11-5-2008

Ex. 280-US-451

Unknown

Stream: Trout Creek
Site: 648
Date: 5/12/2004
Habitat: Riffle **Flow:** High

(1) Level Loop Survey (BM & HP)

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	4.36	104.36		100.00
HP1			5.24	99.12
HP2			4.23	100.13
HP3			4.54	99.82
BM-2			2.20	102.16
BM-2	2.00	104.16		
HP3			4.34	99.82
HP2			4.04	100.12
HP1			5.04	99.12
BM			4.16	100.00

Comment: Turned on BM-2

(2) Water Surface Elevation (WSE) Survey

TR	River Station L/R bank (ft)	River Station Ave (ft)	HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
1-L	0	0	104.16	8.29	0.36	96.23	96.21	4.28
1-R	0			8.36	0.38	96.18		
2-L	14.6	15	104.16	7.87	0.47	96.76	96.73	3.01
2-R	14.6			7.91	0.45	96.70		
3-L	33.1	33	104.16	6.96	0.51	97.71	97.71	3.93
3-R	33.1			6.80	0.35	97.71		
							Ave Q=	3.74

Note:
WSE slope = 4.547%

(3) Meter and propeller ID for Velocity Correction

Meter ID: 3602
Propeller ID: 3a

Date: 6/25/2004
Habitat: Riffle **Flow:** Mid

(1) Level Loop Survey

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	5.14	105.14		100.00
HP1			6.00	99.14
HP2			5.00	100.14
HP3			5.30	99.84
TP				
HP3	5.19	105.03		
HP2			4.89	100.14
HP1			5.89	99.14
BM			5.03	100.00

Comment:

(2) Water Surface Elevation (WSE) Survey

TR	River Station L/R bank (ft)	River Station Ave (ft)	HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
1-L	0	0	105.03	9.00	0.00	96.03	96.02	2.29
1-R	0			9.02	0.00	96.01		
2-L	14.6	15	105.03	8.39	0.00	96.64	96.62	2.14
2-R	14.6			8.44	0.00	96.59		
3-L	33.1	33	105.03	7.39	0.00	97.64	97.63	2.03
3-R	33.1			7.57	0.16	97.62		
							Ave Q=	2.15

Note:
WSE slope = 4.864%

(3) Meter and propeller ID for Velocity Correction

Meter ID: 5750
Propeller ID: 2a

Date: 8/18/2004
Habitat: Riffle **Flow:** Low

(1) Level Loop Survey

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM	4.69	104.69		100.00
HP1			5.56	99.13
HP2			4.57	100.12
HP3			4.87	99.82
BM-2			2.53	102.16
BM-2	2.70	104.86		
HP3			5.04	99.82
HP2			4.74	100.12
HP1			5.73	99.13
BM			4.86	100.00

Comment: Turned on BM-2

(2) Water Surface Elevation (WSE) Survey

TR	River Station L/R bank (ft)	River Station Ave (ft)	HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
1-L	0	0	104.86	8.88	0.00	95.98	95.98	0.83
1-R	0			8.88	0.00	95.98		
2-L	14.6	15	104.86	8.38	0.00	96.48	96.47	0.81
2-R	14.6			8.40	0.00	96.46		
3-L	33.1	33	104.86	7.37	0.00	97.49	97.49	0.71
	33.1							
							Ave Q=	0.78

Note: 75' d/s of TR1 FS=5.55, rod=0.48
WSE slope = 4.562%

(3) Meter and propeller ID for Velocity Correction

Meter ID: 4099
Propeller ID: 1a

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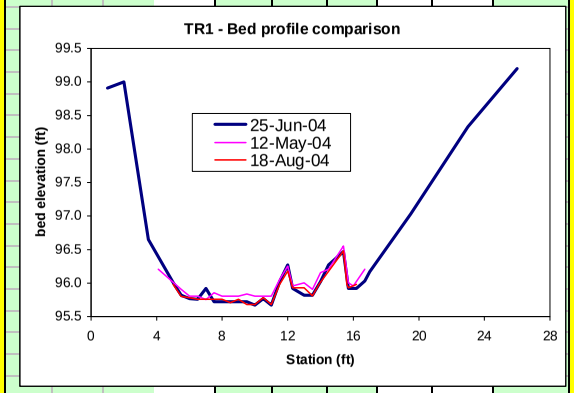
Stream:	Trout Creek		12-May-04									25-Jun-04									18-Aug-04								
Site:	648			Sta	FS	Ground	Depth	Vel (ft/s)			q			Sta	FS	Ground	Depth	Vel (ft/s)			q			Sta	FS	Ground	Depth	Vel (ft/s)			q	
Transect:	1			(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate
Habitat:	Riffle		RWP									RWP	1.0	6.12	98.91						1.1										
			RWE	4.1		96.21	0.00	0.00		0.00	0.00			2.0	6.03	99.00						1.1										
Survey	HI	Q	*	5.5		95.91	0.30	0.05		0.05	0.01			3.5	8.38	96.65						1.1										
Date	(ft)	(cfs)		6.0		95.81	0.40	0.37		0.40	0.08		RWE	5.0	9.02	96.01	0.00	0.00		0.00	0.00	1.1	RWE	5.0		95.98	0.00	0.00		0.00	0.00	
5/12/2004	104.16	4.3		6.5		95.81	0.40	0.61		0.63	0.13			5.5		95.82	0.20	0.00		0.01	0.00	2.1	*	5.5		95.80	0.18	-0.05		-0.05	0.00	
6/25/2004	105.03	2.3		7.0		95.76	0.45	2.29		2.32	0.52			6.0		95.77	0.25	0.00		0.01	0.00	5.2	*	6.0		95.78	0.20	-0.01		-0.01	0.00	
8/18/2004	104.86	0.8		7.5		95.86	0.35	2.82		2.85	0.50			6.5		95.76	0.26	0.10		0.23	0.03	6.5		6.5		95.76	0.22	0.33		0.41	0.05	
				8.0		95.81	0.40	3.17		3.20	0.64			7.0		95.92	0.10	2.50		2.53	0.13	5.6		7.0		95.76	0.22	1.24		1.30	0.14	
				8.5		95.81	0.40	0.76		0.78	0.16			7.5		95.72	0.30	2.56		2.59	0.39	6.5		7.5		95.76	0.22	0.74		0.79	0.09	
				9.0		95.81	0.40	2.54		2.57	0.51			8.0		95.72	0.30	2.24		2.27	0.34	6.5		8.0		95.76	0.22	0.76		0.81	0.09	
				9.5		95.84	0.37	3.37		3.40	0.63			8.5		95.72	0.30	1.58		1.62	0.24	6.5		8.5		95.71	0.27	0.11		0.20	0.03	
				10.0		95.81	0.40	0.32		0.35	0.07			9.0		95.72	0.30	2.37		2.40	0.36	6.5		9.0		95.76	0.22	1.32		1.38	0.15	
				10.5		95.81	0.40	1.16		1.19	0.24			9.5		95.72	0.30	2.25		2.28	0.34	6.5		9.5		95.68	0.30	0.63		0.68	0.10	
				11.0		95.81	0.40	0.96		0.99	0.20			10.0		95.67	0.35	0.29		0.36	0.06	6.5		10.0		95.68	0.30	-0.03		-0.07	-0.01	
				11.5		96.06	0.15	1.02		1.05	0.04			10.5		95.77	0.25	0.29		0.36	0.05	5.6		10.5		95.78	0.20	0.39		0.46	0.05	
				12.0		96.26	-0.05							11.0		95.67	0.35	1.14		1.19	0.21	5.6		11.0		95.68	0.30	0.94		0.98	0.15	
				12.3		95.96	0.25	1.32		1.35	0.12			11.5		96.02	0.00	0.00		0.00	0.00	7.4		11.5		95.98	0.00	0.00		0.00	0.00	
				13.0		96.01	0.20	1.68		1.71	0.20			12.0		96.27	-0.25					7.4		12.0		96.18	-0.20					
				13.5		95.91	0.30	1.37		1.40	0.21			12.3		95.92	0.10	0.10		0.23	0.01	7.4		12.3		95.93	0.05	0.01		0.02	0.00	
				14.0		96.16	0.05	0.00		0.01	0.00			13.0		95.82	0.20	0.76		0.80	0.10	7.5		13.0		95.93	0.05	0.01		0.02	0.00	
				14.5		96.21	0.00	0.00		0.00	0.00			13.5		95.82	0.20	0.32		0.39	0.04	7.5		13.5		95.81	0.17	0.03		0.07	0.01	
				15.4		96.56	-0.35							14.0		96.02	0.00	0.00		0.00	0.00	6.7		13.9		95.98	0.00	0.00		0.00	0.00	
				15.7		96.01	0.20	0.41		0.44	0.01			14.5		96.27	-0.25					6.7		15.4		96.48	-0.50					
			*	16.0		95.96	0.25	0.05		0.05	0.01			15.4		96.47	-0.45					6.7		15.6		95.98	0.00	0.00		0.00	0.00	
			LWE	16.7		96.21	0.00	0.00		0.00	0.00			15.7		95.92	0.10	0.00		0.01	0.00	7.2	*	15.7		95.93	0.05	0.01		0.01	0.00	
			LWP											16.2		95.92	0.10	0.00		0.01	0.00	2.7	LWE	16.2		95.98	0.00	0.00		0.00	0.00	
						* = Estimated Vel							LWE	16.7	9.00	96.03	0.00	0.00		0.00	0.00	2.1										
														17.0	8.86	96.17						1.7										
														19.5	8.00	97.03						1.7										
													LWP	23.0	6.70	98.33						1.7										
														26.0	5.83	99.20						1.7										
																												* = Estimated Vel				



