

Oggetto:

COMUNE DI VERNIO

Provincia di PRATO

STUDIO IDROLOGICO-IDRAULICO DEL RETICOLO FLUVIALE
DI SUPPORTO AL PIANO STRUTTURALE DEL COMUNE DI VERNIO

Tavola:

ALL4

Disegno:

ALLEGATO 4

-TABELLE OUTPUT
MODELLO IDRAULICO / SEZIONI-

Scala:

Data:

SETTEMBRE 2010

Progettista:

A4 INGEGNERIA
STUDIO TECNICO ASSOCIATO
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Collaboratore:

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Committenza:



COMUNE DI VERNIO

Sede: PIAZZA DEL COMUNE, 20
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data	collaboratore	oggetto della modifica

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FOSSO DEL FONDATAIO

HEC-RAS River: Fondataio Reach: Subbio

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Subbio	200	TR20	D_1_5h	23.04	727.34	728.61	728.83	729.32	0.025018	3.98	6.97	14.31	1.31
Subbio	200	TR20	D_2h	21.71	727.34	728.59	728.80	729.29	0.025015	3.93	6.61	14.02	1.31
Subbio	200	TR20	D_3h	18.10	727.34	728.51	728.74	729.18	0.025023	3.76	5.59	13.15	1.30
Subbio	200	TR30	D_1_5h	25.59	727.34	728.66	728.90	729.38	0.025022	4.07	7.64	14.84	1.32
Subbio	200	TR30	D_2h	23.82	727.34	728.63	728.86	729.34	0.025020	4.01	7.18	14.47	1.31
Subbio	200	TR30	D_3h	19.70	727.34	728.55	728.77	729.23	0.025022	3.84	6.06	13.55	1.30
Subbio	200	TR100	D_1_5h	34.17	727.34	728.79	729.06	729.57	0.025043	4.34	9.72	16.38	1.34
Subbio	200	TR100	D_2h	31.06	727.34	728.75	729.01	729.51	0.025037	4.25	8.98	15.86	1.33
Subbio	200	TR100	D_3h	25.33	727.34	728.65	728.89	729.38	0.025019	4.06	7.57	14.79	1.32
Subbio	200	TR200	D_1_5h	40.00	727.34	728.87	729.16	729.70	0.025033	4.53	11.02	18.76	1.35
Subbio	200	TR200	D_2h	36.05	727.34	728.82	729.09	729.61	0.025032	4.40	10.14	17.02	1.34
Subbio	200	TR200	D_3h	29.26	727.34	728.72	728.97	729.47	0.025034	4.19	8.55	15.53	1.33
Subbio	200	TR500	D_1_5h	48.98	727.34	728.96	729.29	729.87	0.025040	4.79	13.06	22.31	1.37
Subbio	200	TR500	D_2h	43.81	727.34	728.91	729.22	729.77	0.025034	4.64	11.88	20.34	1.36
Subbio	200	TR500	D_3h	35.41	727.34	728.81	729.08	729.60	0.025030	4.37	10.00	16.72	1.34
Subbio	190	TR20	D_1_5h	23.04	719.89	720.79	721.18	722.01	0.051669	4.88	4.72	6.69	1.86
Subbio	190	TR20	D_2h	21.71	719.89	720.76	721.13	721.94	0.052228	4.81	4.51	6.59	1.86
Subbio	190	TR20	D_3h	18.10	719.89	720.67	721.01	721.75	0.053838	4.61	3.93	6.31	1.86
Subbio	190	TR30	D_1_5h	25.59	719.89	720.85	721.25	722.13	0.050630	5.00	5.12	6.88	1.85
Subbio	190	TR30	D_2h	23.82	719.89	720.81	721.20	722.04	0.051331	4.92	4.84	6.75	1.85
Subbio	190	TR30	D_3h	19.70	719.89	720.71	721.07	721.84	0.053106	4.70	4.19	6.44	1.86
Subbio	190	TR100	D_1_5h	34.17	719.89	721.03	721.48	722.48	0.047700	5.32	6.42	7.44	1.83
Subbio	190	TR100	D_2h	31.06	719.89	720.97	721.39	722.36	0.048686	5.22	5.95	7.25	1.84
Subbio	190	TR100	D_3h	25.33	719.89	720.85	721.24	722.11	0.050746	4.99	5.08	6.86	1.85
Subbio	190	TR200	D_1_5h	40.00	719.89	721.15	721.62	722.69	0.046261	5.51	7.27	7.79	1.82
Subbio	190	TR200	D_2h	36.05	719.89	721.07	721.53	722.55	0.047209	5.38	6.69	7.56	1.83
Subbio	190	TR200	D_3h	29.26	719.89	720.93	721.35	722.28	0.049288	5.15	5.68	7.13	1.84
Subbio	190	TR500	D_1_5h	48.98	719.89	721.30	721.85	723.00	0.043987	5.78	8.48	8.03	1.79
Subbio	190	TR500	D_2h	43.81	719.89	721.21	721.72	722.82	0.045272	5.63	7.78	7.90	1.81
Subbio	190	TR500	D_3h	35.41	719.89	721.06	721.51	722.52	0.047379	5.36	6.60	7.52	1.83
Subbio	180	TR20	D_1_5h	23.04	716.77	719.94	718.46	719.94	0.000037	0.25	118.07	118.77	0.06
Subbio	180	TR20	D_2h	21.71	716.77	719.80	718.43	719.80	0.000047	0.26	102.04	104.71	0.06
Subbio	180	TR20	D_3h	18.10	716.77	719.35	718.20	719.35	0.000116	0.34	63.40	75.06	0.10
Subbio	180	TR30	D_1_5h	25.59	716.77	719.95	718.50	719.95	0.000045	0.27	118.92	119.46	0.06
Subbio	180	TR30	D_2h	23.82	716.77	720.02	718.47	720.02	0.000032	0.24	127.91	125.20	0.05
Subbio	180	TR30	D_3h	19.70	716.77	719.54	718.39	719.55	0.000075	0.30	78.76	82.81	0.08
Subbio	180	TR100	D_1_5h	34.17	716.77	720.08	718.60	720.08	0.000058	0.32	135.06	126.59	0.07
Subbio	180	TR100	D_2h	31.06	716.77	720.03	718.56	720.03	0.000053	0.30	129.36	125.48	0.07
Subbio	180	TR100	D_3h	25.33	716.77	719.94	718.49	719.95	0.000044	0.27	118.48	119.10	0.06
Subbio	180	TR200	D_1_5h	40.00	716.77	720.10	718.65	720.11	0.000074	0.37	138.40	127.23	0.08
Subbio	180	TR200	D_2h	36.05	716.77	720.10	718.62	720.11	0.000060	0.33	138.52	127.25	0.07
Subbio	180	TR200	D_3h	29.26	716.77	720.00	718.54	720.01	0.000051	0.29	125.85	124.79	0.07
Subbio	180	TR500	D_1_5h	48.98	716.77	720.23	718.73	720.23	0.000084	0.41	154.30	130.25	0.09
Subbio	180	TR500	D_2h	43.81	716.77	720.16	718.69	720.16	0.000079	0.39	145.22	128.53	0.09
Subbio	180	TR500	D_3h	35.41	716.77	720.10	718.61	720.10	0.000059	0.33	137.47	127.05	0.07
Subbio	170			Bridge									
Subbio	160	TR20	D_1_5h	23.04	716.41	717.54	717.54	717.70	0.010741	2.31	14.85	41.47	0.71
Subbio	160	TR20	D_2h	21.71	716.41	717.53	717.53	717.68	0.010418	2.26	14.36	40.96	0.70
Subbio	160	TR20	D_3h	18.10	716.41	717.49	717.49	717.63	0.009827	2.15	12.76	39.24	0.68
Subbio	160	TR30	D_1_5h	25.59	716.41	717.57	717.57	717.73	0.010964	2.36	15.97	42.62	0.72
Subbio	160	TR30	D_2h	23.82	716.41	717.54	717.54	717.71	0.011375	2.38	14.91	41.53	0.73
Subbio	160	TR30	D_3h	19.70	716.41	717.51	717.51	717.65	0.010315	2.22	13.38	39.91	0.70
Subbio	160	TR100	D_1_5h	34.17	716.41	717.64	717.64	717.83	0.012299	2.58	19.01	45.60	0.76
Subbio	160	TR100	D_2h	31.06	716.41	717.62	717.62	717.79	0.011798	2.50	17.98	44.61	0.75
Subbio	160	TR100	D_3h	25.33	716.41	717.56	717.56	717.73	0.011180	2.38	15.72	42.37	0.73
Subbio	160	TR200	D_1_5h	40.00	716.41	717.69	717.69	717.89	0.012450	2.65	21.30	47.71	0.77
Subbio	160	TR200	D_2h	36.05	716.41	717.66	717.66	717.85	0.011910	2.56	20.03	46.55	0.75
Subbio	160	TR200	D_3h	29.26	716.41	717.60	717.60	717.77	0.011344	2.44	17.44	44.09	0.73
Subbio	160	TR500	D_1_5h	48.98	716.41	717.76	717.76	717.98	0.012630	2.75	24.63	50.64	0.78
Subbio	160	TR500	D_2h	43.81	716.41	717.72	717.72	717.93	0.012542	2.70	22.73	48.99	0.77
Subbio	160	TR500	D_3h	35.41	716.41	717.66	717.66	717.84	0.011831	2.55	19.81	46.35	0.75
Subbio	150	TR20	D_1_5h	29.06	712.08	713.58	713.91	714.35	0.023152	3.93	7.89	14.54	1.30
Subbio	150	TR20	D_2h	28.64	712.08	713.57	713.90	714.34	0.023390	3.93	7.73	13.96	1.31
Subbio	150	TR20	D_3h	24.48	712.08	713.45	713.81	714.22	0.025857	3.89	6.39	9.92	1.35
Subbio	150	TR30	D_1_5h	32.53	712.08	713.66	713.99	714.43	0.021935	3.97	9.16	18.61	1.28
Subbio	150	TR30	D_2h	31.49	712.08	713.65	713.96	714.39	0.021112	3.88	9.03	18.22	1.26
Subbio	150	TR30	D_3h	26.67	712.08	713.52	713.86	714.28	0.023892	3.88	7.14	11.91	1.31
Subbio	150	TR100	D_1_5h	44.18	712.08	713.85	714.13	714.57	0.018960	4.02	14.34	35.39	1.22
Subbio	150	TR100	D_2h	41.23	712.08	713.81	714.11	714.55	0.019501	4.01	12.98	31.52	1.23
Subbio	150	TR100	D_3h	34.34	712.08	713.70	714.04	714.45	0.020761	3.94	10.02	20.92	1.25
Subbio	150	TR200	D_1_5h	52.07	712.08	713.94	714.18	714.65	0.018589	4.11	17.69	45.09	1.21
Subbio	150	TR200	D_2h	47.99	712.08	713.89	714.15	714.62	0.019113	4.09	15.74	39.07	1.23
Subbio	150	TR200	D_3h	39.69	712.08	713.79	714.09	714.54	0.019978	4.01	12.21	29.11	1.24
Subbio	150	TR500	D_1_5h	64.19	712.08	714.04	714.25	714.73	0.018388	4.23	22.72	57.77	1.22
Subbio	150	TR500	D_2h	58.53	712.08	714.00	714.21	714.69	0.018323	4.16	20.49	52.52	1.21
Subbio	150	TR500	D_3h	48.06	712.08	713.89	714.15	714.62	0.019072	4.09	15.79	39.23	1.22
Subbio	140	TR20	D_1_5h	29.06	708.96	710.47	710.65	710.99	0.013221	3.35	11.28	38.67	0.99
Subbio	140	TR20	D_2h	28.64	708.96	710.46	710.64	710.99	0.013101	3.32	11.13	38.56	0.99
Subbio	140	TR20	D_3h	24.48	708.96	710.42	710.59	710.89	0.011964	3.09	9.42	34.57	0.94
Subbio	140	TR30	D_1_5h	32.53	708.96	710.50	710.69	711.06	0.013958	3.50	12.56	39.62	1.02
Subbio	140	TR30	D_2h	31.49	708.96	710.48	710.67	711.05	0.014231	3.51	11.93	39.16	1.03
Subbio	140	TR30	D_3h	26.67	708.96	710.44	710.62	710.95	0.012750	3.24	10.27	37.91	0.97

HEC-RAS River: Fondataio Reach: Subbio (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Subbio	140	TR100	D_1_5h	44.18	708.96	710.59	710.79	711.23	0.015935	3.93	16.27	42.25	1.11
Subbio	140	TR100	D_2h	41.23	708.96	710.57	710.77	711.19	0.015556	3.84	15.36	41.62	1.09
Subbio	140	TR100	D_3h	34.34	708.96	710.51	710.70	711.09	0.014587	3.61	13.04	39.97	1.05
Subbio	140	TR200	D_1_5h	52.07	708.96	710.65	710.86	711.30	0.016293	4.10	18.83	43.97	1.13
Subbio	140	TR200	D_2h	47.99	708.96	710.62	710.83	711.26	0.015936	4.00	17.63	43.17	1.11
Subbio	140	TR200	D_3h	39.69	708.96	710.56	710.75	711.17	0.015256	3.78	14.92	41.31	1.08
Subbio	140	TR500	D_1_5h	64.19	708.96	710.73	710.94	711.40	0.016424	4.28	22.60	46.38	1.14
Subbio	140	TR500	D_2h	58.53	708.96	710.70	710.90	711.36	0.016481	4.21	20.82	45.26	1.14
Subbio	140	TR500	D_3h	48.06	708.96	710.62	710.82	711.26	0.015951	4.00	17.65	43.18	1.11
Subbio	130	TR20	D_1_5h	29.79	705.19	706.78	706.85	707.51	0.017447	3.78	7.87	6.35	1.08
Subbio	130	TR20	D_2h	29.82	705.19	706.78	706.85	707.51	0.017444	3.78	7.88	6.35	1.08
Subbio	130	TR20	D_3h	26.02	705.19	706.61	706.72	707.35	0.019941	3.82	6.81	6.06	1.15
Subbio	130	TR30	D_1_5h	33.39	705.19	706.93	707.27	707.65	0.015645	3.76	8.89	7.63	1.03
Subbio	130	TR30	D_2h	32.87	705.19	706.92	707.26	707.63	0.015539	3.73	8.81	6.74	1.03
Subbio	130	TR30	D_3h	28.37	705.19	706.72	706.80	707.45	0.018153	3.79	7.49	6.25	1.10
Subbio	130	TR100	D_1_5h	45.53	705.19	707.23	707.51	707.92	0.013106	3.83	14.63	28.22	0.97
Subbio	130	TR100	D_2h	43.28	705.19	707.19	707.47	707.89	0.013348	3.82	13.57	26.41	0.97
Subbio	130	TR100	D_3h	36.59	705.19	707.05	707.34	707.76	0.014384	3.76	10.27	16.99	1.00
Subbio	130	TR200	D_1_5h	53.77	705.19	707.35	707.60	708.02	0.012719	3.91	18.15	33.49	0.96
Subbio	130	TR200	D_2h	50.47	705.19	707.30	707.57	707.98	0.012910	3.89	16.73	31.46	0.96
Subbio	130	TR200	D_3h	42.33	705.19	707.17	707.44	707.88	0.013510	3.82	13.08	25.55	0.98
Subbio	130	TR500	D_1_5h	66.43	705.19	707.48	707.69	708.14	0.012481	4.03	23.10	39.73	0.96
Subbio	130	TR500	D_2h	61.67	705.19	707.43	707.66	708.10	0.012499	3.98	21.33	37.62	0.95
Subbio	130	TR500	D_3h	51.28	705.19	707.31	707.58	707.99	0.012863	3.89	17.08	31.97	0.96
Subbio	120	TR20	D_1_5h	29.79	701.78	703.35	703.36	703.88	0.013737	3.23	9.21	8.93	1.02
Subbio	120	TR20	D_2h	29.82	701.78	703.35	703.36	703.89	0.013740	3.24	9.22	8.94	1.02
Subbio	120	TR20	D_3h	26.02	701.78	703.25	703.25	703.75	0.013681	3.11	8.36	8.59	1.01
Subbio	120	TR30	D_1_5h	33.39	701.78	703.39	703.69	704.01	0.015626	3.50	9.55	9.07	1.09
Subbio	120	TR30	D_2h	32.87	701.78	703.37	703.67	703.99	0.015711	3.49	9.42	9.02	1.09
Subbio	120	TR30	D_3h	28.37	701.78	703.32	703.32	703.83	0.013454	3.17	8.96	8.83	1.00
Subbio	120	TR100	D_1_5h	45.53	701.78	703.55	703.85	704.36	0.018292	4.03	12.50	27.40	1.19
Subbio	120	TR100	D_2h	43.28	701.78	703.52	703.83	704.31	0.018126	3.96	11.78	25.63	1.18
Subbio	120	TR100	D_3h	36.59	701.78	703.42	703.75	704.12	0.017259	3.72	9.85	10.30	1.15
Subbio	120	TR200	D_1_5h	53.77	701.78	703.64	703.93	704.49	0.018462	4.22	15.26	33.38	1.21
Subbio	120	TR200	D_2h	50.47	701.78	703.61	703.90	704.44	0.018343	4.14	14.19	31.19	1.20
Subbio	120	TR200	D_3h	42.33	701.78	703.51	703.82	704.29	0.018007	3.92	11.49	24.88	1.18
Subbio	120	TR500	D_1_5h	66.43	701.78	703.75	704.03	704.63	0.018597	4.44	19.33	39.40	1.23
Subbio	120	TR500	D_2h	61.67	701.78	703.71	704.00	704.59	0.018560	4.36	17.87	38.16	1.22
Subbio	120	TR500	D_3h	51.28	701.78	703.61	703.91	704.45	0.018368	4.16	14.46	31.75	1.20
Subbio	110	TR20	D_1_5h	30.51	699.38	700.67	700.65	700.87	0.014436	1.98	15.43	34.64	0.95
Subbio	110	TR20	D_2h	31.00	699.38	700.63	700.65	700.87	0.019493	2.20	14.08	33.68	1.09
Subbio	110	TR20	D_3h	27.56	699.38	700.63	700.61	700.82	0.014802	1.93	14.27	33.82	0.95
Subbio	110	TR30	D_1_5h	34.25	699.38	700.69	700.69	700.92	0.016149	2.13	16.07	35.09	1.01
Subbio	110	TR30	D_2h	34.24	699.38	700.69	700.69	700.92	0.016132	2.13	16.07	35.09	1.00
Subbio	110	TR30	D_3h	30.07	699.38	700.66	700.64	700.86	0.014251	1.96	15.34	34.58	0.94
Subbio	110	TR100	D_1_5h	46.89	699.38	700.80	700.80	701.07	0.015659	2.33	20.13	37.61	1.02
Subbio	110	TR100	D_2h	45.32	699.38	700.78	700.78	701.05	0.016110	2.32	19.52	37.39	1.03
Subbio	110	TR100	D_3h	38.85	699.38	700.73	700.73	700.98	0.015705	2.20	17.70	36.19	1.00
Subbio	110	TR200	D_1_5h	55.47	699.38	700.86	700.87	701.17	0.014903	2.45	22.63	38.02	1.01
Subbio	110	TR200	D_2h	52.96	699.38	700.84	700.85	701.14	0.015627	2.44	21.69	37.87	1.03
Subbio	110	TR200	D_3h	44.96	699.38	700.78	700.78	701.05	0.016092	2.32	19.41	37.33	1.02
Subbio	110	TR500	D_1_5h	68.68	699.38	700.95	700.96	701.31	0.014904	2.67	25.80	38.52	1.03
Subbio	110	TR500	D_2h	64.81	699.38	700.92	700.93	701.27	0.014883	2.61	24.91	38.38	1.02
Subbio	110	TR500	D_3h	54.51	699.38	700.86	700.86	701.16	0.014800	2.43	22.44	37.99	1.01
Subbio	100	TR20	D_1_5h	30.51	695.88	697.42	697.42	697.77	0.014276	2.62	11.64	16.52	1.00
Subbio	100	TR20	D_2h	31.00	695.88	697.43	697.43	697.78	0.014316	2.63	11.78	16.67	1.00
Subbio	100	TR20	D_3h	27.56	695.88	697.36	697.36	697.70	0.014166	2.58	10.70	15.48	0.99
Subbio	100	TR30	D_1_5h	34.25	695.88	697.47	697.47	697.66	0.009101	2.12	19.56	45.37	0.80
Subbio	100	TR30	D_2h	34.24	695.88	697.47	697.47	697.66	0.008983	2.11	19.67	45.45	0.79
Subbio	100	TR30	D_3h	30.07	695.88	697.40	697.40	697.76	0.014483	2.63	11.42	16.29	1.00
Subbio	100	TR100	D_1_5h	46.89	695.88	697.50	697.56	697.81	0.014692	2.72	20.84	46.34	1.02
Subbio	100	TR100	D_2h	45.32	695.88	697.49	697.56	697.79	0.014298	2.68	20.48	46.07	1.00
Subbio	100	TR100	D_3h	38.85	695.88	697.51	697.51	697.71	0.009498	2.20	21.36	46.74	0.82
Subbio	100	TR200	D_1_5h	55.47	695.88	697.55	697.62	697.89	0.015577	2.85	23.35	48.21	1.05
Subbio	100	TR200	D_2h	52.96	695.88	697.54	697.61	697.86	0.014877	2.78	22.91	47.89	1.03
Subbio	100	TR200	D_3h	44.96	695.88	697.49	697.56	697.79	0.014304	2.68	20.34	45.97	1.00
Subbio	100	TR500	D_1_5h	68.68	695.88	697.63	697.70	698.01	0.015823	3.05	27.00	50.27	1.08
Subbio	100	TR500	D_2h	64.81	695.88	697.60	697.68	697.97	0.015782	3.00	25.95	49.70	1.07
Subbio	100	TR500	D_3h	54.51	695.88	697.54	697.62	697.88	0.015676	2.86	22.96	47.93	1.06
Subbio	90	TR20	D_1_5h	30.51	695.31	696.66	696.66	696.82	0.008640	2.29	19.75	49.97	0.73
Subbio	90	TR20	D_2h	31.00	695.31	696.66	696.66	696.83	0.008643	2.30	19.98	50.03	0.73
Subbio	90	TR20	D_3h	27.56	695.31	696.64	696.64	696.79	0.008377	2.23	18.57	49.65	0.72
Subbio	90	TR30	D_1_5h	34.25	695.31	696.69	696.69	696.86	0.008899	2.37	21.22	50.36	0.75
Subbio	90	TR30	D_2h	34.24	695.31	696.69	696.69	696.86	0.008766	2.35	21.33	50.39	0.74
Subbio	90	TR30	D_3h	30.07	695.31	696.66	696.66	696.82	0.008500	2.27	19.66	49.94	0.73
Subbio	90	TR100	D_1_5h	46.89	695.31	696.78	696.77	696.98	0.009516	2.57	25.78	51.56	0.78
Subbio	90	TR100	D_2h	45.32	695.31	696.77	696.76	696.96	0.009477	2.55	25.22	51.42	0.78
Subbio	90	TR100	D_3h	38.85	695.31	696.63	696.72	696.94	0.016710	3.14	18.54	49.64	1.02
Subbio	90	TR200	D_1_5h	55.47	695.31	696.85	696.82	697.05	0.008973	2.58	29.48	52.52	0.76
Subbio	90	TR200	D_2h	52.96	695.31	696.83	696.81	697.03	0.008989	2.56	28.55	52.28	0.76
Subbio	90	TR200	D_3h	44.96	695.31	696.77	696.76	696.96	0.009397	2.53	25.15	51.40	0.77
Subbio	90	TR500	D_1_5h	68.68	695.31	696.95	696.89	697.17	0.008287	2.60	34.97	53.91	0.73
Subbio	90	TR500	D_2h	64.81	695.31	696.93	696.87	697.14	0.008340	2.58	33.56	53.56	0.73

