6036	10597
	170	3883	13122	5855	10427
	180	3937	13164	5716	10068
	190	3983	13175	5603	9631
	200	4024	13123	5522	9286
	210	4078	13048	5474	9194
	220	4114	12941	5425	8951
	230	4161	12842	5398	8725
	240	4205	12762	5390	8587
	260	4265	12592	5270	8354
	280	4339	12495	5127	8216
	300	4411	12433	4908	8022
	320	4497	12457	4654	7825
	340	4583	12489	4406	7716
	360	4689	12518	4226	7674

	WUA (ft ² /1000ft)				
	Q	Adult	Juvenile	Fry	Spawning
	(cfs)				
Bull Trout	10	12096	18431		2279
	20	16857	23314		3210
	30	19003	25356		3733
	41.5	19841	25843		4085
	50	19969	25772		4125
	60	19564	24846		4034
	70	19331	24279		4134
	81.5	18713	23429		4198
	90	18478	23103		4344
	100	18081	22368		4422
	110	17864	21562		4423
	120	17737	20890		4293
	130	17578	20309		4135
	140	17483	19898		4010
	150	17417	19534		3873
	160	17382	19265		3741
	170	17319	19038		3621
	180	17126	18785		3501
	190	16904	18567		3389
	200	16733	18414		3278
	210	16602	18331		3177
	220	16500	18280		3078
	230	16442	18307		2989
	240	16426	18391		2891
	260	16310	18399		2673
	280	16253	18441		2416
	300	16271	18471		2185
	320	16388	18538		1979
	340	16545	18654		1781
	360	16692	18796		1598

	WUA (ft ² /1000ft)				
	Q	Adult	Juvenile	Fry	Spawning
	(cfs)				
Brook Trout	10	8575	8575	8575	3277
	20	8585	8585	8585	5664
	30	8046	8046	8046	7335
	41.5	7915	7915	7915	9201
	50	8221	8221	8221	9955
	60	8728	8728	8728	10617
	70	9153	9153	9153	10557
	81.5	8945	8945	8945	9938
	90	8668	8668	8668	9266
	100	8211	8211	8211	8516
	110	7706	7706	7706	7971
	120	7253	7253	7253	7765
	130	6820	6820	6820	7169
	140	6520	6520	6520	7004
	150	6258	6258	6258	6567
	160	6036	6036	6036	6190
	170	5855	5855	5855	5975
	180	5716	5716	5716	6025
	190	5603	5603	5603	6066
	200	5522	5522	5522	5894
	210	5474	5474	5474	5874
	220	5425	5425	5425	5497
	230	5398	5398	5398	5372
	240	5390	5390	5390	5042
	260	5270	5270	5270	5004
	280	5127	5127	5127	4528
	300	4908	4908	4908	4087
	320	4654	4654	4654	3694
	340	4406	4406	4406	3525
	360	4226	4226	4226	3418

Claim Reach 651 Sprague River, Site 11, Composite WUA (EA Field Data, Recalibrated in April, 2007)

	WUA (ft ² /1000ft)				
	Q				
	(cfs)	Holding	Juvenile	Larvae	Spawning
Klamath Largescale Sucker	10	6117	11927	0	0
	20	8425	15360	20	0
	30	9443	16083	154	7
	41.5	10124	16148	503	33
	50	10524	16097	761	65
	60	10810	15856	975	118
	70	11071	15713	1137	187
	81.5	11225	15423	1199	283
	90	11346	15303	1187	365
	100	11384	15095	1158	457
	110	11479	15044	1125	540
	120	11582	15037	1090	620
	130	11665	15008	1057	695
	140	11722	14980	1055	772
	150	11765	14919	1045	855
	160	11841	14843	1033	935
	170	11951	14769	1023	1018
	180	12002	14628	1025	1106
	190	12041	14445	1032	1207
	200	12088	14293	1031	1327
	210	12158	14179	1014	1463
	220	12216	14089	984	1578
	230	12289	14009	928	1691
	240	12363	13949	882	1813
	260	12443	13813	770	2036
	280	12501	13716	684	2277
	300	12566	13665	557	2530
	320	12674	13688	447	2772
	340	12761	13739	380	3005
	360	12851	13813	318	3280

	WUA (ft ² /1000ft)				
	Q				
	(cfs)	Holding	Juvenile	Larvae	Spawning
Shorthose Sucker	10	5066	0	0	7396
	20	7474	6	20	10778
	30	9186	45	154	11934
	41.5	10833	148	503	11355
	50	11874	227	761	10604
	60	12916	308	975	10082
	70	13853	378	1137	10127
	81.5	14690	448	1199	9818
	90	15273	493	1187	9487
	100	15712	541	1158	9042
	110	16131	584	1125	8604
	120	16599	623	1090	8507
	130	16946	659	1057	8448
	140	17206	693	1055	8310
	150	17322	720	1045	8183
	160	17489	747	1033	7967
	170	17665	773	1023	7691
	180	17712	798	1025	7280
	190	17693	823	1032	6925
	200	17616	848	1031	6577
	210	17583	874	1014	6259
	220	17447	904	984	6031
	230	17382	933	928	5870
	240	17286	960	882	5803
	260	16960	1003	770	5678
	280	16686	1026	684	5564
	300	16430	1024	557	5459
	320	16246	1013	447	5300
	340	16090	995	380	5181
	360	15991	969	318	5038

	WUA (ft ² /1000ft)				
	Q				
	(cfs)	Holding	Juvenile	Larvae	Spawning
Lost River Sucker	10	8679	0	0	6561
	20	12084	6	20	10812
	30	14118	45	154	13012
	41.5	15831	148	503	14550
	50	16838	227	761	15164
	60	17871	308	975	15502
	70	18821	378	1137	15804
	81.5	19587	448	1199	15748
	90	20033	493	1187	15805
	100	20302	541	1158	15530
	110	20598	584	1125	15323
	120	20912	623	1090	15176
	130	21078	659	1057	14858
	140	21183	693	1055	14551
	150	21117	720	1045	14122
	160	21088	747	1033	13778
	170	21017	773	1023	13470
	180	20789	798	1025	13060
	190	20493	823	1032	12628
	200	20170	848	1031	12212
	210	19929	874	1014	11891
	220	19629	904	984	11578
	230	19416	933	928	11340
	240	19190	960	882	11117
	260	18625	1003	770	10600
	280	18186	1026	684	10180
	300	17792	1024	557	9842
	320	17495	1013	447	9608
	340	17270	995	380	9402
	360	17147	969	318	9300

	WUA (ft ² /1000ft)				
	Q				
	(cfs)	Adult	Juvenile	Fry	Spawning
Winter Rainbow Trout	10	953	2285		
	20	2254	3829		
	30	3162	4550		
	41.5	3887	5150		
	50	4243	5377		
	60	4461	5552		
	70	4548	5679		
	81.5	4613	5867		
	90	4656	6025		
	100	4709	6202		
	110	4845	6432		
	120	5018	6628		
	130	5164	6790		
	140	5326	6896		
	150	5481	6974		
	160	5661	7051		
	170	5825	7165		
	180	5961	7232		
	190	6079	7280		
	200	6192	7316		
	210	6290	7361		
	220	6394	7391		
	230	6519	7406		
	240	6626	7413		
	260	6768	7413		
	280	6873	7378		
	300	6908	7342		
	320	6985	7323		
	340	7075	7266		
	360	7175	7217		