Stream:	Trout Creek		12-May-04									25-Jun-04										18-Aug-04										
Site:	648			Sta	FS	Ground	Depth	Vel (ft/s)			q			Sta	FS	Ground	Depth	Vel (ft/s)			Angle	q			Sta	FS	Ground	Depth	Vel (ft/s)			Angle	q	
Transect:	2			(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(deg)	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(deg)	(cfs)	substrate
Habitat:	Riffle		RWP									RWP	1.0	6.16	98.87							1.1										
			RWE	5.4		96.73	0.00	0.00		0.00	0.00			4.0	7.40	97.63							1.2										
Survey	HI	Q		6.0		96.68	0.05	0.00		0.01	0.00			6.5	8.39	96.64							2.1										
Date	(ft)	(cfs)		6.6		96.73	0.00	0.00		0.00	0.00			8.5	7.57	97.46							7.1										
5/12/2004	104.16	3.0		8.6		97.63	-0.90						RWE	9.6	8.44	96.59	0.00	0.00		0.00		0.00	1.2										
6/25/2004	105.03	2.1		9.6		96.73	0.00	0.00		0.00	0.00			10.0		96.57	0.05	0.00		0.01		0.00	1.2										
8/18/2004	104.86	0.8	*	10.0		96.58	0.15	0.25		0.25	0.02		*	10.5		96.50	0.12	0.05		0.05		0.00	1.2	RWE	10.7		96.47	0.00	0.00		0.00		0.00	
			*	10.5		96.46	0.27	0.25		0.25	0.03			11.0		96.38	0.24	0.45		0.51		0.06	1.4	*	11.0		96.42	0.05	0.03		0.03		0.00	
				11.0		96.33	0.40	0.76		0.78	0.16			11.5		96.27	0.35	0.92		0.97		0.17	4.7		11.5		96.30	0.17	0.45		0.52		0.04	
				11.5		96.23	0.50	0.78		0.80	0.20			12.0		96.32	0.30	0.17		0.25		0.02	7.4	*	12.0		96.30	0.17	-0.01		-0.01		0.00	
				12.0		96.33	0.40	0.34		0.37	0.07			12.5		96.72	-0.10						7.4		12.5		96.67	-0.20						
				12.5		96.68	0.05	0.36		0.39	0.01			13.0		96.22	0.40	0.10		0.23		0.02	7.4	*	13.5		96.17	0.30	-0.02		-0.02		0.00	
				13.0		96.23	0.50	0.07		0.16	0.04			13.5		96.20	0.42	0.05		0.13		0.03	7.4		14.0		96.17	0.30	0.35		0.43		0.06	
				13.5		96.26	0.47	0.30		0.34	0.08			14.0		96.25	0.37	0.72		0.76		0.14	4.7		14.5		96.22	0.25	0.34		0.42		0.05	
				14.0		96.23	0.50	0.28		0.32	0.08			14.5		96.22	0.40	0.58		0.62	45	0.09	5.7		15.0		96.20	0.27	0.52		0.58		0.08	
				14.5		96.23	0.50	0.02		0.06	0.01			15.0		96.24	0.38	0.05		0.13		0.02	5.7		15.5		96.10	0.37	0.59		0.64	15	0.11	
				15.0		96.23	0.50	0.10		0.16	0.04			15.5		96.14	0.48	0.82		0.86		0.21	6.5		16.0		96.19	0.28	0.24		0.33		0.05	
				15.5		96.23	0.50	0.94		0.97	0.24			16.0		96.32	0.30	1.90		1.93		0.29	6.5		16.5		96.17	0.30	1.21		1.27		0.19	
				16.0		96.28	0.45	2.50		2.53	0.57			16.5		96.12	0.50	1.66		1.70		0.42	6.5		17.0		96.15	0.32	1.13		1.18		0.19	
				16.5		96.23	0.50	2.40		2.43	0.61			17.0		96.07	0.55	1.28		1.33		0.36	5.7		17.5		96.22	0.25	0.18		0.27		0.03	
				17.0		96.08	0.65	1.54		1.57	0.51			17.5		96.20	0.42	0.74		0.78		0.16	5.7	*	18.0		96.32	0.15	-0.01		-0.01		0.00	
				17.5		96.23	0.50	0.79		0.81	0.20			18.0		96.37	0.25	0.14		0.22		0.03	6.7		18.5		96.35	0.12	0.00		0.01		0.00	
				18.0		96.33	0.40	0.03		0.09	0.02			18.5		96.32	0.30	0.65		0.69		0.10	6.7	LWE	18.9		96.47	0.00	0.00		0.00		0.00	
				18.5		96.33	0.40	0.54		0.56	0.11		LWE	19.0	8.39	96.64	0.00	0.00		0.00		0.00	6.2											
			*	19.0		96.63	0.10	0.10		0.10	0.01			20.0	8.10	96.93							7.2										
			LWE	19.6		96.73	0.00	0.00		0.00	0.00			21.5	6.52	98.51							1.1										
			LWP										LWP	24.3	5.36	99.67							1.7										

