Regione: PIEMONTE

Comune: LUSERNA SAN GIOVANNI

Localita' TERRITORIO COMUNALE

Opera: STUDIO IDRAULICO RII MINORI PER L'ADEGUAMENTO DELLO STRUMENTO URBANISTICO AL P.A.I. AI SENSI DELLA CIRCOLARE 7/LAP/96 E SUCCESSIVE N.T.E./99

Oggetto: Relazione idrologica e idraulica

Allegato A

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Mineraria

Idrogeologia

Idraulica

ing. Paolo Vaschetto

ORDINE INGEGNERI DELLA PROVINCIA DI TORINO * Dott. Ing. PAOLO VASCHETTO n° 8433 Y

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REGIONE PIEMONTE

PROVINCIA DI TORINO

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ANALISI IDROLOGICA E VERIFICHE IDRAULICHE

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1. INTRODUZIONE

La presente relazione e gli annessi elaborati grafici sono stati prodotti dal sottoscritto su incarico dell'Amministrazione del Comune di Luserna San Giovanni, per l'adeguamento dello strumento urbanistico al P. A. I. ai sensi della circolare P. G. R. 7/LAP/96 e successive N. T. E. /99.

In collaborazione con il dott. geol Zanella, incaricato dello studio geologico allegato al P. R. G. C., e con l'Ufficio Tecnico Comunale, si sono individuati i Rii minori sui quali effettuare lo studio idrologico e idraulico al fine di individuare le aree potenzialmente allagabili e le infrastrutture interferenti con la rete idrica minore. Sui Rii individuati, per le sezioni di chiusura significative si sono ricavati i parametri morfometrici, idrologici e idraulici necessari per le successive simulazioni idrauliche, secondo le indicazioni della *"Direttiva sulla piena di progetto da assumere per la progettazione e le verifiche di compatibilità idraulica"* (Allegato 1 del PAI) pubblicato sul *"Bollettino ufficiale della regione Piemonte – Parte I e II"* (Supplemento al numero 30 – 25 luglio 2002).

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2. CARATTERISTICHE MORFOMETRICHE DEI BACINI E DETERMINAZIONE DEI TEMPI DI CORRIVAZIONE

I bacini presi in considerazione nella presente trattazione sono i seguenti (da Ovest verso Est indicati nella TAV 1):

1. Gora Baussan Malana (sezioni di chiusura inizio tombino di Via Bauer (B1) e tombini di Via I Maggio (B2))
2. Gora Mantelli (sezioni di chiusura al ponte di Via Fuhrmann (B1), al ponte di Via Briolera (B2) e al tombino di Via I Maggio (B3))
3. Canale FFSS (sezioni di chiusura al tombino di Via Fuhrmann (B1), all'attraversamento di Via Gianavello e all'attraversamento della ferrovia(B3))
4. Rio dei Boer (sezione di chiusura alla borgata Payrot (B1), all'attraversamento di Via Fuhrmann, (B2 e B3), all'attraversamento di Strada della Fornace (B4), all'attraversamento della Ferrovia (B5) e all'attraversamento di Via I Maggio (B6))
5. Rio Gambrero (sezioni di chiusura alla confluenza con il Rio dei Musset (B1) e del Rio dei Musset (B2), all'attraversamento della Ferrovia (B3) e all'attraversamento della borgata Pecul (B4))

Le caratteristiche morfometriche comprendono i caratteri geometrici, di superficie e di altitudine del bacino in esame.

Nella seguente Tabella sono sintetizzate le caratteristiche determinate per il bacino considerato:

		Gora Baussan Malana b1	Gora Baussan Malana b2	Gora Mantelli b1	Gora Mantelli b2	Gora Mantelli b3	Canale FF.SS. b1	Canale FF.SS. b2	Canale FF.SS. b3
Superficie	km^2	0.133	0.193	0.61	0.729	0.907	0.161	0.3158	0.398
Lunghezza asta principale	km	0.399	0.707	1.547	1.840	2.160	0.666	1.299	1.733
Quota media	m s.l.m.	680.75	680.75	625.50	619.00	613.00	521.000	680.75	680.75
Quota sezione di chiusura	m s.l.m.	583.00	583.00	513.00	500.00	488.00	511.000	583.000	583.000

		Rio dei Boer b1	Rio dei Boer b2	Rio dei Boer b3	Rio dei Boer b4	Rio dei Boer b5	Rio dei Boer b6	Rio Gambrero b1
Superficie	km^2	0.675	0.953	0.238	1.327	1.585	1.724	0.626

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Lunghezza asta principale	km	1.237	1.703	0.837	2.024	2.850	3.353	1.561
Quota media	m s.l.m.	688.50	673.50	619.05	665.00	653.50	646.00	545.00
Quota sezione di chiusura	m s.l.m.	540.00	510.00	510.00	493.00	470.00	455.00	460.00

		Rio Gambrero b2	**Rio Gambrero b3**	**Rio Gambrero b4**
Superficie	km^2	0.332	1.36	2.338
Lunghezza asta principale	km	0.945	2.063	3.37
Quota media	m s.l.m.	497.00	540.00	525.00
Quota sezione di chiusura	m s.l.m.	490.00	450.00	420.00

Tabella 1: *Caratteristiche morfometriche dei bacini dei Rii minori nel Comune di Luserna San Giovanni*

Per il calcolo dei tempi di corrivazione (t_c) è stato utilizzato il metodo di Giandotti la cui formula è di seguito riportata:

$$t_c = \frac{4\sqrt{A} + 1.5L}{0.8\sqrt{H}}$$

dove:

t_c = tempo di corrivazione (ore);

A = area del bacino (km^2);

L = lunghezza dell'asta principale (km);

H = altezza media del bacino rispetto alla sezione di chiusura (m).

Da cui si ricavano i seguenti tempi di corrivazione:

		Gora Baussan Malana b1	**Gora Baussan Malana b2**	**Gora Mantelli b1**	**Gora Mantelli b2**	**Gora Mantelli b3**	**Canale FF.SS. b1**	**Canale FF.SS. b2**
Tempo di corrivazione	h	0.26	0.356	0.642	0.708	0.788	1.029	0.530

		Canale FF.SS. b3	**Rio dei Boer b1**	**Rio dei Boer b2**	**Rio dei Boer b3**	**Rio dei Boer b4**	**Rio dei Boer b5**	**Rio dei Boer b6**
Tempo di corrivazione	h	0.648	0.527	0.631	0.384	0.729	0.859	0.930

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		Rio Gambrero b1	Rio Gambrero b2	Rio Gambrero b3	Rio Gambrero b4
Tempo di corrivazione	h	0.747	1.759	1.022	1.363

Tabella 2: Tempi di corrivazione per i bacini indagati nelle varie sezioni di chiusura

3. DETERMINAZIONE DELLE ALTEZZE DI PRECIPITAZIONE

La determinazione delle portate affluenti ad una determinata sezione di chiusura, in assenza di una serie storica di misure dirette su sezioni strumentate con idrometro, deve necessariamente passare attraverso metodi indiretti, che consentono di ottenere i valori della lama d'acqua defluita in funzione delle precipitazioni affluite al bacino preso in considerazione. Pertanto, prima di determinare i valori di portata è stato necessario determinare i valori di altezza di precipitazione, procedimento effettuato sfruttando le metodologie e i dati contenuti nella "Direttiva Piena di Progetto" dell'Autorità di Bacino.

Per la suddetta direttiva la previsione quantitativa delle piogge intense in un determinato punto è effettuata attraverso la determinazione della curva di probabilità pluviometrica, cioè della relazione che lega l'altezza di precipitazione alla sua durata, per un assegnato tempo di ritorno.

Si ricorda che con il termine altezza di precipitazione in un punto, comunemente misurata in mm, si intende l'altezza d'acqua che si formerebbe al suolo su una superficie orizzontale e impermeabile, in un certo intervallo di tempo (durata della precipitazione) e in assenza di perdite.

La curva di probabilità pluviometrica è comunemente espressa da una legge di potenza del tipo:

$$h(t) = a\, t^{n}$$

in cui i parametri a e n dipendono dallo specifico tempo di ritorno considerato.

Per determinare tali parametri sono state utilizzate le serie storiche delle precipitazioni intense riportate negli Annali Idrologici del Servizio Idrografico e Mareografico Italiano (Parte I, tabella III) relative ai massimi annuali delle precipitazioni della durata di 1, 3, 6, 12, 24 ore consecutive. L'intervallo di durata tra 1 e 24 ore rappresenta il campo entro cui sono da ricercare le durate critiche per la maggior parte dei corsi d'acqua per i quali la stima della portata di piena può essere effettuata tramite l'utilizzo delle linee segnalatrici di probabilità pluviometrica.

La stima delle curve di probabilità pluviometrica nelle stazioni di misura è stata effettuata sfruttando la legge del valore estremo del primo tipo, sulla base delle serie storiche dei massimi

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annuali delle altezze di precipitazione per le durate considerate, definendo i parametri a e n per i tempi di ritorno di 20, 100, 200 e 500 anni.

I valori indicati costituiscono riferimento per le esigenze connesse a studi e progettazioni che, per dimensioni e importanza, non possano svolgere direttamente valutazioni idrologiche più approfondite a scala locale. I dati utilizzati nel presente lavoro sono rappresentati dai valori principali di riferimento della stazione pluviografica di Luserna San Giovanni, riassunti in tabella 3.

	TR = 20 anni		TR = 100 anni		TR = 200 anni		TR = 500 anni	
STAZIONE	a	n	A	n	a	n	A	n
Luserna S. Giovanni	41.72	0.500	52.87	0.503	57.63	0.504	63.90	0.505

***Tabella 3**: Parametri "a" ed "n" per assegnati tempi di ritorno (fonte: Direttiva piene di progetto) stazione pluviometrica di Luserna San Giovanni.*

I bacini indagati nel presente studio si trovano alcuni chilometri più a monte rispetto alla stazione di riferimento e per questo motivo per la determinazione dei parametri della curva di massima possibilità pluviometrica si sono utilizzati i dati riportati nella "*Direttiva sulla piena di progetto da assumere per la progettazione e le verifiche di compatibilità idraulica*" (Allegato 1 del PAI) pubblicato sul "*Bollettino ufficiale della regione Piemonte – Parte I e II*" (Supplemento al numero 30 – 25 luglio 2002). Tale documento fornisce uno strumento per l'analisi di frequenza delle piogge intense nei punti privi di misure dirette conducendo un'interpolazione spaziale con il metodo di Kringing dei parametri *a* e *n* delle linee segnalatrici, discretizzate in base ad un reticolo di 2 km di lato.

Per ciascun bacino in studio, si sono ricavate le relative celle di appartenenza (indicate in coordinate UTM e quindi facilmente posizionabili sulla Cartografia Tecnica Regionale) calcolando poi la media pesata in base all'estensione areale delle porzioni di bacino in ciascuna cella. Adottando tale metodologia si sono ricavate le linee segnalatrici di possibilità pluviometrica per tempi di ritorno di 20, 100, 200, 500 anni riportate nella tabella 4 seguente.

	TR = 20 anni		TR = 100 anni		TR = 200 anni		TR = 500 anni	
BACINO	a	n	a	n	a	n	A	n
Gora Baussan Malana b1	42.666	0.484	54.621	0.484	59.774	0.484	66.459	0.485
Gora Baussan Malana b2	42.574	0.485	54.481	0.485	59.614	0.485	66.273	0.486
Gora Mantelli b1	43.090	0.485	54.999	0.485	60.087	0.485	66.787	0.486
Gora Mantelli b2	43.289	0.478	55.568	0.477	60.853	0.477	67.717	0.477
Gora Mantelli b3	43.105	0.480	55.262	0.480	60.493	0.480	67.293	0.480
Canale FFSS b1	42.862	0.483	54.858	0.483	60.019	0.483	66.735	0.484
Canale FFSS b2	42.604	0.488	54.386	0.488	59.446	0.489	66.053	0.490
Canale FFSS b3	42.547	0.489	53.450	0.489	59.311	0.490	65.892	0.491
Rio dei Boer b1	44.442	0.469	57.093	0.468	62.485	0.467	69.603	0.467

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Rio dei Boer b2	44.279	0.471	56.829	0.470	62.177	0.469	69.241	0.470
Rio dei Boer b3	44.310	0.472	56.826	0.471	62.151	0.470	69.206	0.470
Rio dei Boer b4	44.085	0.473	56.524	0.473	61.827	0.472	68.829	0.472
Rio dei Boer b5	43.799	0.477	56.090	0.476	61.334	0.476	68.251	0.476
Rio dei Boer b6	43.681	0.478	55.910	0.478	61.130	0.477	68.011	0.478
Rio Gambrero b1	43.090	0.485	54.999	0.485	60.087	0.485	66.787	0.486
Rio Gambrero b2	43.297	0.483	55.309	0.483	60.437	0.483	67.198	0.483
Rio Gambrero b3	42.922	0.487	54.747	0.487	59.801	0.488	66.453	0.488
Rio Gambrero b4	43.030	0.485	54.861	0.486	59.902	0.486	66.576	0.487

***Tabella 4**: Parametri "a" ed "n" per assegnati tempi di ritorno per ciascun bacino*

Sulla base dei tempi di corrivazione determinati in precedenza, è stata calcolata, per ciascun tempo di ritorno e per ciascun bacino, l'altezza di precipitazione, corrispondente alla pioggia di durata pari al tempo di corrivazione. Tali valori sono stati riportati nella seguente tabella 5:

	Altezza di pioggia [mm] TR = 20 anni	**Altezza di pioggia [mm] TR = 100 anni**	**Altezza di pioggia [mm] TR = 200 anni**	**Altezza di pioggia [mm] TR = 500 anni**
BACINO				
Gora Baussan Malana b1	22.235	28.450	31.134	34.579
Gora Baussan Malana b2	25.810	33.009	36.119	40.118
Gora Mantelli b1	35.197	45.240	49.553	55.150
Gora Mantelli b2	36.698	47.122	51.604	57.418
Gora Mantelli b3	38.450	49.300	53.966	60.025
Canale FFSS b1	43.465	55.630	60.863	67.675
Canale FFSS b2	31.265	39.898	43.595	48.415
Canale FFSS b3	34.409	43.883	47.941	53.239
Rio dei Boer b1	39.923	42.328	46.348	51.628
Rio dei Boer b2	35.657	45.783	50.107	55.797
Rio dei Boer b3	28.211	36.204	39.624	44.115
Rio dei Boer b4	37.947	48.665	53.239	59.264
Rio dei Boer b5	40.743	52.180	57.060	63.492
Rio dei Boer b6	42.190	54.004	59.046	65.691
Rio Gambrero b1	37.397	47.728	52.138	57.941
Rio Gambrero b2	56.854	72.633	79.375	88.283
Rio Gambrero b3	43.387	55.340	60.450	67.175
Rio Gambrero b4	50.003	63.766	69.634	37.540

***Tabella 5**: altezze di precipitazione di tempo pari al TC per vari TR (in mm)*

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4 - METODOLOGIA PER LA DETERMINAZIONE DEI DEFLUSSI DEI BACINI.

In assenza di stazioni di misura dirette di tale portata, è stato necessario adottare dei procedimenti indiretti che, partendo dalla valutazione degli afflussi, attraverso l'uso di formule empiriche, consentono di determinare i relativi deflussi caratteristici dei bacini in esame.

