

12-4-2009

Ex. 277-US-430

Unknown

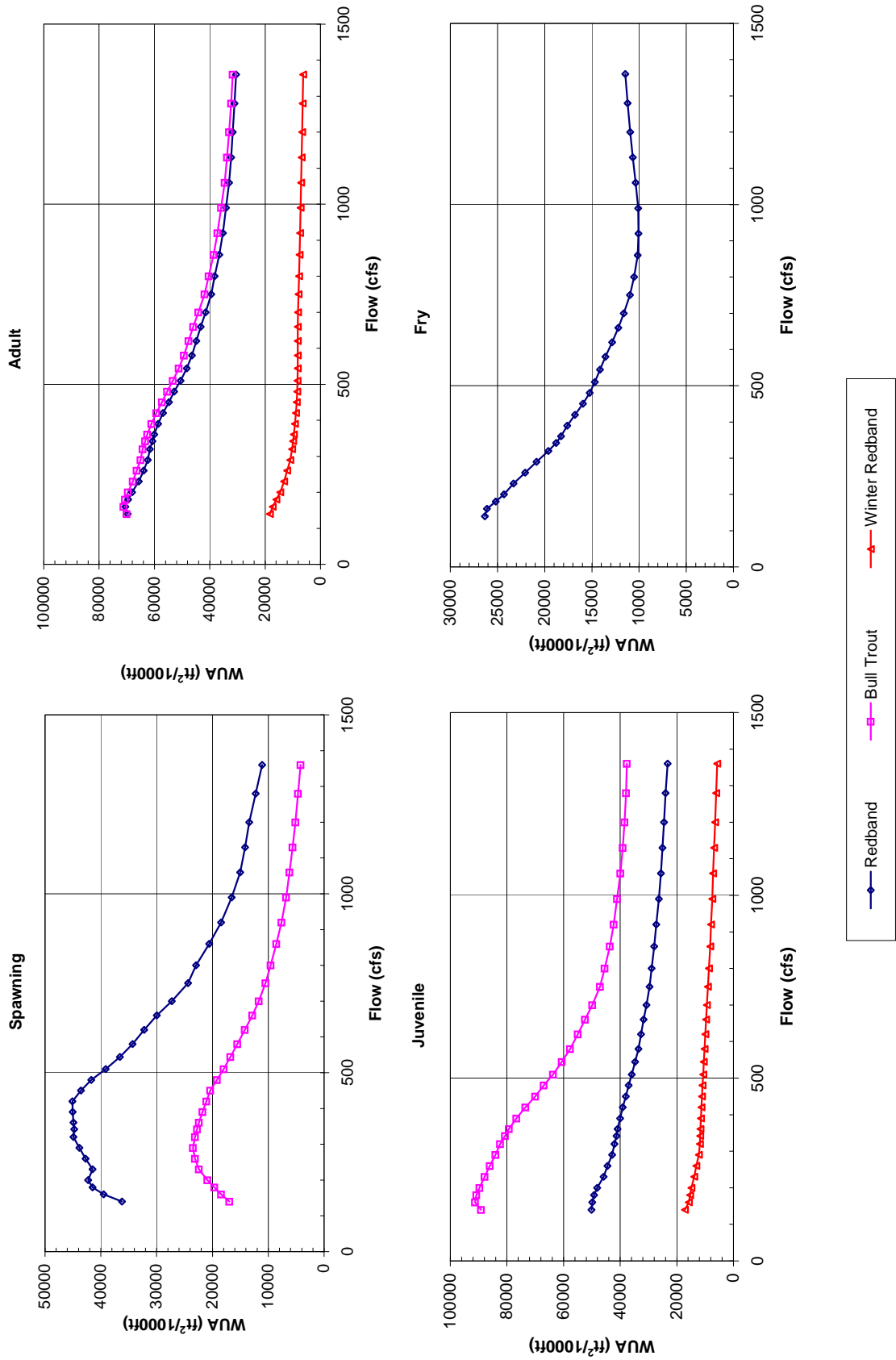
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