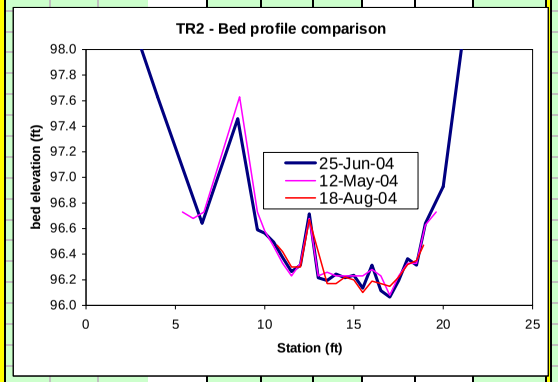
* = Estimated Vel

*45= 45 Deg. Angle of Flow

* = Estimated Vel

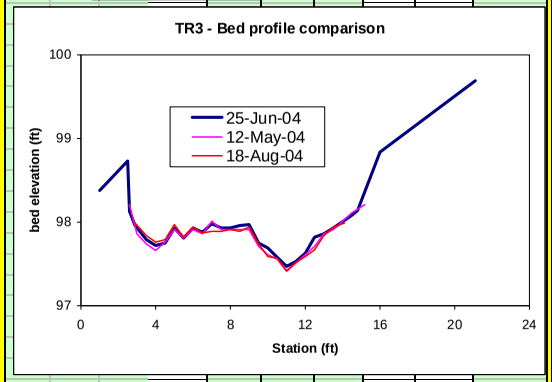
*15= 15 Deg. Angle of Flow

* = Estimated Vel



Stream:	Trout Creek		12-May-04										25-Jun-04										18-Aug-04									
Site:	648			Sta	FS	Ground	Depth	Vel (ft/s)			q			Sta	FS	Ground	Depth	Vel (ft/s)			Angle	q			Sta	FS	Ground	Depth	Vel (ft/s)			Angle	q	
Transect:	3			(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(deg)	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(deg)	(cfs)	substrate
Habitat:	Riffle		RWP										RWP	1.0	6.28	97.88							1.1										
			RWE	2.6		97.71	0.00	0.00		0.00	0.00			2.5	6.80	98.23							1.1										
Survey	HI	Q		3.0		97.36	0.35	0.44		0.46	0.07		RWE	2.6		97.63	0.00	0.00		0.00		0.00	1.1	RWE	2.9		97.49	0.00	0.00		0.00		0.00	
Date	(ft)	(cfs)		3.5		97.24	0.47	2.03		2.06	0.48			2.9	7.57	97.46	0.10	0.00		0.01		0.00	6.2	*	3.5		97.34	0.15	0.05		0.05		0.00	
5/12/2004	104.16	3.9		4.0		97.16	0.55	1.44		1.47	0.40			3.5		97.29	0.34	1.03		1.08		0.20	5.6		4.0		97.26	0.23	0.75		0.80		0.09	
6/25/2004	105.03	2.0		4.5		97.26	0.45	1.91		1.94	0.44			4.0		97.22	0.41	0.97		1.02		0.21	6.5	*	4.5		97.29	0.20	0.05		0.05		0.01	
8/18/2004	104.86	0.7		5.0		97.41	0.30	0.10		0.16	0.02			4.5		97.25	0.38	0.83		0.88		0.17	6.5	*	5.0		97.47	0.02	0.05		0.05		0.00	
				5.5		97.31	0.40	0.27		0.31	0.06			5.0		97.43	0.20	0.00		0.01		0.00	6.4		5.5		97.32	0.17	0.23		0.32		0.03	
				6.0		97.41	0.30	0.76		0.78	0.12			5.5		97.31	0.32	0.00		0.01		0.00	6.4	*	6.0		97.44	0.05	0.15		0.15		0.00	
				6.5		97.36	0.35	0.31		0.34	0.06			6.0		97.43	0.20	0.90		0.95		0.09	5.6		6.5		97.37	0.12	0.20		0.29	60	0.01	
				7.0		97.51	0.20	1.23		1.26	0.13			6.5		97.38	0.25	0.61		0.65		0.08	5.6		7.0		97.39	0.10	0.20		0.29	90	0.00	
				7.5		97.41	0.30	0.82		0.84	0.13			7.0		97.48	0.15	0.69		0.73	90	0.00	6.5		7.5		97.39	0.10	0.56		0.61	45	0.02	
				8.0		97.41	0.30	1.05		1.08	0.16			7.5		97.43	0.20	1.06		1.11	45	0.08	6.5		8.0		97.41	0.08	0.20		0.29	45	0.01	
				8.5		97.41	0.30	1.63		1.66	0.25			8.0		97.43	0.20	1.25		1.30	45	0.09	6.7		8.5		97.39	0.10	0.43		0.50	30	0.02	
				9.0		97.41	0.30	0.85		0.88	0.13			8.5		97.46	0.17	0.94		0.99		0.08	6.7	*	9.0		97.44	0.05	0.10		0.10		0.00	
				9.5		97.21	0.50	0.73		0.75	0.19			9.0		97.47	0.16	0.62		0.66		0.05	6.7		9.5		97.24	0.25	0.06		0.13		0.02	
				10.0		97.11	0.60	1.01		1.04	0.31			9.5		97.25	0.38	0.63		0.67		0.13	6.7		10.0		97.09	0.40	0.22		0.31		0.06	
				10.5		97.06	0.65	1.02		1.05	0.34			10.0		97.19	0.44	0.89		0.94		0.21	7.6		10.5		97.07	0.42	0.22		0.31		0.07	
				11.0		96.91	0.80	0.56		0.58	0.23			10.5		97.08	0.55	0.74		0.78		0.22	7.4		11.0		96.92	0.57	0.43		0.50		0.14	
				11.5		97.01	0.70	0.30		0.34	0.12			11.0		96.97	0.66	0.51		0.56		0.18	4.7		11.5		97.02	0.47	0.36		0.44		0.10	
				12.0		97.11	0.60	0.26		0.30	0.09			11.5		97.03	0.60	0.32		0.39		0.12	4.7		12.0		97.09	0.40	0.28		0.37		0.07	
				12.5		97.21	0.50	0.32		0.35	0.09			12.0		97.13	0.50	0.18		0.26		0.07	4.2		12.5		97.17	0.32	0.21		0.30		0.05	
				13.0		97.36	0.35	0.28		0.32	0.06			12.5		97.32	0.31	0.08		0.21		0.03	4.2	*	13.0		97.34	0.15	0.05		0.05		0.00	
			*	13.5		97.41	0.30	0.20		0.20	0.05		*	13.0		97.36	0.27	0.07		0.07		0.01	1.4	*	13.5		97.44	0.05	0.03		0.03		0.00	
			*	14.5		97.61	0.10	0.10		0.10	0.01		*	13.5		97.43	0.20	0.05		0.05		0.01	2.1	LWE	14.1		97.49	0.00	0.00		0.00		0.00	
			LWE	15.2		97.71	0.00	0.00		0.00	0.00			14.5		97.58	0.05	0.00		0.01		0.00	2.1											
			LWP										LWE	14.8	7.39	97.64	0.00	0.00		0.00		0.00	2.1											
														16.0	6.69	98.34							1.1										
													LWP	21.1	5.84	99.19							1.1										