Nel caso in esame, sono stati utilizzati i valori di portata forniti dal metodo cinematica o razionale, basato sulle caratteristiche fisiografiche del bacino, sul suo tempo di corrivazione, sulla natura litologica dei terreni e sulle caratteristiche pluviometriche. La formula che tale metodo propone è la seguente:

Formula del metodo razionale (da D. Turazza)

$$Q = \frac{C_d \cdot h \cdot A}{3.6 \cdot T_c}$$

in cui:

C_d = coefficiente di deflusso (assunto pari a 0,50)

h = altezza ragguagliata (pari all'altezza di precipitazione relativa al tempo di corrivazione, per assegnato tempo di ritorno)

A = superficie del bacino

T_c = tempo di corrivazione

Per quanto riguarda la determinazione del coefficiente di deflusso, che risulta essere l'elemento con maggiore "sensibilità", le caratteristiche di permeabilità e di uso del suolo del bacino inducono ad attribuire un valore cautelativo pari a **0,50**, in analogia con quanto riportato nella direttiva PAI che fa riferimento ai dati raccomandati da *Handbook of Happlied Hydrology, Ven Te Chow, 1964.*

Tipo di suolo	C	
	Uso del suolo	
	Coltivato	**Bosco**
Suolo con infiltrazione elevata, normalmente sabbioso o ghiaioso	0,20	0,10
Suolo con infiltrazione media, senza lenti argillose; suoli limosi e simili	0,40	0,30
Suolo con infiltrazione bassa, suoli argillosi e suoli con lenti argillose vicine alla superficie, strati di suolo sottile al di sopra di roccia impermeabile	0,50	0,40

***Tabella 6**: valori del coefficiente di deflusso*

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Il valore scelto risulta peraltro coerente con il contesto territoriale locale, debolmente antropizzato con presenza boschi su ampie superfici nella zona di testata del bacino, di colture e prati verso il fondovalle, caratterizzato da terreni con strato superficiale di natura argillosa, e substrato roccioso (calcescisti, micascisti e pietre verdi), e da pendenze elevate. Tali fattori associati alla conoscenza diretta da parte dello scrivente dei terreni in oggetto, hanno portato alla caratterizzazione del coefficiente di deflusso.

Il calcolo delle portate di massima piena si basa sulla stima del tempo di corrivazione T_c.

Per tempo di corrivazione si intende il tempo necessario perché le acque di afflusso meteorico raggiungano la sezione di chiusura del bacino, rispetto alla quale viene eseguito il calcolo della portata di massima piena, partendo dai punti più lontani dello stesso bacino imbrifero.

Il parametro T_c è una costante per ogni bacino, in quanto funzione della morfologia, della litologia e della copertura vegetale.

Secondo le precedenti indicazioni e applicando la formula razionale si ottengono le seguenti portate per ciascun bacino e tempo di ritorno

	PORTATE LIQUIDE DI PIENA [m^3/s]			
	TR = 20 anni	**TR = 100 anni**	**TR = 200 anni**	**TR = 500 anni**
BACINO				
Gora Baussan Malana b1	1.579	2.021	2.211	2.456
Gora Baussan Malana b2	1.942	2.484	2.718	3.019
Gora Mantelli b1	4.647	5.973	6.543	7.282
Gora Mantelli b2	5.251	6.743	7.384	8.216
Gora Mantelli b3	6.146	7.880	8.625	9.594
Canale FFSS b1	0.944	1.209	1.322	1.470
Canale FFSS b2	2.580	3.292	3.597	3.995
Canale FFSS b3	2.937	3.745	4.091	4.544
Rio dei Boer b1	5.852	7.524	8.238	9.177
Rio dei Boer b2	7.474	9.597	10.503	11.696
Rio dei Boer b3	2.429	3.118	3.412	3.799
Rio dei Boer b4	9.600	12.311	13.468	14.993
Rio dei Boer b5	10.439	13.369	14.620	16.268
Rio dei Boer b6	10.863	13.905	15.203	16.915
Rio Gambrero b1	4.355	5.558	6.072	6.748
Rio Gambrero b2	1.491	1.904	2.081	2.315
Rio Gambrero b3	8.016	10.224	11.168	12.411
Rio Gambrero b4	11.915	15.195	16.593	18.445

Tabella 7: *Portate liquide (in m^3/s) dei vari rii e torrenti esaminati*

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5 – DETERMINAZIONE DEL TRASPORTO SOLIDO

La determinazione del trasporto solido è un aspetto piuttosto incerto nel calcolo delle portate defluenti nei corsi d'acqua montani. Le variabili che entrano in gioco sono molteplici e si possono dividere in dirette e indirette. Le prime fanno riferimento alle caratteristiche del sedimento e dell'alveo e precisamente alla pendenza del fondo alveo, alla granulometria e alla forma del sedimento. Le seconde si riferiscono alle condizioni al contorno e cioè in particolare alla composizione e alla stabilità dei suoli facenti parte del bacino che contribuisce alla formazione delle portate. In particolare la presenza di movimenti franosi direttamente interessanti l'alveo possono alterare in modo significativo le portate complessive.

Nella presente trattazione si è scelto di determinare il trasporto solido come frazione della portata liquida e più precisamente nei corsi d'acqua non interessati da opere di trattenimento del trasporto solido a monte (briglie di trattenuta, soglie di fondo, briglie a pettine e auto vuotanti) o caratterizzato da pendenze elevate e con la presenza di fenomeni gravitativi in atto, il trasporto solido è stato determinato come la terza parte di quello liquido mentre nei corsi d'acqua regolati da dispositivi di trattenuta del trasporto solido e caratterizzate da pendenze del fondo alveo non elevate e con l'assenza di fenomeni gravitativi attivi, la frazione solida è stata considerata come la sesta parte di quella liquida. Secondo queste indicazioni le portate solide e complessive, utilizzate poi nelle successive simulazioni idrauliche sono quelle indicate nella seguente tabella:

	PORTATE DI PIENA [m^3/s]											
	TR = 20 anni			TR = 100 anni			TR = 200 anni			TR = 500 anni		
BACINO	Ql	Qs	Qt	Ql	Qs	Qt	Ql	Qs	Qt	Ql	Qs	Qt
Gora Baussan Malana b1 (1/6)	1.579	0.263	1.842	2.021	0.337	2.357	2.211	0.369	2.580	2.456	0.409	2.865
Gora Baussan Malana b2 (1/6)	1.942	0.324	2.266	2.484	0414	2.898	2.718	0.453	3.171	3.019	0503	3.522
Gora Mantelli b1 (1/6)	4.647	0.775	5.422	5.973	0.996	6.969	6.543	1.090	7.633	7.282	1.214	8.495
Gora Mantelli b2 (1/6)	5.251	0.875	6.126	6.743	1.124	7.866	7.384	1.231	8.615	8.216	1.369	9.585
Gora Mantelli b3 (1/6)	6.146	1.024	7.170	7.880	1.313	9.193	8.625	1.438	10.063	9.594	1.599	11.193
Canale FFSS b1 (1/6)	0.944	0.157	1.102	1.209	0.201	1.410	1.322	0.220	1.543	1.470	0.245	1.715
Canale FFSS b2 (1/6)	2.580	0.430	3.010	3.292	0.549	3.841	3.597	0.600	4.197	3.995	0.666	4.661
Canale FFSS b3 (1/6)	2.937	0.489	3.426	3.745	0.624	4.369	4.091	0.682	4.773	4.544	0.757	5.301
Rio dei Boer b1 (1/6)	5.852	0.975	6.827	7.524	1.254	8.778	8.238	1.373	9.611	9.177	1.529	10.706
Rio dei Boer b2 (1/6)	7.474	1.246	8.720	9.597	1.599	11.196	10.503	1.751	12.254	11.696	1.949	13.645
Rio dei Boer b3 (1/6)	2.429	0.405	2.834	3.118	0.520	3.637	3.412	0.569	3.981	3.799	0.633	4.432
Rio dei Boer b4 (1/6)	9.600	1.600	11.200	12.311	2.052	14.363	13.468	2.245	15.713	14.993	2.499	17.491
Rio dei Boer b5 (1/6)	10.439	1.740	12.179	13.369	2.228	15.598	14.620	2.437	17.057	16.268	2.711	18.979
Rio dei Boer b6 (1/6)	10.863	1.811	12.674	13.905	2.318	16.223	15.203	2.534	17.737	16.915	2.819	19.734
Rio Gambrero b1 (1/6)	4.355	0.726	5.081	5.558	0.926	6.485	6.072	1.012	7.084	6.748	1.125	7.872
Rio Gambrero b2 (1/6)	1.491	0.248	1.739	1.904	0.317	2.222	2.081	0.347	2.428	2.315	0.386	2.701
Rio Gambrero b3 (1/6)	8.016	1.336	9.352	10.224	1.704	11.928	11.168	1.861	13.030	12.411	2.068	14.479
Rio Gambrero b4 (1/6)	11.915	1.986	13.901	15.195	2.532	17.727	16.593	2.765	19.358	18.445	3.074	21.519

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Tabella 8:Portate liquide, solide e totali (in m^3/s) dei vari rii e torrenti esaminati

6 – RILIEVO TOPOGRAFICO

Per le successive elaborazioni idrauliche, è stato necessario effettuare un rilievo topografico di dettaglio dei tratti d'alveo significativi ai fini della caratterizzazione del rischio idraulico. Il criterio utilizzato per la determinazione di tali tratti ha preso in considerazione gli eventi storici succeduti, il grado di antropizzazione delle aree limitrofe e gli attraversamenti e i ponti presenti.

Materialmente il rilievo è stato eseguito mediante l'utilizzo di una stazione totale (distanziometro ad infrarossi) tipo Topcon GTS303 con registrazione continua dei dati su registratore digitale tipo Memotop II. I dati rilevati sono poi stati elaborati con l'ausilio di un programma di calcolo chiamato Strato messo a punto dalla software house Carazzai s.r.l., per la restituzione del piano quotato, delle sezioni e del profilo longitudinale.

Secondo tale procedura sono stati effettuati i seguenti rilievi riassunti nella tabella n.9:

	RILIEVI ESEGUITI		
	Tratto rilevato [m]	**n. attraversamenti + tombini**	**n. sezioni rilevate**
BACINO			
Gora Baussan Malana	/	2	/
Gora Mantelli	794	10	37
Canale FFSS	1.793	7	50
Rio dei Boer	1.366	10	50
Rio Gambrero	2.259	12	68

***Tabella 9**: riassunto rilievi topografici eseguiti*

A livello grafico sono state riportate sulla planimetria CTR (Tav. 3) ingrandita alla scala di 1:2.500 la traccia e la numerazione delle sezioni rilevate e successivamente verificate dal punto di vista idraulico.

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7 – VERIFICHE IDRAULICHE

7.1 - Premessa

Con i dati ricavati nei precedenti paragrafi si è proceduto alle verifiche idrauliche dei tratti di interesse e degli attraversamenti presenti.

L'analisi qui presentata è finalizzata alla quantificazione delle caratteristiche idrauliche del moto della corrente in condizioni di piena, rappresentati dai valori dei livelli idrici e delle velocità di corrente all'interno dell'alveo inciso e delle eventuali aree golenali o inondate.

L'esecuzione dei calcoli idraulici per la determinazione delle modalità di deflusso comporta la definizione dei seguenti punti principali:

- Metodo di calcolo;
- Condizioni al contorno;
- Condizioni di riferimento.

Per quanto riguarda il metodo di calcolo seguito per l'analisi idraulica si è fatto riferimento alle condizioni di moto stazionario monodimensionale che considera portata costante e geometria dell'alveo variabile (questo tipo di moto rappresenta una buona approssimazione di quello che si manifesta negli alvei naturali dei corsi d'acqua durante gli eventi di piena).

Tale metodologia permette, pertanto, una valutazione dei livelli di piena nelle sezioni del torrente più raffinata di quanto non lo consenta la schematizzazione del moto uniforme nelle singole sezioni dell'alveo. Con essa, infatti, è possibile calcolare i livelli idrici considerando l'influenza della variazione della geometria e le singolarità idrauliche presenti nel tratto d'asta del corso d'acqua analizzato.

Il problema del tracciamento del profilo di superficie libera di un corso d'acqua naturale in moto permanente con una data portata Q si risolve con procedimenti di calcolo numerico.

L'operazione richiede la suddivisione del corso d'acqua in tronchi di lunghezza s, tali da poter confondere i valori medi della sezione e della velocità in ciascun tronco con i valori ad un estremo. La natura dell'alveo deve conservarsi, entro certi limiti, in ciascun tronco.

Siano i e i + 1 due sezioni consecutive, distanti Δx in asse, nella prima delle quali siano note tutte le grandezze idrauliche. La variazione di carico idraulico ΔH tra le due sezioni si può calcolare mediante la seguente relazione alle differenze finite:

$$\Delta H = -[\, j \,]_i \cdot \Delta x$$

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Si può ottenere così il carico Hi+1 della sezione i + 1 e conseguentemente il carico piezometrico hi+1, che rappresenta la quota del pelo libero rispetto ad un piano di riferimento orizzontale, risolvendo l'equazione:

$$H_{i+1} = h_{i+1} + \frac{Q^2}{2g \cdot \Omega_{i+1}^2}$$

È possibile in questo modo ricavare il carico piezometrico della corrente nelle sezioni di rilievo e da questo calcolare le caratteristiche idrauliche che il torrente ha nel tratto in esame.

In particolare, per il calcolo dei livelli e delle principali caratteristiche del moto si è utilizzato il codice di calcolo "Hec Ras" del U.S. Army Corps of Engineers.

Per quanto riguarda le condizioni al contorno, i valori da assegnare sono:

- Il valore della portata di riferimento;
- L'altezza del livello del pelo libero dell'acqua ad una delle estremità o ad entrambe, in funzione del tipo di corrente (lenta o veloce) che si viene ad instaurare sul corso d'acqua.

In relazione alla seconda condizione al contorno si è prima verificato il tipo di corrente che si instaura sul tratto di corso d'acqua esaminato conducendo nelle sezioni di estremità l'analisi in moto uniforme. Stabilita la natura della corrente, si assume come condizione al contorno, nel caso essa sia lenta, l'altezza d'acqua di moto uniforme nella sezione di valle, mentre nel caso di corrente veloce si assume l'altezza d'acqua nella sezione di monte.

7.2 – Codice di calcolo HEC-RAS

7.2.1 - Premessa

Il programma HEC-RAS, realizzato dall'Hydrologic Engineering Center di Davis, California (US Army Corps of Engineering), rappresenta l'ultima evoluzione del codice di calcolo HEC-2 per la simulazione di correnti in moto stazionario.

HEC-RAS consente di calcolare il profilo idraulico di moto stazionario, in alveo non prismatico a fondo fisso, per una qualsiasi rete idrografica a pelo libero (asta fluviale, reti di

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irrigazione, sistemi idrografici ramificati), nell'ipotesi di flusso omogeneo e monodimensionale. Il programma è in grado di simulare condizioni di corrente lenta, veloce nonché regimi misti. E' possibile tenere conto di:

- portate laterali;
- nodi idraulici (confluenze, biforcazioni);
- alvei e aree golenali con diverso sviluppo longitudinale;
- casse di espansione;
- ponti;
- pile di ponti con geometria variabile;
- tombini;
- traverse fluviali;
- soglie di fondo;
- arginature;
- perdite di carico concentrate.

L'algoritmo di calcolo è basato sulla soluzione dell'equazione di bilancio energetico tra sezioni contigue. Le perdite di carico vengono valutate in base alla scabrezza (coefficiente di Manning) e ad un fattore di contrazione/espansione che tiene conto delle variazioni della sezione di deflusso.

Gli effetti localizzati che determinano rapide variazioni del profilo idraulico quali fenomeni di risalto idraulico, confluenze di corsi d'acqua, ponti, etc., vengono invece simulati mediante applicazione dell'equazione di conservazione della quantità di moto.