HEC-RAS River: Fondataio Reach: Subbio (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Subbio	90	TR500	D_3h	54.51	695.31	696.85	696.82	697.05	0.008799	2.55	29.33	52.48	0.75
Subbio	80	TR20	D_1_5h	31.24	693.33	694.70	694.74	694.98	0.012331	2.93	15.09	31.84	0.86
Subbio	80	TR20	D_2h	32.17	693.33	694.71	694.76	694.99	0.012219	2.93	15.46	31.89	0.86
Subbio	80	TR20	D_3h	29.10	693.33	694.67	694.73	694.96	0.012603	2.92	14.21	31.74	0.87
Subbio	80	TR30	D_1_5h	35.11	693.33	694.74	694.78	695.03	0.011811	2.93	16.65	32.03	0.84
Subbio	80	TR30	D_2h	35.62	693.33	694.75	694.78	695.03	0.011869	2.94	16.79	32.05	0.85
Subbio	80	TR30	D_3h	31.76	693.33	694.70	694.76	694.99	0.012332	2.94	15.27	31.86	0.86
Subbio	80	TR100	D_1_5h	48.24	693.33	694.89	694.89	695.19	0.010520	2.98	21.51	33.42	0.81
Subbio	80	TR100	D_2h	47.37	693.33	694.89	694.89	695.18	0.010503	2.96	21.26	33.34	0.81
Subbio	80	TR100	D_3h	41.10	693.33	694.83	694.83	695.10	0.010217	2.85	19.49	32.78	0.79
Subbio	80	TR200	D_1_5h	57.17	693.33	694.96	694.96	695.29	0.010800	3.12	23.90	34.16	0.83
Subbio	80	TR200	D_2h	55.44	693.33	694.95	694.95	695.27	0.010750	3.09	23.45	34.02	0.83
Subbio	80	TR200	D_3h	47.60	693.33	694.89	694.89	695.18	0.010506	2.97	21.32	33.36	0.81
Subbio	80	TR500	D_1_5h	70.92	693.33	695.06	695.06	695.44	0.011238	3.32	27.25	35.18	0.85
Subbio	80	TR500	D_2h	67.94	693.33	695.04	695.04	695.41	0.011135	3.28	26.56	34.97	0.85
Subbio	80	TR500	D_3h	57.73	693.33	694.97	694.97	695.30	0.010816	3.13	24.04	34.21	0.83
Subbio	70	TR20	D_1_5h	31.24	692.18	694.37	693.88	694.39	0.000634	0.87	49.69	62.82	0.22
Subbio	70	TR20	D_2h	32.17	692.18	694.40	693.90	694.42	0.000593	0.85	51.84	63.17	0.21
Subbio	70	TR20	D_3h	29.10	692.18	694.28	693.86	694.31	0.000765	0.93	44.47	61.98	0.24
Subbio	70	TR30	D_1_5h	35.11	692.18	694.35	693.93	694.38	0.000847	1.00	48.76	62.67	0.25
Subbio	70	TR30	D_2h	35.62	692.18	694.37	693.92	694.40	0.000806	0.98	50.06	62.88	0.25
Subbio	70	TR30	D_3h	31.76	692.18	694.39	693.89	694.41	0.000610	0.86	50.89	63.02	0.21
Subbio	70	TR100	D_1_5h	48.24	692.18	694.76	694.04	694.78	0.000436	0.80	75.03	66.78	0.19
Subbio	70	TR100	D_2h	47.37	692.18	694.74	694.03	694.77	0.000435	0.79	74.20	66.65	0.18
Subbio	70	TR100	D_3h	41.10	692.18	694.65	693.97	694.67	0.000426	0.77	68.05	65.71	0.18
Subbio	70	TR200	D_1_5h	57.17	692.18	694.88	694.09	694.91	0.000443	0.83	83.53	68.05	0.19
Subbio	70	TR200	D_2h	55.44	692.18	694.86	694.08	694.88	0.000441	0.82	81.98	67.82	0.19
Subbio	70	TR200	D_3h	47.60	692.18	694.75	694.03	694.77	0.000435	0.79	74.45	66.69	0.18
Subbio	70	TR500	D_1_5h	70.92	692.18	694.95	694.14	694.98	0.000578	0.96	88.19	68.74	0.22
Subbio	70	TR500	D_2h	67.94	692.18	695.03	694.13	695.06	0.000444	0.85	93.49	69.52	0.19
Subbio	70	TR500	D_3h	57.73	692.18	694.89	694.09	694.92	0.000443	0.83	84.07	68.13	0.19
Subbio	60	TR20	D_1_5h	31.24	690.95	693.15	693.15	694.05	0.022657	4.19	7.46	4.16	1.00
Subbio	60	TR20	D_2h	32.17	690.95	693.24	693.24	694.10	0.022174	4.12	7.82	4.52	1.00
Subbio	60	TR20	D_3h	29.10	690.95	692.97	692.97	693.92	0.024137	4.31	6.75	3.71	1.02
Subbio	60	TR30	D_1_5h	35.11	690.95	694.20	693.90	694.24	0.001197	1.22	45.89	77.38	0.25
Subbio	60	TR30	D_2h	35.62	690.95	694.24	693.91	694.28	0.001041	1.15	48.79	77.54	0.24
Subbio	60	TR30	D_3h	31.76	690.95	693.20	693.20	694.08	0.022357	4.14	7.67	4.38	1.00
Subbio	60	TR100	D_1_5h	48.24	690.95	694.71	694.05	694.72	0.000361	0.76	85.58	79.51	0.14
Subbio	60	TR100	D_2h	47.37	690.95	694.69	694.05	694.71	0.000361	0.76	84.60	79.46	0.14
Subbio	60	TR100	D_3h	41.10	690.95	694.60	693.98	694.62	0.000359	0.74	77.24	79.07	0.14
Subbio	60	TR200	D_1_5h	57.17	690.95	694.83	694.08	694.85	0.000358	0.78	95.69	80.04	0.14
Subbio	60	TR200	D_2h	55.44	690.95	694.81	694.06	694.83	0.000358	0.78	93.86	79.95	0.14
Subbio	60	TR200	D_3h	47.60	690.95	694.70	694.05	694.71	0.000360	0.76	84.90	79.48	0.14
Subbio	60	TR500	D_1_5h	70.92	690.95	694.88	694.14	694.91	0.000484	0.92	99.80	80.26	0.17
Subbio	60	TR500	D_2h	67.94	690.95	694.98	694.12	695.00	0.000352	0.80	107.41	80.66	0.14
Subbio	60	TR500	D_3h	57.73	690.95	694.84	694.08	694.86	0.000358	0.78	96.32	80.08	0.14
Subbio	50			Bridge									
Subbio	40	TR20	D_1_5h	31.24	690.89	692.40	692.76	693.74	0.037977	5.13	6.08	4.61	1.43
Subbio	40	TR20	D_2h	32.17	690.89	692.42	692.80	693.80	0.038541	5.20	6.18	4.62	1.44
Subbio	40	TR20	D_3h	29.10	690.89	692.35	692.68	693.61	0.036624	4.97	5.86	4.59	1.40
Subbio	40	TR30	D_1_5h	35.11	690.89	692.49	692.90	693.97	0.039854	5.40	6.50	4.66	1.46
Subbio	40	TR30	D_2h	35.62	690.89	692.50	692.92	694.00	0.040075	5.43	6.56	4.67	1.46
Subbio	40	TR30	D_3h	31.76	690.89	692.41	692.78	693.77	0.038273	5.17	6.14	4.62	1.43
Subbio	40	TR100	D_1_5h	48.24	690.89	693.14	693.53	694.41	0.025767	5.00	9.64	5.03	1.15
Subbio	40	TR100	D_2h	47.37	690.89	693.07	693.50	694.39	0.027487	5.11	9.27	4.97	1.19
Subbio	40	TR100	D_3h	41.10	690.89	692.67	693.10	694.26	0.038808	5.58	7.36	4.76	1.43
Subbio	40	TR200	D_1_5h	57.17	690.89	693.72	694.13	694.59	0.017444	4.15	14.57	22.47	1.02
Subbio	40	TR200	D_2h	55.44	690.89	693.66	694.09	694.56	0.018887	4.21	13.38	15.04	1.05
Subbio	40	TR200	D_3h	47.60	690.89	693.08	693.51	694.40	0.027040	5.08	9.36	4.98	1.18
Subbio	40	TR500	D_1_5h	70.92	690.89	693.91	694.21	694.77	0.016345	4.30	20.86	46.46	1.00
Subbio	40	TR500	D_2h	67.94	690.89	693.88	694.19	694.74	0.016174	4.24	19.75	43.22	0.99
Subbio	40	TR500	D_3h	57.73	690.89	693.74	694.13	694.60	0.017189	4.14	14.91	24.37	1.01
Subbio	30	TR20	D_1_5h	31.24	690.08	692.16	692.17	692.93	0.017680	3.89	8.02	5.24	1.00
Subbio	30	TR20	D_2h	32.17	690.08	692.19	692.19	692.98	0.017857	3.94	8.17	5.27	1.01
Subbio	30	TR20	D_3h	29.10	690.08	692.08	692.08	692.83	0.017761	3.83	7.60	5.14	1.01
Subbio	30	TR30	D_1_5h	35.11	690.08	692.29	692.30	693.12	0.017847	4.03	8.72	5.40	1.01
Subbio	30	TR30	D_2h	35.62	690.08	692.31	692.32	693.14	0.017748	4.03	8.83	5.42	1.01
Subbio	30	TR30	D_3h	31.76	690.08	692.18	692.18	692.96	0.017782	3.92	8.10	5.26	1.01
Subbio	30	TR100	D_1_5h	48.24	690.08	692.66	692.90	693.56	0.016921	4.29	12.16	11.42	1.00
Subbio	30	TR100	D_2h	47.37	690.08	692.68	692.88	693.52	0.015610	4.15	12.41	11.53	0.97
Subbio	30	TR100	D_3h	41.10	690.08	692.71	692.72	693.31	0.011057	3.52	12.76	11.68	0.81
Subbio	30	TR200	D_1_5h	57.17	690.08	692.71	693.07	693.87	0.021391	4.89	12.76	11.68	1.13
Subbio	30	TR200	D_2h	55.44	690.08	692.69	693.04	693.82	0.021031	4.82	12.51	11.57	1.12
Subbio	30	TR200	D_3h	47.60	690.08	692.67	692.88	693.53	0.015932	4.18	12.35	11.50	0.98
Subbio	30	TR500	D_1_5h	70.92	690.08	692.98	693.30	694.11	0.019278	4.94	16.08	13.02	1.09
Subbio	30	TR500	D_2h	67.94	690.08	692.92	693.26	694.07	0.019909	4.95	15.30	12.72	1.11
Subbio	30	TR500	D_3h	57.73	690.08	692.72	693.09	693.88	0.021401	4.90	12.87	11.73	1.13
Subbio	20	TR20	D_1_5h	31.96	688.08	690.94	689.46	691.04	0.000941	1.37	23.46	11.55	0.30
Subbio	20	TR20	D_2h	33.35	688.08	691.05	689.49	691.15	0.000862	1.36	24.76	11.66	0.29
Subbio	20	TR20	D_3h	30.64	688.08	691.07	689.42	691.14	0.000712	1.24	24.93	11.68	0.26
Subbio	20	TR30	D_1_5h	35.97	688.08	691.09	689.56	691.20	0.000940	1.44	25.27	11.71	0.30

HEC-RAS River: Fondataio Reach: Subbio (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Subbio	20	TR30	D_2h	36.99	688.08	691.20	689.59	691.30	0.000854	1.41	26.51	11.82	0.29
Subbio	20	TR30	D_3h	33.46	688.08	691.20	689.49	691.29	0.000696	1.28	26.54	11.82	0.26
Subbio	20	TR100	D_1_5h	49.59	688.08	691.58	689.88	691.71	0.000934	1.63	31.04	12.21	0.31
Subbio	20	TR100	D_2h	49.41	688.08	691.67	689.87	691.79	0.000830	1.57	32.17	12.30	0.30
Subbio	20	TR100	D_3h	43.35	688.08	691.63	689.74	691.72	0.000673	1.40	31.63	12.26	0.27
Subbio	20	TR200	D_1_5h	58.87	688.08	691.87	690.07	692.03	0.000932	1.74	34.69	12.51	0.32
Subbio	20	TR200	D_2h	57.92	688.08	691.95	690.06	692.09	0.000825	1.67	35.71	12.60	0.30
Subbio	20	TR200	D_3h	50.23	688.08	691.88	689.90	691.99	0.000674	1.48	34.77	12.52	0.27
Subbio	20	TR500	D_1_5h	73.16	688.08	692.27	690.47	692.46	0.000943	1.90	39.80	12.93	0.33
Subbio	20	TR500	D_2h	71.08	688.08	692.34	690.44	692.50	0.000834	1.81	40.66	13.00	0.31
Subbio	20	TR500	D_3h	60.95	688.08	692.23	690.19	692.36	0.000681	1.60	39.27	12.89	0.28
Subbio	15			Bridge									
Subbio	10	TR20	D_1_5h	31.96	687.81	690.83	689.18	690.91	0.000738	1.28	25.32	11.71	0.27
Subbio	10	TR20	D_2h	33.35	687.81	690.97	689.22	691.05	0.000658	1.25	26.96	11.86	0.26
Subbio	10	TR20	D_3h	30.64	687.81	691.00	689.15	691.07	0.000528	1.13	27.40	11.89	0.23
Subbio	10	TR30	D_1_5h	35.97	687.81	691.00	689.29	691.09	0.000732	1.33	27.35	11.89	0.27
Subbio	10	TR30	D_2h	36.99	687.81	691.13	689.31	691.21	0.000654	1.30	28.84	12.02	0.26
Subbio	10	TR30	D_3h	33.46	687.81	691.15	689.23	691.22	0.000519	1.17	29.12	12.04	0.23
Subbio	10	TR100	D_1_5h	49.59	687.81	691.51	689.61	691.62	0.000736	1.52	33.50	12.41	0.28
Subbio	10	TR100	D_2h	49.41	687.81	691.61	689.60	691.72	0.000648	1.46	34.82	12.52	0.26
Subbio	10	TR100	D_3h	43.35	687.81	691.58	689.47	691.67	0.000517	1.29	34.44	12.49	0.24
Subbio	10	TR200	D_1_5h	58.87	687.81	691.81	689.80	691.94	0.000743	1.62	37.32	12.73	0.29
Subbio	10	TR200	D_2h	57.92	687.81	691.90	689.78	692.02	0.000654	1.55	38.51	12.82	0.27
Subbio	10	TR200	D_3h	50.23	687.81	691.84	689.62	691.94	0.000525	1.37	37.69	12.76	0.24
Subbio	10	TR500	D_1_5h	73.16	687.81	692.22	690.20	692.38	0.000765	1.78	42.62	13.15	0.30
Subbio	10	TR500	D_2h	71.08	687.81	692.30	690.17	692.44	0.000673	1.69	43.63	13.23	0.28
Subbio	10	TR500	D_3h	60.95	687.81	692.20	689.92	692.31	0.000542	1.49	42.34	13.13	0.25
Subbio	5			Bridge									
Subbio	1	TR20	D_1_5h	31.96	687.23	690.63		690.65	0.000320	0.70	59.15	52.24	0.12
Subbio	1	TR20	D_2h	33.35	687.23	690.84		690.85	0.000209	0.59	70.46	54.75	0.10
Subbio	1	TR20	D_3h	30.64	687.23	690.94		690.95	0.000143	0.50	75.70	55.87	0.08
Subbio	1	TR30	D_1_5h	35.97	687.23	690.83		690.85	0.000248	0.64	70.00	54.65	0.11
Subbio	1	TR30	D_2h	36.99	687.23	691.02		691.03	0.000174	0.55	80.59	56.90	0.09
Subbio	1	TR30	D_3h	33.46	687.23	691.09		691.10	0.000124	0.47	84.48	57.71	0.08
Subbio	1	TR100	D_1_5h	49.59	687.23	691.41		691.42	0.000152	0.55	103.22	61.44	0.09
Subbio	1	TR100	D_2h	49.41	687.23	691.55		691.56	0.000118	0.50	112.25	63.16	0.08
Subbio	1	TR100	D_3h	43.35	687.23	691.55		691.55	0.000092	0.44	111.97	63.11	0.07
Subbio	1	TR200	D_1_5h	58.87	687.23	691.73		691.74	0.000127	0.53	123.65	65.27	0.08
Subbio	1	TR200	D_2h	57.92	687.23	691.85		691.86	0.000102	0.48	131.79	66.73	0.07
Subbio	1	TR200	D_3h	50.23	687.23	691.81		691.82	0.000082	0.43	129.17	66.26	0.06
Subbio	1	TR500	D_1_5h	73.16	687.23	692.16		692.17	0.000121	0.55	155.80	89.13	0.08
Subbio	1	TR500	D_2h	71.08	687.23	692.26		692.27	0.000097	0.50	164.86	89.47	0.07
Subbio	1	TR500	D_3h	60.95	687.23	692.18		692.19	0.000081	0.45	157.83	89.21	0.06

TORRENTE SETTA

HEC-RAS

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Setta monte	210	TR20	D 1_5h	32.19	722.93	723.97	724.19	724.70	0.030058	3.78	8.51	11.93	1.43
Setta monte	210	TR20	D 2h	34.59	722.93	724.02	724.23	724.76	0.030020	3.82	9.04	12.45	1.43
Setta monte	210	TR20	D 3h	31.97	722.93	723.97	724.19	724.69	0.030050	3.78	8.46	11.88	1.43
Setta monte	210	TR30	D 1_5h	36.68	722.93	724.05	724.26	724.81	0.030033	3.86	9.49	12.87	1.44
Setta monte	210	TR30	D 2h	38.60	722.93	724.08	724.29	724.86	0.030038	3.90	9.90	13.24	1.44
Setta monte	210	TR30	D 3h	34.99	722.93	724.02	724.24	724.77	0.030022	3.83	9.13	12.53	1.43
Setta monte	210	TR100	D 1_5h	52.06	722.93	724.25	724.50	725.17	0.030013	4.25	12.25	14.33	1.47
Setta monte	210	TR100	D 2h	52.01	722.93	724.25	724.50	725.17	0.030013	4.25	12.25	14.33	1.47
Setta monte	210	TR100	D 3h	45.41	722.93	724.18	724.41	725.01	0.030046	4.04	11.23	14.23	1.45
Setta monte	210	TR200	D 1_5h	62.51	722.93	724.36	724.65	725.41	0.030011	4.54	13.77	14.48	1.49
Setta monte	210	TR200	D 2h	61.08	722.93	724.34	724.63	725.37	0.030012	4.50	13.57	14.46	1.48
Setta monte	210	TR200	D 3h	52.62	722.93	724.26	724.51	725.18	0.030017	4.27	12.34	14.34	1.47
Setta monte	210	TR500	D 1_5h	78.43	722.93	724.50	724.86	725.74	0.030007	4.92	15.93	14.69	1.51
Setta monte	210	TR500	D 2h	75.03	722.93	724.47	724.81	725.67	0.030009	4.85	15.48	14.65	1.50
Setta monte	210	TR500	D 3h	63.85	722.93	724.37	724.67	725.43	0.030007	4.57	13.96	14.50	1.49
Setta monte	200	TR20	D 1_5h	32.19	720.91	722.47	722.45	722.83	0.013209	2.68	12.02	15.49	0.97
Setta monte	200	TR20	D 2h	34.59	720.91	722.52	722.49	722.89	0.013008	2.70	12.82	16.17	0.97
Setta monte	200	TR20	D 3h	31.97	720.91	722.46	722.44	722.83	0.013229	2.68	11.94	15.43	0.97
Setta monte	200	TR30	D 1_5h	36.68	720.91	722.55	722.53	722.93	0.013069	2.73	13.42	16.66	0.97
Setta monte	200	TR30	D 2h	38.60	720.91	722.59	722.57	722.97	0.013107	2.76	13.96	17.10	0.98
Setta monte	200	TR30	D 3h	34.99	720.91	722.52	722.50	722.90	0.013012	2.70	12.94	16.27	0.97
Setta monte	200	TR100	D 1_5h	52.06	720.91	722.79	722.79	723.23	0.013283	2.93	17.79	20.26	1.00
Setta monte	200	TR100	D 2h	52.01	720.91	722.78	722.78	723.23	0.013537	2.95	17.61	20.05	1.01
Setta monte	200	TR100	D 3h	45.41	720.91	722.69	722.68	723.11	0.013328	2.87	15.80	18.48	0.99
Setta monte	200	TR200	D 1_5h	62.51	720.91	722.96	722.94	723.39	0.012751	2.91	21.49	24.04	0.98
Setta monte	200	TR200	D 2h	61.08	720.91	722.94	722.92	723.37	0.012840	2.91	20.98	23.56	0.98
Setta monte	200	TR200	D 3h	52.62	720.91	722.80	722.80	723.24	0.013256	2.92	18.00	20.48	1.00
Setta monte	200	TR500	D 1_5h	78.43	720.91	723.18	723.13	723.60	0.011489	2.87	27.37	29.06	0.94
Setta monte	200	TR500	D 2h	75.03	720.91	723.14	723.09	723.56	0.011693	2.87	26.16	28.10	0.95
Setta monte	200	TR500	D 3h	63.85	720.91	722.98	722.96	723.41	0.012670	2.91	21.97	24.48	0.98
Setta monte	190	TR20	D 1_5h	32.19	719.34	720.75	720.75	721.16	0.013635	2.84	11.35	13.93	1.00
Setta monte	190	TR20	D 2h	34.59	719.34	720.78	720.78	721.22	0.013752	2.92	11.86	14.02	1.01
Setta monte	190	TR20	D 3h	31.97	719.34	720.75	720.75	721.15	0.013622	2.83	11.31	13.92	1.00
Setta monte	190	TR30	D 1_5h	36.68	719.34	720.82	720.82	721.27	0.013602	2.97	12.37	14.11	1.01
Setta monte	190	TR30	D 2h	38.60	719.34	720.85	720.85	721.31	0.013476	3.01	12.82	14.19	1.01
Setta monte	190	TR30	D 3h	34.99	719.34	720.79	720.79	721.23	0.013734	2.93	11.96	14.04	1.01
Setta monte	190	TR100	D 1_5h	52.06	719.34	721.07	721.07	721.61	0.012561	3.26	15.96	14.74	1.00
Setta monte	190	TR100	D 2h	52.01	719.34	721.05	721.07	721.61	0.013182	3.31	15.70	14.69	1.02
Setta monte	190	TR100	D 3h	45.41	719.34	720.97	720.97	721.47	0.012898	3.14	14.46	14.48	1.00
Setta monte	190	TR200	D 1_5h	62.51	719.34	721.22	721.22	721.82	0.012216	3.44	18.18	15.11	1.00
Setta monte	190	TR200	D 2h	61.08	719.34	721.20	721.20	721.79	0.012255	3.41	17.89	15.06	1.00
Setta monte	190	TR200	D 3h	52.62	719.34	721.08	721.08	721.62	0.012546	3.27	16.08	14.76	1.00
Setta monte	190	TR500	D 1_5h	78.43	719.34	721.42	721.42	722.11	0.011984	3.68	21.30	15.63	1.01
Setta monte	190	TR500	D 2h	75.03	719.34	721.38	721.38	722.05	0.012097	3.64	20.61	15.51	1.01
Setta monte	190	TR500	D 3h	63.85	719.34	721.24	721.24	721.85	0.012176	3.46	18.46	15.16	1.00
Setta monte	180	TR20	D 1_5h	32.19	711.86	712.49	713.17	715.37	0.163665	7.51	4.29	7.06	3.08
Setta monte	180	TR20	D 2h	34.59	711.86	712.53	713.23	715.50	0.159434	7.64	4.53	7.07	3.05
Setta monte	180	TR20	D 3h	31.97	711.86	712.49	713.16	715.35	0.164070	7.50	4.26	7.06	3.08
Setta monte	180	TR30	D 1_5h	36.68	711.86	712.56	713.28	715.61	0.155562	7.74	4.74	7.08	3.02
Setta monte	180	TR30	D 2h	38.60	711.86	712.58	713.33	715.72	0.152758	7.84	4.92	7.08	3.00
Setta monte	180	TR30	D 3h	34.99	711.86	712.53	713.24	715.53	0.158834	7.67	4.56	7.07	3.05
Setta monte	180	TR100	D 1_5h	52.06	711.86	712.77	713.65	716.34	0.134951	8.37	6.22	7.11	2.86
Setta monte	180	TR100	D 2h	52.01	711.86	712.78	713.65	716.23	0.128331	8.23	6.32	7.12	2.79
Setta monte	180	TR100	D 3h	45.41	711.86	712.68	713.50	716.05	0.143417	8.14	5.58	7.10	2.93
Setta monte	180	TR200	D 1_5h	62.51	711.86	712.91	713.88	716.73	0.123930	8.67	7.21	7.14	2.75
Setta monte	180	TR200	D 2h	61.08	711.86	712.89	713.85	716.68	0.125304	8.63	7.08	7.14	2.77
Setta monte	180	TR200	D 3h	52.62	711.86	712.77	713.66	716.36	0.134336	8.39	6.27	7.12	2.85
Setta monte	180	TR500	D 1_5h	78.43	711.86	713.11	714.20	717.25	0.110547	9.01	8.71	7.18	2.61
Setta monte	180	TR500	D 2h	75.03	711.86	713.07	714.13	717.15	0.113176	8.94	8.39	7.17	2.64
Setta monte	180	TR500	D 3h	63.85	711.86	712.92	713.91	716.78	0.122637	8.70	7.34	7.14	2.74
Setta monte	170			Bridge									
Setta monte	165	TR20	D 1_5h	32.19	711.69	713.25	713.00	713.69	0.009588	2.95	10.90	7.23	0.77
Setta monte	165	TR20	D 2h	34.59	711.69	713.29	713.06	713.78	0.010131	3.08	11.23	7.24	0.79
Setta monte	165	TR20	D 3h	31.97	711.69	713.24	712.99	713.68	0.009538	2.94	10.87	7.23	0.77
Setta monte	165	TR30	D 1_5h	36.68	711.69	713.33	713.11	713.85	0.010593	3.18	11.52	7.25	0.81
Setta monte	165	TR30	D 2h	38.60	711.69	713.37	713.16	713.91	0.011036	3.28	11.76	7.26	0.82
Setta monte	165	TR30	D 3h	34.99	711.69	713.30	713.07	713.79	0.010227	3.10	11.29	7.24	0.79
Setta monte	165	TR100	D 1_5h	52.06	711.69	713.53	713.48	714.35	0.015265	4.03	12.93	7.29	0.96
Setta monte	165	TR100	D 2h	52.01	711.69	713.53	713.48	714.35	0.015255	4.02	12.92	7.28	0.96
Setta monte	165	TR100	D 3h	45.41	711.69	713.46	713.33	714.14	0.013007	3.65	12.43	7.27	0.89
Setta monte	165	TR200	D 1_5h	62.51	711.69	713.69	713.71	714.69	0.017079	4.43	14.12	7.31	1.02
Setta monte	165	TR200	D 2h	61.08	711.69	713.61	713.68	714.65	0.018297	4.50	13.56	7.30	1.05
Setta monte	165	TR200	D 3h	52.62	711.69	713.53	713.49	714.37	0.015504	4.06	12.95	7.29	0.97
Setta monte	165	TR500	D 1_5h	78.43	711.69	713.95	714.03	715.17	0.018634	4.88	16.07	7.36	1.05
Setta monte	165	TR500	D 2h	75.03	711.69	713.79	713.96	715.09	0.021165	5.04	14.89	7.33	1.13
Setta monte	165	TR500	D 3h	63.85	711.69	713.72	713.73	714.73	0.017045	4.45	14.34	7.32	1.02
Setta monte	160	TR20	D 1_5h	32.19	711.12	712.37	712.38	712.72	0.014272	2.60	12.38	18.27	1.01
Setta monte	160	TR20	D 2h	34.59	711.12	712.42	712.42	712.77	0.014177	2.61	13.24	19.31	1.01
Setta monte	160	TR20	D 3h	31.97	711.12	712.37	712.37	712.71	0.014296	2.60	12.30	18.16	1.01
Setta monte	160	TR30	D 1_5h	36.68	711.12	712.45	712.46	712.81	0.014203	2.63	13.93	20.11	1.01
Setta monte	160	TR30	D 2h	38.60	711.12	712.49	712.49	712.84	0.014201	2.65	14.55	20.79	1.01
Setta monte	160	TR30	D 3h	34.99	711.12	712.43	712.43	712.78	0.014153	2.61	13.38	19.48	1.01
Setta monte	160	TR100	D 1_5h	52.06	711.12	712.66	712.66	713.07	0.013290	2.84	18.31	22.36	1.00
Setta monte	160	TR100	D 2h	52.01	711.12	712.66	712.66	713.07	0.013284	2.84	18.30	22.36	1.00
Setta monte	160	TR100	D 3h	45.41	711.12	712.58	712.58	712.96	0.013660	2.73	16.66	22.17	1.00
Setta monte	160	TR200	D 1_5h	62.51	711.12	712.72	712.77	713.23	0.015175	3.17	19.71	22.52	1.08
Setta monte	160	TR200	D 2h	61.08	711.12	712							