* = Estimated Vel



* = Estimated Vel

* = Estimated Vel

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       Sprague  River SP_8 06/25/04
Riffle                       Mid                                    TRANSECT 1
IOC       11000001000010001010000
QARD   0.4
QARD  0.72
QARD   1.0
QARD   1.2
QARD   1.4
QARD   1.6
QARD   1.8
QARD  2.06
QARD   2.2
QARD   2.5
QARD   2.8
QARD   3.0
QARD   3.2
QARD   3.4
QARD  3.70
QARD   4.0
QARD   4.3
QARD   4.6
QARD   4.9
QARD   5.2
QARD   5.5
QARD   5.8
QARD   6.1
QARD   6.4
QARD   6.7
QARD   7.1
QARD   7.6
QARD   8.2
QARD   9.0
QARD  10.0
XSEC   0.0      0.00 1.0     95.86   0.04547
       0.0  1.0 98.9  2.0 99.0  3.5 96.7  5.0 96.0  5.5 95.8  6.0 95.8
       0.0  6.5 95.8  7.0 95.9  7.5 95.7  8.0 95.7  8.5 95.7  9.0 95.7
       0.0  9.5 95.7 10.0 95.7 10.5 95.8 11.0 95.7 11.5 96.0 12.0 96.3
       0.0 12.3 95.9 13.0 95.8 13.5 95.8 14.0 96.0 14.5 96.3 15.4 96.5
       0.0 15.7 95.9 16.2 95.9 16.7 96.0 17.0 96.2 19.5 97.0 23.0 98.3
       0.0 26.0 99.2
NS     0.0       1.1       1.1       1.1       1.1  0.6  2.1 0.6   5.2
NS     0.0 0.3   6.5  .04  5.6       6.5       6.5       6.5       6.5
NS     0.0       6.5  .2   6.5 .2    5.6       5.6       7.4       7.4
NS     0.0       7.4       7.5       7.5       6.7       6.7       6.7
NS     0.0       7.2       2.7       2.1       1.7       1.7       1.7
NS     0.0       1.7
WSL    0.0     95.89     95.94     95.96     95.97     95.99     96.00
WSL    0.0     96.01     96.02     96.03     96.04     96.05     96.06
WSL    0.0     96.06     96.07     96.08     96.09     96.10     96.11
WSL    0.0     96.12     96.12     96.13     96.14     96.15     96.15
WSL    0.0     96.16     96.17     96.18     96.19     96.21     96.23
CAL1   0.0     96.02      2.06
VEL1   0.0                0.00 0.01 0.01 0.23 2.53 2.59 2.27 1.62 2.40
VEL1   0.0 2.28 0.36 0.36 1.19 0.00      0.23 0.80 0.39 0.00
VEL1   0.0      0.01 0.00
CAL2   0.0     96.18      3.70
VEL2   0.0
VEL2   0.0
VEL2   0.0
CAL3   0.0     95.98      0.72
VEL3   0.0
VEL3   0.0
VEL3   0.0
ENDJ
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       Sprague  River SP_8 05/12/04
Riffle                        HGH                                    TRANSECT 2
IOC       11011000000001000101000
QARD   0.4
QARD  0.72
QARD   1.0
QARD   1.2
QARD   1.4
QARD   1.6
QARD   1.8
QARD  2.06
QARD   2.2
QARD   2.5
QARD   2.8
QARD   3.0
QARD   3.2
QARD   3.4
QARD  3.70
QARD   4.0
QARD   4.3
QARD   4.6
QARD   4.9
QARD   5.2
QARD   5.5
QARD   5.8
QARD   6.1
QARD   6.4
QARD   6.7
QARD   7.1
QARD   7.6
QARD   8.2
QARD   9.0
QARD  10.0
XSEC   0.0      0.00 1.0     96.08   0.04547
       0.0  1.0 98.9  4.0 97.6  5.4 96.7  6.0 96.7  6.6 96.7  8.6 97.6
       0.0  9.6 96.7 10.0 96.6 10.5 96.5 11.0 96.3 11.5 96.2 12.0 96.3
       0.0 12.5 96.7 13.0 96.2 13.5 96.3 14.0 96.2 14.5 96.2 15.0 96.2
       0.0 15.5 96.2 16.0 96.3 16.5 96.2 17.0 96.1 17.5 96.2 18.0 96.3
       0.0 18.5 96.3 19.0 96.6 19.6 96.7 20.0 96.9 21.5 98.5 24.3 99.7
NS     0.0       1.1       1.2       2.1       2.1       2.1       7.1
NS     0.0       1.2       1.2       1.2       1.4       4.7       7.4
NS     0.0       7.4       7.4       7.4       4.7 1.0   5.7 0.8   5.7
NS     0.0       6.5       6.5       6.5       5.7       5.7 0.35  6.7
NS     0.0       6.7 .4    6.2       7.2       7.2       1.1       1.7
CAL1   0.0     96.73      3.70
VEL1   0.0           0.00 0.01 0.00      0.00 0.25 0.25 0.78 0.80 0.37
VEL1   0.0 0.39 0.16 0.34 0.32 0.06 0.16 0.97 2.53 2.43 1.57 0.81 0.09
VEL1   0.0 0.56 0.10 0.00
CAL2   0.0     96.62      2.06
VEL2   0.0
VEL2   0.0
VEL2   0.0
CAL3   0.0     96.47      0.72
VEL3   0.0
VEL3   0.0
VEL3   0.0
ENDJ
```