I risultati delle simulazioni possono essere restituiti sia sotto forma di grafici che di tabulati, permettendo un confronto semplice ed immediato di soluzioni progettuali alternative o dei risultati ottenuti per differenti ipotesi di calcolo (es. portate con tempi di ritorno diversi). Per ogni sezione di calcolo il programma determina il valore di numerose grandezze tra cui le principali sono:

- livello idrico [m s.m.];
- livello idrico in condizioni di corrente critica [m s.m.];
- velocità della corrente in alveo [m/s];
- velocità della corrente nelle golene (dx/sx) [m/s];
- carico cinetico [m];
- carico totale [m s.m.];

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- area della sezione di deflusso [m^2];
- larghezza pelo libero [m];
- profondità media della corrente [m];
- velocità media della corrente [m/s];
- sviluppo del contorno bagnato [m];
- conveyance [m^3/s];
- gradiente idraulico [m/m];
- numero di Froude;
- distribuzione della portata tra alveo e golene.

Il codice di calcolo HEC-RAS può essere utilizzato esprimendo i dati sia in unità del sistema internazionale (metrico), che secondo il sistema anglosassone.

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7.2.2 – Dati di input

Per semplificare l'utilizzo del programma l'input dei dati è organizzato secondo una struttura a moduli:

- geometria della rete idrografica;
- dati di portata e condizioni al contorno;
- metodo di calcolo.

Geometria della rete idrografica

La geometria del sistema idrografico viene definita mediante:

- schema planimetrico della rete;
- sezioni trasversali;
- strutture (es. ponti, tombini, etc.).

Ciascuno dei tronchi in cui è schematizzata la rete idrografica viene caratterizzato mediante una serie di sezioni trasversali definite per punti.

Per ogni sezione sono introdotti i dati riguardanti la geometria delle sezioni e del corso d'acqua in generale (geometria delle sezioni trasversali, distanze tra le sezioni in alveo, golena destra e golena sinistra, quote), le scabrezze espresse tramite il coefficiente di Manning's. I dati relativi alla geometria si concludono con l'inserimento di eventuali argini e delle zone non contribuenti al deflusso (si tratta di aree che possono essere allagate ma che non contribuiscono al deflusso delle portate: es. casse di espansione).

Nel caso di confluenza tra due corsi d'acqua il programma consente di scegliere, per il calcolo, tra l'equazione di bilancio energetico oppure l'impiego dell'equazione di conservazione della quantità di moto (in tal caso è possibile tenere conto dell'angolo di confluenza formato dai due corsi d'acqua).

La geometria della rete idrografica è completata con la definizione delle eventuali strutture presenti rappresentate da ponti o tombini.

Per poter definire l'influenza di una struttura di attraversamento del corso d'acqua sui livelli

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idrici e sulla distribuzione delle velocità è necessario, per ogni struttura, inserire due sezioni trasversali localizzate: la prima immediatamente a monte e la seconda subito a valle dell'opera. Il programma permette di definire l'ingombro dell'impalcato, delle spalle e delle pile, qualunque sia la loro geometria.

L'effetto indotto dalla presenza di un ponte può essere valutato mediante: a) bilancio energetico, b) equazione di conservazione della quantità di moto, c) formula di Yarnell.

Il programma consente un confronto tra i risultati dei tre metodi ed eventualmente l'assunzione del criterio più cautelativo.

Dati di portata e condizioni al contorno

Definiti i valori di portata nella sezione di monte di ciascuno dei rami in cui è stata suddivisa la rete idrografica devono essere indicate le condizioni al contorno che regolano il comportamento del sistema.

Per le sezioni di monte e di valle possono essere imposte le seguenti condizioni:

- livello noto;
- condizione critica di deflusso;
- altezza di moto uniforme;
- curva altezze/portate.

E' inoltre possibile introdurre condizioni al contorno interne al sistema quali variazioni di carico o di livello e dissipazioni di energia localizzate.

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7.2.3 Metodo di calcolo

Per il calcolo del profilo di corrente in moto stazionario il codice HEC-RAS utilizza un procedimento iterativo passo a passo basato sulla soluzione dell'equazione di bilancio energetico tra sezioni successive:

$$WS_2 + \frac{\alpha_1 * V_2^2}{2g} = WS_1 + \frac{\alpha_2 * V_1^2}{2g} + h_e$$

essendo:

WS_1	livello idrico sezione di valle;
WS_2	livello idrico sezione di monte;
V_1	velocità media sezione di valle;
V_2	velocità media sezione di monte;
α_1, α_2	coefficienti numerici di velocità;
g	accelerazione di gravità;
h_e	perdita di carico.

La perdita di carico tra due sezioni comprende una quota dovuta alla scabrezza del fondo ed una dovuta alla variazione della sezione trasversale di deflusso (contrazione/espansione), l'espressione che ne consente il calcolo risulta:

$$h_e = L\overline{S}_f + C * \left| \frac{\alpha_2 V_2^2}{2g} - \frac{\alpha_1 V_1^2}{2g} \right|$$

essendo:

$\overline{S}_f$	gradiente idraulico tra le sezioni;
C	coefficiente di contrazione/espansione.
L	media pesata della distanza fra le sezioni;

$$L = \frac{L_{lob} * \overline{Q}_{lob} + L_{ch} * \overline{Q}_{ch} + L_{rob} * \overline{Q}_{rob}}{\overline{Q}_{lob} + \overline{Q}_{ch} + \overline{Q}_{rob}}$$

dove:

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L_{lob}, L_{ch}, L_{rob} distanza tra le due sezioni rispettivamente in golena sinistra, alveo e golena destra;

$\overline{Q}_{lob}, \overline{Q}_{ch}, \overline{Q}_{rob}$ media aritmetica delle portate defluite nelle due sezioni in golena sinistra, alveo e golena destra.

mentre:

$$\overline{S}_f = \left(\frac{Q_1 + Q_2}{K_1 + K_2} \right)$$

con:

Q_1, Q_2 portate;

K_1, K_2 conveyance totale.

Coefficiente di velocità

Il coefficiente di velocità α viene calcolato, sulla base del valore di conveyance relativo a ciascuna delle componenti di portata in cui è suddivisa una sezione (golena sinistra, alveo, golena destra), mediante la successiva equazione:

$$\alpha = \frac{(A_t)^2 * \left| \frac{(K_{lob})^3}{(A_{lob})^2} + \frac{(K_{ch})^3}{(A_{ch})^2} + \frac{(K_{rob})^3}{(A_{rob})^2} \right|}{(K_t)^3}$$

dove:

A_t area di deflusso totale della sezione;

A_{lob}, A_{ch}, A_{rob} area di deflusso in golena sinistra, alveo e golena destra;

K_t conveyance totale della sezione;

K_{lob}, K_{ch}, K_{rob} componente di conveyance in golena sinistra, alveo e golena destra.

Perdite di carico dovute a contrazione/espansione della corrente

Le perdite di carico dovute alle variazioni di velocità della corrente, conseguenti a restringimenti o allargamenti delle sezioni trasversali lungo l'asta, vengono valutate secondo la formula:

dove:

$$h_o = C * \left| \frac{\alpha_1 V_1^2}{2g} - \frac{\alpha_2 V_2^2}{2g} \right|$$

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C coefficiente di contrazione/espansione.

Il programma assume come C il coefficiente di contrazione quando il carico cinetico della sezione di valle è superiore a quello della sezione di monte, il coefficiente di espansione in caso opposto.

Il coefficiente C, che rappresenta la quota di carico cinetico dissipata nel passaggio della corrente tra due sezioni, assume i valori indicati nella tabella seguente.

	Contrazione	**Espansione**
Nessuna variazione si sezione	0.0	0.0
Variazioni graduali	0.1	0.3
Restringimento dovuto ad un ponte	0.3	0.5
Brusche variazioni di sezione	0.6	0.8

Coefficienti di contrazione/espansione.

Procedura di calcolo

Per il calcolo del profilo di piena in moto stazionario il codice HEC-RAS utilizza un procedimento di tipo iterativo che, nel caso di due generiche sezioni, può essere riassunto secondo i seguenti passi:

1. assunzione di un valore di altezza d'acqua nella sezione a monte o in quella a valle, a secondo che si tratti di un profilo di corrente lenta o veloce,
2. calcolo, sulla base dell'altezza d'acqua assunta, dei corrispondenti valori di carico cinematico e conveyance totale;
3. determinazione del gradiente idraulico $\hat{S}_f$ e delle perdite di carico totali h_e tra le due sezioni;
4. risoluzione dell'equazione di bilancio energetico, calcolo del valore di WS_2;
5. confronto del valore WS_2 calcolato con quello assunto al passo 1; ripetizione della sequenza di operazioni sino a quando l'errore rientra nel limite di tolleranza definito (0,003 m).

Il criterio utilizzato per l'assunzione di un valore di altezza d'acqua di tentativo varia nelle successive iterazioni. Nella prima iterazione viene assunto il valore definito per la sezione precedente, nella seconda viene assunto il valore calcolato, corretto in funzione dell'errore

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riscontrato:

$$WS_{nuovo} = WS_{assunto} + 0.70 * (WS_{calcolato} - WS_{assunto})$$

Nelle successive iterazioni, viene invece applicato il metodo della secante, espresso secondo l'equazione:

$$WS_I = WS_{I-2} - Err_{I-2} * Err\_Assum / Err\_Diff$$

dove:

WS_I nuovo valore del livello idrico;

WS_{I-1} valore di livello idrico assunto nell'iterazione precedente;

WS_{I-2} valore di livello idrico assunto nella penultima iterazione;

Err_{I-2} differenza tra il livello idrico calcolato e quello assunto nell'iterazione I-2;

Err_Assum differenza tra i livelli idrici assunti nelle due iterazioni precedenti:

$Err\_Assum = WS_{I-2} - WS_{I-1}$

Err_Diff differenza tra il livello idrico assunto e quello calcolato nell'iterazione precedente, più l'errore definito nella penultima iterazione:

$Err\_Diff = WS_{I-1} - WS\_Calc_{I-1} + Err_{I-2}$

Equazione di conservazione della quantità di moto

L'equazione di bilancio energetico vale soltanto quando si hanno variazioni graduali di corrente, in particolare, quando il profilo idraulico presenta una sezione caratterizzata da una profondità di corrente pari all'altezza critica, l'equazione di bilancio energetico non è più applicabile.

La presenza di una sezione con altezza critica d'acqua evidenzia una variazione rapida del moto, con passaggio da corrente lenta a veloce o viceversa. Ciò può verificarsi in numerose situazioni: a seguito di un cambiamento della pendenza di fondo dell'alveo, per la presenza di un restringimento in corrispondenza di un ponte, a causa della presenza di salti di fondo, o ancora in corrispondenza di una confluenza tra due corsi d'acqua.

L'equazione di conservazione della quantità di moto presenta la seguente espressione generale:

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$$P_1 - P_2 + W_x - F_f = Q \cdot \rho \cdot \Delta V_x$$

dove:

P	forze dovute alla pressione idrostatica nelle sezioni 1 e 2;
W_x	forza peso nella direzione x;
F_f	forza di attrito tra le sezioni 1 e 2;
Q	portata;
ρ	densità dell'acqua;
ΔV_x	variazione di velocità tra le sezioni 1 e 2, nella direzione x

essendo:

$$P = \gamma A\hat{Y} \cos\theta$$

con:

γ	peso specifico dell'acqua;
A	area di deflusso;
$\hat{Y}$	profondità della corrente.

$$W_x = \gamma * \left(\frac{A_1 + A_2}{2} \right) * L * sin \quad \theta$$

con:

L	distanza tra le due sezioni successive;
z_i	quota fondo della sezione i-esima.

$$sin \quad \theta \quad = \quad \frac{z_1 - z_2}{L}$$

$$F_f = \tau * \overline{P} L$$

con:

τ	tensione superficiale d'attrito;
P	sviluppo medio del contorno bagnato nelle sezioni 1 e 2;
$\tau = \gamma * R * S_f$	dove: R = raggio idraulico;
	S_f = gradiente idraulico.

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Effetti indotti sulla corrente dalla presenza di un ponte

Per la determinazione delle perdite di carico dovute alla presenza di un ponte, la routine di calcolo necessita della definizione di 4 sezioni di cui due a monte e due a valle, poste in entrambi i casi, una in prossimità dell'opera e l'altra ad una distanza sufficiente affinché la corrente non risenta della presenza del manufatto.

Il programma HEC-RAS consente di simulare il deflusso della piena o in condizione di corrente a pelo libero o in condizioni di corrente in pressione.

Nel caso in cui il deflusso della corrente attraverso il ponte sia a pelo libero, cioè l'acqua non lambisca l'intradosso del ponte, l'effetto indotto dalla presenza della struttura, in particolare pile e spalle, può essere valutato mediante i seguenti metodi:

a1) bilancio energetico;
a2) equazione di conservazione della quantità di moto;
a3) formula di Yarnell.

Il programma consente un confronto tra i risultati ottenuti ed eventualmente l'assunzione del criterio più cautelativo.

a1) Bilancio energetico

Il ponte viene considerato alla stregua di una qualsiasi sezione trasversale del corso d'acqua: all'area utile di deflusso è sottratta la porzione delle pile e delle spalle che è sommersa; il contorno bagnato è incrementato della lunghezza di contatto tra acqua e struttura.

a2) Equazione di conservazione della quantità di moto

Tale metodo è basato sull'applicazione di un bilancio della quantità di moto tra la sezione immediatamente a monte e quella a valle del ponte (Figure 3-4). Viene definito il bilancio tra la sezione 2 e la sezione BD, all'interno del ponte, secondo l'equazione:

$$A_{BD} * \overline{Y}_{BD} + \frac{\beta_{BD} * Q_{BD}^2}{g * A_{BD}} = A_2 * \overline{Y}_2 - A_{p2} * \overline{Y}_{p2} + \frac{\beta_2 * Q_2^2}{g * A_2} + F_f - W_x$$

essendo:

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A_2, A_{BD}	area di deflusso rispettivamente nelle sezioni 2 e BD;
A_{p2}	area ostruita dalle pile alla sezione di valle del ponte;
Y_2, Y_{BD}	profondità, rispetto al pelo libero del baricentro dell'area di deflusso A_2, A_{BD};
Y_{p2}	profondità rispetto al pelo libero del baricentro dell'area bagnata delle pile alla sezione di valle del ponte;
β_2, β_{BD}	coefficienti di velocità;
Q_2, Q_{BD}	portate;
g	accelerazione di gravità;
F_f	forza d'attrito;
W_x	forza peso nella direzione della corrente;

Si ripete il bilancio tra le sezioni all'interno del ponte:

$$A_{BU} * \overline{Y}_{BU} + \frac{\beta_{BU} * Q_{BU}^2}{g * A_{BU}} = A_{BD} * \overline{Y}_{BD} + \frac{\beta_{BD} * Q_{BD}^2}{G * A_{BD}} + F_f - W_x$$

FORMA DELLE PILE	C_D
Circolare	1.20
Allungata con estremità semicircolari	1.33
Ellittica (larghezza/lunghezza = 1/2)	0.60
Ellittica (larghezza/lunghezza = 1/4)	0.32
Ellittica (larghezza/lunghezza = 1/8)	0.29
Estremità quadrata	2.00
Estremità triangolare con angolo 30°	1.00
Estremità triangolare con angolo 60°	1.39
Estremità triangolare con angolo 90°	1.60
Estremità triangolare con angolo 120°	1.72

Equazione di conservazione della quantità di moto: coefficienti di forma delle pile.

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a3) formula di Yarnell

Tale metodo consente di determinare, utilizzando un'equazione di tipo empirico, la differenza tra il livello di monte e quello di valle (sezioni 3 e 2, Figura 4). Viene utilizzata la seguente equazione, messa a punto sulla base di oltre 2600 esperimenti di laboratorio:

$$H_{3-2} = 2 * K * (K + 10\omega - 0.6) * (\alpha + 15 * \alpha^4) * \frac{V_2^2}{2g}$$

dove:

H_{3-2} differenza di livello tra le sezioni 3 e 2,

K coefficiente di forma delle pile, variabile da 0,90 per pile arrotondate a 1,25 per pile non arrotondate;

ω rapporto tra carico cinetico e profondità d'acqua nella sezione 2;

α rapporto tra area delle pile e area totale della sezione;

V_2 velocità della corrente nella sezione 2.