HEC-RAS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Setta monte	160	TR500	D 1 5h	78.43	711.12	713.16	712.92	713.51	0.006419	2.62	29.96	23.65	0.74
Setta monte	160	TR500	D 2h	75.03	711.12	713.09	712.89	713.45	0.007023	2.65	28.29	23.47	0.77
Setta monte	160	TR500	D 3h	63.85	711.12	712.72	712.78	713.25	0.015752	3.23	19.74	22.52	1.10
Setta monte	150	TR20	D 1 5h	35.19	708.54	710.69	709.96	710.92	0.004300	2.12	16.61	11.21	0.56
Setta monte	150	TR20	D 2h	38.54	708.54	710.85	710.04	711.07	0.003867	2.08	18.50	11.88	0.53
Setta monte	150	TR20	D 3h	36.78	708.54	710.76	710.00	710.99	0.004140	2.11	17.41	11.50	0.55
Setta monte	150	TR30	D 1 5h	40.31	708.54	710.93	710.08	711.15	0.003699	2.07	19.45	12.21	0.52
Setta monte	150	TR30	D 2h	43.12	708.54	711.05	710.19	711.27	0.003449	2.05	20.99	12.72	0.51
Setta monte	150	TR30	D 3h	40.33	708.54	710.93	710.09	711.15	0.003696	2.07	19.46	12.21	0.52
Setta monte	150	TR100	D 1 5h	57.69	708.54	711.70	710.57	711.89	0.002391	1.92	30.11	15.68	0.44
Setta monte	150	TR100	D 2h	58.68	708.54	711.74	710.59	711.93	0.002354	1.91	30.79	16.01	0.44
Setta monte	150	TR100	D 3h	52.52	708.54	711.47	710.47	711.67	0.002697	1.97	26.65	14.44	0.46
Setta monte	150	TR200	D 1 5h	69.45	708.54	712.23	710.79	712.39	0.001841	1.76	39.53	19.78	0.40
Setta monte	150	TR200	D 2h	69.21	708.54	712.22	710.79	712.38	0.001852	1.76	39.32	19.69	0.40
Setta monte	150	TR200	D 3h	60.96	708.54	711.85	710.63	712.03	0.002246	1.88	32.50	16.81	0.43
Setta monte	150	TR500	D 1 5h	87.39	708.54	713.08	711.10	713.18	0.000997	1.37	67.06	42.20	0.30
Setta monte	150	TR500	D 2h	85.37	708.54	712.99	711.07	713.09	0.001126	1.41	62.97	41.38	0.32
Setta monte	150	TR500	D 3h	74.10	708.54	712.45	710.88	712.59	0.001816	1.68	44.22	24.05	0.39
Setta monte	140			Bridge									
Setta monte	130	TR20	D 1 5h	35.19	707.59	708.35	708.86	710.18	0.094553	5.98	5.88	9.83	2.47
Setta monte	130	TR20	D 2h	38.54	707.59	708.39	708.92	710.31	0.092574	6.13	6.28	9.91	2.46
Setta monte	130	TR20	D 3h	36.78	707.59	708.37	708.89	710.24	0.093842	6.06	6.07	9.87	2.47
Setta monte	130	TR30	D 1 5h	40.31	707.59	708.41	708.96	710.38	0.091838	6.22	6.48	9.95	2.46
Setta monte	130	TR30	D 2h	43.12	707.59	708.48	709.02	710.33	0.077148	6.02	7.17	10.09	2.28
Setta monte	130	TR30	D 3h	40.33	707.59	708.41	708.96	710.38	0.091767	6.22	6.49	9.95	2.46
Setta monte	130	TR100	D 1 5h	57.69	707.59	708.64	709.27	710.83	0.073818	6.56	8.80	10.42	2.28
Setta monte	130	TR100	D 2h	58.68	707.59	708.65	709.29	710.87	0.073795	6.59	8.90	10.44	2.28
Setta monte	130	TR100	D 3h	52.52	707.59	708.59	709.19	710.65	0.074496	6.37	8.25	10.31	2.27
Setta monte	130	TR200	D 1 5h	69.45	707.59	708.75	709.47	711.23	0.073396	6.97	9.97	10.64	2.30
Setta monte	130	TR200	D 2h	69.21	707.59	708.75	709.47	711.22	0.073399	6.96	9.94	10.64	2.30
Setta monte	130	TR200	D 3h	60.96	707.59	708.67	709.33	710.94	0.073605	6.67	9.13	10.48	2.28
Setta monte	130	TR500	D 1 5h	87.39	707.59	708.90	709.74	711.83	0.075191	7.59	11.52	10.93	2.36
Setta monte	130	TR500	D 2h	85.37	707.59	708.88	709.72	711.76	0.074884	7.52	11.36	10.90	2.35
Setta monte	130	TR500	D 3h	74.10	707.59	708.79	709.55	711.38	0.073625	7.13	10.39	10.72	2.31
Setta monte	120	TR20	D 1 5h	35.19	705.56	706.99	706.99	707.38	0.014451	2.76	12.74	16.92	1.02
Setta monte	120	TR20	D 2h	38.54	705.56	707.04	707.04	707.45	0.014158	2.84	13.58	17.00	1.01
Setta monte	120	TR20	D 3h	36.78	705.56	707.02	707.02	707.42	0.014219	2.79	13.17	16.96	1.01
Setta monte	120	TR30	D 1 5h	40.31	705.56	707.07	707.07	707.49	0.013886	2.87	14.06	17.05	1.01
Setta monte	120	TR30	D 2h	43.12	705.56	707.11	707.11	707.55	0.013640	2.92	14.76	17.12	1.00
Setta monte	120	TR30	D 3h	40.33	705.56	707.07	707.07	707.49	0.013868	2.87	14.07	17.05	1.01
Setta monte	120	TR100	D 1 5h	57.69	705.56	707.30	707.30	707.82	0.013253	3.21	17.95	17.44	1.01
Setta monte	120	TR100	D 2h	58.68	705.56	707.31	707.31	707.84	0.013221	3.23	18.16	17.46	1.01
Setta monte	120	TR100	D 3h	52.52	705.56	707.24	707.24	707.73	0.013156	3.10	16.94	17.34	1.00
Setta monte	120	TR200	D 1 5h	69.45	705.56	707.44	707.44	708.03	0.012694	3.39	20.51	17.70	1.00
Setta monte	120	TR200	D 2h	69.21	705.56	707.44	707.44	708.02	0.012702	3.38	20.46	17.69	1.00
Setta monte	120	TR200	D 3h	60.96	705.56	707.34	707.34	707.88	0.013072	3.26	18.68	17.52	1.01
Setta monte	120	TR500	D 1 5h	87.39	705.56	707.64	707.64	708.31	0.012242	3.63	24.10	18.05	1.00
Setta monte	120	TR500	D 2h	85.37	705.56	707.62	707.62	708.28	0.012264	3.60	23.72	18.01	1.00
Setta monte	120	TR500	D 3h	74.10	705.56	707.50	707.50	708.10	0.012530	3.45	21.48	17.79	1.00
Setta monte	118	TR20	D 1 5h	35.19	702.53	706.80	702.97	706.80	0.000002	0.10	370.34	103.47	0.02
Setta monte	118	TR20	D 2h	38.54	702.53	706.84	702.99	706.84	0.000002	0.10	374.38	106.82	0.02
Setta monte	118	TR20	D 3h	36.78	702.53	706.82	702.98	706.82	0.000002	0.10	372.53	105.29	0.02
Setta monte	118	TR30	D 1 5h	40.31	702.53	706.85	703.00	706.85	0.000003	0.11	376.12	108.23	0.02
Setta monte	118	TR30	D 2h	43.12	702.53	706.88	703.01	706.88	0.000003	0.11	378.91	110.45	0.02
Setta monte	118	TR30	D 3h	40.33	702.53	706.85	703.00	706.85	0.000003	0.11	376.14	108.24	0.02
Setta monte	118	TR100	D 1 5h	57.69	702.53	706.99	703.09	706.99	0.000005	0.15	391.38	112.21	0.03
Setta monte	118	TR100	D 2h	58.68	702.53	706.99	703.09	707.00	0.000005	0.15	391.97	112.26	0.03
Setta monte	118	TR100	D 3h	52.52	702.53	706.95	703.06	706.95	0.000004	0.14	387.28	111.85	0.02
Setta monte	118	TR200	D 1 5h	69.45	702.53	707.06	703.14	707.06	0.000007	0.17	399.62	112.94	0.03
Setta monte	118	TR200	D 2h	69.21	702.53	707.06	703.14	707.06	0.000007	0.17	399.46	112.92	0.03
Setta monte	118	TR200	D 3h	60.96	702.53	707.01	703.10	707.01	0.000006	0.15	393.64	112.41	0.03
Setta monte	118	TR500	D 1 5h	87.39	702.53	707.16	703.21	707.16	0.000010	0.21	410.70	113.90	0.04
Setta monte	118	TR500	D 2h	85.37	702.53	707.15	703.20	707.15	0.000010	0.21	409.67	113.81	0.03
Setta monte	118	TR500	D 3h	74.10	702.53	707.09	703.16	707.09	0.000008	0.18	402.69	113.20	0.03
Setta monte	115	TR20	D 1 5h	35.19	703.26	706.78	704.29	706.80	0.000137	0.61	59.87	97.45	0.12
Setta monte	115	TR20	D 2h	38.54	703.26	706.81	704.34	706.83	0.000156	0.66	64.01	127.75	0.12
Setta monte	115	TR20	D 3h	36.78	703.26	706.80	704.31	706.82	0.000145	0.63	62.00	122.33	0.12
Setta monte	115	TR30	D 1 5h	40.31	703.26	706.83	704.36	706.85	0.000167	0.68	65.86	127.85	0.13
Setta monte	115	TR30	D 2h	43.12	703.26	706.85	704.40	706.87	0.000184	0.72	68.78	128.01	0.14
Setta monte	115	TR30	D 3h	40.33	703.26	706.83	704.36	706.85	0.000167	0.68	65.88	127.85	0.13
Setta monte	115	TR100	D 1 5h	57.69	703.26	706.95	704.60	706.99	0.000275	0.89	81.33	128.71	0.17
Setta monte	115	TR100	D 2h	58.68	703.26	706.95	704.61	706.99	0.000283	0.90	81.87	128.73	0.17
Setta monte	115	TR100	D 3h	52.52	703.26	706.92	704.53	706.95	0.000242	0.83	77.27	128.48	0.16
Setta monte	115	TR200	D 1 5h	69.45	703.26	707.01	704.75	707.06	0.000353	1.02	89.34	133.85	0.19
Setta monte	115	TR200	D 2h	69.21	703.26	707.01	704.75	707.06	0.000351	1.02	89.18	133.81	0.19
Setta monte	115	TR200	D 3h	60.96	703.26	706.96	704.64	707.01	0.000298	0.93	83.50	128.82	0.17
Setta monte	115	TR500	D 1 5h	87.39	703.26	707.09	704.96	707.15	0.000469	1.20	100.17	136.37	0.22
Setta monte	115	TR500	D 2h	85.37	703.26	707.08	704.93	707.15	0.000455	1.18	99.24	136.16	0.22
Setta monte	115	TR500	D 3h	74.10	703.26	707.03	704.80	707.08	0.000383	1.07	92.37	134.56	0.20
Setta monte	114			Inl Struct									
Setta monte	113	TR20	D 1 5h	35.19	699.23	700.77	700.73	701.33	0.012316	3.31	10.62	8.76	0.96
Setta monte	113	TR20	D 2h	38.54	699.23	700.84	700.81	701.44	0.012438	3.42	11.28	8.92	0.97
Setta monte	113	TR20	D 3h	36.78	699.23	700.80	700.77	701.38	0.012358	3.36	10.94	8.84	0.96
Setta monte	113	TR30	D 1 5h	40.31	699.23	700.88	700.85	701.49	0.012434	3.46	11.64	9.01	0.97
Setta monte	113	TR30	D 2h	43.12	699.23	700.94	700.92	701.58	0.012513	3.54	12.18	9.13	0.98
Setta monte	113	TR30	D 3h	40.33	699.23	700.88	700.85	701.49	0.012475	3.47</			

HEC-RAS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Setta monte	113	TR100	D 1 5h	57.69	699.23	701.23	701.23	701.99	0.012710	3.87	14.89	9.74	1.00
Setta monte	113	TR100	D 2h	58.68	699.23	701.25	701.25	702.02	0.012685	3.89	15.09	9.79	1.00
Setta monte	113	TR100	D 3h	52.52	699.23	701.12	701.12	701.85	0.012841	3.78	13.88	9.52	1.00
Setta monte	113	TR200	D 1 5h	69.45	699.23	701.45	701.45	702.29	0.012471	4.06	17.12	10.22	1.00
Setta monte	113	TR200	D 2h	69.21	699.23	701.45	701.45	702.28	0.012474	4.05	17.08	10.21	1.00
Setta monte	113	TR200	D 3h	60.96	699.23	701.29	701.29	702.08	0.012642	3.93	15.52	9.88	1.00
Setta monte	113	TR500	D 1 5h	87.39	699.23	701.76	701.76	702.70	0.012180	4.29	20.38	10.87	1.00
Setta monte	113	TR500	D 2h	85.37	699.23	701.73	701.73	702.65	0.012218	4.27	20.01	10.80	1.00
Setta monte	113	TR500	D 3h	74.10	699.23	701.54	701.54	702.40	0.012390	4.12	17.98	10.40	1.00
Setta monte	110	TR20	D 1 5h	35.19	699.11	700.61	700.61	701.20	0.013562	3.43	10.27	8.68	1.01
Setta monte	110	TR20	D 2h	38.54	699.11	700.69	700.69	701.32	0.013421	3.51	10.98	8.85	1.01
Setta monte	110	TR20	D 3h	36.78	699.11	700.65	700.65	701.26	0.013509	3.47	10.61	8.76	1.01
Setta monte	110	TR30	D 1 5h	40.31	699.11	700.73	700.73	701.37	0.013392	3.55	11.34	8.94	1.01
Setta monte	110	TR30	D 2h	43.12	699.11	700.79	700.79	701.46	0.013266	3.61	11.93	9.08	1.01
Setta monte	110	TR30	D 3h	40.33	699.11	700.73	700.73	701.37	0.013370	3.55	11.36	8.94	1.01
Setta monte	110	TR100	D 1 5h	57.69	699.11	701.09	701.11	701.87	0.013136	3.92	14.72	9.71	1.02
Setta monte	110	TR100	D 2h	58.68	699.11	701.09	701.13	701.90	0.013482	3.98	14.76	9.72	1.03
Setta monte	110	TR100	D 3h	52.52	699.11	700.99	701.00	701.73	0.013182	3.82	13.75	9.49	1.01
Setta monte	110	TR200	D 1 5h	69.45	699.11	701.31	701.33	702.17	0.013026	4.12	16.86	10.16	1.02
Setta monte	110	TR200	D 2h	69.21	699.11	701.30	701.33	702.16	0.013031	4.12	16.81	10.15	1.02
Setta monte	110	TR200	D 3h	60.96	699.11	701.14	701.17	701.96	0.013460	4.02	15.18	9.81	1.03
Setta monte	110	TR500	D 1 5h	87.39	699.11	701.60	701.63	702.58	0.012884	4.38	19.97	10.79	1.03
Setta monte	110	TR500	D 2h	85.37	699.11	701.57	701.60	702.53	0.012868	4.35	19.64	10.73	1.03
Setta monte	110	TR500	D 3h	74.10	699.11	701.37	701.41	702.28	0.013371	4.24	17.49	10.30	1.04
Setta monte	100			Bridge									
Setta monte	95	TR20	D 1 5h	35.19	698.24	699.74	699.74	700.33	0.013579	3.43	10.27	8.68	1.01
Setta monte	95	TR20	D 2h	38.54	698.24	699.82	699.82	700.45	0.013437	3.51	10.98	8.85	1.01
Setta monte	95	TR20	D 3h	36.78	698.24	699.77	699.77	700.39	0.013516	3.47	10.60	8.76	1.01
Setta monte	95	TR30	D 1 5h	40.31	698.24	699.86	699.86	700.50	0.013374	3.55	11.35	8.94	1.01
Setta monte	95	TR30	D 2h	43.12	698.24	699.92	699.92	700.59	0.013265	3.61	11.93	9.08	1.01
Setta monte	95	TR30	D 3h	40.33	698.24	699.86	699.86	700.50	0.013361	3.55	11.36	8.94	1.01
Setta monte	95	TR100	D 1 5h	57.69	698.24	700.23	700.24	701.00	0.012871	3.89	14.83	9.73	1.01
Setta monte	95	TR100	D 2h	58.68	698.24	700.26	700.26	701.03	0.012674	3.89	15.09	9.79	1.00
Setta monte	95	TR100	D 3h	52.52	698.24	700.13	700.13	700.86	0.013004	3.80	13.82	9.51	1.01
Setta monte	95	TR200	D 1 5h	69.45	698.24	701.36	700.46	701.69	0.003505	2.56	27.12	12.12	0.55
Setta monte	95	TR200	D 2h	69.21	698.24	701.38	700.46	701.70	0.003387	2.53	27.39	12.17	0.54
Setta monte	95	TR200	D 3h	60.96	698.24	701.27	700.30	701.55	0.003021	2.34	26.03	11.93	0.51
Setta monte	95	TR500	D 1 5h	87.39	698.24	701.64	700.77	702.05	0.003988	2.85	30.61	12.72	0.59
Setta monte	95	TR500	D 2h	85.37	698.24	701.64	700.74	702.04	0.003793	2.79	30.65	12.72	0.57
Setta monte	95	TR500	D 3h	74.10	698.24	701.49	700.55	701.83	0.003401	2.58	28.75	12.40	0.54
Setta monte	90	TR20	D 1 5h	38.19	696.56	698.33	697.90	698.57	0.004514	2.17	17.59	13.68	0.61
Setta monte	90	TR20	D 2h	42.49	696.56	698.47	697.99	698.71	0.004145	2.17	19.55	14.21	0.59
Setta monte	90	TR20	D 3h	41.60	696.56	698.44	697.97	698.68	0.004215	2.17	19.15	14.11	0.60
Setta monte	90	TR30	D 1 5h	43.94	696.56	698.51	698.01	698.75	0.004040	2.17	20.21	14.39	0.59
Setta monte	90	TR30	D 2h	47.64	696.56	698.63	698.08	698.87	0.003765	2.17	21.96	14.84	0.57
Setta monte	90	TR30	D 3h	45.66	696.56	698.57	698.04	698.81	0.003912	2.17	21.01	14.60	0.58
Setta monte	90	TR100	D 1 5h	63.32	696.56	699.36	698.34	699.52	0.001999	1.78	35.78	21.75	0.43
Setta monte	90	TR100	D 2h	65.35	696.56	699.44	698.37	699.60	0.001811	1.75	37.66	22.06	0.41
Setta monte	90	TR100	D 3h	59.62	696.56	699.05	698.28	699.26	0.003405	2.04	29.25	20.66	0.54
Setta monte	90	TR200	D 1 5h	76.38	696.56	701.51	698.53	701.54	0.000173	0.90	93.93	39.90	0.14
Setta monte	90	TR200	D 2h	77.33	696.56	701.52	698.54	701.56	0.000175	0.90	94.59	40.21	0.15
Setta monte	90	TR200	D 3h	69.31	696.56	701.39	698.43	701.42	0.000161	0.84	89.27	37.58	0.14
Setta monte	90	TR500	D 1 5h	96.34	696.56	701.83	698.86	701.88	0.000202	1.02	107.75	46.09	0.16
Setta monte	90	TR500	D 2h	95.72	696.56	701.82	698.85	701.87	0.000201	1.01	107.33	45.91	0.16
Setta monte	90	TR500	D 3h	84.35	696.56	701.64	698.64	701.68	0.000186	0.95	99.33	42.42	0.15
Setta monte	80			Bridge									
Setta monte	70	TR20	D 1 5h	38.19	696.31	697.78	697.78	698.39	0.013340	3.44	11.09	9.30	1.01
Setta monte	70	TR20	D 2h	42.49	696.31	697.88	697.88	698.52	0.013139	3.54	12.01	9.52	1.00
Setta monte	70	TR20	D 3h	41.60	696.31	697.86	697.86	698.49	0.013188	3.52	11.82	9.47	1.01
Setta monte	70	TR30	D 1 5h	43.94	696.31	697.92	697.92	698.56	0.012964	3.56	12.36	9.60	1.00
Setta monte	70	TR30	D 2h	47.64	696.31	697.99	697.99	698.67	0.012999	3.65	13.06	9.76	1.01
Setta monte	70	TR30	D 3h	45.66	696.31	697.95	697.95	698.61	0.013045	3.60	12.67	9.67	1.01
Setta monte	70	TR100	D 1 5h	63.32	696.31	698.30	698.30	699.08	0.012554	3.92	16.17	10.44	1.00
Setta monte	70	TR100	D 2h	65.35	696.31	698.34	698.34	699.13	0.012301	3.93	16.63	10.98	1.00
Setta monte	70	TR100	D 3h	59.62	696.31	698.23	698.23	698.99	0.012552	3.85	15.49	10.29	1.00
Setta monte	70	TR200	D 1 5h	76.38	696.31	697.68	698.58	700.57	0.069301	7.54	10.13	9.07	2.28
Setta monte	70	TR200	D 2h	77.33	696.31	697.69	698.60	700.58	0.068390	7.53	10.27	9.10	2.26
Setta monte	70	TR200	D 3h	69.31	696.31	697.57	698.42	700.49	0.076810	7.58	9.15	8.83	2.38
Setta monte	70	TR500	D 1 5h	96.34	696.31	697.88	699.10	701.17	0.067856	8.03	12.00	9.51	2.28
Setta monte	70	TR500	D 2h	95.72	696.31	697.87	699.09	701.16	0.068292	8.03	11.91	9.49	2.29
Setta monte	70	TR500	D 3h	84.35	696.31	697.73	698.74	700.94	0.073389	7.93	10.64	9.19	2.35
Setta monte	60	TR20	D 1 5h	38.19	694.51	695.92	696.02	696.18	0.010176	2.83	24.38	92.47	0.79
Setta monte	60	TR20	D 2h	42.49	694.51	695.94	696.04	696.22	0.011147	2.98	25.98	96.31	0.83
Setta monte	60	TR20	D 3h	41.60	694.51	695.94	696.04	696.21	0.010944	2.95	25.66	95.55	0.82
Setta monte	60	TR30	D 1 5h	43.94	694.51	695.95	696.04	696.23	0.011478	3.03	26.50	97.50	0.84
Setta monte	60	TR30	D 2h	47.64	694.51	695.96	696.06	696.27	0.012351	3.16	27.72	100.28	0.87
Setta monte	60	TR30	D 3h	45.66	694.51	695.95	696.05	696.25	0.011870	3.09	27.09	98.85	0.86
Setta monte	60	TR100	D 1 5h	63.32	694.51	696.00	696.12	696.39	0.016007	3.66	32.25	109.51	1.00
Setta monte	60	TR100	D 2h	65.35	694.51	696.01	696.13	696.40	0.016663	3.74	32.56	109.57	1.02
Setta monte	60	TR100	D 3h	59.62	694.51	695.99	696.10	696.36	0.015130	3.55	31.31	108.05	0.97
Setta monte	60	TR200	D 1 5h	76.38	694.51	696.16	696.15	696.33	0.007184	2.61	50.15	113.22	0.67
Setta monte	60	TR200	D 2h	77.33	694.51	696.17	696.16	696.34	0.007164	2.61	50.63	113.32	0.67
Setta monte	60	TR200	D 3h	69.31	694.51	696.11	696.14	696.30	0.008173	2.73	44.67	112.10	0.72
Setta monte	60	TR500	D 1 5h	96.34	694.51	696.27	696.21	696.42	0.005952	2.47	62.85	115.78	0.62
Setta monte	60	TR500	D 2h	95.72	694.51	696.27	696.21	696.42	0.005892	2.45	62.79	115.77	0.61
Setta monte	60	TR500	D 3h	84.35	694.51	696.21	696.17	696.37	0.006385	2.50	56.01	114.41	0.64