```
       Sprague  River SP_8 05/12/04
Riffle                      HGH                                    TRANSECT 3
IOC       11011000000001000101000
QARD   0.4
QARD  0.72
QARD   1.0
QARD   1.2
QARD   1.4
QARD   1.6
QARD   1.8
QARD  2.06
QARD   2.2
QARD   2.5
QARD   2.8
QARD   3.0
QARD   3.2
QARD   3.4
QARD  3.70
QARD   4.0
QARD   4.3
QARD   4.6
QARD   4.9
QARD   5.2
QARD   5.5
QARD   5.8
QARD   6.1
QARD   6.4
QARD   6.7
QARD   7.1
QARD   7.6
QARD   8.2
QARD   9.0
QARD  10.0
XSEC   0.0      0.00 1.0     96.91   0.04547
       0.0  1.0 97.9  2.5 98.2  2.6 97.7  3.0 97.4  3.5 97.2  4.0 97.2
       0.0  4.5 97.3  5.0 97.4  5.5 97.3  6.0 97.4  6.5 97.4  7.0 97.5
       0.0  7.5 97.4  8.0 97.4  8.5 97.4  9.0 97.4  9.5 97.2 10.0 97.1
       0.0 10.5 97.1 11.0 96.9 11.5 97.0 12.0 97.1 12.5 97.2 13.0 97.4
       0.0 13.5 97.4 14.5 97.6 15.2 97.7 16.0 98.3 21.1 99.2
NS     0.0       1.1       1.1       1.1       6.2       5.6       6.5
NS     0.0       6.5 0.6   6.4 0.3   6.4       5.6       5.6       6.5
NS     0.0       6.5       6.7       6.7       6.7       6.7       7.6
NS     0.0       7.4       4.7       4.7       4.2       4.2       1.4
NS     0.0       2.1       2.1       2.1       1.1       1.1
CAL1   0.0     97.71      3.70
VEL1   0.0           0.00 0.46 2.06 1.47 1.94 0.16 0.31 0.78 0.34 1.26
VEL1   0.0 0.84 1.08 1.66 0.88 0.75 1.04 1.05 0.58 0.34 0.30 0.35 0.32
VEL1   0.0 0.20 0.10 0.00
CAL2   0.0     97.63      2.06
VEL2   0.0
VEL2   0.0
VEL2   0.0
CAL3   0.0     97.49      0.72
VEL3   0.0
VEL3   0.0
VEL3   0.0
ENDJ
```

Stream: Trout Creek
Site: 648
Date: 5/12/2004
Habitat: Pool **Flow:** High

(1) Level Loop Survey (BM & HP)

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM-1	4.36	104.36		100.00
HP1			3.92	100.44
HP2			2.41	101.95
HP3			2.87	101.49
BM-2			2.20	102.16
TP	2.00	104.16		
HP3			2.67	101.49
HP2			2.21	101.95
HP1			3.72	100.44
BM			4.16	100.00

Comment: Turned on BM-2

(2) Water Surface Elevation (WSE) Survey

TR	River Station L/R bank (ft)	River Station Ave (ft)	HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
1-L	0	0	104.16	7.79	1.53	97.90	97.90	3.4
1-R	0			7.75	1.49	97.90		
2-L	13.4	13	104.16	6.88	0.64	97.92	97.91	3.8
2-R	13.4			6.65	0.39	97.90		
3-L	29.8	30	104.16	6.95	0.72	97.93	97.93	3.7
3-R	29.8			6.98	0.75	97.93		
							Ave Q=	3.7

Note: HC LWSE=97.89; RWSE=97.85
WSE slope = 0.101%

(3) Meter and propeller ID for Velocity Correction

Meter ID: 3602
Propeller ID: 3A

Date: 6/25/2004
Habitat: Pool **Flow:** Mid

(1) Level Loop Survey

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM-2	4.13	106.29		102.16
HP3			4.80	101.49
HP2			4.34	101.95
HP1			5.86	100.43
TP				
HP1	5.95	106.38		
HP2			4.43	101.95
HP3			4.89	101.49
BM-2			4.22	102.16

Comment:

(2) Water Surface Elevation (WSE) Survey

TR	River Station L/R bank (ft)	River Station Ave (ft)	HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
1-L	0	0	105.03	8.76	1.46	97.73	97.74	2.0
1-R	0			8.06	0.77	97.74		
2-L	13.4	13	106.38	8.66	0.00	97.72	97.73	1.7
2-R	13.4			8.75	0.10	97.73		
3-L	29.8	30	106.38	8.69	0.05	97.74	97.75	1.8
3-R	29.8			8.73	0.10	97.75		
							Ave Q=	1.8

Note: HC LWSE=97.71; RWSE=97.70; 49' u/s of TR3 FS=7.5, rod=.48; HI=TR3
WSE slope = 0.034%

(3) Meter and propeller ID for Velocity Correction

Meter ID: 5750
Propeller ID: 2A

Date: 8/18/2004
Habitat: Pool **Flow:** Low

(1) Level Loop Survey

BM/HP (ft)	BS (ft)	HI (ft)	FS (ft)	Elev (ft)
BM-1	4.69	104.69		100.00
HP1			4.25	100.44
HP2			2.74	101.95
HP3			3.20	101.49
BM-2			2.53	102.16
TP	2.70	104.86		
HP3			3.37	101.49
HP2			2.91	101.95
HP1			4.42	100.44
BM			4.86	100.00

Comment: Turned on BM-2

(2) Water Surface Elevation (WSE) Survey

TR	River Station L/R bank (ft)	River Station Ave (ft)	HI (ft)	FS (ft)	Rod (ft)	WSE (ft)	Ave WSE (ft)	Q (cfs)
1-L	0	0	104.86	7.36	0.00	97.50	97.51	0.53
1-R	0			7.35	0.00	97.51		
2-L	13.4	13	104.86	7.35	0.00	97.51	97.51	0.85
2-R	13.4			7.35	0.00	97.51		
3-L	29.8	30	104.86	7.35	0.00	97.51	97.51	0.57
3-R	29.8			7.35	0.00	97.51		
							Ave Q=	0.65

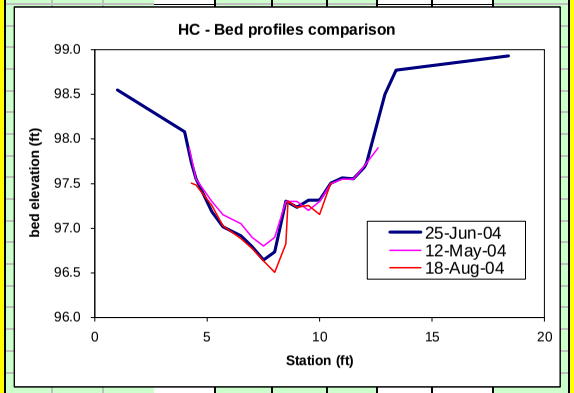
Note: HC LWSE FS=7.36, RWSE FS=7.36. 75' u/s TR3 FS=10.38, rod=
WSE slope = 0.017%

(3) Meter and propeller ID for Velocity Correction

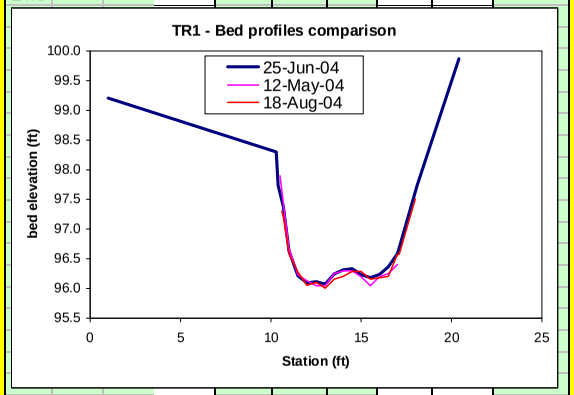
Meter ID: 4099
Propeller ID: 1b

1

Stream:	Trout Creek		12-May-04									25-Jun-04									18-Aug-04									
Site:	648			Sta	FS	Ground	Depth	Vel (ft/s)			q			Sta	FS	Ground	Depth	Vel (ft/s)			q			Sta	FS	Ground	Depth	Vel (ft/s)			q	
Transect:	HC			(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate
Habitat:	Pool		RWP										RWP	1.0	6.48	98.55															
			RWE	4.2		97.90	0.00							4.0	6.95	98.08															
Survey	HI	Q		4.5		97.55	0.35							4.3		97.74	0.00						RWE	4.3		97.51	0.00					