Nel caso in cui la corrente interferisca con l'impalcato del ponte, il codice HEC-RAS permette di calcolare il profilo idraulico sia mediante l'equazione di bilancio energetico che tramite un metodo che procede alla suddivisione del deflusso in pressione e/o a superficie libera (stramazzo).

b1) Bilancio energetico

Il calcolo è analogo a quello condotto nel caso in cui la corrente non lambisca l'impalcato. Il ponte viene considerato alla stregua di una qualsiasi sezione trasversale del corso d'acqua: all'area utile di deflusso è sottratta la porzione delle pile, delle spalle ed eventualmente dell'impalcato che è sommersa; il contorno bagnato è incrementato della lunghezza di contatto tra acqua e struttura.

b2) Suddivisione del deflusso in pressione e/o a superficie libera (stramazzo)

Questa seconda schematizzazione consente di utilizzare due differenti algoritmi per il calcolo

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del deflusso in pressione e della portata che, eventualmente, tracima al di sopra dell'impalcato.

Per il calcolo in pressione vengono ulteriormente distinte due situazioni differenti:

- I deflusso con solo imbocco del ponte sommerso
- Il deflusso con imbocco e sbocco sommersi

Nel caso di imbocco sommerso la portata viene definita secondo l'equazione (FHWA, 1978):

$$Q = C_d * A_{BU} * \left[2g * \left(Y_3 - \frac{Z}{2} + \frac{\alpha_3 * V_3^2}{2g} \right) \right]^{\frac{1}{2}}$$

dove:

Q portata defluita attraverso la luce del ponte;

C_d coefficiente di deflusso (in pressione), variabile tra 0.35 e 0.5;

A_{BU} area utile di deflusso nella sezione di monte del ponte (BU);

Y_3 altezza d'acqua a monte del ponte;

Z differenza tra quota minima di intradosso e quota media del fondo alveo nella sezione di monte del ponte.

Nell'eventualità l'Imbocco e lo sbocco siano sommersi la portata in pressione viene calcolata secondo l'espressione:

$$Q = C * A * \sqrt{2\ gH}$$

dove:

C coefficiente di deflusso in pressione (assume valori compresi tra 0.7 e 0.9);
H differenza tra carico totale a monte del ponte e pelo libero a valle,

La portata che tracima al di sopra del ponte (Figura 7), viene calcolata con l'espressione:

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$$Q = C * L * H^{3/2}$$

dove:

Q	portata defluita al di sopra dell'impalcato;
C	coefficiente di deflusso (assume valori compresi tra 1.38 e 1.71);
L	larghezza di sfioro;
H	differenza tra carico totale a monte del ponte e quota di estradosso.

I valori della portata defluita in pressione ovvero sfiorata a pelo libero, al di sopra dell'impalcato, vengono determinati mediante successive iterazioni.

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Reference

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7.3 – Commento ai risultati

Le verifiche idrauliche effettuate hanno preso in considerazione tutte le portate calcolate comprensive del contributo del trasporto solido. In particolare sono state considerate le portate per tempi di ritorno di 20, 100, 200 e 500 anni.

Gora Baussan Malana

Per lo studio di questo corso d'acqua, e in modo particolare di un ramo della Gora Malana, ci si è avvalsi dello studio effettuato dallo scrivente per un progetto di sistemazione idrogeologica dell'impluvio a monte della Strada privata Via Bauer. Tale studio ha dimostrato che il tombino di Via Bauer non è sufficiente a smaltire le portate per Tr 100 anni ma la conseguente esondazione andrebbe ad interessare solamente la via stessa e, a valle dell'attraversamento di Via Fuhrmann, la zona prativa sottostante, senza arrecare danni a infrastrutture. Discorso diverso invece per la gora Baussan che, prima di immettersi nella tubazione di Via Bauer potrebbe esondare ed arrecare danni alle abitazioni poste a valle di essa.

A valle della zona prativa le due gore insieme sono completamente tombinate in una rete di tubazioni di difficile individuazione che, con cadenza anche annuale, presentano rigurgiti e relative fuoriuscite di acqua laddove si trovano pozzetti di ispezione.

Nel complesso le gore Baussan e Malana sono da considerarsi **pericolose** per eventuali danni alle infrastrutture e ai piani interrati delle abitazioni interessate dall'esondazione.

Gora Mantelli

La Gora Mantelli è stata verificata dal ponte di Via Fuhrmann fino alla zona a valle della ferrovia. L'attraversamento di Via Fuhrmann risulta sufficiente a smaltire tutte le portate di progetto anche se una modesta esondazione per la portata di TR pari a 500 anni, si verifica in sponda sinistra immediatamente a monte del ponte stesso per il rigurgito che il manufatto provoca. Tale esondazione potrebbe propagarsi lungo Via Fuhrmann e imboccare una stradine sterrata di accesso ad alcune abitazioni allagando in parte i cortili ed eventualmente i piani interrati. Circa 200 m più a valle tale esondazione rientrerebbe all'interno dell'alveo inciso del rio.

Dal Ponte di via Fuhrmann fino alla sezione n. 20 posta immediatamente a monte dell'attraversamento nei pressi di Villa Briolera, non si assiste a esondazioni significative in quanto

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l'alveo è completamente rivestito in cls e si presenta piuttosto inciso. Solo in alcuni tratti i livelli idrici superano la sponda in cls ma non l'incisione del rio.

Il ponte nei pressi della Villa Briolera invece risulta insufficiente a smaltire già la portata di 20 anni di tempo di ritorno. La conseguente esondazione interesserebbe una vasta zona densamente abitata, a ridosso della fabbrica di dolciumi "Caffarel" con allagamenti diffusi di accessi ai cortili e giardini e piani interrati. La Gora Mantelli scorre poi parallela a Via Granero e presenta una serie di 6 attraversamenti che fungono da accessi alla zona residenziale lungo la sponda destra. Nessuno di questi attraversamenti risulta verificato già per portate di Tr pari a 20 anni. Le esondazioni che ne conseguono interesserebbero in odo particolare la sponda sinistra aumentando l'allagamento della zona residenziale già interessata dall'esondazione in corrispondenza del ponte Briolera.

Al Termine di Via Granero un tombino, costituito da due tubi di 100 cm di diametro, convogliano le acque al di sotto di Via De Amicis e di un'altra area residenziale e artigianale, fino all'attraversamento della ferrovia. Tale tombino risulta insufficiente a smaltire tutte le portate di progetto. La conseguente esondazione si riverserebbe lungo Via De Amicis fino al rilevato della ferrovia che non verrebbe superato ma la corrente si incanalerebbe lungo i binari confluendo poi con le esondazioni di un altro rio di cui si tratterà in seguito.

A valle del tombino di Via De Amicis la Gora Mantelli scorre in una zona prativa per poi immettersi nel Canale Pralafera. In tale zona un piccolo attraversamento presente non risulta sufficiente a smaltire le portate di progetto ma l'esondazione che ne consegue interesserebbe solo una zona adibita a prato.

Oltre alle verifiche su descritte, sono stati verificati, in moto uniforme, anche i due attraversamenti della Strada Panoramica sui due rami di testata della Gora Mantelli. Il primo di questi attraversamenti è costituito da un tubo metallico corrugato di larghezza 1.9 m e altezza 2.2 m. La verifica condotta, a favore di sicurezza, è stata approssimata considerando l'attraversamento come un tubo circolare di 1.9 m di diametro. Con questi dati, la massima portata smaltibile dalla condotta è di circa 15 m^3/s, ampiamente superiore alla massima portata defluibile per TR 500 anni che è di circa 2.6 m^3/s, considerando un coefficiente udometrico pari a 14 $m^3/s/km^2$, così come scaturito dai calcoli idrologici condotti in precedenza.

Il secondo attraversamento verificato è costituito da un tubo in cls di 105 cm di diametro che ha una capacità massima di smaltimento di portata pari a 5.97 m^3/s anch'essa superiore alla massima portata defluibile calcolata con la stessa metodologia della precedente e precisamente pari a 1.18 m^3/s.

Secondo quanto esplicitato in precedenza la Gora Mantelli, specialmente nel suo tratto tra il Pinte Briolera e il tombino di Via De Amicis, è classificabile come **molto pericoloso** in riferimento soprattutto a eventuali danni a infrastrutture e abitazioni.

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Canale FFSS

Il Canale FFSS è stato rilevato e verificato dal tombino di Via Appia fino al lg. Dino Buffa.

Il primo tratto del Canale FFSS considerato ha inizio poco a monte del tombino di Via Appia e Via Fuhrmann. In questo tratto il canale è piuttosto incassato e scorre tra vegetazione arbustiva con fondo naturale.

Il tombino di Via Appia è costituito da un tubo in cls da 80 cm di diametro fino all'incrocio con Via Fuhrmann dove ha inizio un'altra tubazione da 50 cm di diametro che prosegue sotto vi Fuhrmann fino allo sbocco del tombino circa 57 m più a valle. Da qui un canale a cielo aperto inframmezzato da un corto tratto intubato con tubo da 50 cm di diametro, porta nei pressi di una zona prativa. Qui il canale principale si divide in due rami con direzioni opposte di 180°. Il principale, verso ovest ha la pendenza maggiore nel primo tratto ma una sezione piuttosto ridotta mentre l'altro, verso est, ha minor pendenza ma una sezione maggiore. Dopo circa 16 m il ramo ovest percorre una curva a 90° e riprende la direzione precedente l'incrocio, mentre il ramo verso est, dopo 40 m, si sdoppia ancora e il principale (canale centrale) percorre anch'esso una curva a 90° parallelizzandosi con il precedente. Il secondo ramo (canale est) sdoppiato continua ancora nella medesima direzione precedente e dopo circa 85 m svolta anch'esso di 90 ° parallelizzandosi con i precedenti.

Vista le diverse pendenze dei vari rami, la portata affluente alla biforcazione principale è stata suddivisa in una parte corrispondente al 60% del totale nel ramo a maggior pendenza (ovest) e in una pari al 40% in quello centrale. Alla successiva biforcazione una parte corrispondente al 20%del 40% precedente è convogliata nell'ultimo ramo presente verso est.

Il ramo ovest dopo circa 176 m è nuovamente intubato, con una tubazione da 100 cm di diametro, ma con un imbocco della tubazione a sezione rettangolare 90x60cm che ne limita la capacità di deflusso, e prosegue fino all'attraversamento di Via Gianavello passato il quale ritorna a cielo aperto.

Il ramo centrale invece prosegue a cielo aperto fino in Via Gianavello dopo avere nuovamente svoltato di 90° verso sinistra. Prima di Via Gianavello l'ultimo ramo si riinmette in quello centrale.

Le verifiche effettuate hanno compreso il ramo principale fino alla prima biforcazione e i 3 rami nei quali si divide.

Sul ramo principale, nelle prime 2 sezioni di monte (Nazarotti 16 e 15) non si riscontra esondazione anche se nella sezione 15 per TR 500 viene lambito il ciglio superiore della sponda destra. Il tombino di via Appia risulta sufficiente a smaltire la sola portata di tempo di ritorno pari a 20 anni anche se in questo caso il moto nel tombino risulta in pressione. Per tutti gli altri tempi di ritorno si assiste ad esondazione che prosegue anche all'incrocio con Via Fuhrmann, estendendosi

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anche al tempo di ritorno di 20 anni. La portata che non viene smaltita dalla tubazione si riversa nella strada fino allo sbocco del tombino dove rientra nel canale principale. Lungo questo tratto, laddove gli accessi alle abitazioni poste a valle di Via Fuhrmann, si trovano alla stessa quota della strada si potrebbero verificare degli allagamenti dei cortili ed eventualmente dei piani interrati. Il battente d'acqua comunque si mantiene non superiore ai 10 cm.

Dallo sbocco del tombino di Via Fuhrmann fino alla zona prativa, (individuata dalle sezioni Nazzarotti 7 e Nazzarotti 8), il canale non ha una sezione sufficiente a smaltire le portate di progetto e la conseguente esondazione interessa principalmente la sponda destra, con l'allagamento dei terreni attigui al canale. L'esondazione poco più a valle rientra nel canale ovest. Questo canale, che presente una sezione piuttosto ridotta e che necessiterebbe di manutenzione e allargamento, non è sufficiente a smaltire nessuna delle portate di progetto ma se tra le sezioni 3 e 4 l'esondazione interessa solo in parte il prato in sponda sinistra tra il canale ovest e quello centrale, dalla sezione 3 verso valle l'esondazione si propaga fino ad incontrare il canale centrale che raccoglie tutta la portata esondata.

Tale portata risulta comunque piuttosto esigua (cfr tabulati numerici allegati) con battenti variabili dai 2 ai 4 cm, sufficienti appena a saturare il terreno.

Il tombino che si trova al termine del canale ovest, smaltisce solo la portata per TR 20 anni mentre per le altre portate di progetto si assiste ad esondazione in sponda sinistra, con tiranti anche in questo caso minimi, che vanno dai 4 cm ai 3 cm. Tale esondazione si riversa lungo una deviazione interna di Via Gianavello, d'accesso ad alcune villette e all'area prativa adiacente, e prosegue fino ad allagare i cortili di un agglomerato di case di vecchia costruzione, nei pressi della recinzione della fabbrica di prodotti dolciari "Caffarel".

Il canale centrale invece risulta sufficiente a smaltire tutte le portate di progetto fatta eccezione per una modestissima esondazione lungo la sponda sinistra nei pressi dell'ultima svolta di 90° appena prima della strada d'accesso menzionata.

Anche il canale est risulta sufficiente a smaltire tutte le portate di progetto.

A valle dell'attraversamento di Via Guianavello il canale prosegue in una zona prativa a monte dei un edificio scolastico (scuole medie) e dopo una svolta di 90°, lungo il lato ovest delle scuole e a fianco ad una zona residenziale. In questo tratto si assiste ad esondazione lungo tutta la sponda destra dalla sezione 17 alla sezione 14 di tutte le portate di progetto, con probabile allagamento del piano terra e interrato dell'edificio scolastico, attualmente non utilizzato.

Più a valle, dopo un tratto di canale rivestito in cls e sufficiente a smaltire tutte le portate di progetto si incontra un tombino costituito da un manufatto a sezione rettangolare che non risulta sufficiente a smaltire nessuna delle portate di progetto ma la conseguente esondazione interesserebbe solo i giardini di alcune abitazioni e ancora il cortile delle scuole medie.

A valle di quest'ultimo tratto tombinato il canale si presenta di nuovo a fondo naturale e a cielo

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aperto fino all'attraversamento di Via Marconi, in corrispondenza della stazione di Luserna San Giovanni. Anche tale tombino, che è costituito da due tubazioni da 80 cm di diametro, non è sufficiente a smaltire nessuna delle portate di progetto. La conseguente esondazione interesserebbe in modo particolare la scarpata del rilevato ferroviario e la corrente proseguirebbe verso valle lungo il tracciato della ferrovia.

A valle dell'attraversamento di Via Marconi il canale si presenta di nuovo a cielo aperto fino al tombino del parcheggio della stazione dove percorre una curva brusca di 90°. Nel tratto a monte del tombino del parcheggio si assiste ad esondazione sia in sponda sinistra, per portate già di TR pari a 20 anni e sia in sponda destra per portate di TR pari a 100 anni. In sponda sinistra gli allagamenti interesserebbero i giardini delle abitazioni poste lungo la ferrovia e, in alcuni casi, anche gli scantinati mentre in sponda destra il parcheggio potrebbe essere allagato.

Oltre il parcheggio della stazione ferroviaria, il canale è tombinato per un lungo tratto e il percorso delle tubazioni sotterranee è di difficile individuazione, fino allo sbocco a cielo aperto nei pressi di Via I Maggio.