HEC-RAS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Setta monte	50	TR20	D 1 5h	38.19	692.39	694.30	694.22	694.54	0.011006	2.17	17.57	26.68	0.86
Setta monte	50	TR20	D 2h	42.49	692.39	694.35	694.27	694.61	0.011166	2.26	18.79	27.20	0.87
Setta monte	50	TR20	D 3h	41.60	692.39	694.34	694.26	694.59	0.011154	2.24	18.53	27.09	0.87
Setta monte	50	TR30	D 1 5h	43.94	692.39	694.35	694.29	694.62	0.011956	2.34	18.79	27.19	0.90
Setta monte	50	TR30	D 2h	47.64	692.39	694.38	694.33	694.68	0.012172	2.41	19.73	27.59	0.91
Setta monte	50	TR30	D 3h	45.66	692.39	694.37	694.30	694.65	0.011737	2.35	19.41	27.45	0.89
Setta monte	50	TR100	D 1 5h	63.32	692.39	694.51	694.47	694.88	0.013087	2.71	23.39	29.07	0.96
Setta monte	50	TR100	D 2h	65.35	692.39	694.53	694.50	694.91	0.013009	2.73	23.96	29.29	0.96
Setta monte	50	TR100	D 3h	59.62	692.39	694.47	694.45	694.84	0.013197	2.66	22.38	28.66	0.96
Setta monte	50	TR200	D 1 5h	76.38	692.39	694.63	694.59	695.04	0.012674	2.84	26.93	30.43	0.96
Setta monte	50	TR200	D 2h	77.33	692.39	694.64	694.60	695.05	0.012545	2.84	27.26	30.55	0.96
Setta monte	50	TR200	D 3h	69.31	692.39	694.57	694.53	694.96	0.012847	2.77	25.06	29.71	0.96
Setta monte	50	TR500	D 1 5h	96.34	692.39	694.84	694.83	695.24	0.013392	2.78	34.62	42.42	0.98
Setta monte	50	TR500	D 2h	95.72	692.39	694.83	694.83	695.23	0.013699	2.80	34.25	42.42	0.99
Setta monte	50	TR500	D 3h	84.35	692.39	694.78	694.66	695.14	0.013423	2.64	31.91	42.42	0.97
Setta monte	40	TR20	D 1 5h	38.19	691.12	692.67	692.67	692.94	0.011573	2.36	17.56	35.52	0.90
Setta monte	40	TR20	D 2h	42.49	691.12	692.71	692.71	693.00	0.011506	2.45	19.09	37.24	0.91
Setta monte	40	TR20	D 3h	41.60	691.12	692.70	692.70	692.99	0.011501	2.43	18.79	36.91	0.91
Setta monte	40	TR30	D 1 5h	43.94	691.12	692.74	692.74	693.02	0.010787	2.42	20.08	38.31	0.89
Setta monte	40	TR30	D 2h	47.64	691.12	692.77	692.77	693.06	0.010645	2.48	21.48	39.78	0.89
Setta monte	40	TR30	D 3h	45.66	691.12	692.75	692.75	693.04	0.011019	2.47	20.51	38.77	0.90
Setta monte	40	TR100	D 1 5h	63.32	691.12	692.95	692.95	693.22	0.010216	2.43	29.56	52.32	0.87
Setta monte	40	TR100	D 2h	65.35	691.12	692.97	692.97	693.24	0.010351	2.44	30.37	53.56	0.88
Setta monte	40	TR100	D 3h	59.62	691.12	692.92	692.92	693.19	0.010006	2.42	27.97	49.76	0.86
Setta monte	40	TR200	D 1 5h	76.38	691.12	693.04	693.04	693.32	0.011115	2.52	34.36	59.34	0.91
Setta monte	40	TR200	D 2h	77.33	691.12	693.04	693.04	693.33	0.011276	2.54	34.54	59.58	0.91
Setta monte	40	TR200	D 3h	69.31	691.12	692.99	692.99	693.27	0.010653	2.47	31.82	55.74	0.89
Setta monte	40	TR500	D 1 5h	96.34	691.12	693.16	693.16	693.45	0.011505	2.57	42.08	69.16	0.93
Setta monte	40	TR500	D 2h	95.72	691.12	693.16	693.16	693.45	0.011226	2.54	42.30	69.42	0.92
Setta monte	40	TR500	D 3h	84.35	691.12	693.09	693.09	693.37	0.011270	2.54	37.57	63.60	0.92
Setta monte	30	TR20	D 1 5h	41.19	688.34	690.76	689.85	690.81	0.000745	0.96	44.95	38.84	0.25
Setta monte	30	TR20	D 2h	46.44	688.34	690.98	689.91	691.02	0.000577	0.93	53.96	43.36	0.22
Setta monte	30	TR20	D 3h	46.41	688.34	691.06	689.91	691.10	0.000484	0.88	57.53	44.46	0.21
Setta monte	30	TR30	D 1 5h	47.57	688.34	690.98	689.92	691.03	0.000602	0.95	54.06	43.39	0.23
Setta monte	30	TR30	D 2h	52.16	688.34	691.18	689.97	691.22	0.000484	0.91	62.71	46.00	0.21
Setta monte	30	TR30	D 3h	51.00	688.34	691.23	689.95	691.26	0.000419	0.86	65.03	46.68	0.20
Setta monte	30	TR100	D 1 5h	68.95	688.34	691.62	690.11	691.66	0.000377	0.92	84.31	51.95	0.19
Setta monte	30	TR100	D 2h	72.02	688.34	691.76	690.14	691.80	0.000326	0.89	91.78	53.86	0.18
Setta monte	30	TR100	D 3h	66.73	688.34	691.72	690.10	691.75	0.000298	0.84	89.69	53.33	0.17
Setta monte	30	TR200	D 1 5h	83.32	688.34	691.99	690.24	692.02	0.000308	0.92	104.40	56.93	0.18
Setta monte	30	TR200	D 2h	85.46	688.34	692.10	690.26	692.14	0.000273	0.89	111.01	57.92	0.17
Setta monte	30	TR200	D 3h	77.65	688.34	692.02	690.19	692.05	0.000256	0.84	106.07	57.24	0.16
Setta monte	30	TR500	D 1 5h	105.30	688.34	692.50	690.41	692.53	0.000240	0.91	134.52	61.09	0.16
Setta monte	30	TR500	D 2h	106.06	688.34	692.58	690.41	692.61	0.000219	0.88	139.69	61.77	0.15
Setta monte	30	TR500	D 3h	94.60	688.34	692.44	690.33	692.47	0.000210	0.84	130.78	60.60	0.15
Setta monte	20			Bridge									
Setta monte	10	TR20	D 1 5h	41.19	687.52	690.53		690.68	0.002005	1.77	24.65	16.82	0.37
Setta monte	10	TR20	D 2h	46.44	687.52	690.73		690.89	0.001874	1.78	28.31	18.55	0.36
Setta monte	10	TR20	D 3h	46.41	687.52	690.84		690.97	0.001604	1.68	30.31	19.43	0.34
Setta monte	10	TR30	D 1 5h	47.57	687.52	690.72		690.88	0.002008	1.84	28.06	18.43	0.37
Setta monte	10	TR30	D 2h	52.16	687.52	690.91		691.07	0.001823	1.81	31.74	20.03	0.36
Setta monte	10	TR30	D 3h	51.00	687.52	690.99		691.13	0.001551	1.69	33.38	20.70	0.33
Setta monte	10	TR100	D 1 5h	68.95	687.52	691.28		691.45	0.001896	1.96	39.59	23.07	0.37
Setta monte	10	TR100	D 2h	72.02	687.52	691.43		691.59	0.001673	1.89	43.24	24.35	0.35
Setta monte	10	TR100	D 3h	66.73	687.52	691.44		691.58	0.001411	1.73	43.56	24.46	0.33
Setta monte	10	TR200	D 1 5h	83.32	687.52	691.59		691.77	0.001798	2.00	47.32	25.68	0.37
Setta monte	10	TR200	D 2h	85.46	687.52	691.73		691.89	0.001583	1.91	50.83	26.65	0.35
Setta monte	10	TR200	D 3h	77.65	687.52	691.71		691.84	0.001343	1.76	50.28	26.50	0.32
Setta monte	10	TR500	D 1 5h	105.30	687.52	692.02		692.20	0.001660	2.04	58.85	28.73	0.36
Setta monte	10	TR500	D 2h	106.06	687.52	692.13		692.29	0.001466	1.94	62.13	29.55	0.34
Setta monte	10	TR500	D 3h	94.60	687.52	692.07		692.21	0.001253	1.78	60.42	29.12	0.32
Setta monte	1	TR20	D 1 5h	41.19	687.23	690.54		690.64	0.001659	1.36	30.19	19.37	0.35
Setta monte	1	TR20	D 2h	46.44	687.23	690.75		690.85	0.001501	1.35	34.43	21.12	0.34
Setta monte	1	TR20	D 3h	46.41	687.23	690.86		690.94	0.001274	1.27	36.66	21.98	0.31
Setta monte	1	TR30	D 1 5h	47.57	687.23	690.74		690.84	0.001608	1.39	34.16	21.02	0.35
Setta monte	1	TR30	D 2h	52.16	687.23	690.93		691.03	0.001432	1.36	38.34	22.61	0.33
Setta monte	1	TR30	D 3h	51.00	687.23	691.01		691.09	0.001215	1.27	40.12	23.26	0.31
Setta monte	1	TR100	D 1 5h	68.95	687.23	691.30		691.41	0.001448	1.46	47.22	25.65	0.34
Setta monte	1	TR100	D 2h	72.02	687.23	691.45		691.55	0.001269	1.41	51.18	26.74	0.32
Setta monte	1	TR100	D 3h	66.73	687.23	691.46		691.55	0.001074	1.30	51.44	26.81	0.30
Setta monte	1	TR200	D 1 5h	83.32	687.23	691.62		691.73	0.001350	1.50	55.69	27.93	0.34
Setta monte	1	TR200	D 2h	85.46	687.23	691.75		691.85	0.001191	1.44	59.41	28.87	0.32
Setta monte	1	TR200	D 3h	77.65	687.23	691.72		691.81	0.001015	1.32	58.72	28.70	0.30
Setta monte	1	TR500	D 1 5h	105.30	687.23	692.04		692.16	0.001248	1.55	68.10	30.97	0.33
Setta monte	1	TR500	D 2h	106.06	687.23	692.15		692.26	0.001107	1.48	71.55	31.76	0.32
Setta monte	1	TR500	D 3h	94.60	687.23	692.09		692.18	0.000949	1.36	69.62	31.32	0.29
Setta valle	100	TR20	D 1 5h	68.77	687.23	690.17		690.60	0.008740	2.93	23.51	16.24	0.78
Setta valle	100	TR20	D 2h	78.89	687.23	690.38		690.81	0.007954	2.90	27.19	18.04	0.75
Setta valle	100	TR20	D 3h	83.69	687.23	690.48		690.90	0.007656	2.90	28.91	18.81	0.75
Setta valle	100	TR30	D 1 5h	78.58	687.23	690.38		690.81	0.007974	2.90	27.08	17.99	0.75
Setta valle	100	TR30	D 2h	88.63	687.23	690.57		690.99	0.007396	2.89	30.64	19.56	0.74
Setta valle	100	TR30	D 3h	92.32	687.23	690.63		691.06	0.007214	2.89	31.93	20.11	0.73
Setta valle	100	TR100	D 1 5h	112.42	687.23	690.94		691.38	0.006528	2.91	38.61	22.71	0.71
Setta valle	100	TR100	D 2h	122.46	687.23	691.08		691.52	0.006296	2.93	41.80	23.86	0.71
Setta valle	100	TR100	D 3h	121.95	687.23	691.07		691.51	0.006306	2.93	41.64	23.80	0.71
Setta valle	100	TR200	D 1 5h	135.98	687.23	691.25		691.70	0.006042	2.96	45.99	25.28	0.70
Setta valle	100	TR200	D 2h	145.74	687.23	691.37		691.82	0.005874	2.98	48.92	26.13	0.69
Setta valle	100	TR200	D 3h	142.35	687.23	691.33		691.78	0.005938	2.97	47.89	25.84	0.70

HEC-RAS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Setta valle	100	TR500	D 1 5h	172.30	687.23	691.66		692.12	0.005466	3.03	56.82	28.22	0.68
Setta valle	100	TR500	D 2h	181.63	687.23	691.75		692.22	0.005383	3.06	59.40	28.87	0.68
Setta valle	100	TR500	D 3h	173.98	687.23	691.67		692.14	0.005450	3.04	57.29	28.34	0.68
Setta valle	97	TR20	D 1 5h	68.77	687.22	690.16	689.47	690.59	0.008738	2.92	23.51	16.24	0.78
Setta valle	97	TR20	D 2h	78.89	687.22	690.37	689.66	690.80	0.007944	2.90	27.21	18.04	0.75
Setta valle	97	TR20	D 3h	83.69	687.22	690.47	689.75	690.89	0.007626	2.89	28.95	18.83	0.74
Setta valle	97	TR30	D 1 5h	78.58	687.22	690.37	689.66	690.80	0.007965	2.90	27.10	17.99	0.75
Setta valle	97	TR30	D 2h	88.63	687.22	690.56	690.16	690.98	0.007363	2.89	30.69	19.59	0.74
Setta valle	97	TR30	D 3h	92.32	687.22	690.62	690.20	691.05	0.007180	2.89	31.98	20.13	0.73
Setta valle	97	TR100	D 1 5h	112.42	687.22	690.94	690.46	691.37	0.006482	2.90	38.72	22.75	0.71
Setta valle	97	TR100	D 2h	122.46	687.22	691.08	690.58	691.51	0.006251	2.92	41.91	23.90	0.70
Setta valle	97	TR100	D 3h	121.95	687.22	691.07	690.57	691.50	0.006261	2.92	41.76	23.84	0.70
Setta valle	97	TR200	D 1 5h	135.98	687.22	691.25	690.72	691.69	0.005997	2.95	46.12	25.32	0.70
Setta valle	97	TR200	D 2h	145.74	687.22	691.36	690.81	691.81	0.005827	2.97	49.06	26.17	0.69
Setta valle	97	TR200	D 3h	142.35	687.22	691.32	690.78	691.77	0.005892	2.96	48.03	25.88	0.69
Setta valle	97	TR500	D 1 5h	172.30	687.22	691.65	691.06	692.12	0.005422	3.02	56.99	28.26	0.68
Setta valle	97	TR500	D 2h	181.63	687.22	691.74	691.13	692.22	0.005340	3.05	59.57	28.91	0.68
Setta valle	97	TR500	D 3h	173.98	687.22	691.67	691.07	692.14	0.005406	3.03	57.46	28.38	0.68
Setta valle	96			Inl Struct									
Setta valle	95	TR20	D 1 5h	68.77	686.04	688.85	688.29	689.37	0.010991	3.21	21.45	15.15	0.86
Setta valle	95	TR20	D 2h	78.89	686.04	688.96	688.48	689.55	0.011969	3.41	23.14	16.05	0.91
Setta valle	95	TR20	D 3h	83.69	686.04	689.00	688.57	689.63	0.012364	3.50	23.94	16.46	0.93
Setta valle	95	TR30	D 1 5h	78.58	686.04	688.95	688.48	689.54	0.011943	3.40	23.09	16.02	0.91
Setta valle	95	TR30	D 2h	88.63	686.04	689.05	688.98	689.71	0.012750	3.58	24.75	16.87	0.94
Setta valle	95	TR30	D 3h	92.32	686.04	689.09	689.02	689.76	0.013030	3.64	25.34	17.16	0.96
Setta valle	95	TR100	D 1 5h	112.42	686.04	689.28	689.28	690.06	0.013892	3.90	28.84	18.78	1.00
Setta valle	95	TR100	D 2h	122.46	686.04	689.40	689.40	690.19	0.013646	3.94	31.04	19.74	1.00
Setta valle	95	TR100	D 3h	121.95	686.04	689.39	689.39	690.18	0.013653	3.94	30.94	19.69	1.00
Setta valle	95	TR200	D 1 5h	135.98	686.04	689.54	689.54	690.36	0.013358	4.01	33.94	20.93	1.00
Setta valle	95	TR200	D 2h	145.74	686.04	689.64	689.64	690.47	0.013181	4.05	35.99	21.73	1.00
Setta valle	95	TR200	D 3h	142.35	686.04	689.60	689.60	690.43	0.013240	4.03	35.28	21.45	1.00
Setta valle	95	TR500	D 1 5h	172.30	686.04	689.88	689.88	690.76	0.012726	4.15	41.47	23.74	1.00
Setta valle	95	TR500	D 2h	181.63	686.04	689.95	689.95	690.85	0.012610	4.19	43.32	24.38	1.00
Setta valle	95	TR500	D 3h	173.98	686.04	689.89	689.89	690.77	0.012716	4.16	41.79	23.85	1.00
Setta valle	90	TR20	D 1 5h	68.77	685.92	687.54	687.54	688.01	0.013151	3.05	22.58	24.32	1.01
Setta valle	90	TR20	D 2h	78.89	685.92	687.64	687.64	688.15	0.012608	3.15	25.08	24.90	1.00
Setta valle	90	TR20	D 3h	83.69	685.92	687.69	687.69	688.21	0.012472	3.20	26.18	25.16	1.00
Setta valle	90	TR30	D 1 5h	78.58	685.92	687.64	687.64	688.14	0.012616	3.14	25.01	24.89	1.00
Setta valle	90	TR30	D 2h	88.63	685.92	687.73	687.73	688.27	0.012348	3.25	27.29	25.41	1.00
Setta valle	90	TR30	D 3h	92.32	685.92	687.76	687.76	688.31	0.012261	3.28	28.11	25.59	1.00
Setta valle	90	TR100	D 1 5h	112.42	685.92	687.91	687.93	688.54	0.012420	3.52	31.94	26.44	1.02
Setta valle	90	TR100	D 2h	122.46	685.92	687.96	688.01	688.65	0.013132	3.69	33.20	26.72	1.06
Setta valle	90	TR100	D 3h	121.95	685.92	687.95	688.00	688.64	0.013259	3.70	33.00	26.67	1.06
Setta valle	90	TR200	D 1 5h	135.98	685.92	688.01	688.11	688.79	0.014349	3.93	34.59	27.01	1.11
Setta valle	90	TR200	D 2h	145.74	685.92	688.05	688.17	688.90	0.014990	4.08	35.72	27.25	1.14
Setta valle	90	TR200	D 3h	142.35	685.92	688.03	688.15	688.86	0.014848	4.04	35.26	27.16	1.13
Setta valle	90	TR500	D 1 5h	172.30	685.92	688.18	688.36	689.16	0.015794	4.38	39.31	28.00	1.18
Setta valle	90	TR500	D 2h	181.63	685.92	688.22	688.42	689.25	0.016097	4.49	40.49	28.24	1.20
Setta valle	90	TR500	D 3h	173.98	685.92	688.18	688.37	689.17	0.015939	4.41	39.45	28.03	1.19
Setta valle	80	TR20	D 1 5h	68.77	683.13	684.80	685.04	685.67	0.025069	4.11	16.73	18.63	1.38
Setta valle	80	TR20	D 2h	78.89	683.13	684.89	685.17	685.83	0.025160	4.30	18.33	19.09	1.40
Setta valle	80	TR20	D 3h	83.69	683.13	684.93	685.21	685.91	0.024953	4.37	19.14	19.35	1.40
Setta valle	80	TR30	D 1 5h	78.58	683.13	684.89	685.16	685.83	0.025193	4.30	18.27	19.07	1.40
Setta valle	80	TR30	D 2h	88.63	683.13	684.97	685.27	685.98	0.025046	4.44	19.97	19.79	1.41
Setta valle	80	TR30	D 3h	92.32	683.13	685.00	685.31	686.03	0.025149	4.49	20.56	20.10	1.42
Setta valle	80	TR100	D 1 5h	112.42	683.13	685.17	685.50	686.28	0.024496	4.66	24.11	21.86	1.42
Setta valle	80	TR100	D 2h	122.46	683.13	685.27	685.58	686.38	0.023190	4.66	26.26	22.86	1.39
Setta valle	80	TR100	D 3h	121.95	683.13	685.27	685.58	686.37	0.023017	4.65	26.25	22.86	1.38
Setta valle	80	TR200	D 1 5h	135.98	683.13	685.40	685.69	686.50	0.021469	4.65	29.26	24.19	1.35
Setta valle	80	TR200	D 2h	145.74	683.13	685.48	685.76	686.59	0.020745	4.67	31.23	25.03	1.33
Setta valle	80	TR200	D 3h	142.35	683.13	685.45	685.73	686.55	0.020942	4.66	30.58	24.75	1.34
Setta valle	80	TR500	D 1 5h	172.30	683.13	685.65	685.94	686.84	0.019778	4.84	35.59	26.00	1.32
Setta valle	80	TR500	D 2h	181.63	683.13	685.70	686.01	686.93	0.019452	4.90	37.08	26.28	1.32
Setta valle	80	TR500	D 3h	173.98	683.13	685.66	685.96	686.86	0.019640	4.85	35.91	26.06	1.32
Setta valle	70	TR20	D 1 5h	68.77	681.01	682.92	682.92	683.49	0.012365	3.35	20.55	18.03	1.00
Setta valle	70	TR20	D 2h	78.89	681.01	683.04	683.04	683.66	0.012095	3.48	22.64	18.35	1.00
Setta valle	70	TR20	D 3h	83.69	681.01	683.09	683.09	683.73	0.011997	3.55	23.60	18.49	1.00
Setta valle	70	TR30	D 1 5h	78.58	681.01	683.03	683.04	683.65	0.012106	3.48	22.58	18.34	1.00
Setta valle	70	TR30	D 2h	88.63	681.01	683.14	683.14	683.80	0.011913	3.61	24.57	18.63	1.00
Setta valle	70	TR30	D 3h	92.32	681.01	683.17	683.18	683.86	0.012016	3.67	25.17	18.72	1.01
Setta valle	70	TR100	D 1 5h	112.42	681.01	683.38	683.38	684.14	0.011627	3.88	28.99	19.27	1.01
Setta valle	70	TR100	D 2h	122.46	681.01	683.47	683.47	684.27	0.011471	3.97	30.83	19.52	1.01
Setta valle	70	TR100	D 3h	121.95	681.01	683.47	683.47	684.27	0.011480	3.97	30.74	19.51	1.01
Setta valle	70	TR200	D 1 5h	135.98	681.01	683.59	683.60	684.44	0.011263	4.09	33.28	19.86	1.01
Setta valle	70	TR200	D 2h	145.74	681.01	683.68	683.68	684.56	0.011157	4.17	34.98	20.09	1.01
Setta valle	70	TR200	D 3h	142.35	681.01	683.65	683.65	684.52	0.011164	4.14	34.42	20.02	1.01
Setta valle	70	TR500	D 1 5h	172.30	681.01	683.90	683.91	684.87	0.010884	4.36	39.50	20.70	1.01
Setta valle	70	TR500	D 2h	181.63	681.01	683.97	683.99	684.97	0.010808	4.43	41.04	20.90	1.01
Setta valle	70	TR500	D 3h	173.98	681.01	683.91	683.92	684.89	0.010875	4.37	39.77	20.73	1.01
Setta valle	60	TR20	D 1 5h	68.77	679.04	681.19	680.85	681.42	0.004922	2.09	32.96	29.89	0.63
Setta valle	60	TR20	D 2h	78.89	679.04	681.30	680.94	681.54	0.004948	2.17	36.28	31.06	0.64
Setta valle	60	TR20	D 3h	83.69	679.04	681.35	680.99	681.60	0.004945	2.21	37.85	31.60	0.64
Setta valle	60	TR30	D 1 5h	78.58	679.04	681.30	680.94	681.54	0.004948	2.17	36.18	31.03	0.64
Setta valle	60	TR30	D 2h	88.63	679.04	681.40	681.03	681.66	0.004934	2.25	39.47	32.15	0.65
Setta valle	60	TR30	D 3h	92.32	679.04	681.44	681.06	681.70	0.004921	2.27	40.68	32.55	0.65
Setta valle	60	TR100	D 1 5h	112.42	679.04	681.63	681.22	681.92	0.004853	2.39			

HEC-RAS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Setta valle	60	TR100	D 3h	121.95	679.04	681.72	681.29	682.02	0.004830	2.44	50.03	35.51	0.66
Setta valle	60	TR200	D 1 5h	135.98	679.04	681.84	681.39	682.15	0.004772	2.50	54.36	36.80	0.66
Setta valle	60	TR200	D 2h	145.74	679.04	681.92	681.46	682.25	0.004731	2.54	57.33	37.66	0.66
Setta valle	60	TR200	D 3h	142.35	679.04	681.89	681.44	682.21	0.004748	2.53	56.29	37.36	0.66
Setta valle	60	TR500	D 1 5h	172.30	679.04	682.12	681.63	682.47	0.004599	2.64	65.14	39.46	0.66
Setta valle	60	TR500	D 2h	181.63	679.04	682.18	681.69	682.55	0.004555	2.68	67.75	39.92	0.66
Setta valle	60	TR500	D 3h	173.98	679.04	682.13	681.64	682.49	0.004591	2.65	65.61	39.54	0.66
Setta valle	50	TR20	D 1 5h	68.77	676.90	678.57	678.57	679.11	0.012962	3.23	21.27	20.36	1.01
Setta valle	50	TR20	D 2h	78.89	676.90	678.68	678.68	679.26	0.012520	3.36	23.46	20.54	1.00
Setta valle	50	TR20	D 3h	83.69	676.90	678.73	678.73	679.32	0.012356	3.42	24.46	20.63	1.00
Setta valle	50	TR30	D 1 5h	78.58	676.90	678.68	678.68	679.25	0.012537	3.36	23.39	20.54	1.00
Setta valle	50	TR30	D 2h	88.63	676.90	678.78	678.78	679.39	0.012222	3.47	25.51	20.82	1.00
Setta valle	50	TR30	D 3h	92.32	676.90	678.82	678.82	679.44	0.012150	3.51	26.28	20.99	1.00
Setta valle	50	TR100	D 1 5h	112.42	676.90	679.01	679.01	679.70	0.011743	3.70	30.41	21.89	1.00
Setta valle	50	TR100	D 2h	122.46	676.90	679.10	679.10	679.83	0.011570	3.78	32.42	22.32	1.00
Setta valle	50	TR100	D 3h	121.95	676.90	679.10	679.10	679.82	0.011577	3.77	32.32	22.30	1.00
Setta valle	50	TR200	D 1 5h	135.98	676.90	679.22	679.22	679.98	0.011397	3.88	35.03	22.86	1.00
Setta valle	50	TR200	D 2h	145.74	676.90	679.30	679.30	680.09	0.011294	3.95	36.87	23.23	1.00
Setta valle	50	TR200	D 3h	142.35	676.90	679.27	679.27	680.05	0.011332	3.93	36.23	23.10	1.00
Setta valle	50	TR500	D 1 5h	172.30	676.90	679.50	679.50	680.37	0.011041	4.13	41.75	24.19	1.00
Setta valle	50	TR500	D 2h	181.63	676.90	679.57	679.57	680.46	0.010952	4.18	43.44	24.51	1.00
Setta valle	50	TR500	D 3h	173.98	676.90	679.51	679.51	680.39	0.011024	4.14	42.06	24.25	1.00
Setta valle	40	TR20	D 1 5h	68.77	672.25	673.26	673.94	675.88	0.095114	7.17	9.59	12.62	2.62
Setta valle	40	TR20	D 2h	78.89	672.25	673.35	674.08	676.11	0.091328	7.36	10.72	13.13	2.60
Setta valle	40	TR20	D 3h	83.69	672.25	673.39	674.14	676.21	0.089707	7.44	11.25	13.36	2.59
Setta valle	40	TR30	D 1 5h	78.58	672.25	673.35	674.08	676.10	0.091458	7.35	10.68	13.11	2.60
Setta valle	40	TR30	D 2h	88.63	672.25	673.43	674.20	676.30	0.088000	7.51	11.79	13.60	2.58
Setta valle	40	TR30	D 3h	92.32	672.25	673.46	674.25	676.38	0.086784	7.57	12.19	13.74	2.57
Setta valle	40	TR100	D 1 5h	112.42	672.25	673.61	674.47	676.75	0.078361	7.85	14.32	14.03	2.48
Setta valle	40	TR100	D 2h	122.46	672.25	673.68	674.60	676.92	0.074931	7.97	15.36	14.18	2.45
Setta valle	40	TR100	D 3h	121.95	672.25	673.68	674.59	676.91	0.075127	7.97	15.30	14.17	2.45
Setta valle	40	TR200	D 1 5h	135.98	672.25	673.78	674.77	677.13	0.070619	8.11	16.77	14.37	2.40
Setta valle	40	TR200	D 2h	145.74	672.25	673.85	674.87	677.28	0.068182	8.21	17.76	14.50	2.37
Setta valle	40	TR200	D 3h	142.35	672.25	673.83	674.84	677.23	0.069013	8.17	17.42	14.46	2.38
Setta valle	40	TR500	D 1 5h	172.30	672.25	674.03	675.11	677.66	0.062478	8.44	20.42	14.85	2.30
Setta valle	40	TR500	D 2h	181.63	672.25	674.10	675.19	677.78	0.060605	8.50	21.36	14.97	2.27
Setta valle	40	TR500	D 3h	173.98	672.25	674.04	675.13	677.68	0.062079	8.45	20.60	14.87	2.29
Setta valle	30			Bridge									
Setta valle	25	TR20	D 1 5h	68.77	671.25	672.67	672.94	673.72	0.024409	4.52	15.20	14.16	1.39
Setta valle	25	TR20	D 2h	78.89	671.25	672.75	673.08	673.95	0.026169	4.85	16.25	14.30	1.45
Setta valle	25	TR20	D 3h	83.69	671.25	672.78	673.14	674.05	0.026902	5.00	16.74	14.36	1.48
Setta valle	25	TR30	D 1 5h	78.58	671.25	672.75	673.08	673.94	0.025969	4.84	16.25	14.30	1.45
Setta valle	25	TR30	D 2h	88.63	671.25	672.82	673.20	674.16	0.027632	5.14	17.23	14.43	1.50
Setta valle	25	TR30	D 3h	92.32	671.25	672.85	673.25	674.23	0.027290	5.19	17.77	14.50	1.50
Setta valle	25	TR100	D 1 5h	112.42	671.25	672.97	673.47	674.66	0.030307	5.75	19.55	14.74	1.59
Setta valle	25	TR100	D 2h	122.46	671.25	673.04	673.60	674.86	0.031316	5.98	20.47	14.86	1.63
Setta valle	25	TR100	D 3h	121.95	671.25	673.03	673.59	674.85	0.031233	5.97	20.43	14.85	1.62
Setta valle	25	TR200	D 1 5h	135.98	671.25	673.12	673.77	675.12	0.032342	6.26	21.72	15.02	1.66
Setta valle	25	TR200	D 2h	145.74	671.25	673.17	673.88	675.31	0.033328	6.47	22.52	15.12	1.69
Setta valle	25	TR200	D 3h	142.35	671.25	673.15	673.84	675.24	0.033078	6.41	22.22	15.08	1.68
Setta valle	25	TR500	D 1 5h	172.30	671.25	673.30	674.12	675.84	0.036733	7.07	24.38	15.36	1.79
Setta valle	25	TR500	D 2h	181.63	671.25	673.35	674.20	676.00	0.037137	7.22	25.17	15.46	1.80
Setta valle	25	TR500	D 3h	173.98	671.25	673.30	674.14	675.87	0.037007	7.11	24.48	15.37	1.80
Setta valle	20	TR20	D 1 5h	68.77	667.41	669.36	669.28	669.75	0.009767	2.74	25.07	25.50	0.88
Setta valle	20	TR20	D 2h	78.89	667.41	669.45	669.37	669.87	0.009989	2.89	27.27	26.02	0.90
Setta valle	20	TR20	D 3h	83.69	667.41	669.50	669.41	669.94	0.009651	2.92	28.69	26.35	0.89
Setta valle	20	TR30	D 1 5h	78.58	667.41	669.44	669.37	669.87	0.010044	2.89	27.15	25.99	0.90
Setta valle	20	TR30	D 2h	88.63	667.41	669.54	669.46	669.99	0.009892	3.00	29.57	26.55	0.91
Setta valle	20	TR30	D 3h	92.32	667.41	669.56	669.49	670.04	0.010079	3.06	30.20	26.70	0.92
Setta valle	20	TR100	D 1 5h	112.42	667.41	669.68	669.65	670.26	0.011005	3.36	33.48	27.44	0.97
Setta valle	20	TR100	D 2h	122.46	667.41	669.71	669.73	670.36	0.012289	3.58	34.17	27.59	1.03
Setta valle	20	TR100	D 3h	121.95	667.41	669.70	669.72	670.36	0.012293	3.58	34.07	27.57	1.03
Setta valle	20	TR200	D 1 5h	135.98	667.41	669.79	669.83	670.50	0.012456	3.72	36.52	28.11	1.04
Setta valle	20	TR200	D 2h	145.74	667.41	669.85	669.90	670.59	0.012532	3.82	38.20	28.47	1.05
Setta valle	20	TR200	D 3h	142.35	667.41	669.83	669.87	670.56	0.012489	3.78	37.64	28.35	1.05
Setta valle	20	TR500	D 1 5h	172.30	667.41	670.00	670.07	670.83	0.012679	4.04	42.65	29.41	1.07
Setta valle	20	TR500	D 2h	181.63	667.41	670.05	670.14	670.92	0.012849	4.13	44.02	29.69	1.08
Setta valle	20	TR500	D 3h	173.98	667.41	670.01	670.08	670.85	0.012684	4.05	42.93	29.47	1.07
Setta valle	10	TR20	D 1 5h	68.77	664.96	666.57	666.57	666.89	0.014613	2.49	27.62	44.22	1.01
Setta valle	10	TR20	D 2h	78.89	664.96	666.67	666.67	666.98	0.014483	2.44	32.38	53.38	1.00
Setta valle	10	TR20	D 3h	83.69	664.96	666.72	666.72	667.01	0.015385	2.40	34.87	61.69	1.02
Setta valle	10	TR30	D 1 5h	78.58	664.96	666.67	666.67	666.97	0.014360	2.44	32.23	52.75	1.00
Setta valle	10	TR30	D 2h	88.63	664.96	666.74	666.74	667.04	0.015128	2.44	36.30	61.93	1.02
Setta valle	10	TR30	D 3h	92.32	664.96	666.76	666.76	667.07	0.014956	2.47	37.36	62.11	1.02
Setta valle	10	TR100	D 1 5h	112.42	664.96	666.84	666.84	667.20	0.014259	2.63	42.81	63.00	1.01
Setta valle	10	TR100	D 2h	122.46	664.96	666.89	666.89	667.26	0.013902	2.69	45.50	63.44	1.01
Setta valle	10	TR100	D 3h	121.95	664.96	666.89	666.89	667.25	0.013897	2.69	45.39	63.42	1.01
Setta valle	10	TR200	D 1 5h	135.98	664.96	666.94	666.94	667.34	0.013535	2.78	48.97	64.00	1.01
Setta valle	10	TR200	D 2h	145.74	664.96	666.98	666.98	667.39	0.013353	2.84	51.36	64.39	1.01
Setta valle	10	TR200	D 3h	142.35	664.96	666.95	666.97	667.37	0.014226	2.87	49.62	64.11	1.03
Setta valle	10	TR500	D 1 5h	172.30	664.96	667.05	667.07	667.54	0.014003	3.08	56.20	65.16	1.05
Setta valle	10	TR500	D 2h	181.63	664.96	667.08	667.11	667.58	0.014058	3.14	58.02	65.44	1.05
Setta valle	10	TR500	D 3h	173.98	664.96	667.06	667.08	667.54	0.014037	3.09	56.50	65.20	1.05
Setta valle	1	TR20	D 1 5h	68.77	660.78	662.12	662.50	663.32	0.031047	4.84	14.20	14.55	1.56
Setta valle	1	TR20	D 2h	78.89	660.78	662.24	662.63	663.48	0.029643	4.93	15.99	15.39	1.54
Setta valle	1	TR20	D 3h	83.69	660.78	662.32	662.69	663.52	0.02				