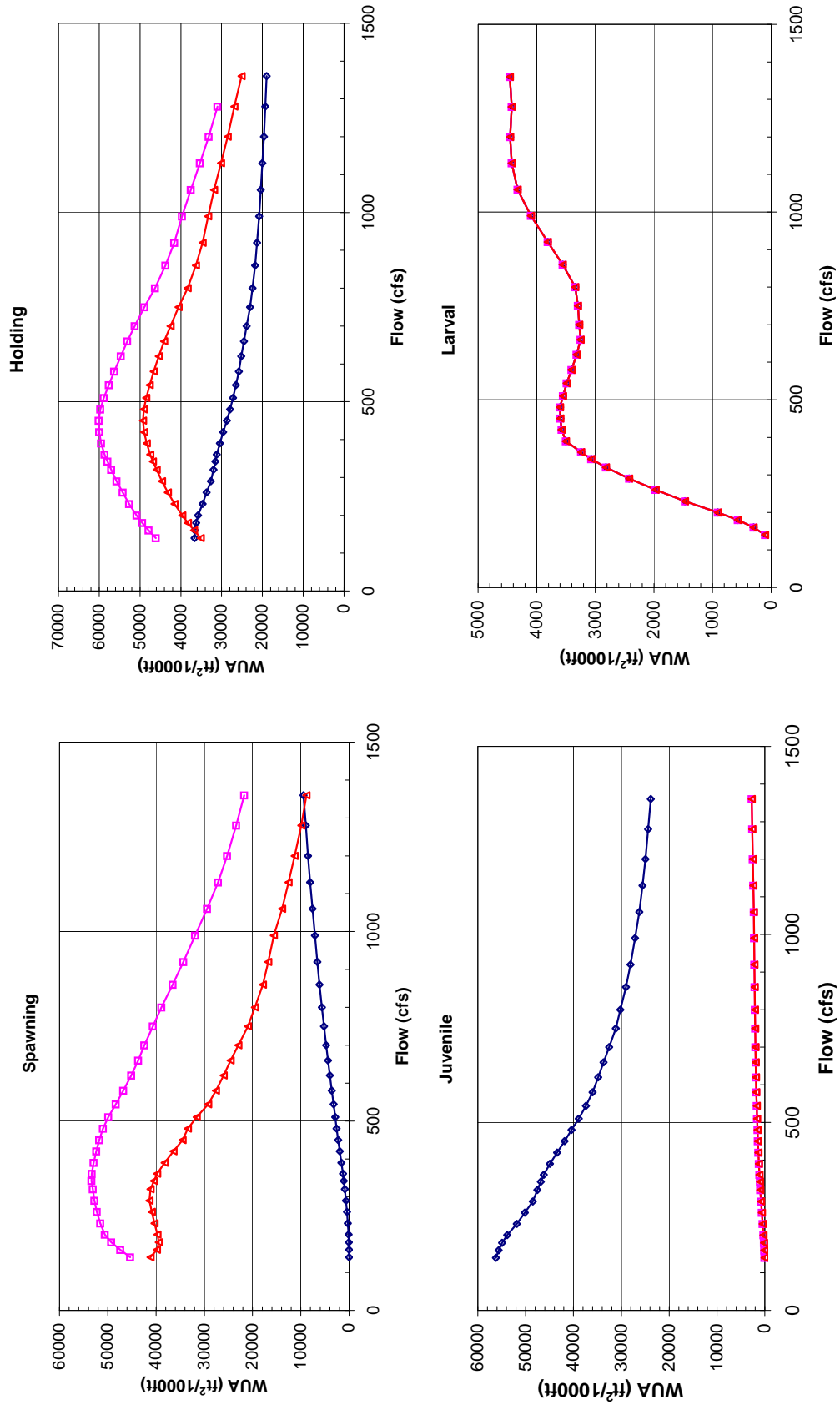
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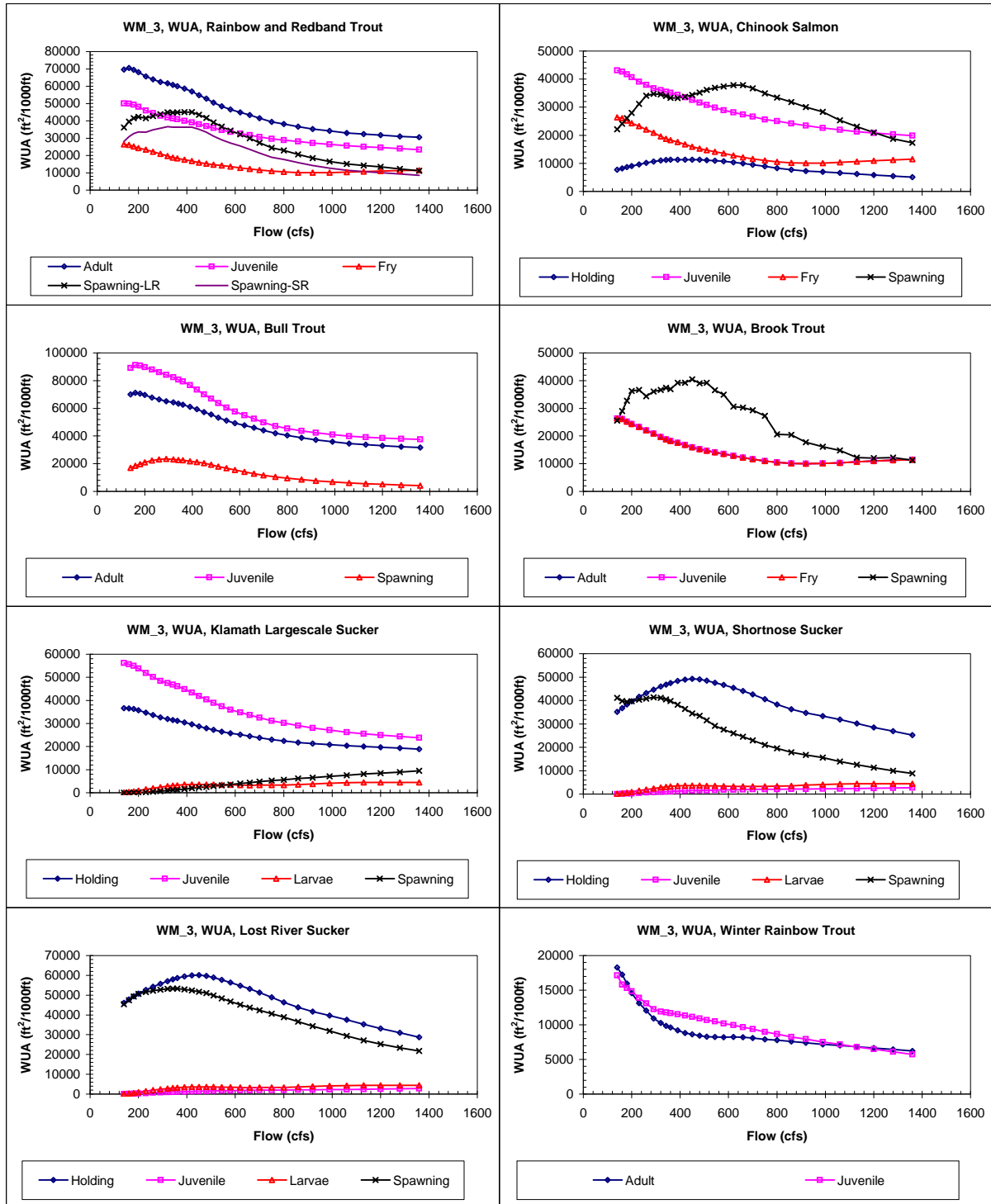
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Site WM_3 Priority Species Habitat - Flow Curves