Date	(ft)	(cfs)		5.2		97.30	0.60						RWE	4.5		97.56	0.18							4.5		97.49	0.02					
5/12/2004	104.16			5.7		97.15	0.75							5.2		97.19	0.55							5.2		97.26	0.25					
6/25/2004	105.03			6.5		97.05	0.85							5.7		97.02	0.72							5.7		97.03	0.48					
8/18/2004	104.86			7.0		96.90	1.00							6.5		96.92	0.82							6.5		96.89	0.62					
				7.5		96.80	1.10							7.0		96.80	0.94							7.0		96.78	0.73					
				8.0		96.90	1.00							7.5		96.65	1.09							7.5		96.64	0.87					
				8.5		97.30	0.60							8.0		96.74	1.00							8.0		96.51	1.00					
				9.0		97.30	0.60							8.5		97.31	0.43							8.5		96.83	0.68					
				9.5		97.20	0.70							9.0		97.24	0.50							8.6		97.31	0.20					
				10.0		97.30	0.60							9.5		97.32	0.42							9.0		97.24	0.27					
				10.5		97.50	0.40							10.0		97.32	0.42							9.5		97.26	0.25					
				11.0		97.55	0.35							10.5		97.51	0.23							10.0		97.16	0.35					
				11.5		97.55	0.35							11.0		97.57	0.17						LWE	10.5		97.51	0.00					
				12.0		97.70	0.20							11.5		97.56	0.18															
			LWE	12.6		97.90	0.00							12.0		97.69	0.05															
			LWP										LWE	12.1		97.74	0.00															
														12.9	6.53	98.50																
														13.4	6.26	98.77																
														18.4	6.10	98.93																



Stream:	Trout Creek		12-May-04									25-Jun-04									18-Aug-04									
Site:	648			Sta	FS	Ground	Depth	Vel (ft/s)			q			Sta	FS	Ground	Depth	Vel (ft/s)			q			Sta	FS	Ground	Depth	Vel (ft/s)			q	
Transect:	1			(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate
Habitat:	Pool		RWP										RWP	1.0	5.82	99.21						1.1									
			RWE	10.5		97.90	0.00	0.00		0.00	0.00	2.1			10.3	6.73	98.30						1.2									
Survey	HI	Q		11.0		96.68	1.22	0.05		0.15	0.09	2.1	RWE	10.4		97.74	0.00	0.00		0.00	0.00	2.1	RWE	10.6		97.31	0.20	0.00		0.00	0.00	
Date	(ft)	(cfs)		11.5		96.23	1.67	0.05		0.15	0.12	2.3			10.7		97.38	0.36	0.00		0.01	0.00	2.1	*	10.7		97.21	0.30	-0.01		-0.01	0.00	
5/12/2004	104.16	3.4		12.0		96.13	1.77	0.06		0.17	0.15	2.3			11.0		96.64	1.10	0.00		0.01	0.00	2.1	*	11.0		96.59	0.92	-0.01		-0.01	0.00	
6/25/2004	105.03	2.0		12.5		96.05	1.85	0.04		0.12	0.11	2.3	*	11.5		96.22	1.52	0.05		0.05	0.04	2.3	*	11.5		96.28	1.23	0.01		0.01	0.01	
8/18/2004	104.86	0.5		13.0		96.05	1.85	0.08		0.14	0.13	2.3	*	12.0		96.10	1.64	0.05		0.05	0.04	2.3	*	12.0		96.06	1.45	0.08		0.08	0.06	
				13.5		96.25	1.65	0.45		0.47	0.39	2.3	*	12.5		96.12	1.62	0.05		0.05	0.04	2.3	*	12.5		96.11	1.40	0.08		0.08	0.06	
				14.0		96.30	1.60	0.73		0.75	0.60	2.3			13.0		96.08	1.66	0.01		0.03	0.02	2.3	*	13.0		96.01	1.50	0.08		0.08	0.06	
				14.5		96.30	1.60	0.66		0.68	0.55	2.3			13.5		96.25	1.49	0.30		0.37	0.28	2.3	*	13.5		96.16	1.35	0.08		0.08	0.05	
				15.0		96.20	1.70	0.42		0.45	0.38	2.3			14.0		96.32	1.42	0.43		0.49	0.35	2.3	*	14.0		96.21	1.30	0.08		0.08	0.05	
				15.5		96.05	1.85	0.50		0.52	0.48	2.3			14.5		96.34	1.40	0.43		0.49	0.34	2.3	*	14.5		96.29	1.22	0.10		0.10	0.06	
				16.0		96.20	1.70	0.23		0.28	0.24	2.3			15.0		96.24	1.50	0.40		0.46	0.35	2.3	*	15.0		96.29	1.22	0.10		0.10	0.06	
				16.5		96.25	1.65	0.17		0.22	0.18	2.3			15.5		96.19	1.55	0.29		0.36	0.28	2.3	*	15.5		96.16	1.35	0.07		0.07	0.07	
			LWE	17.0		96.40	1.50	0.00		0.00	0.00	2.3			16.0		96.24	1.50	0.19		0.27	0.20	2.3	*	16.5		96.21	1.30	0.03		0.03	0.03	
			LWP												16.5		96.37	1.37	0.05		0.13	0.09	2.3	*	17.0		96.58	0.93	0.03		0.03	0.01	
															17.0		96.59	1.15	0.00		0.01	0.00	2.3	LBE	17.1		96.58	0.93	0.03		0.03	0.01	
													LBE	17.1		96.69	1.05	0.00		0.01	0.01	2.3	LWE	18.0		97.51	0.00	0.00		0.00	0.00	
													LWE	18.1		97.74	0.00	0.00		0.00	0.00	2.3									
													LWP	20.4	5.16	99.87						1.1									



* = Estimated Vel.

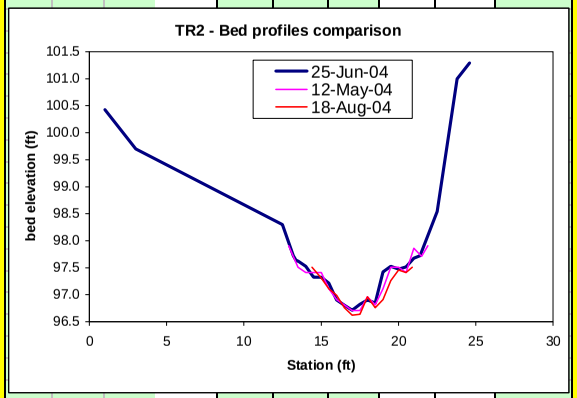
Bank Undercut
* = Estimated Vel.

Stream:	Trout Creek		12-May-04									25-Jun-04									18-Aug-04								
Site:	648			Sta	FS	Ground	Depth	Vel (ft/s)			q			Sta	FS	Ground	Depth	Vel (ft/s)			q			Sta	FS	Ground	Depth	Vel (ft/s)			q	
Transect:	2			(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate
Habitat:	Pool		RWP									RWP	1.0	5.95	100.43						1.1										
			RWE	12.9		97.91	0.00	0.00		0.00	0.00			3.0	6.68	99.70						1.1										
Survey	HI	Q	*	13.5		97.51	0.40	0.10		0.10	0.02			12.5	8.08	98.30						1.1										
Date	(ft)	(cfs)	*	14.0		97.41	0.50	0.10		0.10	0.03		RWE	13.2		97.73	0.00	0.00		0.00	0.00	1.2										
5/12/2004	104.16	3.8	*	14.5		97.41	0.50	0.15		0.15	0.04			13.4		97.63	0.10	0.00		0.01	0.00	1.2										
6/25/2004	106.38	1.7	*	15.0		97.41	0.50	0.20		0.20	0.05			13.5		97.63	0.10	0.00		0.01	0.00	1.2										
8/18/2004	104.86	0.9	*	15.5		97.11	0.80	0.20		0.20	0.08		*	14.0		97.53	0.20	0.05		0.05	0.01	1.2										
				16.0		96.91	1.00	0.84		0.86	0.43		*	14.5		97.33	0.40	0.05		0.05	0.01	1.2	RWE	14.4		97.51	0.00	0.00		0.00	0.00	