In questo tratto la portata è smaltita dalla sezione presente e anche l'attraversamento di Via I Maggio e il successivo tombino è sufficiente a smaltirla anche se il moto della corrente per portate di TR superiore ai 20 anni risulta in pressione.

Allo sbocco ti tale tombino il canale confluisce nella prosecuzione del canale Pralafera.

Rio dei Boer

I Rio dei Boer è stato verificato da Strada della Fornace a Via I Maggio oltre ai 4 attraversamenti sui 4 rami di testata lungo la Strada Panoramica. Il primo di questi attraversamenti è costituito da un manufatto a sezione rettangolare di 2 m di larghezza e 2.36 di altezza che può smaltire una portata massima pari a 30 m^3/s ampiamente superiore alla massima portata per un tempo di ritorno pari a 500 anni che è di 4.71 m^3/s. Anche in questo caso la portata massima defluibile è stata calcolata utilizzando un coefficiente udometrico pari a 15.9 $m^3/s/km^2$ scaturito dai calcoli idrologici precedenti.

Il secondo attraversamento è costituito da una tubazione in cls da 100 cm di diametro con una portata massima di 6.26 m^3/s superiore alla massima defluibile per tr 500 anni che è pari a 5.99 m^3/s con un'altezza del pelo libero nel tubo pari a 0.85 m.

Il terzo attraversamento è nuovamente costituito da una tubazione in cls da 85 cm di diametro con una portata massima pari a 4.16 m^3/s ampiamente superiore alla massima portata delfuibile che è di 1.21 m^3/s.

L'ultimo attraversamento è ancora costituito da una tubazione in cls di 100 cm di diametro con

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una portata massima pari a 5.24 m^3/s ampiamente superiore alla massima defluibile che è pari a 2.40 m^3/s.

A partire dalla Strada della Fornace le verifiche sono state effettuata in moto permanete.

Sono state rilevate e verificate 50 sezioni e, partendo da monte si incontra subito un tratto tombinato di circa 100 m a valle dell'attraversamento di Via ella fornace. Tale tombino risulta insufficiente a smaltire già la portata per Tr pari a 20 anni. La conseguente esondazione si incanalerebbe lungo Via del Marauda fino a Via Marconi e al rilevato ferroviario dove si unirebbe alla portata del canale FFSS precedentemente analizzato. Durante il tragitto in Via dei Marauda, laddove gli accessi alle abitazioni presenti si trovano a quote pari o inferiori a quelle della strada, si potrebbero verificare allagamenti di cortili e cantine. Durante un evento di questa portata il quantitativo di acqua che si troverebbe a scorrere lungo la strada sarebbe di circa 4.38 m^3/s con velocità superiori ai 2 m/s e quindi potenzialmente **molto pericolosa** sia per la circolazione e sia per le persone.

A valle del tombino menzionato la portata utilizzata per le verifiche delle successive sezioni e attraversamenti e quella precedente meno quella che viene laminata con l'esondazione e si incanala in Via dei Marauda.

A valle del tombino un attraversamento per l'accesso ad un'abitazione risulta ancora non verificato per portate già di tempo di ritorno pari a 20 anni in quanto la corrente presenta un moto in pressione al di sotto dell'attraversamento.

Proseguendo verso valle il tratto d'alveo compreso tra Via dei Marauda e Via Bekwith ha sezioni sufficienti a smaltire tutte le portate di progetto. InVia Bekwith si trova un doppio attraversamento sulla via stessa e sulla Via Rossigni. Il primo non presenta esondazione anche se il moto della corrente risulta in pressione per tutte le portate di progetto mentre il secondo viene sormontato dalla corrente già di tempo di ritorno pari a 20 anni. La conseguente esondazione si incanalerebbe lungo Via Rossigni fino al raggiungimento del sottopasso ferroviario e da qui lungo la base della scarpata del rilevato ferroviario, raggiungerebbe una zona prativa nei pressi dell'attraversamento della ferrovia e di Via Bellonatti del Rio stesso.

Oltre l'attraversamento di Via Rossigni, le sezioni sono sufficienti a smaltire tutte le portate di progetto fino alla sezione n. 22 dove si incomincia ad avvertire il rigurgito che il successivo attraversamento ferroviario e di Via Bellonatti operano sulla corrente. Tutte le sezioni dalla n. 22 agli attraversamenti citati non sono sufficienti a smaltire tutte le portate di progetto sondando lungo la sponda sinistra e allagando una vasta area priva di abitazioni e infrastrutture, attualmente incolta.

L'esondazione nei pressi dell'attraversamento di Via Bellonatti, si incanalerebbe lungo la via col conseguente allagamento della zona residenziale posta a valle di essa e in parte potrebbe raggiungere Via Malan. La portata di esondazione, per TR 20 anni, potrebbe essere di poco superiore ai 4 m^3/s pertanto la zona durante l'evento sarebbe classificabile come **molto pericolosa**

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sia per le persone che si trovassero a transitare in Via Bellonatti sia per i mezzi circolanti.

Le portate utilizzate a valle della sezione n. 18 (sezione a monte degli attraversamenti della ferrovia e di Via Bellonatti), sono state diminuite del quantitativo di portata che lamina durante le esondazioni a valle della ferrovia.

Scendendo più a valle il Rio scorre in una zona agricola con la presenza di frutteti e orti e percorre una curva verso sinistra di quasi 90°. In tale tratto i terreni oltre la sponda destra si trovano a quote inferiori rispetto a quelli della sponda sinistra e una marcata e spinta erosione non garantisce la tenuta della sponda destra in caso di evento eccezionale. La probabile rottura della sponda porterebbe all'allagamento di un'area residenziale compresa tra il Rio e Via I Maggio. Un evento di questo genere porta a classificare la zona come **molto pericolosa**. Oltre a questa situazione, poco più a valle nei pressi della sezione n. 7, si incontra un tratto tombinato, formato da un manufatto ad arco, di circa 130 m, che non è sufficiente a smaltire tutte le portate di progetto. L'esondazione che ne consegue si unirebbe con quella eventuale della rottura della sponda destra nella sezione n. 13 oppure, se ciò non si verificasse, allagherebbe la stessa zona residenziale anche se con estensione areale più ridotta.

L'ultimo tratto considerato è quello che va dalla sezione n. 6 (sbocco del tombino) alla sezione n. 1 oltre l'attraversamento di Via I Maggio. Anche per questo tratto si è utilizzata una portata diminuita di quella laminata con l'esondazione nei pressi dell'imbocco del tombino alla sezione n. 7. In questo tratto le sezioni sono sufficienti a smaltire le portate di progetto ma una curva a 90° fa spesso allagare la strada che costeggia il Rio per l'innalzamento che la corrente subisce in curva.

L'ultimo attraversamento che si incontra è quello di Via I. Maggio costituito da uno scatolare a sezione rettangolare. Tale attraversamento non è verificato già per portate di TR pari a 20 anni e la conseguente esondazione allagherebbe la Strada Provinciale (Via I Maggio), con conseguente problema per la circolazione su una strada ad alto traffico.

Nel complesso il Rio dei Boer è classificabile come **molto pericoloso**

Rio Gambrero

Il Rio Gambrero è stato rilevato e verificato dall'attraversamento di Via della Fornace, a monte della frazione di San Giovanni, fino alla frazione Pecul. Nel primo tratto dall'attraversamento suddetto fino alla sezione n.51, nei pressi della confluenza con un affluente di sinistra, tutte le sezioni, gli attraversamenti e i tombini indagati sono risultati sufficienti a smaltire tutte le portate di progetto. Nei pressi dell'affluente di sinistra invece la presenza di un piccolo ponticello, immediatamente a valle della confluenza, provoca un rigurgito a monte con il conseguente innalzamento dei livelli idrici e l'esondazione già per portate di tempo di ritorno pari a 20 anni. Per

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questo tempo di ritorno l'esondazione porta ad avere livelli idrici, al di fuori dell'alveo, di pochi centimetri mentre per le portate superiori l'esondazione risulta maggiore, con probabile allagamento dei cortili delle abitazioni che sorgono lungo la strada vecchia di San Giovanni. Anche lungo l'affluente di sinistra si assiste ad esondazione lungo la sua sponda sinistra che potrebbe interessare in parte una zona prativa e in parte i cortili delle abitazioni che sorgono lungo la sponda sinistra del Rio Gambrero. A valle della confluenza si incontrano altri 2 attraversamenti, d'accesso ad abitazioni, che non risultano verificati già per portate di TR pari a 20 anni. La conseguente esondazione oltre che interessare la Strada Vecchia di San Giovanni interesserebbe una zona prativa a valle di essa per poi rientrare nel Rio, a valle di un tratto tombinato che ha inizio dove il rio compie una svolta verso destra di circa 90°. Tale tombino risulta non sufficiente a smaltire la sola portata di TR pari a 500 anni mentre per le portate inferiori la sezione è adeguata anche se non sussiste il franco di sicurezza di 1 m rispetto all'intradosso della trave nella sezione d'uscita.

Il tratto a valle del tombino menzionato è piuttosto incassato e presenta qualche problema di esondazioni solo in sponda sinistra che però si esauriscono velocemente in una zona prativa con pendenze verso l'alveo. Poco più a valle si incontra il ponte di Via dei Boschetti che non è sufficiente a smaltire nessuna delle portate di progetto e provoca un rigurgito tale che tutte le sezioni a monte, fino alla n.36, risultano insufficienti a smaltire tutte le portate di progetto e la conseguente esondazione interesserebbe la Via dei Boschetti creando problemi alla circolazione dei mezzi. Il tratto a valle dell'attraversamento di Via dei Boschetti fino all'attraversamento della ferrovia presenta sezioni che sono sufficienti a smaltire tutte le portate di progetto. L'attraversamento della ferrovia non è sufficiente a smaltire le portate di TR 100 annoi e superiori e il conseguente rigurgito porta ad avere esondazione dalla sezione n. 31 verso vale. Per la portata di TR pari a 20 anni invece la sezione smaltisce tutta la portata anche se il moto della corrente risulta in pressione. Immediatamente a valle del ponte della ferrovia vi è un altro ponte d'accesso ad un capannone che non risulta sufficiente a smaltire le portate superiori a TR 20. Il rigurgito che provoca il ponte però porta ad avere esondazione già per TR 20 nelle sezioni a monte del ponte, lungo la sponda destra, con conseguente allagamento delle aree adiacenti alla sponda e il probabile interessamento del capannone citato. Ancora più a valle si incontra una altro ponticello che è sufficiente a smaltire tutte le portate di progetto anche se senza il franco di sicurezza, tranne quella di TR pari a 500 anni ma il rigurgito che si innesca provoca esondazione in tutte le sezioni a monte fino all'altro ponte con probabile allagamento di zone prative prive di infrastrutture o abitazioni.

Continuando verso valle il Rio ha un andamento più incassato e non incontra aree abitate o con la presenza di infrastrutture fino alla frazione Pecul. In questo tratto le sezioni non sono sufficienti a smaltire le portate di progetto ma le esondazioni che si innescano non provocherebbero danni a persone o cose. Nei pressi della frazione Pecul l'attraversamento della strada d'accesso alla frazione è sufficiente a smaltire le portate di progetto tranne che per quella di tempo di ritorno pari a 500

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anni. Le sezioni a monte di esso però subiscono il rigurgito che il ponte provoca con l'innalzamento dei livelli idrici e l'esondazione in sponda destra che allagherebbe una zona prativa immediatamente a ridosso di alcune abitazioni senza peraltro interessarle. Qualche problema potrebbe esserci lungo la strada d'accesso al ponte che potrebbe venire in parte allagata.

Nel complesso il Rio Gambrero può essere classificato come **poco pericoloso** più per la mancanza di infrastrutture importanti e abitazioni che per l'effettiva sufficienza delle sue sezioni a smaltire le portate di progetto. Localmente però la classificazione passa a **pericoloso** o a **molto pericoloso** ed in particolare nella zona tra l'affluente di sinistra e l'attraversamento di Via dei Boschetti e nella zona a valle dell'attraversamento della ferrovia fino al ponte d'accesso ad un capannone.

Nelle pagine seguenti sono riportati i parametri idraulici dei ponti e degli attraversamenti con l'indicazione della conformità alle normative vigenti in tema di verifiche idrauliche dei ponti.

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PONTI		TR20	TR100	TR200	TR500	NOTE
Gora Baussan - Malana						
Tombino di Via Bauer	Franco					
	½ Altezza cinetica					Tombino non verificato
Gora Mantelli						
Attraversamento Via Fuhrmann	Franco	0,39	0,24	0,21	0,18	
	½ Altezza cinetica	0,34	0,46	0,54	0,64	Attraversamento non verificato
Ponte Briolera	Franco					
	½ Altezza cinetica					Ponte insufficiente
Ponte Via Granero 1	Franco					
	½ Altezza cinetica					Ponte insufficiente
Ponte Via Granero 2	Franco					
	½ Altezza cinetica					Ponte insufficiente
Ponte Via Granero 3	Franco					
	½ Altezza cinetica					Ponte insufficiente
Ponte Via Granero 4	Franco					
	½ Altezza cinetica					Ponte insufficiente
Ponte Via Granero 5	Franco					
	½ Altezza cinetica					Ponte insufficiente
Ponte Via Granero 6	Franco					
	½ Altezza cinetica					Ponte insufficiente
Tombino Via de Amicis	Franco					
	½ Altezza cinetica					Tombino insufficiente
Attraversamento zona prativa	Franco					
	½ Altezza cinetica					Attraversamento insufficiente
Canale FFSS						
Tombino Via Appia	Franco	0,00				
	½ Altezza cinetica	0,17				Tombino non verificato
Tombino Via Fuhrmann	Franco					
	½ Altezza cinetica					Tombino insufficiente
Tombino Caffarel	Franco	0,03				
	½ Altezza cinetica	0,04				Tombino non verificato
Tombino scuole medie	Franco					
	½ Altezza cinetica					Tombino insufficiente
Tombino Via Marconi	Franco					
	½ Altezza cinetica					Tombino insufficiente
Tombino parcheggio stazione	Franco					
	½ Altezza cinetica					Tombino insufficiente
Tombino Via I Maggio	Franco	26				Tombino non verificato, in
	½ Altezza cinetica	0.77				pressione per tr 100, 200 e 500
Rio dei Boer						
Tombino Strada della Fornace	Franco					
	½ Altezza cinetica					Tombino insufficiente
Ponte lungo Via dei Marauda 1	Franco				0,39	
	½ Altezza cinetica				0,18	Ponte non verificato
Ponte lungo Via dei Marauda 2	Franco	1,08	1,07	1,09	1,17	
	½ Altezza cinetica	0,88	0,89	0,88	1,06	Ponte verificato
Ponte d'accesso a zona prativa	Franco	0,20	0,19	0,21	0,23	
	½ Altezza cinetica	0,67	0,68	0,67	0,65	Tombino non verificato
Ponte Via Bekwith	Franco					
	½ Altezza cinetica					Ponte insufficiente
Ponte Via Rossini	Franco					
	½ Altezza cinetica					Ponte insufficiente
Ponte FFSS	Franco					
	½ Altezza cinetica					Ponte insufficiente
Ponte Via Bellonatti	Franco					
	½ Altezza cinetica					Ponte insufficiente
Tombino Via Malan	Franco					
	½ Altezza cinetica					Tombino insufficiente
Tombino Via I Maggio	Franco					
	½ Altezza cinetica					Tombino insufficiente

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Rio Gambrero						
Attraversamento Via della Fornace	Franco	0,22	0,12	0,09	0,06	
	½ Altezza cinetica	0,31	0,32	0,24	0,26	Attraversamento non verificato
Tombino p.zza XVII Febbraio	Franco	0,73	0,67	0,49	0,43	
	½ Altezza cinetica	0,23	0,32	0,24	0,26	Tombino non verificato
Attraversamento per casa privata 1	Franco					
	½ Altezza cinetica					Attraversamento insufficiente
Attraversamento per casa privata 2	Franco					
	½ Altezza cinetica					Attraversamento insufficiente
Attraversamento per casa privata 3	Franco					
	½ Altezza cinetica					Attraversamento insufficiente
Tombino prima di Strada Boschetti	Franco	0,55	0,40	0,34		
	½ Altezza cinetica	0,66	0,76	0,80		Tombino non verificato
Attraversamento Strada dei Boschetti	Franco	0,36	0,13	0,05		
	½ Altezza cinetica	0,20	0,28	0,33		Attraversamento non verificato
Ponte ferrovia	Franco					
	½ Altezza cinetica					Ponte insufficiente
Ponte accesso capannone	Franco	0,08				
	½ Altezza cinetica	0,23				Ponte non verificato
Ponte per zona prativa	Franco	0,03	0,17	0,15		
	½ Altezza cinetica	0,31	0,54	0,64		Ponte non verificato
Ponte in zona prativa	Franco					
	½ Altezza cinetica					Ponte insufficiente
Ponte per frazione Pecul	Franco	0,21	0,00	0,00		
	½ Altezza cinetica	0,28	0,32	0,38		Ponte non verificato

(ponte verificato = franco di sicurezza superiore al metro , ponte non verificato = franco di sicurezza inferiore al metro, ponte insufficiente = ponte sormontato dalla corrente)

Tabella 10: *riassunto dati idraulici caratteristici per i ponti, gli attraversamenti e i tombini rilevati*

Nelle pagine seguenti sono allegati i tabulati grafici e numerici delle verifiche effettuate contenenti le indicazioni dei vari livelli idrici e dei parametri idraulici caratteristici per ciascuna sezione indagata.