Site WM_3 Priority Species Habitat - Flow Curves





Reach 627 Williamson River, Site 3, Composite WUA (Data Collected in 2006)

	WUA (ft ² /1000ft)				
	Q	Spawning -			
	(cfs)	Adult	Juvenile	Fry	Small River
140	69646	50142	26339	36201	28030
160	70561	49905	26129	39485	30824
180	69535	49255	25189	41476	32656
200	68093	48117	24303	42265	33663
230	65684	45897	23290	41483	33442
260	63926	44452	22066	42740	34764
290	62367	42851	20861	43838	35760
320	61677	41986	19621	44920	36583
342	60710	41327	18778	44791	36394
361	60067	40901	18272	44899	36401
390	58651	40052	17599	45038	36406
420	56915	39090	16790	45099	36403
450	54768	38014	15940	43576	35075
480	52862	36971	15237	41700	33411
510	50582	35892	14677	39114	31188
544	48362	34726	14151	36567	29000
580	46498	33574	13574	34311	27118
620	44883	32633	12852	32261	25475
660	43321	31686	12187	29953	23567
700	41504	30728	11609	27298	21371
750	39449	29590	10971	24381	18860
800	38221	28883	10523	22923	17653
860	36605	28020	10148	20598	15854
920	35270	27237	10058	18445	14144
990	34137	26371	10098	16551	12655
1060	32985	25645	10353	15051	11438
1130	32317	25033	10670	14154	10706
1200	31681	24525	10941	13410	10140
1280	31058	23932	11222	12266	9328
1360	30499	23291	11466	11119	8514

	WUA (ft ² /1000ft)			
	Q	Spawning		
	(cfs)	Holding	Juvenile	Fry
140	7764	43150	26339	22096
160	8216	42611	26129	24141
180	8639	41742	25189	26062
200	9050	40660	24303	27984
230	9627	39088	23290	31178
260	10154	37942	22066	34055
290	10609	36700	20861	34753
320	11017	36022	19621	34585
342	11193	35461	18778	33997
360.8	11268	35079	18272	33350
390	11335	34361	17599	33241
420	11333	33519	16790	33738
450	11306	32577	15940	34377
480	11256	31664	15237	35236
510	11153	30744	14677	36193
544.3	10970	29805	14151	36914
580	10729	28887	13574	37379
620	10378	28142	12852	37861
660	9989	27376	12187	37825
700	9539	26603	11609	36717
750	8937	25647	10971	34903
800	8305	25032	10523	33470
860	7737	24222	10148	31802
920	7283	23481	10058	30067
990	6943	22634	10098	28299
1060	6589	21915	10353	25348
1130	6204	21284	10670	23084
1200	5815	20803	10941	20954
1280	5454	20300	11222	18692
1360	5117	19834	11466	17353

	WUA (ft ² /1000ft)			
	Q	Spawning		
	(cfs)	Adult	Juvenile	Fry
140	70043	89121		16962
160	71218	91252		18452
180	70607	90820		19654
200	69596	89712		20918
230	67790	87882		22422
260	66373	86047		23125
290	65052	84073		23487
320	64315	82391		23114
342	63311	80663		22770
360.8	62570	79299		22441
390	61096	76644		21782
420	59359	73430		21089
450	57274	69979		20386
480	55446	66987		19213
510	53323	63727		17986
544.3	51179	60584		16777
580	49304	57668		15526
620	47635	54962		14189
660	45979	52441		12844
700	44097	49838		11697
750	41903	47155		10492
800	40433	45479		9554
860	38650	43681		8566
920	37186	42296		7648
990	35922	41097		6801
1060	34630	39885		6197
1130	33813	39131		5620
1200	33040	38469		5145
1280	32294	37952		4657
1360	31688	37657		4196

	WUA (ft ² /1000ft)			
	Q	Spawning		
	(cfs)	Adult	Juvenile	Fry
140	26339	26339	26339	25542
160	26129	26129	26129	29025
180	25189	25189	25189	32748
200	24303	24303	24303	36302
230	23290	23290	23290	36618
260	22066	22066	22066	34394
290	20861	20861	20861	36099
320	19621	19621	19621	36679
342	18778	18778	18778	37409
360.8	18272	18272	18272	36974
390	17599	17599	17599	39215
420	16790	16790	16790	39186
450	15940	15940	15940	40504
480	15237	15237	15237	39018
510	14677	14677	14677	39187
544.3	14151	14151	14151	36531
580	13574	13574	13574	34901
620	12852	12852	12852	30664
660	12187	12187	12187	30205
700	11609	11609	11609	29277
750	10971	10971	10971	27249
800	10523	10523	10523	20610
860	10148	10148	10148	20378
920	10058	10058	10058	17706
990	10098	10098	10098	16141
1060	10353	10353	10353	14778
1130	10670	10670	10670	12178
1200	10941	10941	10941	12004
1280	11222	11222	11222	12173
1360	11466	11466	11466	11274