				16.5		96.81	1.10	1.08		1.11	0.61		*	15.0		97.33	0.40	0.05		0.05	0.01	1.2		15.0		97.31	0.20	0.00		0.01	0.00	
				17.0		96.71	1.20	1.22		1.25	0.75		*	15.5		97.22	0.51	0.05		0.05	0.01	1.2	*	15.5		97.11	0.40	-0.01		-0.01	0.00	
				17.5		96.71	1.20	1.2		1.23	0.74		*	16.0		96.91	0.82	0.10		0.10	0.04	2.5	*	16.0		96.99	0.52	0.01		0.01	0.00	
				18.0		96.96	0.95	0.89		0.92	0.43			16.5		96.81	0.92	0.56		0.60	0.28	3.5		16.5		96.76	0.75	0.90		0.93	0.35	
				18.5		96.81	1.10	0.65		0.67	0.37			17.0		96.72	1.01	0.90		0.95	0.48	4.3		17.0		96.62	0.89	0.49		0.51	0.23	
				19.0		97.11	0.80	0.00		0.01	0.00			17.5		96.83	0.90	0.97		1.02	0.46	7.4		17.5		96.64	0.87	0.49		0.51	0.22	
				19.5		97.51	0.40	0.39		0.42	0.08			18.0		96.91	0.82	0.28		0.35	0.14	7.4		18.0		96.96	0.55	0.12		0.17	0.05	
				20.0		97.51	0.40	0.69		0.71	0.14			18.5		96.85	0.88	0.36		0.43	0.19	7.3		18.5		96.76	0.75	0.00		0.00	0.00	
				20.5		97.41	0.50	0.07		0.16	0.04			19.0		97.43	0.30	0.02		0.05	0.01	7.2	*	19.0		96.91	0.60	0.01		0.01	0.00	
				21.0		97.86	0.05	0.05		0.15	0.00			19.5		97.53	0.20	0.25		0.32	0.03	7.2	*	19.5		97.26	0.25	0.01		0.01	0.00	
				21.5		97.71	0.20	0.05		0.15	0.01		*	20.0		97.48	0.25	0.05		0.05	0.01	7.2		20.0		97.46	0.05	0.00		0.01	0.00	
			LWE	21.9		97.91	0.00	0.00		0.00	0.00			20.5		97.52	0.21	0.39		0.45	0.05	2.7		20.5		97.41	0.10	0.00		0.01	0.00	
			LWP											21.0		97.68	0.05	0.00		0.01	0.00	2.7	LWE	20.9		97.51	0.00	0.00		0.00	0.00	
													LWE	21.4		97.73	0.00	0.00		0.00	0.00	2.6										
														22.5	7.84	98.54						6.2										
														23.8	5.38	101.00						1.1										
													LWP	24.6	5.09	101.29						1.1										

* = Estimated Vel

* = Estimated Vel.

* = Estimated Vel



Ex. 280-US-451
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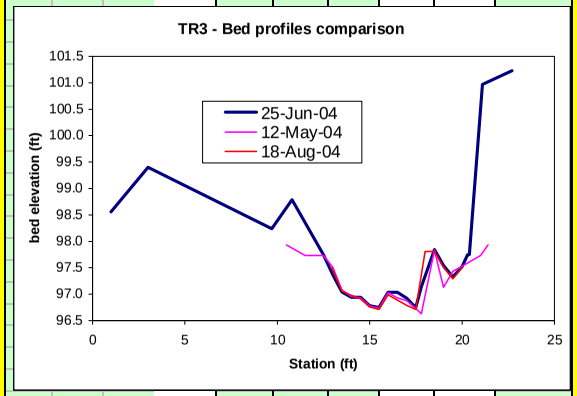
Stream:	Trout Creek		12-May-04										25-Jun-04										18-Aug-04									
Site:	648			Sta	FS	Ground	Depth	Vel (ft/s)			q			Sta	FS	Ground	Depth	Vel (ft/s)			q			Sta	FS	Ground	Depth	Vel (ft/s)			q	
Transect:	3			(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate		(ft)	(ft)	(ft)	(ft)	$V_{0.2/0.6}$	$V_{0.8}$	Ave	(cfs)	substrate
Habitat:	Pool		RWP										RWP	1.0	5.60	98.56						1.1										
			RWE	10.5		97.93	0.00	0.00		0.00	0.00			3.0	6.98	99.40						1.1										
Survey	HI	Q		11.5		97.73	0.20	0.00		0.01	0.00			9.7	8.14	98.24						1.1										
Date	(ft)	(cfs)		12.5		97.73	0.20	0.00		0.01	0.00			10.8	7.59	98.79						1.2										
5/12/2004	104.16	3.7	*	13.0		97.51	0.42	0.05		0.05	0.01		RWE	12.5		97.75	0.00	0.00		0.00	0.00	2.1	RWE	12.9		97.51	0.00	0.00		0.00	0.00	
6/25/2004	106.38	1.8		13.5		97.08	0.85	0.26		0.30	0.13			13.0		97.37	0.38	0.00		0.01	0.00	1.2		13.0		97.46	0.05	0.00		0.00	0.00	
8/18/2004	104.86	0.6		14.0		96.96	0.97	0.55		0.57	0.28			13.5		97.05	0.70	0.21		0.29	0.10	6.2	*	13.5		97.06	0.45	0.03		0.03	0.01	
				14.5		96.93	1.00	0.89		0.92	0.46			14.0		96.95	0.80	0.44		0.50	0.20	5.6	*	14.0		96.98	0.53	0.07		0.07	0.02	
				15.0		96.78	1.15	1.01		1.04	0.60			14.5		96.95	0.80	0.50		0.55	0.22	5.6		14.5		96.91	0.60	0.22		0.26	0.08	
				15.5		96.73	1.20	1.05		1.08	0.65			15.0		96.79	0.96	0.48		0.53	0.26	5.6		15.0		96.76	0.75	0.34		0.37	0.14	
				16.0		97.03	0.90	1.15		1.18	0.53			15.5		96.75	1.00	0.56		0.60	0.30	3.4		15.5		96.71	0.80	0.29		0.32	0.13	
				16.5		96.93	1.00	0.87		0.90	0.45			16.0		97.04	0.71	0.60		0.64	0.23	7.3		16.0		96.99	0.52	0.20		0.24	0.06	
				17.0		96.88	1.05	0.55		0.57	0.30			16.5		97.04	0.71	0.48		0.53	0.19	7.3		16.5		96.89	0.62	0.13		0.18	0.06	
				17.5		96.73	1.20	0.26		0.30	0.15			17.0		96.93	0.82	0.34		0.41	0.17	7.2		17.0		96.79	0.72	0.14		0.19	0.07	
				17.8		96.63	1.30	0.08		0.14	0.09			17.5		96.75	1.00	0.20		0.28	0.11	7.2	*	17.5		96.71	0.80	0.07		0.07	0.01	
				18.5		97.83	0.10	0.03		0.09	0.01			17.8		97.15	0.60	0.08		0.21	0.02	7.2		18.0		97.81	-0.30					
				19.0		97.13	0.80	0.08		0.14	0.06			18.5		97.85	-0.10					7.2		18.5		97.81	-0.30					
				19.5		97.43	0.50	-0.01		-0.03	-0.01			19.0		97.55	0.20	0.00		0.01	0.00	7.2	*	19.0		97.51	0.00	0.00		0.00	0.00	
				20.0		97.53	0.40	0.00		0.01	0.00			19.5		97.33	0.42	0.00		0.01	0.00	2.7	*	19.5		97.29	0.22	0.03		0.03	0.00	
			LWE	21.0		97.73	0.20	0.00		0.01	0.00			20.0		97.53	0.22	0.00		0.01	0.00	2.1	LWE	20.0		97.51	0.00	0.00		0.00	0.00	
			UCB	21.4		97.93	0.00	0.00		0.00	0.00		LWE	20.3		97.75	0.00	0.00		0.00	0.00	2.1										
			LWP											20.4	8.63	97.75						2.1										
														21.1	5.41	100.97						1.1										
													LWP	22.7	5.15	101.23						1.1										

* = Estimated Vel



* = Estimated Vel

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       Sprague  River SP_8 05/12/04
Pool                          HGH                                       TRANSECT 1