HEC-RAS (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Setta valle	1	TR30	D 2h	88.63	660.78	662.37	662.75	663.60	0.027010	4.90	18.09	16.40	1.49
Setta valle	1	TR30	D 3h	92.32	660.78	662.41	662.79	663.65	0.026822	4.94	18.70	16.68	1.49
Setta valle	1	TR100	D 1 5h	112.42	660.78	662.60	663.01	663.92	0.025657	5.09	22.07	18.16	1.47
Setta valle	1	TR100	D 2h	122.46	660.78	662.69	663.11	664.05	0.025228	5.17	23.69	18.83	1.47
Setta valle	1	TR100	D 3h	121.95	660.78	662.69	663.11	664.05	0.025283	5.17	23.60	18.79	1.47
Setta valle	1	TR200	D 1 5h	135.98	660.78	662.80	663.24	664.21	0.024568	5.25	25.89	19.70	1.46
Setta valle	1	TR200	D 2h	145.74	660.78	662.89	663.32	664.32	0.024034	5.30	27.51	20.32	1.45
Setta valle	1	TR200	D 3h	142.35	660.78	662.88	663.29	664.25	0.023033	5.18	27.46	20.30	1.42
Setta valle	1	TR500	D 1 5h	172.30	660.78	663.13	663.53	664.55	0.021268	5.27	32.68	22.18	1.39
Setta valle	1	TR500	D 2h	181.63	660.78	663.20	663.60	664.63	0.020668	5.28	34.37	22.75	1.37
Setta valle	1	TR500	D 3h	173.98	660.78	663.14	663.54	664.56	0.021126	5.27	33.00	22.29	1.38

RIO FOBBIO

HEC-RAS River: Fobbio Reach: Fobbio

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Fobbio	80	TR20	D_1_5h	36.94	684.27	685.87	686.11	686.94	0.026032	4.59	8.05	6.20	1.28
Fobbio	80	TR20	D_2h	36.43	684.27	685.85	686.10	686.92	0.026029	4.57	7.97	6.19	1.28
Fobbio	80	TR20	D_3h	31.47	684.27	685.73	685.95	686.70	0.026030	4.37	7.20	6.07	1.28
Fobbio	80	TR30	D_1_5h	41.06	684.27	685.97	686.23	687.11	0.026031	4.73	8.68	6.29	1.29
Fobbio	80	TR30	D_2h	39.99	684.27	685.94	686.20	687.06	0.026031	4.70	8.52	6.27	1.29
Fobbio	80	TR30	D_3h	34.29	684.27	685.80	686.04	686.83	0.026028	4.49	7.64	6.14	1.28
Fobbio	80	TR100	D_1_5h	55.18	684.27	686.28	686.80	687.63	0.026026	5.15	10.71	6.59	1.29
Fobbio	80	TR100	D_2h	52.31	684.27	686.22	686.74	687.53	0.026027	5.08	10.31	6.54	1.29
Fobbio	80	TR100	D_3h	44.19	684.27	686.04	686.32	687.23	0.026031	4.84	9.14	6.36	1.29
Fobbio	80	TR200	D_1_5h	64.87	684.27	686.64	686.97	687.83	0.026034	4.83	13.44	9.81	1.32
Fobbio	80	TR200	D_2h	60.84	684.27	686.40	686.90	687.83	0.026005	5.29	11.49	6.71	1.29
Fobbio	80	TR200	D_3h	51.10	684.27	686.19	686.72	687.49	0.026025	5.04	10.14	6.51	1.29
Fobbio	80	TR500	D_1_5h	79.88	684.27	686.89	687.22	688.14	0.026006	4.96	16.11	11.58	1.34
Fobbio	80	TR500	D_2h	74.10	684.27	686.81	687.13	688.01	0.026017	4.85	15.28	11.33	1.33
Fobbio	80	TR500	D_3h	61.89	684.27	686.42	686.92	687.86	0.025993	5.32	11.64	6.73	1.29
Fobbio	70	TR20	D_1_5h	36.94	681.34	682.68	683.14	684.21	0.044011	5.49	6.72	5.93	1.65
Fobbio	70	TR20	D_2h	36.43	681.34	682.67	683.12	684.19	0.044076	5.47	6.66	5.93	1.65
Fobbio	70	TR20	D_3h	31.47	681.34	682.55	682.97	683.96	0.044760	5.26	5.98	5.83	1.66
Fobbio	70	TR30	D_1_5h	41.06	681.34	682.77	683.26	684.40	0.043558	5.65	7.26	6.01	1.64
Fobbio	70	TR30	D_2h	39.99	681.34	682.74	683.23	684.35	0.043675	5.61	7.12	5.99	1.64
Fobbio	70	TR30	D_3h	34.29	681.34	682.62	683.06	684.09	0.044365	5.39	6.37	5.88	1.65
Fobbio	70	TR100	D_1_5h	55.18	681.34	683.06	683.63	684.95	0.042228	6.10	9.04	6.26	1.62
Fobbio	70	TR100	D_2h	52.31	681.34	683.00	683.56	684.85	0.042457	6.02	8.69	6.21	1.62
Fobbio	70	TR100	D_3h	44.19	681.34	682.83	683.34	684.53	0.043215	5.76	7.67	6.07	1.64
Fobbio	70	TR200	D_1_5h	64.87	681.34	683.29	683.87	685.23	0.038428	6.18	10.50	6.45	1.55
Fobbio	70	TR200	D_2h	60.84	681.34	683.17	683.77	685.16	0.041749	6.25	9.73	6.35	1.61
Fobbio	70	TR200	D_3h	51.10	681.34	682.98	683.52	684.80	0.042564	5.98	8.54	6.19	1.63
Fobbio	70	TR500	D_1_5h	79.88	681.34	683.61	684.20	685.65	0.034934	6.32	12.63	6.73	1.47
Fobbio	70	TR500	D_2h	74.10	681.34	683.49	684.07	685.49	0.035939	6.26	11.84	6.63	1.49
Fobbio	70	TR500	D_3h	61.89	681.34	683.19	683.79	685.19	0.041672	6.28	9.86	6.37	1.61
Fobbio	65			Bridge									
Fobbio	60	TR20	D_1_5h	36.94	681.09	682.04	682.39	683.18	0.040120	4.73	7.81	9.62	1.67
Fobbio	60	TR20	D_2h	36.43	681.09	682.04	682.37	683.16	0.039882	4.70	7.76	9.61	1.67
Fobbio	60	TR20	D_3h	31.47	681.09	681.98	682.27	682.95	0.037055	4.36	7.22	9.51	1.60
Fobbio	60	TR30	D_1_5h	41.06	681.09	682.09	682.47	683.34	0.041516	4.96	8.28	9.70	1.71
Fobbio	60	TR30	D_2h	39.99	681.09	682.08	682.45	683.30	0.041129	4.90	8.16	9.68	1.70
Fobbio	60	TR30	D_3h	34.29	681.09	682.01	682.33	683.07	0.038684	4.55	7.53	9.56	1.64
Fobbio	60	TR100	D_1_5h	55.18	681.09	683.37	682.74	683.69	0.004104	2.48	22.22	12.02	0.58
Fobbio	60	TR100	D_2h	52.31	681.09	682.21	682.69	683.77	0.045097	5.53	9.46	9.92	1.81
Fobbio	60	TR100	D_3h	44.19	681.09	682.12	682.53	683.47	0.043057	5.15	8.59	9.76	1.75
Fobbio	60	TR200	D_1_5h	64.87	681.09	683.84	682.91	684.12	0.002926	2.31	28.06	12.86	0.50
Fobbio	60	TR200	D_2h	60.84	681.09	683.58	682.84	683.89	0.003677	2.46	24.73	12.39	0.56
Fobbio	60	TR200	D_3h	51.10	681.09	682.20	682.67	683.73	0.044812	5.48	9.33	9.90	1.80
Fobbio	60	TR500	D_1_5h	79.88	681.09	684.56	683.15	684.79	0.001933	2.11	37.79	14.16	0.41
Fobbio	60	TR500	D_2h	74.10	681.09	684.21	683.06	684.47	0.002451	2.25	32.87	13.52	0.46
Fobbio	60	TR500	D_3h	61.89	681.09	683.59	682.86	683.91	0.003761	2.49	24.83	12.40	0.56
Fobbio	50	TR20	D_1_5h	40.00	679.97	682.32	681.68	682.57	0.003672	2.19	18.24	11.36	0.55
Fobbio	50	TR20	D_2h	38.39	679.97	682.22	681.65	682.48	0.004022	2.24	17.12	11.08	0.58
Fobbio	50	TR20	D_3h	32.55	679.97	681.83	681.50	682.15	0.006217	2.51	12.98	9.94	0.70
Fobbio	50	TR30	D_1_5h	44.30	679.97	682.57	681.78	682.80	0.002980	2.09	21.21	12.09	0.50
Fobbio	50	TR30	D_2h	42.06	679.97	682.44	681.73	682.68	0.003305	2.14	19.66	11.72	0.53
Fobbio	50	TR30	D_3h	35.45	679.97	682.03	681.57	682.31	0.004885	2.35	15.06	10.53	0.63
Fobbio	50	TR100	D_1_5h	59.07	679.97	683.37	682.07	683.55	0.001771	1.86	31.73	14.38	0.40
Fobbio	50	TR100	D_2h	54.79	679.97	683.15	682.00	683.33	0.002019	1.92	28.61	13.74	0.42
Fobbio	50	TR100	D_3h	45.65	679.97	682.65	681.81	682.87	0.002813	2.06	22.14	12.31	0.49
Fobbio	50	TR200	D_1_5h	69.21	679.97	683.84	682.27	684.01	0.001403	1.78	38.90	15.76	0.36
Fobbio	50	TR200	D_2h	63.62	679.97	683.59	682.16	683.76	0.001585	1.82	34.93	15.01	0.38
Fobbio	50	TR200	D_3h	52.77	679.97	683.04	681.96	683.23	0.002157	1.94	27.15	13.44	0.44
Fobbio	50	TR500	D_1_5h	84.94	679.97	684.57	682.53	684.71	0.001014	1.66	51.11	17.85	0.31
Fobbio	50	TR500	D_2h	77.37	679.97	684.22	682.40	684.37	0.001184	1.72	45.01	16.84	0.34
Fobbio	50	TR500	D_3h	63.89	679.97	683.60	682.17	683.77	0.001574	1.82	35.13	15.05	0.38
Fobbio	40			Culvert									
Fobbio	30	TR20	D_1_5h	40.00	677.96	678.93	679.67	681.81	0.118026	7.51	5.32	7.39	2.83
Fobbio	30	TR20	D_2h	38.39	677.96	678.95	679.64	681.47	0.101042	7.03	5.46	7.44	2.62
Fobbio	30	TR20	D_3h	32.55	677.96	678.90	679.49	681.02	0.091597	6.46	5.04	7.28	2.48
Fobbio	30	TR30	D_1_5h	44.30	677.96	678.97	679.76	682.13	0.123288	7.87	5.63	7.51	2.90
Fobbio	30	TR30	D_2h	42.06	677.96	678.95	679.71	681.98	0.121606	7.71	5.45	7.44	2.88
Fobbio	30	TR30	D_3h	35.45	677.96	678.92	679.56	681.24	0.096152	6.74	5.26	7.37	2.55
Fobbio	30	TR100	D_1_5h	59.07	677.96	679.10	680.06	683.15	0.136652	8.91	6.63	7.88	3.10
Fobbio	30	TR100	D_2h	54.79	677.96	679.06	679.98	682.93	0.136718	8.71	6.29	7.76	3.09
Fobbio	30	TR100	D_3h	45.65	677.96	678.99	679.79	682.24	0.125450	7.99	5.71	7.54	2.93
Fobbio	30	TR200	D_1_5h	69.21	677.96	680.25	680.25	681.04	0.012156	3.94	17.58	11.19	1.00
Fobbio	30	TR200	D_2h	63.62	677.96	680.15	680.15	680.91	0.012297	3.86	16.47	10.90	1.00
Fobbio	30	TR200	D_3h	52.77	677.96	679.04	679.94	682.78	0.134627	8.57	6.16	7.71	3.06
Fobbio	30	TR500	D_1_5h	84.94	677.96	680.52	680.52	681.38	0.011814	4.12	20.63	11.95	1.00
Fobbio	30	TR500	D_2h	77.37	677.96	680.39	680.39	681.22	0.011965	4.03	19.18	11.60	1.00
Fobbio	30	TR500	D_3h	63.89	677.96	680.15	680.15	680.92	0.012366	3.88	16.49	10.91	1.01
Fobbio	28.*	TR20	D_1_5h	40.00	676.44	677.88	678.43	679.66	0.061485	5.91	6.77	8.27	2.09
Fobbio	28.*	TR20	D_2h	38.39	676.44	677.87	678.39	679.56	0.059074	5.76	6.67	8.23	2.04
Fobbio	28.*	TR20	D_3h	32.55	676.44	677.79	678.26	679.27	0.056446	5.39	6.04	7.98	1.98
Fobbio	28.*	TR30	D_1_5h	44.30	676.44	677.93	678.52	679.88	0.063895	6.18	7.17	8.42	2.14

HEC-RAS River: Fobbio Reach: Fobbio (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Fobbio	28.*	TR30	D_2h	42.06	676.44	677.91	678.48	679.77	0.062774	6.04	6.96	8.34	2.11
Fobbio	28.*	TR30	D_3h	35.45	676.44	677.83	678.33	679.41	0.057670	5.57	6.36	8.11	2.01
Fobbio	28.*	TR100	D_1_5h	59.07	676.44	678.08	678.81	680.57	0.071582	7.00	8.44	8.92	2.30
Fobbio	28.*	TR100	D_2h	54.79	676.44	678.03	678.73	680.39	0.070042	6.80	8.06	8.77	2.26
Fobbio	28.*	TR100	D_3h	45.65	676.44	677.94	678.55	679.94	0.064707	6.26	7.29	8.47	2.15
Fobbio	28.*	TR200	D_1_5h	69.21	676.44	678.32	678.98	680.43	0.049985	6.43	10.76	9.79	1.96
Fobbio	28.*	TR200	D_2h	63.62	676.44	678.25	678.89	680.30	0.051208	6.34	10.04	9.53	1.97
Fobbio	28.*	TR200	D_3h	52.77	676.44	678.02	678.69	680.29	0.068910	6.68	7.90	8.70	2.24
Fobbio	28.*	TR500	D_1_5h	84.94	676.44	678.52	679.23	680.78	0.046962	6.66	12.76	10.48	1.93
Fobbio	28.*	TR500	D_2h	77.37	676.44	678.43	679.12	680.62	0.048305	6.56	11.80	10.16	1.94
Fobbio	28.*	TR500	D_3h	63.89	676.44	678.25	678.89	680.31	0.051259	6.35	10.06	9.54	1.97
Fobbio	26.*	TR20	D_1_5h	40.00	674.93	676.49	677.05	678.30	0.062788	5.95	6.72	8.28	2.11
Fobbio	26.*	TR20	D_2h	38.39	674.93	676.47	677.01	678.23	0.062100	5.87	6.54	8.18	2.09
Fobbio	26.*	TR20	D_3h	32.55	674.93	676.38	676.88	677.97	0.061078	5.59	5.82	7.72	2.06
Fobbio	26.*	TR30	D_1_5h	44.30	674.93	676.55	677.14	678.47	0.063531	6.13	7.22	8.58	2.13
Fobbio	26.*	TR30	D_2h	42.06	674.93	676.52	677.09	678.39	0.063340	6.05	6.96	8.43	2.12
Fobbio	26.*	TR30	D_3h	35.45	674.93	676.43	676.95	678.10	0.061531	5.73	6.19	7.96	2.07
Fobbio	26.*	TR100	D_1_5h	59.07	674.93	676.73	677.41	679.00	0.065597	6.67	8.85	9.49	2.21
Fobbio	26.*	TR100	D_2h	54.79	674.93	676.69	677.34	678.85	0.064943	6.52	8.40	9.24	2.18
Fobbio	26.*	TR100	D_3h	45.65	674.93	676.57	677.17	678.52	0.063656	6.18	7.38	8.67	2.14
Fobbio	26.*	TR200	D_1_5h	69.21	674.93	676.87	677.59	679.21	0.060828	6.76	10.23	10.14	2.15
Fobbio	26.*	TR200	D_2h	63.62	674.93	676.81	677.50	679.05	0.061367	6.63	9.59	9.87	2.15
Fobbio	26.*	TR200	D_3h	52.77	674.93	676.66	677.30	678.78	0.064630	6.45	8.18	9.12	2.17
Fobbio	26.*	TR500	D_1_5h	84.94	674.93	677.04	677.83	679.60	0.058814	7.09	11.98	10.76	2.14
Fobbio	26.*	TR500	D_2h	77.37	674.93	676.96	677.72	679.42	0.059820	6.94	11.15	10.48	2.15
Fobbio	26.*	TR500	D_3h	63.89	674.93	676.81	677.50	679.06	0.061398	6.64	9.62	9.88	2.15
Fobbio	24.*	TR20	D_1_5h	40.00	673.41	674.92	675.50	676.83	0.070123	6.13	6.53	8.40	2.22
Fobbio	24.*	TR20	D_2h	38.39	673.41	674.90	675.46	676.77	0.070042	6.06	6.33	8.28	2.21
Fobbio	24.*	TR20	D_3h	32.55	673.41	674.81	675.33	676.53	0.070074	5.82	5.60	7.80	2.19
Fobbio	24.*	TR30	D_1_5h	44.30	673.41	674.98	675.58	677.00	0.070177	6.29	7.04	8.72	2.24
Fobbio	24.*	TR30	D_2h	42.06	673.41	674.95	675.54	676.91	0.070174	6.21	6.77	8.56	2.23
Fobbio	24.*	TR30	D_3h	35.45	673.41	674.85	675.39	676.65	0.070015	5.94	5.97	8.05	2.20
Fobbio	24.*	TR100	D_1_5h	59.07	673.41	675.16	675.86	677.51	0.070032	6.79	8.70	9.59	2.27
Fobbio	24.*	TR100	D_2h	54.79	673.41	675.11	675.78	677.37	0.070002	6.65	8.24	9.36	2.26
Fobbio	24.*	TR100	D_3h	45.65	673.41	675.00	675.61	677.05	0.070136	6.34	7.20	8.82	2.24
Fobbio	24.*	TR200	D_1_5h	69.21	673.41	675.28	676.02	677.78	0.067958	7.00	9.88	10.15	2.26
Fobbio	24.*	TR200	D_2h	63.62	673.41	675.22	675.94	677.62	0.068238	6.86	9.28	9.86	2.26
Fobbio	24.*	TR200	D_3h	52.77	673.41	675.09	675.74	677.30	0.069957	6.58	8.02	9.24	2.26
Fobbio	24.*	TR500	D_1_5h	84.94	673.41	675.44	676.26	678.20	0.067321	7.37	11.53	10.88	2.28
Fobbio	24.*	TR500	D_2h	77.37	673.41	675.37	676.15	678.01	0.067628	7.20	10.75	10.54	2.28
Fobbio	24.*	TR500	D_3h	63.89	673.41	675.22	675.94	677.63	0.068228	6.87	9.31	9.88	2.26
Fobbio	22.*	TR20	D_1_5h	40.00	671.90	673.25	673.82	675.20	0.079364	6.18	6.47	9.15	2.34
Fobbio	22.*	TR20	D_2h	38.39	671.90	673.23	673.79	675.14	0.079506	6.11	6.28	9.04	2.34
Fobbio	22.*	TR20	D_3h	32.55	671.90	673.15	673.66	674.89	0.079819	5.84	5.57	8.63	2.32
Fobbio	22.*	TR30	D_1_5h	44.30	671.90	673.31	673.91	675.36	0.079164	6.35	6.97	9.43	2.36
Fobbio	22.*	TR30	D_2h	42.06	671.90	673.28	673.87	675.28	0.079318	6.26	6.71	9.29	2.35
Fobbio	22.*	TR30	D_3h	35.45	671.90	673.19	673.73	675.01	0.079623	5.98	5.93	8.84	2.33
Fobbio	22.*	TR100	D_1_5h	59.07	671.90	673.47	674.17	675.88	0.078818	6.87	8.60	10.29	2.40
Fobbio	22.*	TR100	D_2h	54.79	671.90	673.43	674.10	675.73	0.078878	6.73	8.14	10.05	2.39
Fobbio	22.*	TR100	D_3h	45.65	671.90	673.32	673.93	675.41	0.079063	6.40	7.13	9.52	2.36
Fobbio	22.*	TR200	D_1_5h	69.21	671.90	673.58	674.33	676.18	0.077999	7.14	9.69	10.82	2.41
Fobbio	22.*	TR200	D_2h	63.62	671.90	673.52	674.24	676.01	0.078181	6.99	9.10	10.54	2.40
Fobbio	22.*	TR200	D_3h	52.77	671.90	673.41	674.06	675.67	0.078885	6.66	7.92	9.94	2.38
Fobbio	22.*	TR500	D_1_5h	84.94	671.90	673.72	674.54	676.61	0.077490	7.53	11.28	11.56	2.43
Fobbio	22.*	TR500	D_2h	77.37	671.90	673.65	674.44	676.41	0.077730	7.35	10.52	11.21	2.42
Fobbio	22.*	TR500	D_3h	63.89	671.90	673.52	674.25	676.02	0.078177	7.00	9.13	10.55	2.40
Fobbio	20	TR20	D_1_5h	43.06	670.38	671.59	672.11	673.42	0.080037	6.00	7.18	10.83	2.35
Fobbio	20	TR20	D_2h	40.35	670.38	671.55	672.07	673.34	0.081359	5.92	6.82	10.62	2.36
Fobbio	20	TR20	D_3h	33.62	670.38	671.47	671.94	673.08	0.081639	5.63	5.97	10.08	2.33
Fobbio	20	TR30	D_1_5h	47.55	670.38	671.63	672.19	673.58	0.080565	6.18	7.69	11.12	2.37
Fobbio	20	TR30	D_2h	44.13	670.38	671.59	672.14	673.48	0.081825	6.09	7.25	10.87	2.38
Fobbio	20	TR30	D_3h	36.61	670.38	671.51	672.00	673.21	0.082086	5.78	6.34	10.32	2.35
Fobbio	20	TR100	D_1_5h	62.96	670.38	671.77	672.44	674.09	0.081933	6.73	9.35	12.02	2.44
Fobbio	20	TR100	D_2h	57.27	670.38	671.72	672.35	673.93	0.082992	6.59	8.69	11.67	2.44
Fobbio	20	TR100	D_3h	47.10	670.38	671.62	672.19	673.60	0.083351	6.24	7.54	11.04	2.41
Fobbio	20	TR200	D_1_5h	73.56	670.38	671.86	672.58	674.40	0.082528	7.05	10.43	12.57	2.47
Fobbio	20	TR200	D_2h	66.41	670.38	671.80	672.48	674.21	0.083555	6.88	9.65	12.18	2.47
Fobbio	20	TR200	D_3h	54.43	670.38	671.69	672.30	673.86	0.083912	6.52	8.35	11.49	2.44
Fobbio	20	TR500	D_1_5h	89.99	670.38	671.99	672.77	674.83	0.083163	7.48	12.04	13.35	2.51
Fobbio	20	TR500	D_2h	80.64	670.38	671.91	672.67	674.62	0.084320	7.29	11.06	12.88	2.51
Fobbio	20	TR500	D_3h	65.89	670.38	671.79	672.48	674.22	0.084495	6.90	9.55	12.13	2.48
Fobbio	10	TR20	D_1_5h	46.11	660.78	662.12	662.79	664.34	0.062134	6.60	6.98	6.69	2.06
Fobbio	10	TR20	D_2h	42.31	660.78	662.06	662.70	664.17	0.062328	6.44	6.57	6.58	2.06
Fobbio	10	TR20	D_3h	34.70	660.78	661.92	662.50	663.82	0.063372	6.10	5.69	6.34	2.06
Fobbio	10	TR30	D_1_5h	50.79	660.78	662.20	662.91	664.53	0.061445	6.77	7.51	6.83	2.06
Fobbio	10	TR30	D_2h	46.19	660.78	662.12	662.80	664.34	0.061746	6.59	7.01	6.70	2.06
Fobbio	10	TR30	D_3h	37.77	660.78	661.98	662.58	663.96	0.062809	6.24	6.05	6.44	2.05
Fobbio	10	TR100	D_1_5h	66.84	660.78	662.44	663.27	665.12	0.059599	7.25	9.22	7.26	2.05
Fobbio	10	TR100	D_2h	59.75	660.78	662.34	663.12	664.86	0.060111	7.04	8.49	7.08	2.05
Fobbio	10	TR100	D_3h	48.56	660.78	662.16	662.85	664.43	0.061118	6.67	7.29	6.77	2.05
Fobbio	10	TR200	D_1_5h	77.90	660.78	662.59	663.49	665.48	0.058636	7.53	10.35	7.53	2.05
Fobbio	10	TR200	D_2h	69.19	660.78	662.47	663.31	665.19	0.059215	7.31	9.47	7.32	2.05
Fobbio	10	TR200	D_3h	56.10	660.78	662.28	663.03	664.72	0.060270	6.92	8.11	6.98	2.05