Reach 627 Williamson River, Site 3, Composite WUA

	WUA (ft ² /1000ft)			
	Q (cfs)	Holding	Juvenile	Larvae
140	36611	56196	106	4
160	36549	55658	302	24
180	36272	54913	570	61
200	35770	53841	909	124
230	34669	51833	1471	262
260	33687	50177	1973	442
290	32617	48491	2422	657
320	31994	47549	2818	903
342	31538	46847	3071	1100
360.8	31179	46200	3243	1279
390	30453	44906	3500	1576
420	29609	43399	3576	1923
450	28737	41880	3597	2254
480	27956	40415	3604	2572
510	27195	38915	3550	2857
544.3	26463	37393	3487	3198
580	25770	36007	3407	3569
620	25155	34808	3320	4000
660	24515	33684	3251	4382
700	23847	32532	3273	4765
750	23017	31126	3298	5218
800	22442	30201	3340	5653
860	21795	29043	3558	6141
920	21312	28080	3810	6577
990	20830	27124	4098	7057
1060	20396	26256	4325	7567
1130	20005	25569	4427	8101
1200	19643	24943	4452	8507
1280	19310	24369	4427	8985
1360	18948	23852	4458	9472

	WUA (ft ² /1000ft)			
	Q (cfs)	Holding	Juvenile	Larvae
140	35112	31	106	41167
160	36758	90	302	39797
180	38270	171	570	39444
200	39671	278	909	39678
230	41545	457	1471	40335
260	43179	625	1973	40840
290	44641	781	2422	41347
320	45943	925	2818	41139
342	46816	1025	3071	40421
360.8	47507	1106	3243	39746
390	48353	1229	3500	38224
420	48971	1338	3576	36369
450	49278	1439	3597	34518
480	49070	1530	3604	33413
510	48473	1614	3550	31578
544.3	47614	1700	3487	29204
580	46635	1780	3407	27569
620	45379	1858	3320	26004
660	44065	1924	3251	24537
700	42555	1978	3273	22950
750	40539	2031	3298	20982
800	38337	2069	3340	19514
860	36323	2109	3558	17844
920	34693	2155	3810	16775
990	33326	2214	4098	15580
1060	31844	2290	4325	13865
1130	30181	2398	4427	12547
1200	28530	2517	4452	11307
1280	26883	2641	4427	9906
1360	25151	2746	4458	8841

	WUA (ft ² /1000ft)			
	Q (cfs)	Holding	Juvenile	Larvae
140	46151	31	106	45354
160	47890	90	302	47393
180	49438	171	570	49269
200	50817	278	909	50605
230	52680	457	1471	51555
260	54256	625	1973	52273
290	55709	781	2422	52775
320	57066	925	2818	53113
342	57978	1025	3071	53346
360.8	58698	1106	3243	53284
390	59510	1229	3500	52900
420	59970	1338	3576	52368
450	60127	1439	3597	51748
480	59725	1530	3604	50972
510	58866	1614	3550	49854
544.3	57659	1700	3487	48308
580	56341	1780	3407	46772
620	54722	1858	3320	45149
660	53120	1924	3251	43664
700	51311	1978	3273	42401
750	48920	2031	3298	40662
800	46319	2069	3340	38857
860	43789	2109	3558	36555
920	41638	2155	3810	34362
990	39680	2214	4098	31913
1060	37570	2290	4325	29434
1130	35324	2398	4427	27148
1200	33163	2517	4452	25280
1280	30984	2641	4427	23382
1360	28747	2746	4458	21722

	WUA (ft ² /1000ft)			
	Q (cfs)	Adult	Juvenile	Fry
140	18289	17136		
160	17241	15801		
180	15959	15315		
200	14572	14843		
230	13122	13881		
260	12044	13104		
290	10926	12256		
320	10274	11893		
342	9850	11780		
360.8	9615	11692		
390	9202	11512		
420	8834	11341		
450	8619	11150		
480	8441	10909		
510	8269	10689		
544.3	8225	10480		
580	8221	10206		
620	8235	9971		
660	8196	9672		
700	8085	9404		
750	7903	8984		
800	7781	8666		
860	7593	8243		
920	7401	7927		
990	7195	7506		
1060	7012	7179		
1130	6819	6810		
1200	6657	6472		
1280	6438	6121		
1360	6229	5721		