IOC       1101100000001000101000
QARD   0.4
QARD  0.72
QARD   1.0
QARD   1.2
QARD   1.4
QARD   1.6
QARD   1.8
QARD  2.06
QARD   2.2
QARD   2.5
QARD   2.8
QARD   3.0
QARD   3.2
QARD   3.4
QARD  3.70
QARD   4.0
QARD   4.3
QARD   4.6
QARD   4.9
QARD   5.2
QARD   5.5
QARD   5.8
QARD   6.1
QARD   6.4
QARD   6.7
QARD   7.1
QARD   7.6
QARD   8.2
QARD   9.0
QARD  10.0
XSEC   0.0      0.00 1.0     96.05   0.00101
       0.0  1.0 99.2 10.3 98.3 10.5 97.9 11.0 96.7 11.5 96.2 12.0 96.1
       0.0 12.5 96.1 13.0 96.1 13.5 96.2 14.0 96.3 14.5 96.3 15.0 96.2
       0.0 15.5 96.1 16.0 96.2 16.5 96.2 17.0 96.4 17.1 96.7 18.1 97.7
       0.0 20.4 99.9
NS     0.0       1.1       1.2       2.1       2.1 .38   2.3 .35   2.3
NS     0.0 .32   2.3 .3    2.3       2.3       2.3       2.3       2.3
NS     0.0       2.3       2.3       2.3       2.3       2.3       2.3
NS     0.0       1.1
CAL1   0.0     97.90      3.70
VEL1   0.0           0.00 0.15 0.15 0.17 0.12 0.14 0.47 0.75 0.68 0.45
VEL1   0.0 0.52 0.28 0.22 0.00
CAL2   0.0     97.74      2.06
VEL2   0.0
VEL2   0.0
CAL3   0.0     97.51      0.72
VEL3   0.0
VEL3   0.0
ENDJ
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       Sprague  River SP_8 05/12/04
Pool                          HGH                                     TRANSECT 2
IOC       11000001000010001010000
QARD   0.4
QARD  0.72
QARD   1.0
QARD   1.2
QARD   1.4
QARD   1.6
QARD   1.8
QARD  2.06
QARD   2.2
QARD   2.5
QARD   2.8
QARD   3.0
QARD   3.2
QARD   3.4
QARD  3.70
QARD   4.0
QARD   4.3
QARD   4.6
QARD   4.9
QARD   5.2
QARD   5.5
QARD   5.8
QARD   6.1
QARD   6.4
QARD   6.7
QARD   7.1
QARD   7.6
QARD   8.2
QARD   9.0
QARD  10.0
XSEC   0.0      0.00 1.0     96.71   0.00101
       0.0  1.0100.4  3.0 99.7 12.5 98.3 12.9 97.9 13.5 97.5 14.0 97.4
       0.0 14.5 97.4 15.0 97.4 15.5 97.1 16.0 96.9 16.5 96.8 17.0 96.7
       0.0 17.5 96.7 18.0 97.0 18.5 96.8 19.0 97.1 19.5 97.5 20.0 97.5
       0.0 20.5 97.4 21.0 97.9 21.5 97.7 21.9 97.9 22.5 98.5 23.8101.0
       0.0 24.6101.3
NS     0.0       1.1       1.1       1.1       1.1       1.2       1.2
NS     0.0       1.2       1.2 0.1   1.2       2.5       3.5       4.3
NS     0.0       7.4       7.4       7.3 .15   7.2       7.2 .040  7.2
NS     0.0 0.12  2.7 0.02  2.7       2.6       2.6       6.2       1.1
NS     0.0       1.1
WSL    0.0     97.39     97.51     97.58     97.62     97.66     97.70
WSL    0.0     97.72     97.76     97.77     97.80     97.83     97.85
WSL    0.0     97.87     97.88     97.91     97.93     97.95     97.96
WSL    0.0     97.98     98.00     98.02     98.04     98.05     98.07
WSL    0.0     98.08     98.10     98.12     98.14     98.18     98.21
CAL1   0.0     97.91       3.70
VEL1   0.0                0.00 0.10 0.10 0.15 0.20 0.20 0.86 1.11 1.25
VEL1   0.0 1.23 0.92 0.67 0.01 0.42 0.71 0.16 0.15 0.15 0.00
VEL1   0.0
CAL2   0.0     97.73       2.06
VEL2   0.0
VEL2   0.0
VEL2   0.0
CAL3   0.0     97.51       0.72
VEL3   0.0
VEL3   0.0
VEL3   0.0
ENDJ
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       Sprague  River SY_5 05/12/04
Pool                         HGH                                        TRANSECT 3
IOC       11000001000010001010000
QARD   0.4
QARD  0.72
QARD   1.0
QARD   1.2
QARD   1.4
QARD   1.6
QARD   1.8
QARD  2.06
QARD   2.2
QARD   2.5
QARD   2.8
QARD   3.0
QARD   3.2
QARD   3.4
QARD  3.70
QARD   4.0
QARD   4.3
QARD   4.6
QARD   4.9
QARD   5.2
QARD   5.5
QARD   5.8
QARD   6.1
QARD   6.4
QARD   6.7
QARD   7.1
QARD   7.6
QARD   8.2
QARD   9.0
QARD  10.0
XSEC   0.0      0.00 1.0     96.71   0.00101
       0.0  1.0 98.6  3.0 99.4  9.7 98.2 10.5 97.9 11.5 97.7 12.5 97.7
       0.0 13.0 97.5 13.5 97.1 14.0 97.0 14.5 96.9 15.0 96.8 15.5 96.7
       0.0 16.0 97.0 16.5 96.9 17.0 96.9 17.5 96.7 17.8 96.6 18.5 97.8
       0.0 19.0 97.1 19.5 97.4 20.0 97.5 21.0 97.7 21.4 97.9 22.7101.2
NS     0.0       1.1       1.1       1.1       1.2 0.3   1.2 0.25  2.1
NS     0.0  0.25 1.2       6.2       5.6       5.6       5.6       3.4
NS     0.0       7.3       7.3       7.2       7.2 0.2   7.2       7.2
NS     0.0       7.2       2.7       2.1       1.1       1.1       1.1
WSL    0.0     97.40     97.52     97.59     97.63     97.67     97.71
WSL    0.0     97.73     97.77     97.78     97.81     97.85     97.87
WSL    0.0     97.89     97.90     97.93     97.95     97.97     97.99
WSL    0.0     98.01     98.03     98.04     98.06     98.08     98.10
WSL    0.0     98.11     98.13     98.16     98.18     98.22     98.25
CAL1   0.0     97.93      3.70
VEL1   0.0                0.00 0.01 0.01 0.05 0.30 0.57 0.92 1.04 1.08
VEL1   0.0 1.18 0.90 0.57 0.30 0.14 0.09 0.14-0.03 0.01 0.01 0.00
CAL2   0.0     97.75      2.06
VEL2   0.0
VEL2   0.0
CAL3   0.0     97.51      0.72
VEL3   0.0
VEL3   0.0
ENDJ
```