HEC-RAS River: Fobbio Reach: Fobbio (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Fobbio	10	TR500	D_1_5h	95.05	660.78	662.81	663.80	665.99	0.057432	7.90	12.03	7.91	2.04
Fobbio	10	TR500	D_2h	83.90	660.78	662.67	663.60	665.66	0.058050	7.66	10.95	7.67	2.05
Fobbio	10	TR500	D_3h	67.89	660.78	662.46	663.29	665.15	0.059190	7.26	9.35	7.29	2.05
Fobbio	1	TR20	D_1_5h	49.17	646.56	647.67	648.29	649.97	0.087248	6.72	7.32	9.74	2.47
Fobbio	1	TR20	D_2h	44.27	646.56	647.61	648.22	649.78	0.087523	6.52	6.79	9.50	2.46
Fobbio	1	TR20	D_3h	35.77	646.56	647.52	648.09	649.40	0.086437	6.09	5.88	9.05	2.41
Fobbio	1	TR30	D_1_5h	54.03	646.56	647.72	648.35	650.16	0.088328	6.92	7.81	10.02	2.50
Fobbio	1	TR30	D_2h	48.26	646.56	647.66	648.28	649.95	0.088372	6.71	7.19	9.68	2.49
Fobbio	1	TR30	D_3h	38.93	646.56	647.55	648.14	649.55	0.087260	6.26	6.21	9.22	2.44
Fobbio	1	TR100	D_1_5h	70.73	646.56	647.90	648.56	650.49	0.094955	7.13	9.93	12.96	2.60
Fobbio	1	TR100	D_2h	62.23	646.56	647.81	648.45	650.34	0.093247	7.05	8.83	11.54	2.57
Fobbio	1	TR100	D_3h	50.01	646.56	647.67	648.30	650.04	0.089697	6.82	7.34	9.75	2.51
Fobbio	1	TR200	D_1_5h	82.24	646.56	648.00	648.70	650.73	0.098397	7.33	11.22	14.47	2.66
Fobbio	1	TR200	D_2h	71.97	646.56	647.91	648.58	650.54	0.096535	7.19	10.01	13.07	2.62
Fobbio	1	TR200	D_3h	57.76	646.56	647.76	648.40	650.27	0.092072	7.03	8.22	10.66	2.55
Fobbio	1	TR500	D_1_5h	100.10	646.56	648.11	648.91	651.15	0.102502	7.73	12.95	15.90	2.73
Fobbio	1	TR500	D_2h	87.17	646.56	648.03	648.76	650.86	0.100891	7.46	11.69	14.97	2.69
Fobbio	1	TR500	D_3h	69.89	646.56	647.89	648.55	650.52	0.096629	7.18	9.73	12.72	2.62

TORRENTE FIUMENTA

HEC-RAS

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Fiumenta monte	30	TR20	D 1_5h	57.50	303.01	304.17	304.36	304.97	0.021038	3.95	14.56	15.08	1.28
Fiumenta monte	30	TR20	D 2h	65.08	303.01	304.25	304.46	305.12	0.021039	4.11	15.82	15.37	1.29
Fiumenta monte	30	TR20	D 3h	66.91	303.01	304.27	304.48	305.15	0.021040	4.15	16.12	15.44	1.30
Fiumenta monte	30	TR30	D 1_5h	65.64	303.01	304.26	304.47	305.13	0.021040	4.13	15.91	15.39	1.30
Fiumenta monte	30	TR30	D 2h	73.00	303.01	304.34	304.56	305.27	0.021041	4.27	17.09	15.66	1.31
Fiumenta monte	30	TR30	D 3h	73.71	303.01	304.34	304.58	305.28	0.021036	4.28	17.20	15.69	1.31
Fiumenta monte	30	TR100	D 1_5h	94.07	303.01	304.54	304.85	305.63	0.021016	4.63	20.30	16.37	1.33
Fiumenta monte	30	TR100	D 2h	100.55	303.01	304.60	304.92	305.73	0.021005	4.72	21.30	16.70	1.33
Fiumenta monte	30	TR100	D 3h	97.09	303.01	304.56	304.88	305.68	0.020997	4.68	20.75	16.48	1.33
Fiumenta monte	30	TR200	D 1_5h	113.57	303.01	304.72	305.08	305.92	0.021003	4.86	23.35	17.50	1.34
Fiumenta monte	30	TR200	D 2h	119.43	303.01	304.77	305.14	306.00	0.021038	4.92	24.26	17.89	1.35
Fiumenta monte	30	TR200	D 3h	113.18	303.01	304.71	305.07	305.92	0.021003	4.86	23.29	17.48	1.34
Fiumenta monte	30	TR500	D 1_5h	143.57	303.01	304.99	305.38	306.28	0.021021	5.04	28.47	20.29	1.36
Fiumenta monte	30	TR500	D 2h	148.49	303.01	305.03	305.42	306.34	0.021021	5.07	29.29	20.73	1.36
Fiumenta monte	30	TR500	D 3h	138.14	303.01	304.94	305.33	306.22	0.021020	5.01	27.55	19.79	1.36
Fiumenta monte	25	TR20	D 1_5h	58.24	298.70	300.36	300.75	301.72	0.028355	5.16	11.29	8.44	1.42
Fiumenta monte	25	TR20	D 2h	66.07	298.70	300.51	300.91	301.92	0.027316	5.28	12.52	8.73	1.41
Fiumenta monte	25	TR20	D 3h	68.21	298.70	300.55	300.95	301.98	0.026985	5.30	12.87	8.81	1.40
Fiumenta monte	25	TR30	D 1_5h	66.53	298.70	300.51	300.91	301.94	0.027293	5.29	12.59	8.75	1.41
Fiumenta monte	25	TR30	D 2h	74.16	298.70	300.65	301.19	302.12	0.026427	5.39	13.77	9.02	1.39
Fiumenta monte	25	TR30	D 3h	75.15	298.70	300.67	301.22	302.15	0.026226	5.39	13.94	9.06	1.39
Fiumenta monte	25	TR100	D 1_5h	95.31	298.70	300.99	301.73	302.60	0.024601	5.62	16.95	9.71	1.36
Fiumenta monte	25	TR100	D 2h	102.13	298.70	301.16	301.78	302.66	0.025644	5.41	18.87	12.24	1.39
Fiumenta monte	25	TR100	D 3h	99.07	298.70	301.10	301.76	302.63	0.025148	5.48	18.08	11.20	1.38
Fiumenta monte	25	TR200	D 1_5h	115.15	298.70	301.43	301.87	302.71	0.028689	5.01	23.00	19.36	1.47
Fiumenta monte	25	TR200	D 2h	121.39	298.70	301.51	301.91	302.75	0.029478	4.93	24.62	21.92	1.48
Fiumenta monte	25	TR200	D 3h	115.54	298.70	301.44	301.87	302.71	0.028626	4.98	23.21	19.71	1.46
Fiumenta monte	25	TR500	D 1_5h	145.68	298.70	301.73	302.05	302.86	0.032050	4.70	30.98	32.46	1.54
Fiumenta monte	25	TR500	D 2h	150.45	298.70	301.75	302.08	302.91	0.032269	4.77	31.54	32.49	1.55
Fiumenta monte	25	TR500	D 3h	141.07	298.70	301.72	302.03	302.81	0.031676	4.63	30.48	32.43	1.52
Fiumenta monte	20	TR20	D 1_5h	58.98	288.06	289.26	289.79	291.02	0.065585	5.88	10.03	13.40	2.17
Fiumenta monte	20	TR20	D 2h	67.07	288.06	289.32	289.90	291.29	0.068134	6.22	10.78	13.60	2.23
Fiumenta monte	20	TR20	D 3h	69.50	288.06	289.33	289.93	291.37	0.068800	6.32	11.00	13.65	2.25
Fiumenta monte	20	TR30	D 1_5h	67.42	288.06	289.32	289.91	291.30	0.068286	6.24	10.81	13.60	2.23
Fiumenta monte	20	TR30	D 2h	75.32	288.06	289.37	290.01	291.55	0.070422	6.54	11.51	13.78	2.29
Fiumenta monte	20	TR30	D 3h	76.58	288.06	289.38	290.02	291.59	0.070801	6.59	11.62	13.81	2.29
Fiumenta monte	20	TR100	D 1_5h	96.54	288.06	289.50	290.27	292.19	0.075398	7.27	13.27	14.22	2.40
Fiumenta monte	20	TR100	D 2h	103.72	288.06	289.57	290.35	292.25	0.069924	7.26	14.28	14.46	2.33
Fiumenta monte	20	TR100	D 3h	101.06	288.06	289.54	290.31	292.23	0.071895	7.27	13.90	14.37	2.36
Fiumenta monte	20	TR200	D 1_5h	116.73	288.06	289.71	290.49	292.30	0.059016	7.13	16.37	14.96	2.18
Fiumenta monte	20	TR200	D 2h	123.35	288.06	289.77	290.56	292.37	0.056322	7.15	17.26	15.17	2.14
Fiumenta monte	20	TR200	D 3h	117.90	288.06	289.72	290.50	292.32	0.058714	7.14	16.51	14.99	2.17
Fiumenta monte	20	TR500	D 1_5h	147.79	288.06	289.98	290.80	292.62	0.048803	7.21	20.50	15.89	2.03
Fiumenta monte	20	TR500	D 2h	152.41	288.06	290.01	290.84	292.69	0.048271	7.25	21.02	16.01	2.02
Fiumenta monte	20	TR500	D 3h	144.01	288.06	289.95	290.76	292.57	0.049400	7.18	20.06	15.80	2.03
Fiumenta monte	15	TR20	D 1_5h	58.98	284.38	286.41	286.52	287.18	0.016322	3.89	15.15	12.20	1.12
Fiumenta monte	15	TR20	D 2h	67.07	284.38	286.53	286.65	287.35	0.016320	4.02	16.69	12.81	1.12
Fiumenta monte	15	TR20	D 3h	69.50	284.38	286.56	286.87	287.40	0.016332	4.06	17.10	12.90	1.13
Fiumenta monte	15	TR30	D 1_5h	67.42	284.38	286.53	286.65	287.36	0.016319	4.02	16.76	12.84	1.12
Fiumenta monte	15	TR30	D 2h	75.32	284.38	286.63	286.93	287.52	0.016389	4.18	18.03	13.05	1.13
Fiumenta monte	15	TR30	D 3h	76.58	284.38	286.65	286.94	287.55	0.016402	4.20	18.23	13.08	1.14
Fiumenta monte	15	TR100	D 1_5h	96.54	284.38	287.01	287.13	287.75	0.017265	3.80	25.40	22.85	1.15
Fiumenta monte	15	TR100	D 2h	103.72	284.38	287.05	287.21	287.84	0.017823	3.94	26.31	22.94	1.17
Fiumenta monte	15	TR100	D 3h	101.06	284.38	287.04	287.17	287.81	0.017605	3.89	25.98	22.91	1.17
Fiumenta monte	15	TR200	D 1_5h	116.73	284.38	287.11	287.34	288.01	0.019011	4.20	27.79	23.10	1.22
Fiumenta monte	15	TR200	D 2h	123.35	284.38	287.16	287.40	288.09	0.019499	4.28	28.82	23.77	1.24
Fiumenta monte	15	TR200	D 3h	117.90	284.38	287.12	287.35	288.03	0.019068	4.21	27.98	23.19	1.22
Fiumenta monte	15	TR500	D 1_5h	147.79	284.38	287.30	287.64	288.36	0.021423	4.57	32.33	26.04	1.31
Fiumenta monte	15	TR500	D 2h	152.41	284.38	287.32	287.67	288.41	0.021684	4.62	33.01	26.46	1.32
Fiumenta monte	15	TR500	D 3h	144.01	284.38	287.28	287.61	288.32	0.021156	4.53	31.79	25.71	1.30
Fiumenta monte	10	TR20	D 1_5h	59.72	277.23	278.80	279.63	281.46	0.068178	7.22	8.27	7.71	2.23
Fiumenta monte	10	TR20	D 2h	68.06	277.23	278.93	279.74	281.70	0.065466	7.37	9.23	8.06	2.20
Fiumenta monte	10	TR20	D 3h	70.80	277.23	278.97	279.77	281.76	0.064464	7.41	9.55	8.17	2.19
Fiumenta monte	10	TR30	D 1_5h	68.31	277.23	278.93	279.74	281.71	0.065519	7.38	9.25	8.06	2.20
Fiumenta monte	10	TR30	D 2h	76.48	277.23	279.04	279.85	281.92	0.063125	7.51	10.18	8.38	2.18
Fiumenta monte	10	TR30	D 3h	78.02	277.23	279.06	279.86	281.95	0.062523	7.53	10.37	8.44	2.17
Fiumenta monte	10	TR100	D 1_5h	97.78	277.23	279.39	280.10	281.79	0.069926	6.86	14.25	15.05	2.25
Fiumenta monte	10	TR100	D 2h	105.30	277.23	279.46	280.18	281.88	0.065709	6.90	15.26	15.19	2.20
Fiumenta monte	10	TR100	D 3h	103.04	277.23	279.44	280.16	281.85	0.066807	6.89	14.96	15.15	2.21
Fiumenta monte	10	TR200	D 1_5h	118.30	277.23	279.57	280.32	282.03	0.059386	6.95	17.02	15.50	2.12
Fiumenta monte	10	TR200	D 2h	125.31	277.23	279.63	280.39	282.11	0.056764	6.98	17.96	15.70	2.08
Fiumenta monte	10	TR200	D 3h	120.25	277.23	279.59	280.34	282.06	0.058602	6.96	17.28	15.56	2.11
Fiumenta monte	10	TR500	D 1_5h	149.90	277.23	279.84	280.62	282.37	0.049370	7.06	21.24	16.40	1.98
Fiumenta monte	10	TR500	D 2h	154.37	277.23	279.87	280.65	282.43	0.048460	7.08	21.80	16.51	1.97
Fiumenta monte	10	TR500	D 3h	146.94	277.23	279.81	280.59	282.34	0.050000	7.04	20.86	16.32	1.99
Fiumenta monte	5	TR20	D 1_5h	60.46	275.56	277.27	277.30	277.99	0.013691	3.74	16.17	11.96	1.03
Fiumenta monte	5	TR20	D 2h	69.05	275.56	277.38	277.43	278.18	0.014210	3.96	17.42	12.02	1.05
Fiumenta monte	5	TR20	D 3h	72.09	275.56	277.41	277.47	278.24	0.014368	4.04	17.86	12.04	1.06
Fiumenta monte	5	TR30	D 1_5h	69.20	275.56	277.38	277.43	278.18	0.014243	3.97	17.44	12.02	1.05
Fiumenta monte	5	TR30	D 2h	77.64	275.56	277.48	277.55	278.36	0.014676	4.17	18.62	12.08	1.07
Fiumenta monte	5	TR30	D 3h	79.45	275.56	277.50	277.57	278.40	0.014741	4.21	18.88	12.09	1.07
Fiumenta monte	5	TR100	D 1_5h	99.01	275.56	277.83	277.83	278.78	0.012718	4.31	22.97	12.29	1.01
Fiumenta monte	5	TR100	D 2h	106.88	275.56	277.94	277.94	278.93	0.012522	4.40	24.30	12.35	1.00
Fiumenta monte	5	TR100	D 3h	105.02	275.56	277.92	277.92	278.89	0.012527	4.37	24.01	12.34	1.00
Fiumenta monte	5	TR200	D 1_5h	119.88	275.56	278.10	278.11	279.16	0.012504	4.56	26.28	12.44	1.00
Fiumenta monte	5	TR200	D 2h	127.27	275.56	278.							

HEC-RAS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Fiumenta monte	5	TR500	D_3h	149.87	275.56	278.45	278.45	279.67	0.012505	4.90	30.60	12.64	1.00
Fiumenta monte	3			Bridge									
Fiumenta monte	1	TR20	D_1_5h	60.46	275.04	276.81	276.81	277.47	0.012784	3.60	16.79	12.90	1.01
Fiumenta monte	1	TR20	D_2h	69.05	275.04	276.91	276.94	277.65	0.013466	3.83	18.01	12.98	1.04
Fiumenta monte	1	TR20	D_3h	72.09	275.04	276.98	276.98	277.72	0.012564	3.80	18.95	13.03	1.01
Fiumenta monte	1	TR30	D_1_5h	69.20	275.04	276.91	276.94	277.66	0.013474	3.84	18.03	12.98	1.04
Fiumenta monte	1	TR30	D_2h	77.64	275.04	277.06	277.05	277.83	0.012373	3.88	20.00	13.09	1.00
Fiumenta monte	1	TR30	D_3h	79.45	275.04	277.12	277.08	277.86	0.011431	3.81	20.84	13.14	0.97
Fiumenta monte	1	TR100	D_1_5h	99.01	275.04	277.33	277.34	278.23	0.012217	4.20	23.59	13.30	1.01
Fiumenta monte	1	TR100	D_2h	106.88	275.04	277.43	277.43	278.37	0.012070	4.29	24.93	13.38	1.00
Fiumenta monte	1	TR100	D_3h	105.02	275.04	277.69		278.38	0.007932	3.70	28.37	13.57	0.82
Fiumenta monte	1	TR200	D_1_5h	119.88	275.04	277.58	277.58	278.59	0.012016	4.45	26.97	13.49	1.00
Fiumenta monte	1	TR200	D_2h	127.27	275.04	277.66	277.66	278.71	0.012009	4.53	28.08	13.56	1.01
Fiumenta monte	1	TR200	D_3h	122.61	275.04	278.02	277.62	278.72	0.006940	3.71	33.40	17.44	0.77
Fiumenta monte	1	TR500	D_1_5h	152.01	275.04	277.99	277.99	279.10	0.011071	4.66	32.90	17.02	0.97
Fiumenta monte	1	TR500	D_2h	156.33	275.04	278.13	278.05	279.16	0.009792	4.51	35.46	19.00	0.91
Fiumenta monte	1	TR500	D_3h	149.87	275.04	278.55	277.96	279.19	0.005339	3.59	44.63	23.56	0.68
Fiumenta valle	85	TR20	D_1_5h	71.92	273.88	275.33	275.67	276.65	0.028354	5.09	14.13	10.57	1.40
Fiumenta valle	85	TR20	D_2h	85.88	273.88	275.61	275.88	276.89	0.022743	5.03	17.08	10.62	1.27
Fiumenta valle	85	TR20	D_3h	98.52	273.88	275.97	276.06	277.09	0.016309	4.71	20.93	10.70	1.07
Fiumenta valle	85	TR30	D_1_5h	82.99	273.88	275.52	275.84	276.86	0.025121	5.14	16.16	10.61	1.33
Fiumenta valle	85	TR30	D_2h	97.35	273.88	275.79	276.05	277.12	0.020918	5.10	19.09	10.66	1.22
Fiumenta valle	85	TR30	D_3h	109.49	273.88	276.22	276.22	277.31	0.014075	4.63	23.63	10.75	1.00
Fiumenta valle	85	TR100	D_1_5h	121.07	273.88	276.16	276.37	277.57	0.018516	5.25	23.05	10.74	1.14
Fiumenta valle	85	TR100	D_2h	137.13	273.88	276.70	276.79	277.78	0.016185	4.62	29.66	15.79	1.08
Fiumenta valle	85	TR100	D_3h	147.15	273.88	276.89	276.89	277.92	0.013832	4.50	32.67	15.86	1.00
Fiumenta valle	85	TR200	D_1_5h	147.64	273.88	276.70	276.90	277.96	0.018731	4.98	29.67	15.79	1.16
Fiumenta valle	85	TR200	D_2h	164.63	273.88	277.00	277.05	278.16	0.014782	4.79	34.40	15.89	1.04
Fiumenta valle	85	TR200	D_3h	173.32	273.88	277.13	277.13	278.28	0.013609	4.74	36.56	15.94	1.00
Fiumenta valle	85	TR500	D_1_5h	188.84	273.88	277.07	277.26	278.50	0.017428	5.30	35.66	15.92	1.13
Fiumenta valle	85	TR500	D_2h	207.10	273.88	277.79	277.43	278.77	0.009001	4.39	47.18	16.16	0.82
Fiumenta valle	85	TR500	D_3h	213.82	273.88	277.92	277.48	278.88	0.008412	4.34	49.31	16.20	0.79
Fiumenta valle	80	TR20	D_1_5h	71.92	272.92	275.58	274.71	275.93	0.005823	2.64	27.19	15.74	0.64
Fiumenta valle	80	TR20	D_2h	85.88	272.92	275.83	274.91	276.22	0.005383	2.75	31.28	15.83	0.62
Fiumenta valle	80	TR20	D_3h	98.52	272.92	276.06	275.10	276.47	0.005049	2.82	34.94	15.90	0.61
Fiumenta valle	80	TR30	D_1_5h	82.99	272.92	275.78	274.87	276.16	0.005468	2.73	30.44	15.81	0.63
Fiumenta valle	80	TR30	D_2h	97.35	272.92	276.04	275.08	276.45	0.005077	2.81	34.60	15.90	0.61
Fiumenta valle	80	TR30	D_3h	109.49	272.92	276.26	275.25	276.68	0.004811	2.88	38.05	15.97	0.60
Fiumenta valle	80	TR100	D_1_5h	121.07	272.92	276.46	275.40	276.90	0.004580	2.93	41.33	16.04	0.58
Fiumenta valle	80	TR100	D_2h	137.13	272.92	276.74	275.82	277.20	0.004310	2.99	45.81	16.13	0.57
Fiumenta valle	80	TR100	D_3h	147.15	272.92	276.92	275.91	277.38	0.004153	3.03	48.63	16.19	0.56
Fiumenta valle	80	TR200	D_1_5h	147.64	272.92	276.93	275.92	277.39	0.004145	3.03	48.76	16.19	0.56
Fiumenta valle	80	TR200	D_2h	164.63	272.92	277.22	276.08	277.70	0.003901	3.07	53.56	16.29	0.54
Fiumenta valle	80	TR200	D_3h	173.32	272.92	277.37	276.16	277.86	0.003786	3.09	56.03	16.34	0.53
Fiumenta valle	80	TR500	D_1_5h	188.84	272.92	277.64	276.30	278.14	0.003597	3.12	60.44	16.43	0.52
Fiumenta valle	80	TR500	D_2h	207.10	272.92	277.96	276.45	278.47	0.003387	3.15	65.73	16.54	0.50
Fiumenta valle	80	TR500	D_3h	213.82	272.92	278.08	276.50	278.59	0.003298	3.16	67.82	17.92	0.50
Fiumenta valle	78			Bridge									
Fiumenta valle	77	TR20	D_1_5h	71.92	273.40	275.45	274.88	275.74	0.004036	2.37	30.38	17.02	0.57
Fiumenta valle	77	TR20	D_2h	85.88	273.40	275.69	275.03	276.00	0.003947	2.50	34.34	17.14	0.56
Fiumenta valle	77	TR20	D_3h	98.52	273.40	275.88	275.17	276.23	0.003893	2.61	37.74	17.25	0.56
Fiumenta valle	77	TR30	D_1_5h	82.99	273.40	275.64	275.00	275.95	0.003961	2.47	33.55	17.12	0.56
Fiumenta valle	77	TR30	D_2h	97.35	273.40	275.87	275.16	276.21	0.003896	2.60	37.43	17.24	0.56
Fiumenta valle	77	TR30	D_3h	109.49	273.40	276.05	275.28	276.42	0.003866	2.70	40.54	17.33	0.56
Fiumenta valle	77	TR100	D_1_5h	121.07	273.40	276.21	275.39	276.61	0.003836	2.79	43.44	17.42	0.56
Fiumenta valle	77	TR100	D_2h	137.13	273.40	276.43	275.54	276.86	0.003805	2.90	47.32	17.54	0.56
Fiumenta valle	77	TR100	D_3h	147.15	273.40	276.57	275.63	277.01	0.003788	2.96	49.67	17.62	0.56
Fiumenta valle	77	TR200	D_1_5h	147.64	273.40	276.57	275.64	277.02	0.003787	2.97	49.79	17.62	0.56
Fiumenta valle	77	TR200	D_2h	164.63	273.40	276.79	275.79	277.27	0.003763	3.07	53.68	17.74	0.56
Fiumenta valle	77	TR200	D_3h	173.32	273.40	276.90	275.87	277.40	0.003755	3.12	55.61	17.80	0.56
Fiumenta valle	77	TR500	D_1_5h	188.84	273.40	277.09	276.00	277.61	0.003744	3.20	58.99	17.90	0.56
Fiumenta valle	77	TR500	D_2h	207.10	273.40	277.31	276.15	277.86	0.003739	3.30	62.84	18.01	0.56
Fiumenta valle	77	TR500	D_3h	213.82	273.40	277.39	276.20	277.95	0.003732	3.33	64.27	18.05	0.56
Fiumenta valle	76.5			Inl Struct									
Fiumenta valle	76	TR20	D_1_5h	71.92	271.69	274.57		274.70	0.001246	1.61	44.66	17.46	0.32
Fiumenta valle	76	TR20	D_2h	85.88	271.69	274.87		275.03	0.001267	1.72	49.98	17.62	0.33
Fiumenta valle	76	TR20	D_3h	98.52	271.69	275.14		275.30	0.001280	1.80	54.62	17.77	0.33
Fiumenta valle	76	TR30	D_1_5h	82.99	271.69	274.81		274.96	0.001263	1.70	48.90	17.59	0.32
Fiumenta valle	76	TR30	D_2h	97.35	271.69	275.11		275.28	0.001280	1.80	54.18	17.75	0.33
Fiumenta valle	76	TR30	D_3h	109.49	271.69	275.36		275.54	0.001287	1.87	58.55	17.88	0.33
Fiumenta valle	76	TR100	D_1_5h	121.07	271.69	275.58		275.77	0.001296	1.94	62.53	18.00	0.33
Fiumenta valle	76	TR100	D_2h	137.13	271.69	275.77		275.99	0.001427	2.08	65.90	18.10	0.35
Fiumenta valle	76	TR100	D_3h	147.15	271.69	275.89		276.13	0.001485	2.16	68.22	18.17	0.36
Fiumenta valle	76	TR200	D_1_5h	147.64	271.69	275.90		276.14	0.001487	2.16	68.33	18.18	0.36
Fiumenta valle	76	TR200	D_2h	164.63	271.69	276.11		276.38	0.001577	2.28	72.18	18.29	0.37
Fiumenta valle	76	TR200	D_3h	173.32	271.69	276.22		276.49	0.001620	2.34	74.09	18.34	0.37
Fiumenta valle	76	TR500	D_1_5h	188.84	271.69	276.40		276.70	0.001693	2.44	77.44	18.43	0.38
Fiumenta valle	76	TR500	D_2h	207.10	271.69	276.60		276.94	0.001772	2.55	81.25	18.46	0.39
Fiumenta valle	76	TR500	D_3h	213.82	271.69	276.68		277.02	0.001798	2.59	82.64	18.46	0.39
Fiumenta valle	75	TR20	D_1_5h	71.92	272.01	273.83	273.80	274.63	0.013516	3.98	18.05	10.64	0.98
Fiumenta valle	75	TR20	D_2h	85.88	272.01	274.06	274.01	274.95	0.013013	4.17	20.58	10.69	0.96
Fiumenta valle	75	TR20	D_3h	98.52	272.01	274.22	274.19	275.22	0.013642	4.43	22.23	10.73	0.98
Fiumenta valle	75	TR30	D_1_5h	82.99	272.01	274.02	273.97	274.89	0.013103	4.14	20.07	10.68	0.96
Fiumenta valle	75	TR30	D_2h	97.35	272.01	274.23	274.18	275.20	0.013085	4.35	22.36	10.73	0.96
Fiumenta valle	75	TR30	D_3h	109.49	272.01	274.34	274.34	275.44	0.014276	4.66	23.52	10.75	1.00

HEC-RAS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Fiumenta valle	75	TR100	D 1_5h	121.07	272.01	274.48	274.48	275.67	0.014441	4.83	25.09	10.78	1.01
Fiumenta valle	75	TR100	D 2h	137.13	272.01	274.91	274.91	275.91	0.014121	4.42	31.00	15.82	1.01
Fiumenta valle	75	TR100	D 3h	147.15	272.01	275.01	275.01	276.05	0.013894	4.51	32.62	15.86	1.00
Fiumenta valle	75	TR200	D 1_5h	147.64	272.01	275.02	275.02	276.06	0.013890	4.52	32.70	15.86	1.00
Fiumenta valle	75	TR200	D 2h	164.63	272.01	275.18	275.18	276.29	0.013784	4.68	35.20	15.91	1.00
Fiumenta valle	75	TR200	D 3h	173.32	272.01	275.25	275.25	276.41	0.013739	4.76	36.45	15.94	1.00
Fiumenta valle	75	TR500	D 1_5h	188.84	272.01	275.39	275.39	276.61	0.013647	4.89	38.65	15.98	1.00
Fiumenta valle	75	TR500	D 2h	207.10	272.01	275.55	275.55	276.84	0.013549	5.03	41.18	16.04	1.00
Fiumenta valle	75	TR500	D 3h	213.82	272.01	275.60	275.60	276.92	0.013559	5.09	42.05	16.05	1.00
Fiumenta valle	70	TR20	D 1_5h	71.92	270.77	273.09	272.75	273.67	0.008412	3.36	21.37	10.61	0.76
Fiumenta valle	70	TR20	D 2h	85.88	270.77	273.32	272.96	273.99	0.008711	3.61	23.82	10.65	0.77
Fiumenta valle	70	TR20	D 3h	98.52	270.77	273.63	273.14	274.26	0.007557	3.56	29.93	28.91	0.71
Fiumenta valle	70	TR30	D 1_5h	82.99	270.77	273.28	272.92	273.92	0.008658	3.56	23.32	10.64	0.77
Fiumenta valle	70	TR30	D 2h	97.35	270.77	273.54	273.12	274.23	0.008371	3.69	27.58	25.54	0.75
Fiumenta valle	70	TR30	D 3h	109.49	270.77	274.24	273.29	274.50	0.002871	2.50	55.86	45.10	0.45
Fiumenta valle	70	TR100	D 1_5h	121.07	270.77	274.54	273.99	274.74	0.002003	2.22	69.46	45.10	0.38
Fiumenta valle	70	TR100	D 2h	137.13	270.77	274.91	274.11	275.06	0.001412	2.00	85.98	45.10	0.33
Fiumenta valle	70	TR100	D 3h	147.15	270.77	275.14	274.17	275.28	0.001164	1.89	96.40	45.10	0.30
Fiumenta valle	70	TR200	D 1_5h	147.64	270.77	275.15	274.17	275.29	0.001153	1.88	96.93	45.10	0.30
Fiumenta valle	70	TR200	D 2h	164.63	270.77	275.57	274.27	275.68	0.000842	1.72	115.73	45.10	0.26
Fiumenta valle	70	TR200	D 3h	173.32	270.77	275.68	274.30	275.79	0.000824	1.72	120.60	45.10	0.26
Fiumenta valle	70	TR500	D 1_5h	188.84	270.77	275.84	274.39	275.96	0.000820	1.76	127.77	45.10	0.26
Fiumenta valle	70	TR500	D 2h	207.10	270.77	276.02	274.47	276.14	0.000814	1.80	136.00	45.10	0.26
Fiumenta valle	70	TR500	D 3h	213.82	270.77	276.08	274.50	276.21	0.000812	1.81	138.96	45.10	0.26
Fiumenta valle	68			Bridge									
Fiumenta valle	65	TR20	D 1_5h	71.92	270.00	271.78	271.98	272.86	0.021561	4.60	15.62	10.51	1.21
Fiumenta valle	65	TR20	D 2h	85.88	270.00	271.98	272.19	273.18	0.020999	4.85	17.72	10.54	1.19
Fiumenta valle	65	TR20	D 3h	98.52	270.00	272.15	272.37	273.45	0.020604	5.04	19.54	10.58	1.18
Fiumenta valle	65	TR30	D 1_5h	82.99	270.00	271.94	272.15	273.11	0.021062	4.80	17.31	10.54	1.19
Fiumenta valle	65	TR30	D 2h	97.35	270.00	272.13	272.36	273.42	0.020691	5.03	19.36	10.57	1.19
Fiumenta valle	65	TR30	D 3h	109.49	270.00	272.30	273.11	273.67	0.020345	5.20	21.07	10.60	1.18
Fiumenta valle	65	TR100	D 1_5h	121.07	270.00	272.44	273.22	273.90	0.020084	5.35	22.65	10.63	1.17
Fiumenta valle	65	TR100	D 2h	137.13	270.00	272.68	273.34	274.19	0.018904	5.45	25.51	17.27	1.13
Fiumenta valle	65	TR100	D 3h	147.15	270.00	272.78	273.40	274.34	0.018834	5.55	27.86	26.05	1.13
Fiumenta valle	65	TR200	D 1_5h	147.64	270.00	272.79	273.40	274.35	0.018879	5.56	27.94	26.19	1.13
Fiumenta valle	65	TR200	D 2h	164.63	270.00	272.94	273.50	274.52	0.018643	5.67	32.31	33.19	1.12
Fiumenta valle	65	TR200	D 3h	173.32	270.00	272.93	273.54	274.70	0.020812	5.99	32.17	31.84	1.19
Fiumenta valle	65	TR500	D 1_5h	188.84	270.00	273.02	273.62	274.84	0.021203	6.14	35.66	42.70	1.20
Fiumenta valle	65	TR500	D 2h	207.10	270.00	273.10	273.70	274.99	0.021913	6.36	39.10	45.10	1.22
Fiumenta valle	65	TR500	D 3h	213.82	270.00	273.12	273.73	275.05	0.022234	6.44	40.19	45.10	1.23
Fiumenta valle	60	TR20	D 1_5h	71.92	268.45	269.54	270.15	271.61	0.066012	6.38	11.27	12.61	2.15
Fiumenta valle	60	TR20	D 2h	85.88	268.45	269.66	270.32	271.94	0.065502	6.69	12.83	13.24	2.17
Fiumenta valle	60	TR20	D 3h	98.52	268.45	269.76	270.46	272.22	0.065277	6.95	14.17	13.75	2.19
Fiumenta valle	60	TR30	D 1_5h	82.99	268.45	269.63	270.29	271.88	0.065612	6.63	12.51	13.11	2.17
Fiumenta valle	60	TR30	D 2h	97.35	268.45	269.75	270.45	272.19	0.065256	6.93	14.05	13.71	2.18
Fiumenta valle	60	TR30	D 3h	109.49	268.45	269.84	270.58	272.45	0.065199	7.16	15.30	14.17	2.20
Fiumenta valle	60	TR100	D 1_5h	121.07	268.45	269.92	270.70	272.68	0.065230	7.36	16.45	14.58	2.21
Fiumenta valle	60	TR100	D 2h	137.13	268.45	270.02	270.87	272.99	0.064884	7.64	17.95	14.91	2.22
Fiumenta valle	60	TR100	D 3h	147.15	268.45	270.09	270.97	273.15	0.062867	7.76	18.97	14.92	2.20
Fiumenta valle	60	TR200	D 1_5h	147.64	268.45	270.09	270.97	273.16	0.062755	7.76	19.02	14.92	2.19
Fiumenta valle	60	TR200	D 2h	164.63	268.45	270.22	271.14	273.37	0.057675	7.86	20.95	14.95	2.12
Fiumenta valle	60	TR200	D 3h	173.32	268.45	270.28	271.22	273.49	0.056360	7.94	21.82	14.96	2.10
Fiumenta valle	60	TR500	D 1_5h	188.84	268.45	270.40	271.36	273.65	0.052249	7.99	23.63	14.98	2.03
Fiumenta valle	60	TR500	D 2h	207.10	268.45	270.54	271.52	273.83	0.047985	8.03	25.79	15.01	1.96
Fiumenta valle	60	TR500	D 3h	213.82	268.45	270.60	271.86	273.89	0.046607	8.04	26.59	15.02	1.93
Fiumenta valle	55	TR20	D 1_5h	71.92	263.38	264.81	265.23	266.28	0.031457	5.37	13.39	10.57	1.52
Fiumenta valle	55	TR20	D 2h	85.88	263.38	264.97	265.45	266.62	0.031421	5.70	15.07	10.74	1.54
Fiumenta valle	55	TR20	D 3h	98.52	263.38	265.10	265.63	266.91	0.031305	5.95	16.54	10.89	1.54
Fiumenta valle	55	TR30	D 1_5h	82.99	263.38	264.93	265.41	266.55	0.031431	5.64	14.73	10.71	1.53
Fiumenta valle	55	TR30	D 2h	97.35	263.38	265.09	265.62	266.88	0.031325	5.93	16.41	10.88	1.54
Fiumenta valle	55	TR30	D 3h	109.49	263.38	265.22	265.78	267.14	0.031168	6.15	17.79	11.02	1.55
Fiumenta valle	55	TR100	D 1_5h	121.07	263.38	265.33	265.94	267.38	0.030995	6.34	19.08	11.14	1.55
Fiumenta valle	55	TR100	D 2h	137.13	263.38	265.48	266.14	267.70	0.030925	6.60	20.79	11.31	1.55
Fiumenta valle	55	TR100	D 3h	147.15	263.38	265.57	266.27	267.90	0.031274	6.77	21.74	11.40	1.56
Fiumenta valle	55	TR200	D 1_5h	147.64	263.38	265.57	266.27	267.91	0.031292	6.78	21.78	11.40	1.57
Fiumenta valle	55	TR200	D 2h	164.63	263.38	265.70	266.46	268.25	0.032203	7.08	23.25	11.54	1.59
Fiumenta valle	55	TR200	D 3h	173.32	263.38	265.77	266.57	268.42	0.032443	7.21	24.03	11.62	1.60
Fiumenta valle	55	TR500	D 1_5h	188.84	263.38	265.87	266.74	268.72	0.033241	7.47	25.29	11.73	1.62
Fiumenta valle	55	TR500	D 2h	207.10	263.38	265.99	266.94	269.06	0.034170	7.76	26.70	11.86	1.65
Fiumenta valle	55	TR500	D 3h	213.82	263.38	266.04	267.00	269.18	0.034496	7.86	27.22	11.91	1.66
Fiumenta valle	50	TR20	D 1_5h	71.92	260.33	262.64	261.93	262.88	0.003730	2.13	33.69	22.04	0.55
Fiumenta valle	50	TR20	D 2h	85.88	260.33	262.97	262.11	263.20	0.002872	2.09	41.02	22.37	0.49
Fiumenta valle	50	TR20	D 3h	98.52	260.33	263.26	262.32	263.48	0.002424	2.08	47.34	22.64	0.46
Fiumenta valle	50	TR30	D 1_5h	82.99	260.33	262.91	262.08	263.13	0.003011	2.10	39.53	22.30	0.50
Fiumenta valle	50	TR30	D 2h	97.35	260.33	263.23	262.31	263.45	0.002455	2.08	46.79	22.62	0.46
Fiumenta valle	50	TR30	D 3h	109.49	260.33	263.49	262.43	263.71	0.002158	2.08	52.66	22.87	0.44
Fiumenta valle	50	TR100	D 1_5h	121.07	260.33	263.73	262.57	263.95	0.001950	2.08	58.13	23.11	0.42
Fiumenta valle	50	TR100	D 2h	137.13	260.33	264.04	262.70	264.27	0.001742	2.09	65.49	23.42	0.40
Fiumenta valle	50	TR100	D 3h	147.15	260.33	264.24	262.78	264.46	0.001639	2.10	70.01	23.61	0.39
Fiumenta valle	50	TR200	D 1_5h	147.64	260.33	264.24	262.78	264.47	0.001636	2.10	70.21	23.62	0.39
Fiumenta valle	50	TR200	D 2h	164.63	260.33	264.56	262.91	264.79	0.001500	2.12	77.71	23.93	0.38
Fiumenta valle	50	TR200	D 3h	173.32	260.33	264.72	262.97	264.95	0.001445	2.13	81.44	24.08	0.37
Fiumenta valle	50	TR500	D 1_5h	188.84	260.33	265.00	263.08	265.23	0.001349	2.14	88.29	24.36	0.36
Fiumenta valle	50	TR500	D 2h	207.10	260.33	265.35	263.21	265.58	0.001525	2.12	97.50	30.74	0.38
Fiumenta valle	50	TR500	D 3h	213.82	260.33	265.50	263.26	265.71	0.001598	2.06	106.50	42.80	0.39
Fiumenta valle	48			Bridge									

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HEC-RAS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Fiumenta valle	45	TR20	D 1_5h	71.92	258.93	260.02	260.53	261.68	0.050451	5.70	12.61	14.15	1.93
Fiumenta valle	45	TR20	D 2h	85.88	258.93	260.13	260.71	261.99	0.050485	6.03	14.25	14.54	1.94
Fiumenta valle	45	TR20	D 3h	98.52	258.93	260.23	260.92	262.25	0.050865	6.30	15.63	14.87	1.96
Fiumenta valle	45	TR30	D 1_5h	82.99	258.93	260.11	260.67	261.93	0.050611	5.97	13.90	14.46	1.94
Fiumenta valle	45	TR30	D 2h	97.35	258.93	260.22	260.91	262.23	0.050896	6.28	15.50	14.84	1.96
Fiumenta valle	45	TR30	D 3h	109.49	258.93	260.31	261.02	262.47	0.051140	6.52	16.80	15.14	1.97
Fiumenta valle	45	TR100	D 1_5h	121.07	258.93	260.38	261.16	262.69	0.051397	6.73	17.99	15.40	1.99
Fiumenta valle	45	TR100	D 2h	137.13	258.93	260.49	261.30	262.99	0.051951	7.01	19.57	15.75	2.01
Fiumenta valle	45	TR100	D 3h	147.15	258.93	260.55	261.37	263.16	0.052171	7.16	20.55	15.96	2.02
Fiumenta valle	45	TR200	D 1_5h	147.64	258.93	260.55	261.38	263.17	0.052299	7.18	20.58	15.97	2.02
Fiumenta valle	45	TR200	D 2h	164.63	258.93	260.65	261.51	263.46	0.052864	7.43	22.15	16.31	2.04
Fiumenta valle	45	TR200	D 3h	173.32	258.93	260.69	261.57	263.61	0.053216	7.56	22.92	16.47	2.05
Fiumenta valle	45	TR500	D 1_5h	188.84	258.93	260.87	261.68	263.56	0.052276	7.26	25.99	19.66	2.02
Fiumenta valle	45	TR500	D 2h	207.10	258.93	260.96	261.81	263.80	0.051395	7.47	27.73	19.80	2.02
Fiumenta valle	45	TR500	D 3h	213.82	258.93	260.99	261.85	263.89	0.051202	7.55	28.33	19.85	2.02
Fiumenta valle	40	TR20	D 1_5h	71.92	256.87	259.86	259.86	260.42	0.014784	3.33	21.60	19.02	1.00
Fiumenta valle	40	TR20	D 2h	85.88	256.87	260.07	260.07	260.62	0.014429	3.30	26.04	23.47	1.00
Fiumenta valle	40	TR20	D 3h	98.52	256.87	260.22	260.22	260.77	0.014096	3.30	29.84	26.84	1.00
Fiumenta valle	40	TR30	D 1_5h	82.99	256.87	260.03	260.03	260.58	0.014568	3.31	25.10	22.61	1.00
Fiumenta valle	40	TR30	D 2h	97.35	256.87	260.21	260.21	260.76	0.014027	3.29	29.59	26.63	1.00
Fiumenta valle	40	TR30	D 3h	109.49	256.87	260.33	260.33	260.89	0.013794	3.31	33.07	29.49	1.00
Fiumenta valle	40	TR100	D 1_5h	121.07	256.87	260.44	260.44	261.01	0.013603	3.34	36.27	31.89	1.00
Fiumenta valle	40	TR100	D 2h	137.13	256.87	260.54	260.54	261.15	0.013416	3.46	39.63	32.67	1.00
Fiumenta valle	40	TR100	D 3h	147.15	256.87	260.60	260.60	261.24	0.013151	3.53	41.68	32.80	1.00
Fiumenta valle	40	TR200	D 1_5h	147.64	256.87	260.60	260.60	261.24	0.013462	3.56	41.46	32.78	1.01
Fiumenta valle	40	TR200	D 2h	164.63	256.87	260.71	260.71	261.39	0.012835	3.65	45.07	33.01	1.00
Fiumenta valle	40	TR200	D 3h	173.32	256.87	260.76	260.76	261.46	0.012755	3.72	46.65	33.11	1.00
Fiumenta valle	40	TR500	D 1_5h	188.84	256.87	260.84	260.84	261.58	0.012514	3.81	49.54	33.28	1.00
Fiumenta valle	40	TR500	D 2h	207.10	256.87	260.94	260.94	261.72	0.012400	3.93	52.68	33.48	1.00
Fiumenta valle	40	TR500	D 3h	213.82	256.87	260.97	260.97	261.77	0.012444	3.98	53.70	33.54	1.00
Fiumenta valle	35	TR20	D 1_5h	71.92	255.20	257.13	257.48	258.29	0.031449	4.77	15.06	15.58	1.55
Fiumenta valle	35	TR20	D 2h	85.88	255.20	257.27	257.65	258.54	0.030321	5.00	17.17	16.06	1.54
Fiumenta valle	35	TR20	D 3h	98.52	255.20	257.38	257.79	258.74	0.029133	5.17	19.05	16.41	1.53
Fiumenta valle	35	TR30	D 1_5h	82.99	255.20	257.24	257.61	258.49	0.030476	4.95	16.76	15.98	1.54
Fiumenta valle	35	TR30	D 2h	97.35	255.20	257.37	257.77	258.73	0.029409	5.17	18.84	16.37	1.54
Fiumenta valle	35	TR30	D 3h	109.49	255.20	257.48	257.91	258.91	0.028121	5.29	20.68	16.70	1.52
Fiumenta valle	35	TR100	D 1_5h	121.07	255.20	257.59	258.02	259.07	0.026896	5.39	22.45	17.01	1.50
Fiumenta valle	35	TR100	D 2h	137.13	255.20	257.73	258.18	259.27	0.025303	5.50	24.92	17.43	1.47
Fiumenta valle	35	TR100	D 3h	147.15	255.20	257.81	258.26	259.40	0.024633	5.58	26.37	17.68	1.46
Fiumenta valle	35	TR200	D 1_5h	147.64	255.20	257.82	258.27	259.39	0.024194	5.55	26.59	17.72	1.45
Fiumenta valle	35	TR200	D 2h	164.63	255.20	257.96	258.42	259.60	0.023444	5.69	28.94	18.11	1.44
Fiumenta valle	35	TR200	D 3h	173.32	255.20	258.03	258.49	259.70	0.022788	5.73	30.26	18.31	1.42
Fiumenta valle	35	TR500	D 1_5h	188.84	255.20	258.15	258.77	259.87	0.021897	5.81	32.48	18.57	1.40
Fiumenta valle	35	TR500	D 2h	207.10	255.20	258.29	258.96	260.06	0.020782	5.89	35.19	18.88	1.38
Fiumenta valle	35	TR500	D 3h	213.82	255.20	258.35	259.01	260.12	0.020299	5.90	36.25	19.00	1.36
Fiumenta valle	30	TR20	D 1_5h	71.92	253.96	255.34	255.58	256.36	0.020993	4.48	16.07	13.11	1.29
Fiumenta valle	30	TR20	D 2h	85.88	253.96	255.49	255.77	256.64	0.021010	4.75	18.07	13.39	1.31
Fiumenta valle	30	TR20	D 3h	98.52	253.96	255.62	255.93	256.88	0.021104	4.98	19.78	13.63	1.32
Fiumenta valle	30	TR30	D 1_5h	82.99	253.96	255.46	255.73	256.59	0.021031	4.70	17.66	13.33	1.30
Fiumenta valle	30	TR30	D 2h	97.35	253.96	255.61	255.92	256.86	0.021033	4.96	19.65	13.61	1.32
Fiumenta valle	30	TR30	D 3h	109.49	253.96	255.72	256.07	257.08	0.021225	5.17	21.19	13.82	1.33
Fiumenta valle	30	TR100	D 1_5h	121.07	253.96	255.83	256.20	257.29	0.021408	5.35	22.62	14.01	1.34
Fiumenta valle	30	TR100	D 2h	137.13	253.96	255.97	256.38	257.55	0.021329	5.56	24.64	14.28	1.35
Fiumenta valle	30	TR100	D 3h	147.15	253.96	256.06	256.49	257.70	0.021162	5.68	25.93	14.45	1.35
Fiumenta valle	30	TR200	D 1_5h	147.64	253.96	256.06	256.49	257.71	0.021188	5.68	25.97	14.45	1.35
Fiumenta valle	30	TR200	D 2h	164.63	253.96	256.21	256.67	257.95	0.020853	5.85	28.14	14.73	1.35
Fiumenta valle	30	TR200	D 3h	173.32	253.96	256.28	256.75	258.08	0.020701	5.93	29.22	14.87	1.35
Fiumenta valle	30	TR500	D 1_5h	188.84	253.96	256.41	256.89	258.28	0.020433	6.06	31.14	15.11	1.35
Fiumenta valle	30	TR500	D 2h	207.10	253.96	256.56	257.07	258.52	0.020116	6.21	33.38	15.38	1.34
Fiumenta valle	30	TR500	D 3h	213.82	253.96	256.61	257.13	258.60	0.020002	6.25	34.19	15.48	1.34
Fiumenta valle	28			Bridge									
Fiumenta valle	25	TR20	D 1_5h	71.92	252.01	253.60	253.64	254.35	0.013199	3.84	18.75	13.49	1.04
Fiumenta valle	25	TR20	D 2h	85.88	252.01	253.83	253.83	254.62	0.011914	3.93	21.86	13.91	1.00
Fiumenta valle	25	TR20	D 3h	98.52	252.01	253.98	253.99	254.84	0.011842	4.10	24.04	14.20	1.01
Fiumenta valle	25	TR30	D 1_5h	82.99	252.01	253.76	253.79	254.56	0.012720	3.97	20.90	13.78	1.03
Fiumenta valle	25	TR30	D 2h	97.35	252.01	253.97	253.98	254.82	0.011863	4.08	23.83	14.17	1.01
Fiumenta valle	25	TR30	D 3h	109.49	252.01	254.12	254.12	255.02	0.011565	4.20	26.04	14.46	1.00
Fiumenta valle	25	TR100	D 1_5h	121.07	252.01	254.25	254.26	255.21	0.011559	4.34	27.90	14.70	1.01
Fiumenta valle	25	TR100	D 2h	137.13	252.01	254.43	254.43	255.46	0.011320	4.48	30.62	15.04	1.00
Fiumenta valle	25	TR100	D 3h	147.15	252.01	254.54	254.54	255.60	0.011313	4.58	32.15	15.23	1.01
Fiumenta valle	25	TR200	D 1_5h	147.64	252.01	254.54	254.55	255.61	0.011311	4.58	32.23	15.24	1.01
Fiumenta valle	25	TR200	D 2h	164.63	252.01	254.71	254.71	255.85	0.011172	4.72	34.91	15.56	1.01
Fiumenta valle	25	TR200	D 3h	173.32	252.01	254.80	254.80	255.97	0.011108	4.78	36.25	15.73	1.01
Fiumenta valle	25	TR500	D 1_5h	188.84	252.01	254.95	254.95	256.17	0.011008	4.89	38.61	16.00	1.01
Fiumenta valle	25	TR500	D 2h	207.10	252.01	255.12	255.12	256.40	0.010897	5.01	41.34	16.32	1.00
Fiumenta valle	25	TR500	D 3h	213.82	252.01	255.18	255.18	256.48	0.010870	5.05	42.32	16.43	1.01
Fiumenta valle	20	TR20	D 1_5h	71.92	251.25	252.68	252.93	253.67	0.022549	4.41	16.30	14.90	1.35
Fiumenta valle	20	TR20	D 2h	85.88	251.25	252.79	253.10	253.95	0.023731	4.76	18.05	15.23	1.40
Fiumenta valle	20	TR20	D 3h	98.52	251.25	252.90	253.25	254.17	0.023771	4.98	19.78	15.56	1.41
Fiumenta valle	20	TR30	D 1_5h	82.99	251.25	252.78	253.07	253.88	0.023068	4.66	17.80	15.19	1.37
Fiumenta valle	20	TR30	D 2h	97.35	251.25	252.89	253.23	254.15	0.023755	4.96	19.62	15.53	1.41
Fiumenta valle	20	TR30	D 3h	109.49	251.25	252.99	253.37	254.36	0.023997	5.17	21.17	15.82	1.43
Fiumenta valle	20	TR100	D 1_5h	121.07	251.25	253.09	253.50	254.54	0.023873	5.33	22.71	16.10	1.43
Fiumenta valle	20	TR100	D 2h	137.13	251.25	253.21	253.66	254.78	0.023972	5.56	24.68	16.45	1.45
Fiumenta valle	20	TR100	D 3h	147.15	251.25	253.29	253.75	254.93	0.023931	5.68	25.92	16.67	1.45
Fiumenta valle	20	TR200	D 1_5h	147.64	251.25	253.29	253.76	254.93					

HEC-RAS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Fiumenta valle	20	TR500	D_1_5h	188.84	251.25	253.57	254.12	255.49	0.023997	6.14	30.75	17.49	1.48
Fiumenta valle	20	TR500	D_2h	207.10	251.25	253.68	254.28	255.72	0.024018	6.32	32.77	17.82	1.49
Fiumenta valle	20	TR500	D_3h	213.82	251.25	253.72	254.33	255.80	0.024017	6.38	33.51	17.94	1.49
Fiumenta valle	18			Bridge									
Fiumenta valle	15	TR20	D_1_5h	71.92	249.61	251.51	251.18	251.79	0.005262	2.34	30.68	23.49	0.65
Fiumenta valle	15	TR20	D_2h	85.88	249.61	251.67	251.31	251.99	0.005110	2.48	34.61	23.57	0.65
Fiumenta valle	15	TR20	D_3h	98.52	249.61	251.82	251.41	252.16	0.005011	2.59	37.98	23.64	0.65
Fiumenta valle	15	TR30	D_1_5h	82.99	249.61	251.64	251.28	251.95	0.005144	2.46	33.80	23.56	0.65
Fiumenta valle	15	TR30	D_2h	97.35	249.61	251.80	251.41	252.14	0.005020	2.58	37.67	23.63	0.65
Fiumenta valle	15	TR30	D_3h	109.49	249.61	251.94	251.50	252.30	0.004933	2.68	40.80	23.69	0.65
Fiumenta valle	15	TR100	D_1_5h	121.07	249.61	252.06	251.60	252.45	0.004865	2.77	43.69	23.75	0.65
Fiumenta valle	15	TR100	D_2h	137.13	249.61	252.22	251.71	252.64	0.004792	2.89	47.53	23.83	0.65
Fiumenta valle	15	TR100	D_3h	147.15	249.61	252.32	251.78	252.76	0.004755	2.95	49.84	23.87	0.65
Fiumenta valle	15	TR200	D_1_5h	147.64	249.61	252.32	251.79	252.77	0.004754	2.96	49.95	23.87	0.65
Fiumenta valle	15	TR200	D_2h	164.63	249.61	252.48	251.91	252.96	0.004706	3.06	53.75	23.95	0.65
Fiumenta valle	15	TR200	D_3h	173.32	249.61	252.56	251.97	253.05	0.004672	3.11	55.69	23.98	0.65
Fiumenta valle	15	TR500	D_1_5h	188.84	249.61	252.70	252.07	253.22	0.004642	3.20	58.99	24.06	0.65
Fiumenta valle	15	TR500	D_2h	207.10	249.61	252.86	252.19	253.41	0.004620	3.30	62.80	24.27	0.65
Fiumenta valle	15	TR500	D_3h	213.82	249.61	252.91	252.23	253.48	0.004615	3.33	64.16	24.34	0.66
Fiumenta valle	10	TR20	D_1_5h	71.92	249.57	251.14	251.15	251.69	0.013298	3.27	21.98	20.83	1.02
Fiumenta valle	10	TR20	D_2h	85.88	249.57	251.28	251.29	251.89	0.012807	3.45	24.86	20.97	1.01
Fiumenta valle	10	TR20	D_3h	98.52	249.57	251.40	251.41	252.06	0.012390	3.60	27.40	21.10	1.01
Fiumenta valle	10	TR30	D_1_5h	82.99	249.57	251.26	251.26	251.85	0.012847	3.41	24.31	20.94	1.01
Fiumenta valle	10	TR30	D_2h	97.35	249.57	251.39	251.40	252.05	0.012413	3.58	27.18	21.09	1.01
Fiumenta valle	10	TR30	D_3h	109.49	249.57	251.50	251.50	252.20	0.012176	3.72	29.46	21.20	1.01
Fiumenta valle	10	TR100	D_1_5h	121.07	249.57	251.60	251.60	252.35	0.011984	3.84	31.56	21.31	1.01
Fiumenta valle	10	TR100	D_2h	137.13	249.57	251.73	251.74	252.54	0.011751	3.99	34.39	21.45	1.01
Fiumenta valle	10	TR100	D_3h	147.15	249.57	251.81	251.82	252.66	0.011627	4.08	36.10	21.53	1.00
Fiumenta valle	10	TR200	D_1_5h	147.64	249.57	251.82	251.82	252.66	0.011620	4.08	36.19	21.54	1.00
Fiumenta valle	10	TR200	D_2h	164.63	249.57	251.95	251.95	252.85	0.011425	4.22	39.02	21.68	1.00
Fiumenta valle	10	TR200	D_3h	173.32	249.57	252.00	252.02	252.95	0.011464	4.30	40.29	21.74	1.01
Fiumenta valle	10	TR500	D_1_5h	188.84	249.57	252.12	252.13	253.11	0.011349	4.42	42.73	21.86	1.01
Fiumenta valle	10	TR500	D_2h	207.10	249.57	252.24	252.26	253.30	0.011280	4.56	45.45	21.99	1.01
Fiumenta valle	10	TR500	D_3h	213.82	249.57	252.29	252.30	253.37	0.011226	4.60	46.48	22.04	1.01
Fiumenta valle	8			Bridge									
Fiumenta valle	5	TR20	D_1_5h	71.92	244.03	244.84	245.51	248.07	0.207565	7.97	9.03	18.22	3.61
Fiumenta valle	5	TR20	D_2h	85.88	244.03	244.91	245.66	248.39	0.186838	8.26	10.40	18.29	3.50
Fiumenta valle	5	TR20	D_3h	98.52	244.03	244.98	245.78	248.62	0.170157	8.46	11.65	18.36	3.39
Fiumenta valle	5	TR30	D_1_5h	82.99	244.03	244.90	245.63	248.31	0.188962	8.18	10.15	18.28	3.50
Fiumenta valle	5	TR30	D_2h	97.35	244.03	244.98	245.77	248.59	0.170711	8.43	11.55	18.35	3.39
Fiumenta valle	5	TR30	D_3h	109.49	244.03	245.04	245.89	248.82	0.158917	8.62	12.70	18.41	3.31
Fiumenta valle	5	TR100	D_1_5h	121.07	244.03	245.10	245.99	249.03	0.149622	8.79	13.77	18.46	3.25
Fiumenta valle	5	TR100	D_2h	137.13	244.03	245.18	246.13	249.26	0.136291	8.95	15.32	18.54	3.14
Fiumenta valle	5	TR100	D_3h	147.15	244.03	245.23	246.22	249.44	0.131994	9.10	16.17	18.59	3.11
Fiumenta valle	5	TR200	D_1_5h	147.64	244.03	245.23	246.22	249.45	0.131762	9.11	16.22	18.59	3.11
Fiumenta valle	5	TR200	D_2h	164.63	244.03	245.31	246.36	249.70	0.122845	9.28	17.74	18.66	3.04
Fiumenta valle	5	TR200	D_3h	173.32	244.03	245.35	246.43	249.81	0.118661	9.36	18.52	18.70	3.00
Fiumenta valle	5	TR500	D_1_5h	188.84	244.03	245.43	246.55	250.01	0.112198	9.49	19.90	18.77	2.94
Fiumenta valle	5	TR500	D_2h	207.10	244.03	245.51	246.69	250.25	0.105943	9.64	21.47	18.85	2.88
Fiumenta valle	5	TR500	D_3h	213.82	244.03	245.54	246.74	250.32	0.103559	9.69	22.07	18.88	2.86
Fiumenta valle	1	TR20	D_1_5h	71.92	241.96	243.59	243.37	243.95	0.007003	2.66	27.07	21.15	0.75
Fiumenta valle	1	TR20	D_2h	85.88	241.96	243.74	243.50	244.15	0.007002	2.84	30.27	21.23	0.76
Fiumenta valle	1	TR20	D_3h	98.52	241.96	243.87	243.62	244.33	0.007001	2.98	33.02	21.30	0.76
Fiumenta valle	1	TR30	D_1_5h	82.99	241.96	243.71	243.47	244.11	0.007001	2.80	29.62	21.21	0.76
Fiumenta valle	1	TR30	D_2h	97.35	241.96	243.86	243.60	244.31	0.007001	2.97	32.77	21.29	0.76
Fiumenta valle	1	TR30	D_3h	109.49	241.96	243.98	243.72	244.47	0.007001	3.10	35.31	21.35	0.77
Fiumenta valle	1	TR100	D_1_5h	121.07	241.96	244.09	243.81	244.62	0.007011	3.22	37.63	21.41	0.77
Fiumenta valle	1	TR100	D_2h	137.13	241.96	244.24	243.94	244.81	0.007008	3.36	40.76	21.49	0.78
Fiumenta valle	1	TR100	D_3h	147.15	241.96	244.32	244.02	244.93	0.007007	3.45	42.65	21.53	0.78
Fiumenta valle	1	TR200	D_1_5h	147.64	241.96	244.33	244.03	244.94	0.007007	3.45	42.75	21.54	0.78
Fiumenta valle	1	TR200	D_2h	164.63	241.96	244.47	244.15	245.13	0.007005	3.59	45.86	21.61	0.79
Fiumenta valle	1	TR200	D_3h	173.32	241.96	244.54	244.22	245.22	0.007004	3.66	47.41	21.65	0.79
Fiumenta valle	1	TR500	D_1_5h	188.84	241.96	244.67	244.33	245.39	0.007003	3.77	50.12	21.72	0.79
Fiumenta valle	1	TR500	D_2h	207.10	241.96	244.81	244.46	245.58	0.007002	3.89	53.22	21.79	0.79
Fiumenta valle	1	TR500	D_3h	213.82	241.96	244.86	244.50	245.65	0.007002	3.93	54.34	21.82	0.80

RIO MEO

HEC-RAS River: Casiglio Reach: Meo

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Meo	30	TR20	D_1_5h	28.93	293.01	294.25	294.76	295.56	0.046069	5.06	5.71	6.93	1.78
Meo	30	TR20	D_2h	30.85	293.01	294.29	294.83	295.64	0.046003	5.15	5.99	7.07	1.79
Meo	30	TR20	D_3h	28.83	293.01	294.25	294.76	295.55	0.046068	5.06	5.70	6.92	1.78
Meo	30	TR30	D_1_5h	32.96	293.01	294.33	294.87	295.73	0.046074	5.24	6.29	7.22	1.79
Meo	30	TR30	D_2h	34.46	293.01	294.36	294.90	295.79	0.046059	5.30	6.50	7.33	1.80
Meo	30	TR30	D_3h	31.53	293.01	294.30	294.85	295.67	0.046003	5.18	6.09	7.12	1.79
Meo	30	TR100	D_1_5h	46.44	293.01	294.57	295.10	296.24	0.046002	5.73	8.10	8.08	1.83
Meo	30	TR100	D_2h	46.60	293.01	294.57	295.11	296.25	0.046002	5.74	8.12	8.09	1.83
Meo	30	TR100	D_3h	40.97	293.01	294.48	295.01	296.05	0.046014	5.55	7.38	7.76	1.82
Meo	30	TR200	D_1_5h	55.51	293.01	294.82	295.27	296.20	0.046049	5.20	10.68	12.70	1.81
Meo	30	TR200	D_2h	54.83	293.01	294.81	295.26	296.20	0.046056	5.22	10.51	12.43	1.81
Meo	30	TR200	D_3h	47.52	293.01	294.59	295.13	296.28	0.046002	5.77	8.24	8.15	1.83
Meo	30	TR500	D_1_5h	69.39	293.01	294.96	295.45	296.52	0.046010	5.53	12.54	13.49	1.83
Meo	30	TR500	D_2h	67.48	293.01	294.95	295.43	296.48	0.046013	5.48	12.32	13.47	1.83
Meo	30	TR500	D_3h	57.70	293.01	294.86	295.31	296.23	0.046039	5.18	11.14	13.37	1.81
Meo	25	TR20	D_1_5h	28.93	289.15	290.46	290.87	291.79	0.040877	5.10	5.68	5.39	1.58
Meo	25	TR20	D_2h	30.85	289.15	290.51	290.93	291.88	0.040651	5.18	5.95	5.44	1.58
Meo	25	TR20	D_3h	28.83	289.15	290.46	290.86	291.78	0.040891	5.09	5.66	5.38	1.58
Meo	25	TR30	D_1_5h	32.96	289.15	290.57	291.00	291.99	0.040383	5.27	6.25	5.50	1.58
Meo	25	TR30	D_2h	34.46	289.15	290.61	291.05	292.06	0.040212	5.34	6.46	5.54	1.58
Meo	25	TR30	D_3h	31.53	289.15	290.53	290.95	291.92	0.040566	5.21	6.05	5.46	1.58
Meo	25	TR100	D_1_5h	46.44	289.15	290.89	291.51	292.57	0.038874	5.74	8.09	5.84	1.56
Meo	25	TR100	D_2h	46.60	289.15	290.90	291.51	292.58	0.038858	5.75	8.11	5.84	1.56
Meo	25	TR100	D_3h	40.97	289.15	290.77	291.33	292.35	0.039465	5.57	7.35	5.71	1.57
Meo	25	TR200	D_1_5h	55.51	289.15	291.20	291.71	292.79	0.033522	5.58	9.95	6.66	1.46
Meo	25	TR200	D_2h	54.83	289.15	291.18	291.69	292.77	0.033645	5.60	9.79	6.51	1.46
Meo	25	TR200	D_3h	47.52	289.15	290.92	291.54	292.62	0.038767	5.78	8.23	5.87	1.56
Meo	25	TR500	D_1_5h	69.39	289.15	291.52	291.99	293.12	0.033661	5.61	12.37	8.51	1.49
Meo	25	TR500	D_2h	67.48	289.15	291.49	291.95	293.07	0.033723	5.57	12.12	8.46	1.48
Meo	25	TR500	D_3h	57.70	289.15	291.27	291.76	292.83	0.033235	5.53	10.44	7.11	1.46
Meo	20	TR20	D_1_5h	28.93	285.96	287.74	288.02	288.69	0.031870	4.31	6.71	6.37	1.34
Meo	20	TR20	D_2h	30.85	285.96	287.81	288.06	288.75	0.032408	4.29	7.19	7.08	1.36
Meo	20	TR20	D_3h	28.83	285.96	287.74	288.02	288.69	0.031843	4.31	6.69	6.33	1.34
Meo	20	TR30	D_1_5h	32.96	285.96	287.88	288.12	288.82	0.032979	4.31	7.65	7.73	1.38
Meo	20	TR30	D_2h	34.46	285.96	287.91	288.16	288.87	0.033368	4.35	7.92	7.98	1.39
Meo	20	TR30	D_3h	31.53	285.96	287.84	288.08	288.77	0.032587	4.29	7.34	7.30	1.37
Meo	20	TR100	D_1_5h	46.44	285.96	288.09	288.43	289.34	0.035990	4.94	9.39	8.03	1.46
Meo	20	TR100	D_2h	46.60	285.96	288.10	288.44	289.35	0.036020	4.95	9.41	8.03	1.46
Meo	20	TR100	D_3h	40.97	285.96	288.01	288.31	289.13	0.034884	4.69	8.74	8.01	1.43
Meo	20	TR200	D_1_5h	55.51	285.96	288.19	288.72	289.71	0.040592	5.47	10.16	8.06	1.55
Meo	20	TR200	D_2h	54.83	285.96	288.18	288.69	289.69	0.040539	5.44	10.08	8.05	1.55
Meo	20	TR200	D_3h	47.52	285.96	288.11	288.45	289.38	0.036186	4.99	9.52	8.03	1.46
Meo	20	TR500	D_1_5h	69.39	285.96	290.01	289.09	290.22	0.002851	2.00	34.63	17.10	0.45
Meo	20	TR500	D_2h	67.48	285.96	289.94	289.05	290.15	0.003021	2.02	33.38	17.10	0.46
Meo	20	TR500	D_3h	57.70	285.96	288.22	288.80	289.78	0.040607	5.54	10.42	8.07	1.56
Meo	18			Bridge									
Meo	15	TR20	D_1_5h	28.93	284.71	285.77	286.21	287.23	0.051386	5.36	5.40	6.16	1.82
Meo	15	TR20	D_2h	30.85	284.71	285.81	286.27	287.32	0.050796	5.45	5.66	6.18	1.82
Meo	15	TR20	D_3h	28.83	284.71	285.77	286.20	287.22	0.051275	5.35	5.39	6.15	1.82
Meo	15	TR30	D_1_5h	32.96	284.71	285.86	286.33	287.42	0.050064	5.54	5.95	6.21	1.81
Meo	15	TR30	D_2h	34.46	284.71	285.89	286.37	287.49	0.049604	5.60	6.15	6.24	1.80
Meo	15	TR30	D_3h	31.53	284.71	285.83	286.29	287.36	0.050628	5.48	5.75	6.19	1.82
Meo	15	TR100	D_1_5h	46.44	284.71	286.13	286.69	287.99	0.046728	6.04	7.69	6.40	1.76
Meo	15	TR100	D_2h	46.60	284.71	286.14	286.69	288.00	0.046756	6.04	7.71	6.40	1.76
Meo	15	TR100	D_3h	40.97	284.71	286.03	286.55	287.77	0.047891	5.85	7.00	6.32	1.78
Meo	15	TR200	D_1_5h	55.51	284.71	286.32	287.13	288.31	0.043954	6.24	8.89	6.52	1.71
Meo	15	TR200	D_2h	54.83	284.71	286.31	287.11	288.28	0.044145	6.23	8.80	6.51	1.71
Meo	15	TR200	D_3h	47.52	284.71	286.15	286.71	288.04	0.046664	6.08	7.82	6.41	1.76
Meo	15	TR500	D_1_5h	69.39	284.71	286.55	287.51	288.81	0.043801	6.67	10.41	6.67	1.70
Meo	15	TR500	D_2h	67.48	284.71	286.52	287.50	288.75	0.043839	6.61	10.20	6.65	1.70
Meo	15	TR500	D_3h	57.70	284.71	286.36	287.17	288.38	0.043500	6.29	9.17	6.55	1.70
Meo	10	TR20	D_1_5h	28.93	279.12	280.14	280.55	281.45	0.047595	5.07	5.71	6.70	1.75
Meo	10	TR20	D_2h	30.85	279.12	280.18	280.60	281.55	0.048093	5.20	5.94	6.75	1.77
Meo	10	TR20	D_3h	28.83	279.12	280.14	280.55	281.45	0.047668	5.07	5.69	6.70	1.76
Meo	10	TR30	D_1_5h	32.96	279.12	280.22	280.66	281.66	0.048704	5.33	6.18	6.80	1.78
Meo	10	TR30	D_2h	34.46	279.12	280.24	280.70	281.74	0.049101	5.42	6.35	6.83	1.79
Meo	10	TR30	D_3h	31.53	279.12	280.19	280.62	281.59	0.048241	5.24	6.02	6.76	1.77
Meo	10	TR100	D_1_5h	46.44	279.12	280.43	281.01	282.30	0.051602	6.06	7.66	7.07	1.86
Meo	10	TR100	D_2h	46.60	279.12	280.43	281.01	282.31	0.051592	6.07	7.68	7.07	1.86
Meo	10	TR100	D_3h	40.97	279.12	280.35	280.87	282.05	0.050612	5.79	7.08	6.96	1.83
Meo	10	TR200	D_1_5h	55.51	279.12	280.56	281.22	282.69	0.053306	6.48	8.57	7.23	1.90
Meo	10	TR200	D_2h	54.83	279.12	280.55	281.21	282.67	0.053190	6.45	8.50	7.22	1.90
Meo	10	TR200	D_3h	47.52	279.12	280.45	281.03	282.35	0.051658	6.11	7.78	7.09	1.86
Meo	10	TR500	D_1_5h	69.39	279.12	280.75	281.52	283.20	0.053388	6.94	10.00	7.48	1.92
Meo	10	TR500	D_2h	67.48	279.12	280.72	281.48	283.14	0.053364	6.88	9.81	7.45	1.91
Meo	10	TR500	D_3h	57.70	279.12	280.59	281.27	282.78	0.053582	6.57	8.78	7.27	1.91
Meo	5	TR20	D_1_5h	28.93	277.10	278.45	278.45	279.09	0.016649	3.55	8.15	6.41	1.01
Meo	5	TR20	D_2h	30.85	277.10	278.51	278.51	279.18	0.016648	3.62	8.51	6.43	1.01
Meo	5	TR20	D_3h	28.83	277.10	278.45	278.45	279.09	0.016638	3.55	8.13	6.41	1.01
Meo	5	TR30	D_1_5h	32.96	277.10	278.57	278.57	279.27	0.016666	3.70	8.90	6.45	1.01
Meo	5	TR30	D_2h	34.46	277.10	278.61	278.62	279.33	0.016667	3.75	9.18	6.46	1.00
Meo	5	TR30	D_3h	31.53	277.10	278.53	278.53	279.21	0.016644	3.65	8.64	6.44	1.01

HEC-RAS River: Casiglio Reach: Meo (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Meo	5	TR100	D_1_5h	46.44	277.10	279.29	278.93	279.80	0.018427	3.18	14.61	16.19	1.07
Meo	5	TR100	D_2h	46.60	277.10	278.94	278.94	279.80	0.016694	4.12	11.32	6.55	1.00
Meo	5	TR100	D_3h	40.97	277.10	278.79	278.79	279.59	0.016771	3.97	10.33	6.51	1.01
Meo	5	TR200	D_1_5h	55.51	277.10	279.84	279.44	280.13	0.005712	2.35	23.62	16.29	0.62
Meo	5	TR200	D_2h	54.83	277.10	279.85	279.43	280.12	0.005522	2.31	23.69	16.29	0.61
Meo	5	TR200	D_3h	47.52	277.10	278.95	278.95	279.84	0.017111	4.18	11.38	6.55	1.01
Meo	5	TR500	D_1_5h	69.39	277.10	280.25	279.61	280.52	0.004140	2.30	30.21	16.36	0.54
Meo	5	TR500	D_2h	67.48	277.10	280.19	279.59	280.46	0.004284	2.30	29.34	16.35	0.55
Meo	5	TR500	D_3h	57.70	277.10	279.91	279.47	280.19	0.005350	2.33	24.72	16.30	0.60
Meo	3			Bridge									
Meo	1	TR20	D_1_5h	28.93	274.53	276.11	275.86	276.58	0.010701	3.03	9.53	6.05	0.77
Meo	1	TR20	D_2h	30.85	274.53	275.92	275.91	276.61	0.017760	3.69	8.37	6.05	1.00
Meo	1	TR20	D_3h	28.83	274.53	277.01	275.86	277.20	0.002992	1.92	14.98	6.08	0.39
Meo	1	TR30	D_1_5h	32.96	274.53	276.41	275.98	276.84	0.008477	2.91	11.34	6.06	0.68
Meo	1	TR30	D_2h	34.46	274.53	276.86		277.17	0.005081	2.45	14.06	6.08	0.51
Meo	1	TR30	D_3h	31.53	274.53	277.24	275.94	277.43	0.002807	1.93	16.38	6.09	0.37
Meo	1	TR100	D_1_5h	46.44	274.53	277.24		277.65	0.006100	2.84	16.37	6.09	0.55
Meo	1	TR100	D_2h	46.60	274.53	276.36	276.36	277.27	0.018357	4.23	11.02	6.06	1.00
Meo	1	TR100	D_3h	40.97	274.53	277.81	276.20	278.03	0.002829	2.06	19.86	6.11	0.37
Meo	1	TR200	D_1_5h	55.51	274.53	277.54		278.02	0.006520	3.04	18.23	6.10	0.56
Meo	1	TR200	D_2h	54.83	274.53	277.90		278.26	0.004736	2.69	20.38	6.11	0.47
Meo	1	TR200	D_3h	47.52	274.53	278.15		278.39	0.002923	2.16	21.96	6.12	0.36
Meo	1	TR500	D_1_5h	69.39	274.53	278.03		278.57	0.006850	3.28	21.18	6.12	0.56
Meo	1	TR500	D_2h	67.48	274.53	278.44		278.85	0.004824	2.84	23.72	6.13	0.46
Meo	1	TR500	D_3h	57.70	274.53	278.71		278.97	0.002973	2.28	25.35	6.14	0.36