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8 – ALLEGATI GRAFICI E NUMERICI GORA MANTELLI

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Verifica idraulica Gora Mantelli Plan 01 12/07/04

Legend

WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
LOB
ROB

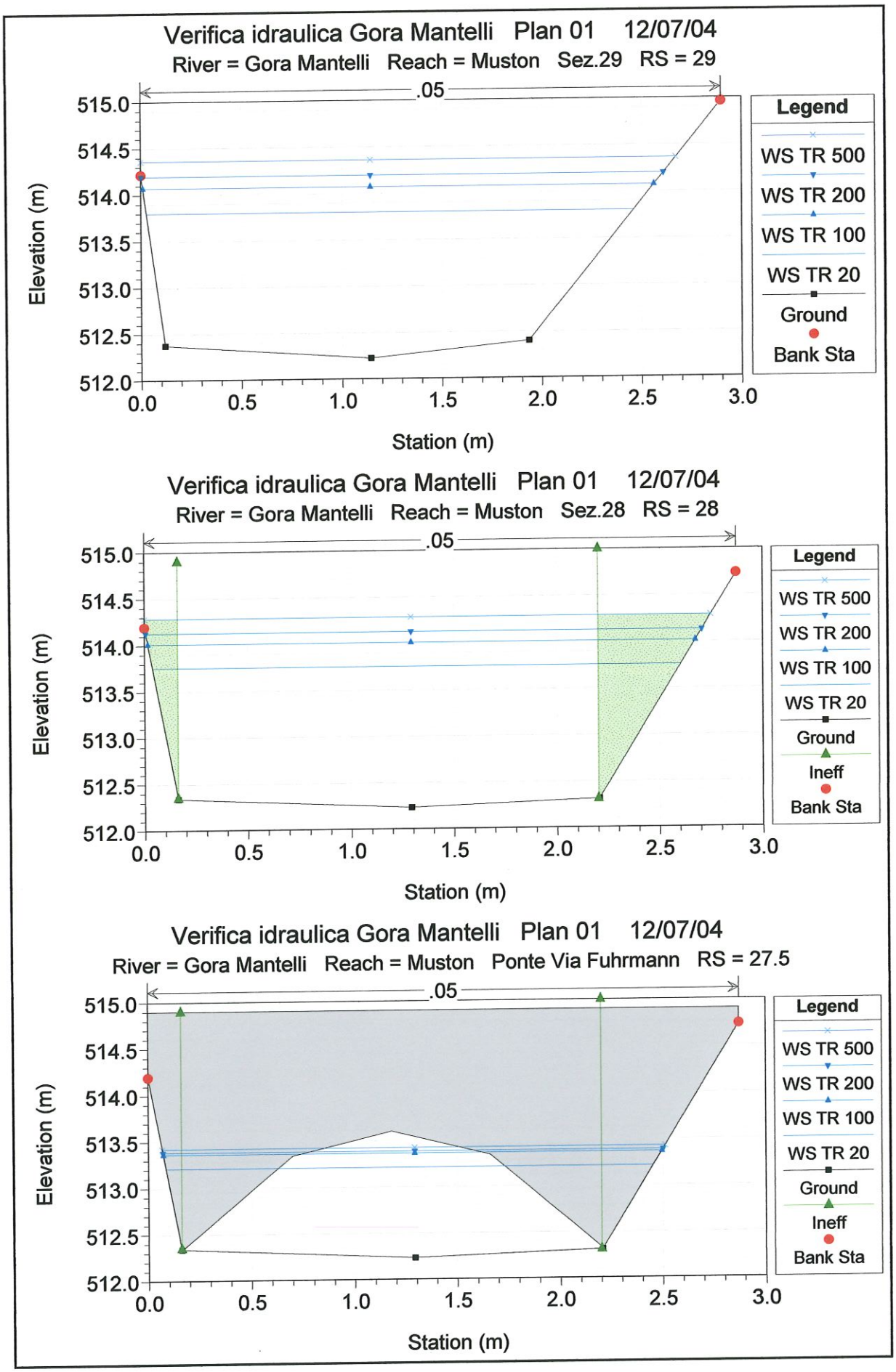
Elevation (m)

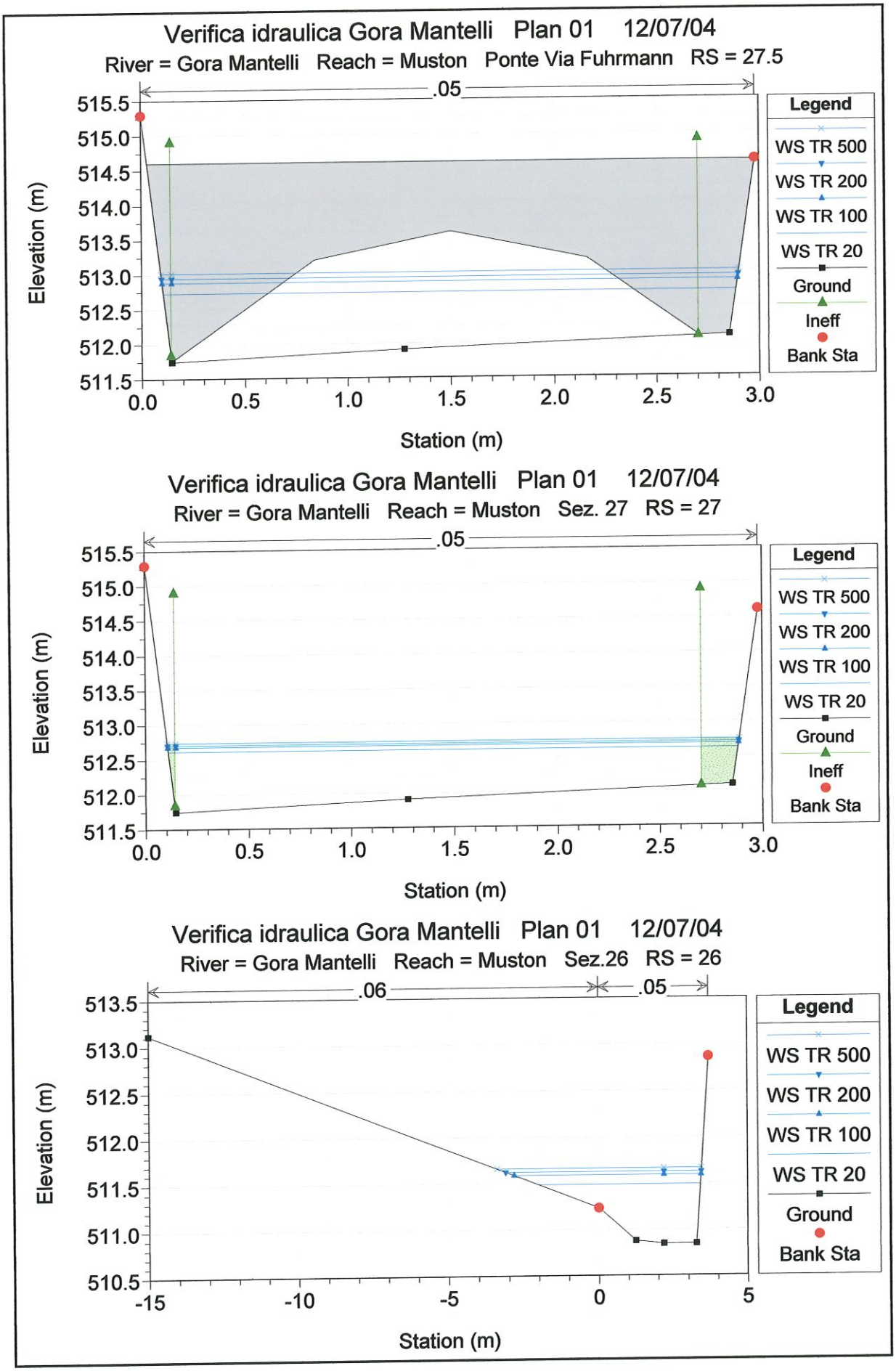
520
515
510
505
500
495
490
485
480

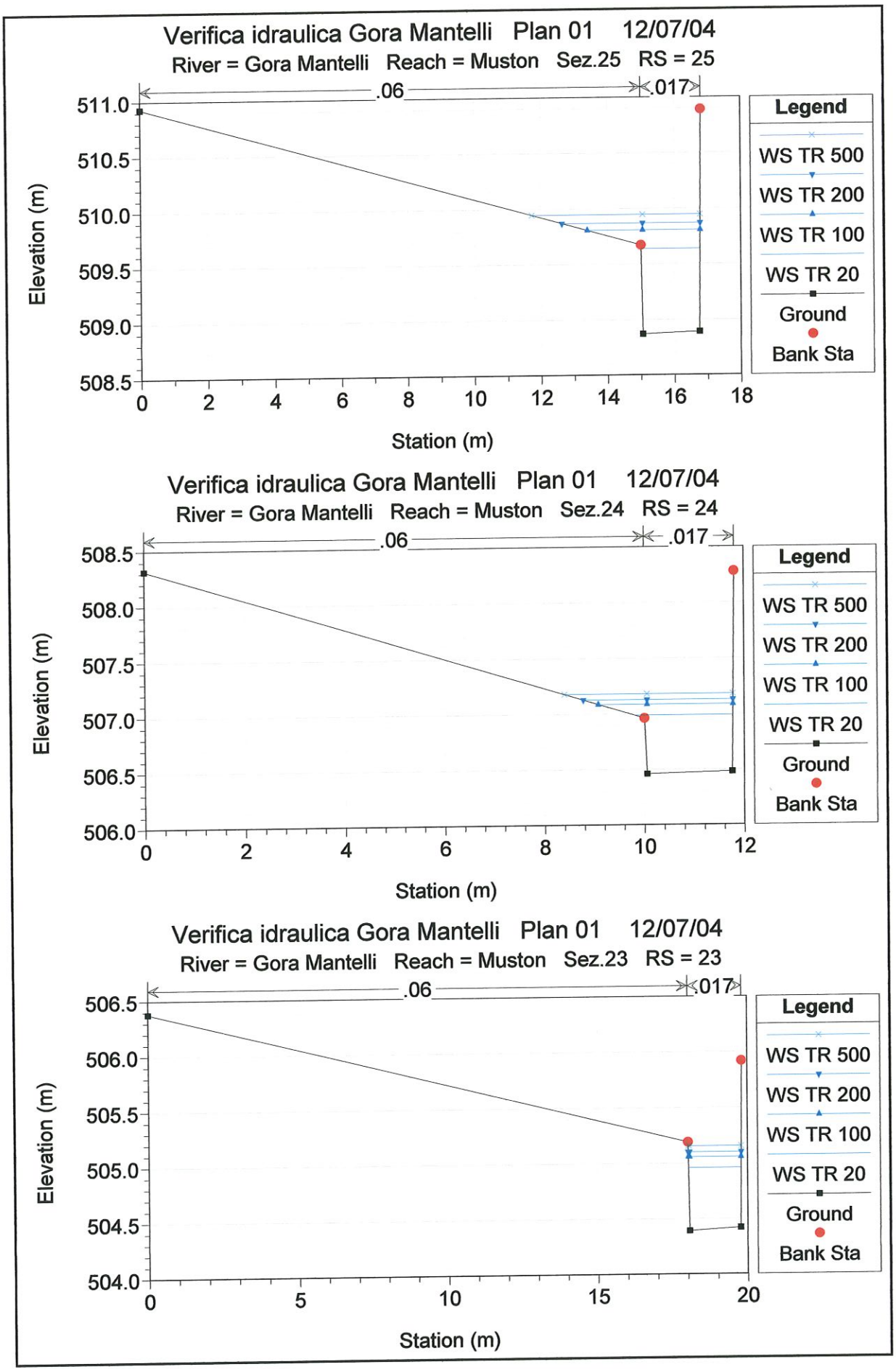
0
100
200
300
400
500
600
700
800

Main Channel Distance (m)

Sez. 1
Ponte Granero 6
Sez. 3
Sez. 4
Sez. 6
Ponte Granero 4
Sez. 9
Sez. 10
Sez. 12
Ponte Granero 2
Sez. 15
Sez. 16
Ponte Granero 1
Sez. 18
Sez. 19
Sez. 21 monte ponte Briolera
Sez.22
Sez.23
Sez.24
Sez.25
Sez.26
Sez. 27
Sez.28


Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez.29 RS = 29
.05
Elevation (m)
515.0
514.5
514.0
513.5
513.0
512.5
512.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez.28 RS = 28
.05
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Via Fuhrmann RS = 27.5
.05
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta


Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Via Fuhrmann RS = 27.5
.05
Elevation (m)
515.5
515.0
514.5
514.0
513.5
513.0
512.5
512.0
511.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 27 RS = 27
.05
Elevation (m)
515.5
515.0
514.5
514.0
513.5
513.0
512.5
512.0
511.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez.26 RS = 26
.06
.05
Elevation (m)
513.5
513.0
512.5
512.0
511.5
511.0
510.5
-15
-10
-5
0
5
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta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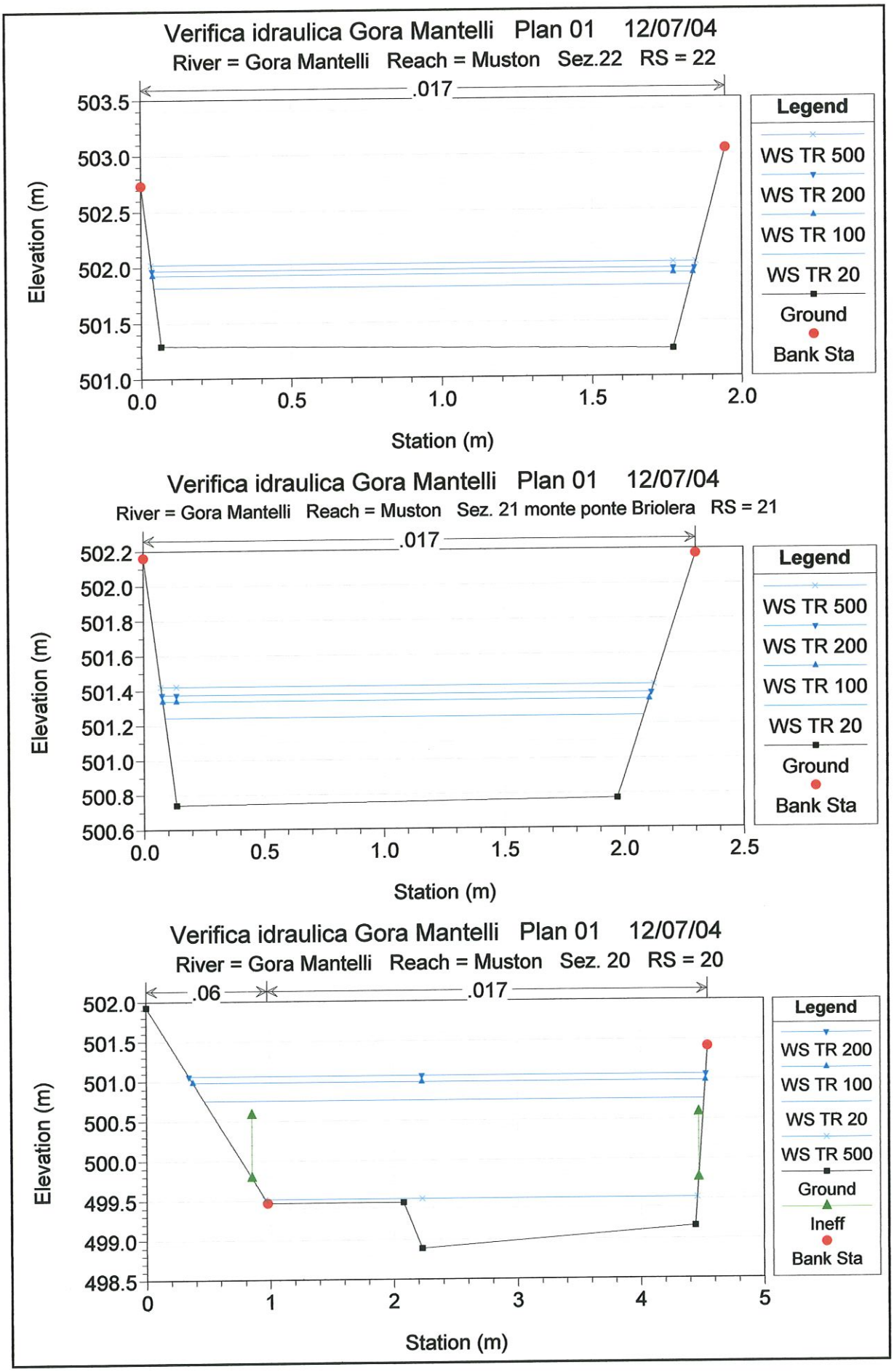
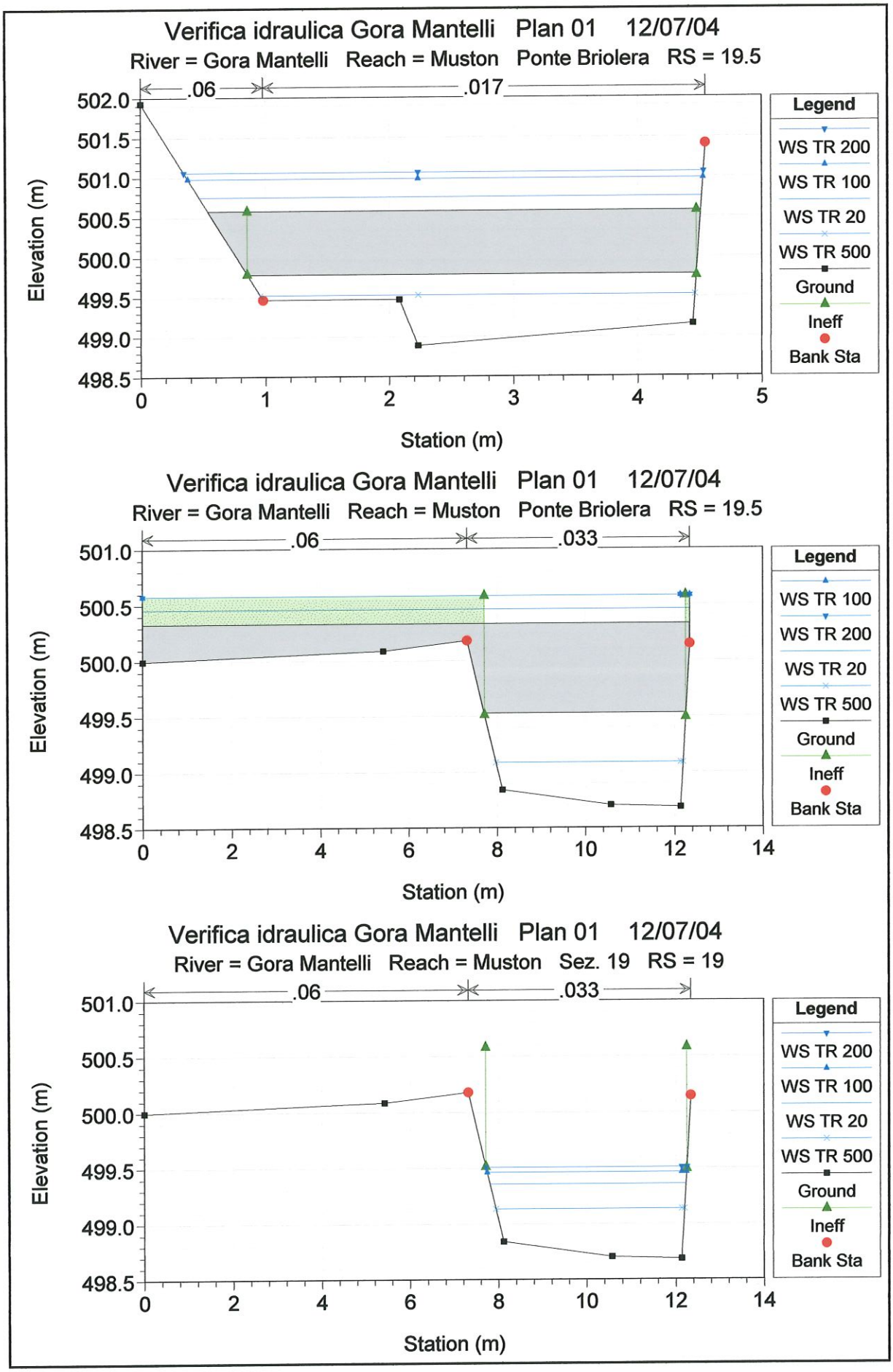
.017
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez.24 RS = 24
.06
.017
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez.23 RS = 23
.06
.017
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta


Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez.22 RS = 22
.017
Elevation (m)
503.5
503.0
502.5
502.0
501.5
501.0
0.0
0.5
1.0
1.5
2.0
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 21 monte ponte Briolera RS = 21
.017
Elevation (m)
502.2
502.0
501.8
501.6
501.4
501.2
501.0
500.8
500.6
0.0
0.5
1.0
1.5
2.0
2.5
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 20 RS = 20
.06
.017
Elevation (m)
502.0
501.5
501.0
500.5
500.0
499.5
499.0
498.5
0
1
2
3
4
5
Station (m)
Legend
WS TR 200
WS TR 100
WS TR 20
WS TR 500
Ground
Ineff
Bank Sta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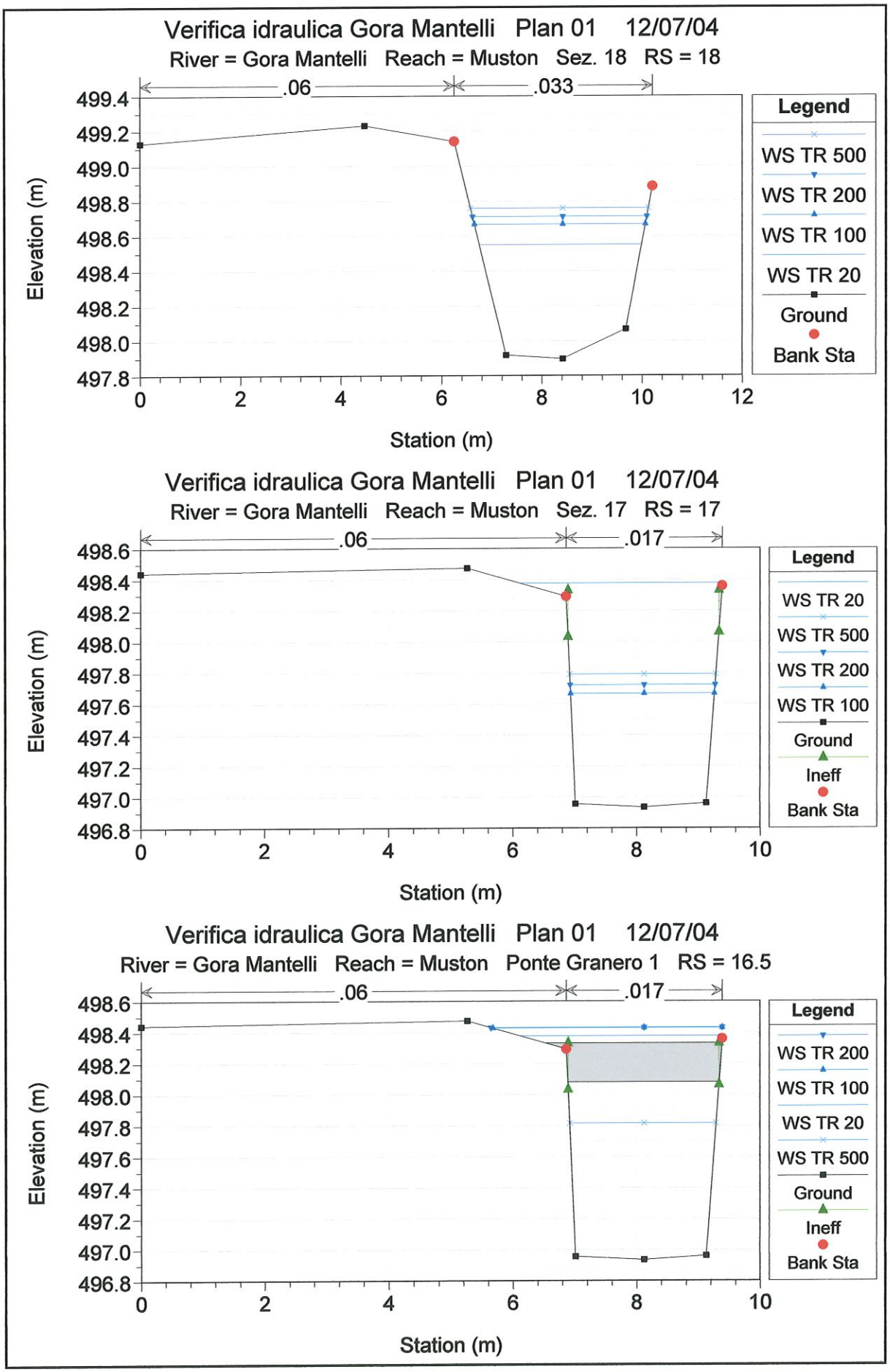
River = Gora Mantelli Reach = Muston Ponte Briolera RS = 19.5
.06
.017
Elevation (m)
Station (m)
Legend
WS TR 200
WS TR 100
WS TR 20
WS TR 500
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Briolera RS = 19.5
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 100
WS TR 200
WS TR 20
WS TR 500
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 19 RS = 19
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 200
WS TR 100
WS TR 20
WS TR 500
Ground
Ineff
Bank Sta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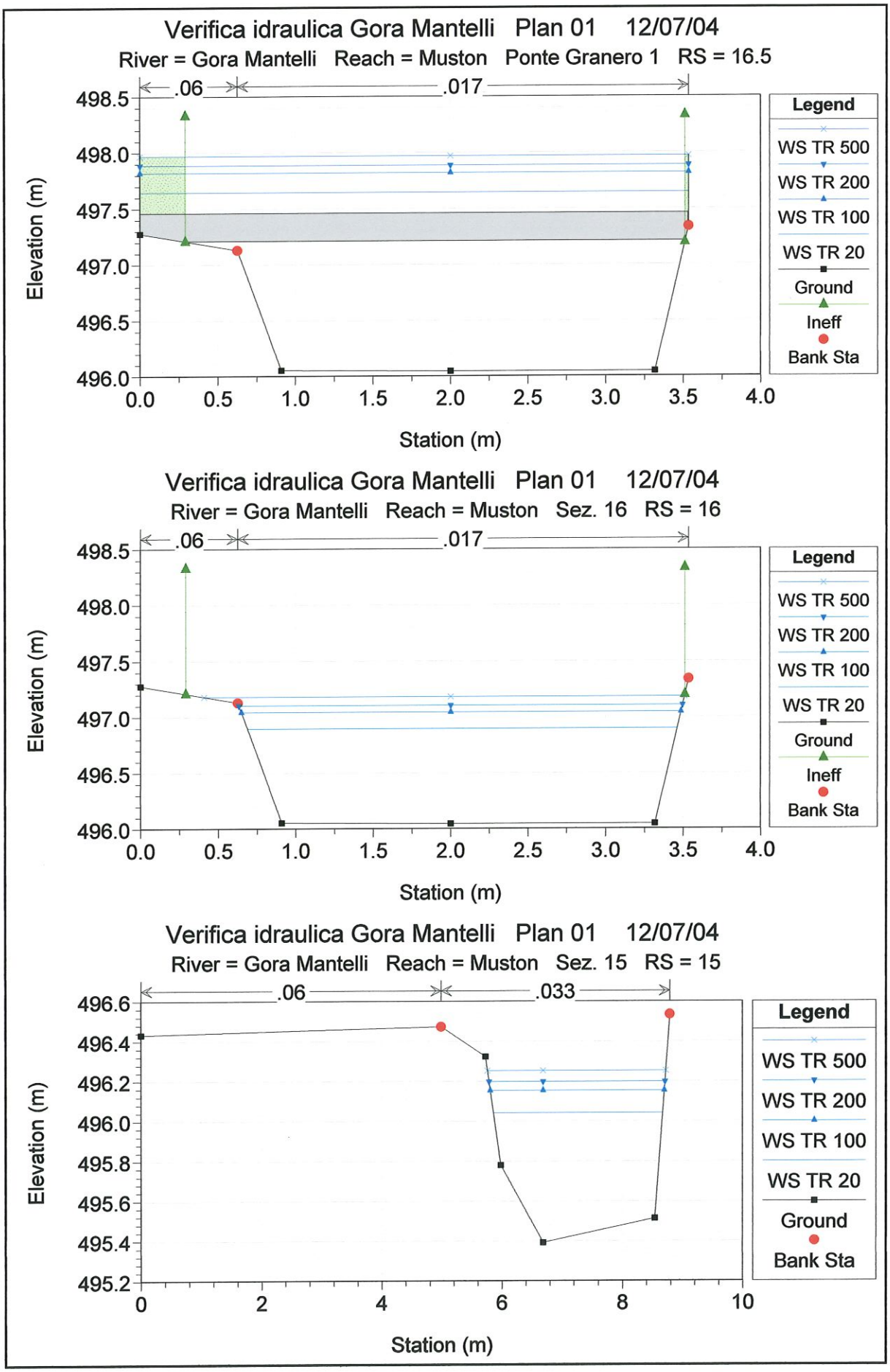
River = Gora Mantelli Reach = Muston Sez. 18 RS = 18
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 17 RS = 17
.06
.017
Elevation (m)
Station (m)
Legend
WS TR 20
WS TR 500
WS TR 200
WS TR 100
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Granero 1 RS = 16.5
.06
.017
Elevation (m)
Station (m)
Legend
WS TR 200
WS TR 100
WS TR 20
WS TR 500
Ground
Ineff
Bank Sta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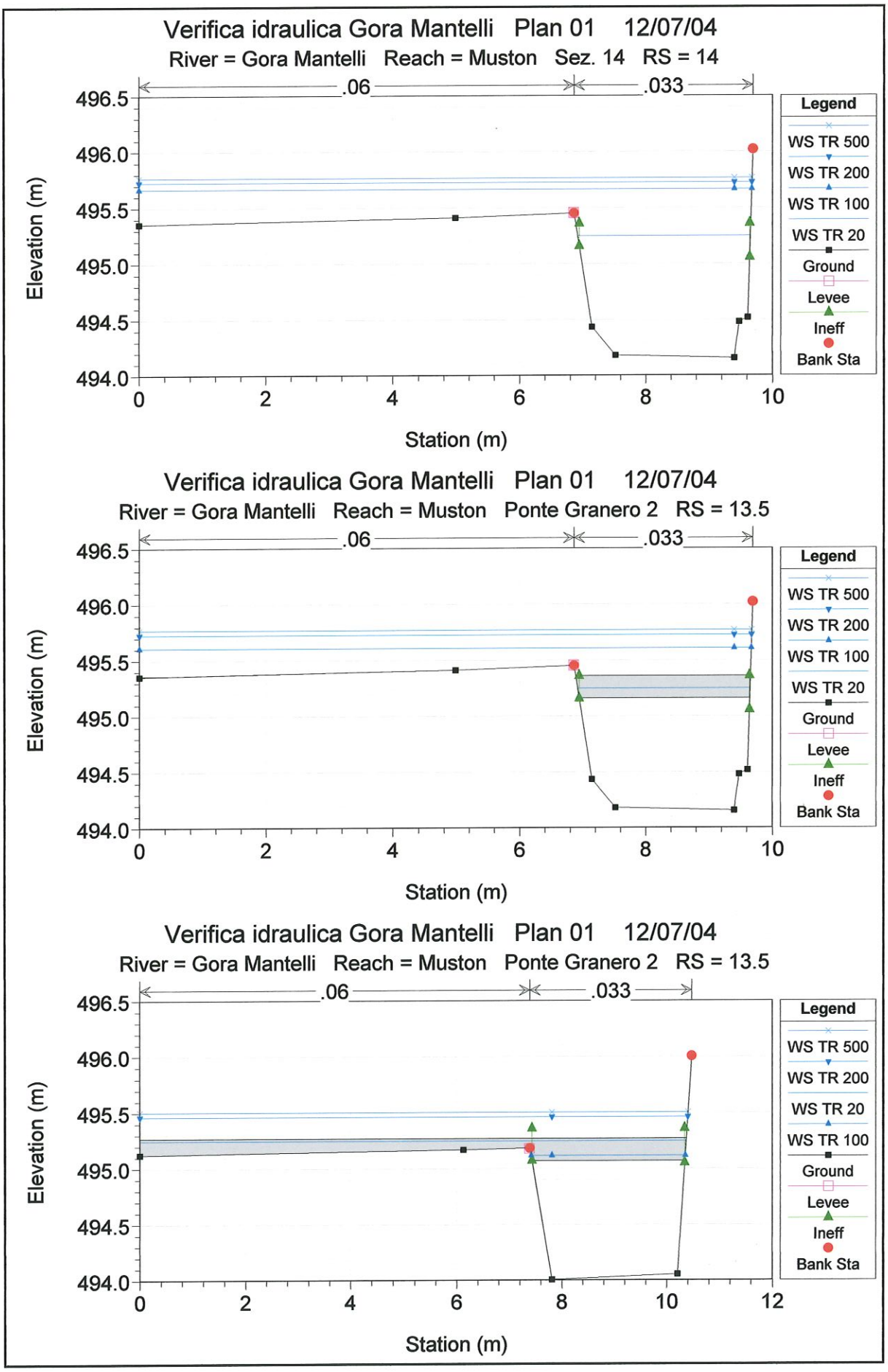
River = Gora Mantelli Reach = Muston Ponte Granero 1 RS = 16.5
.06
.017
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 16 RS = 16
.06
.017
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 15 RS = 15
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta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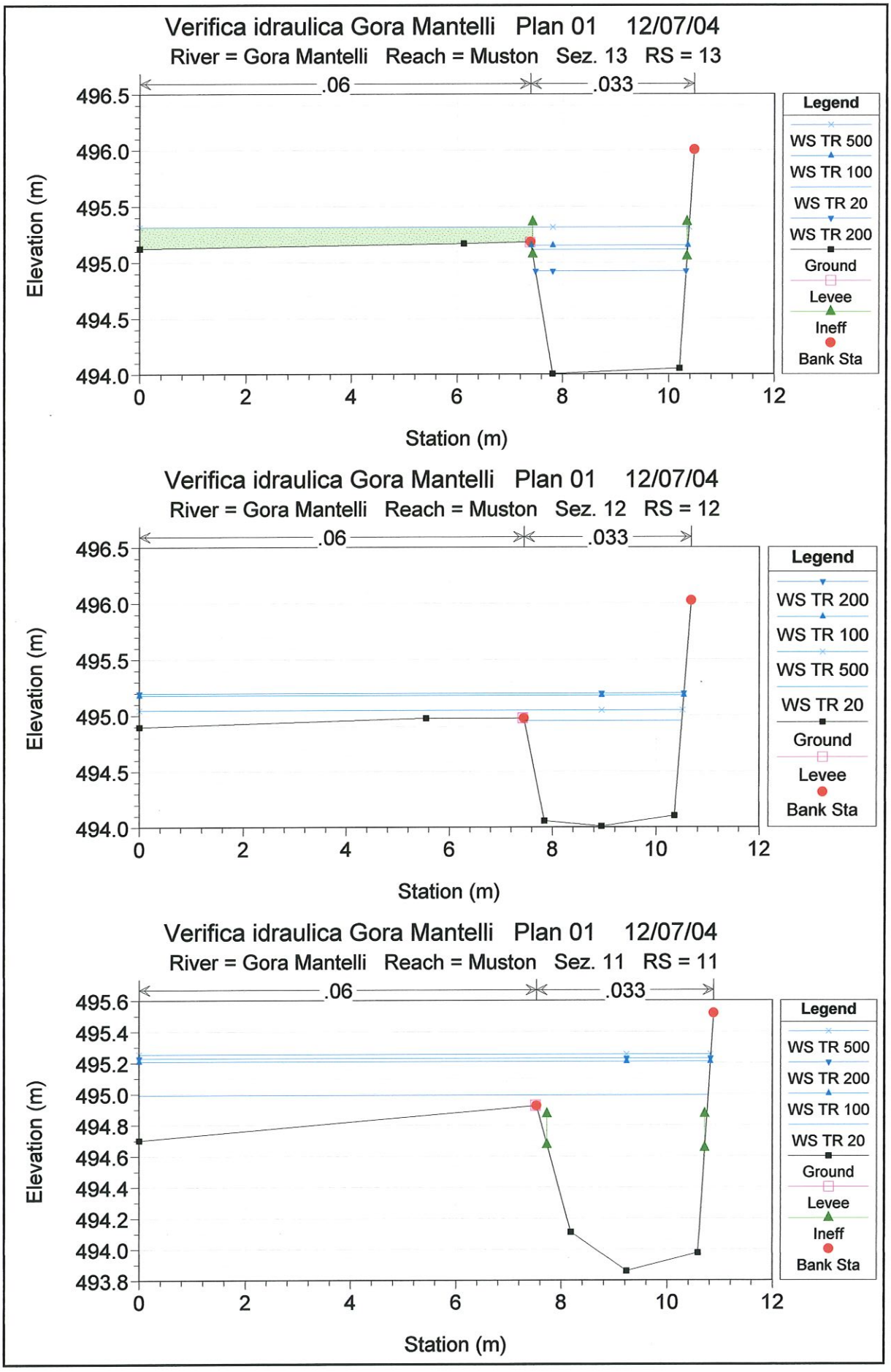
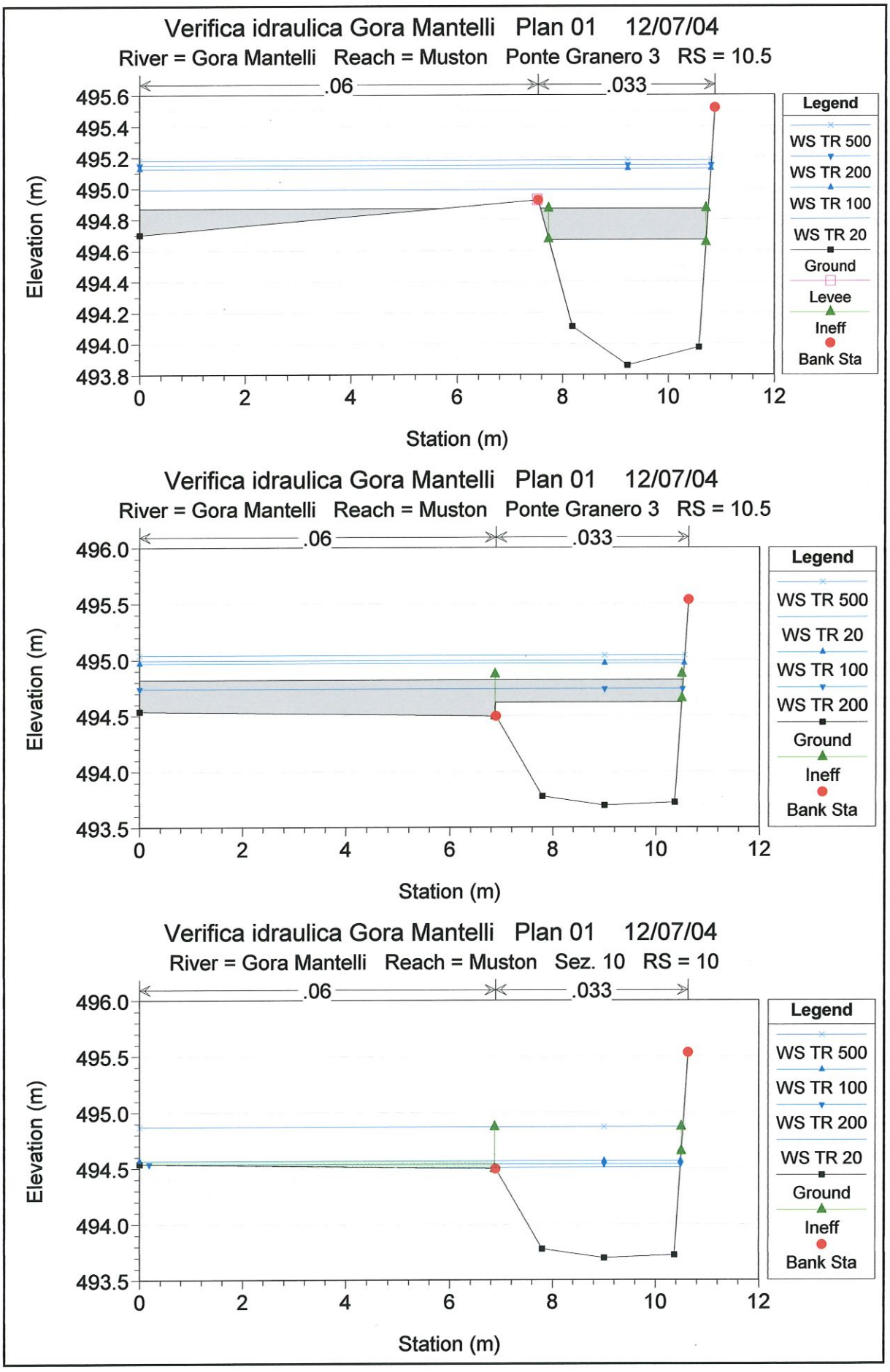
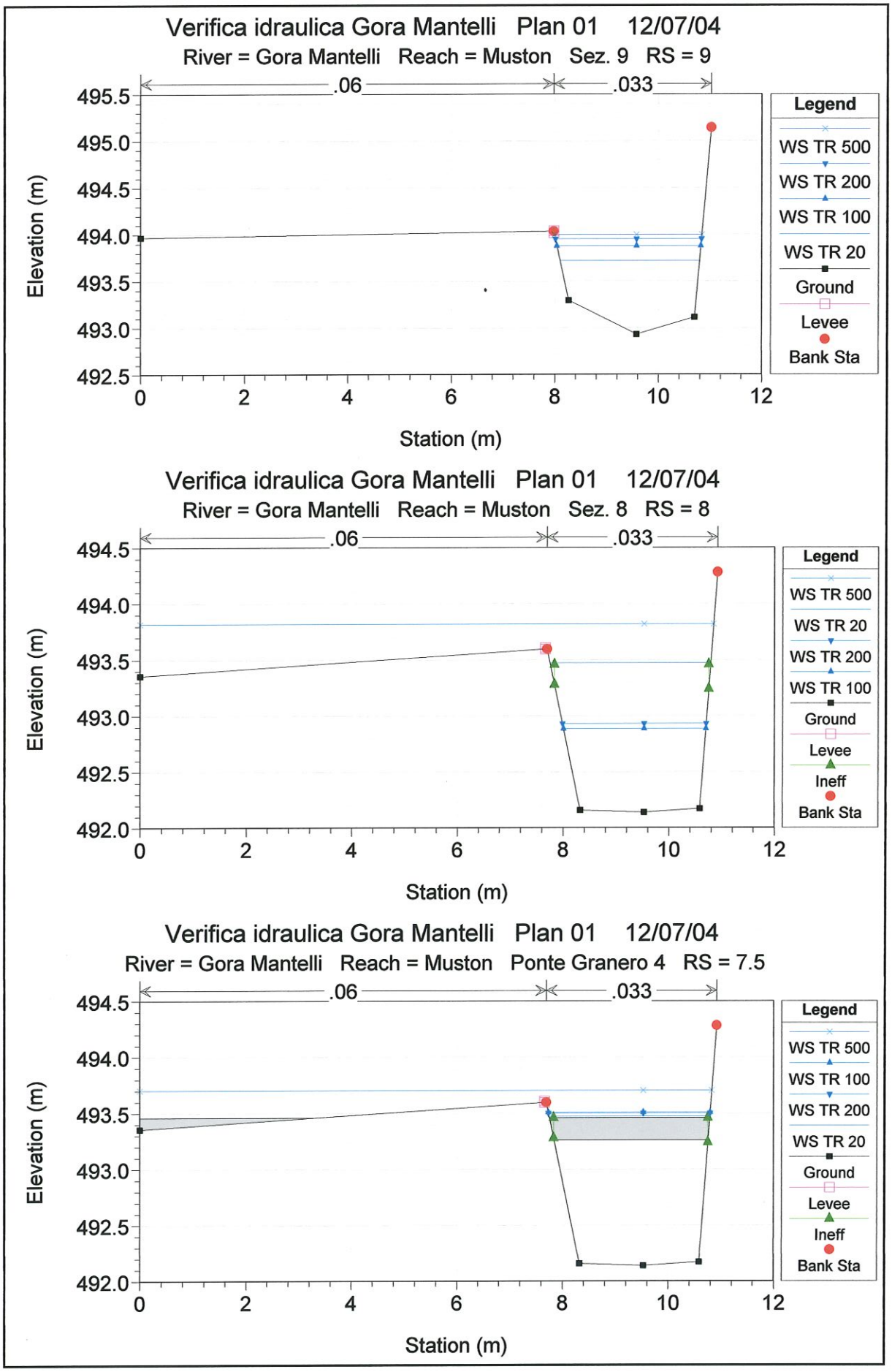
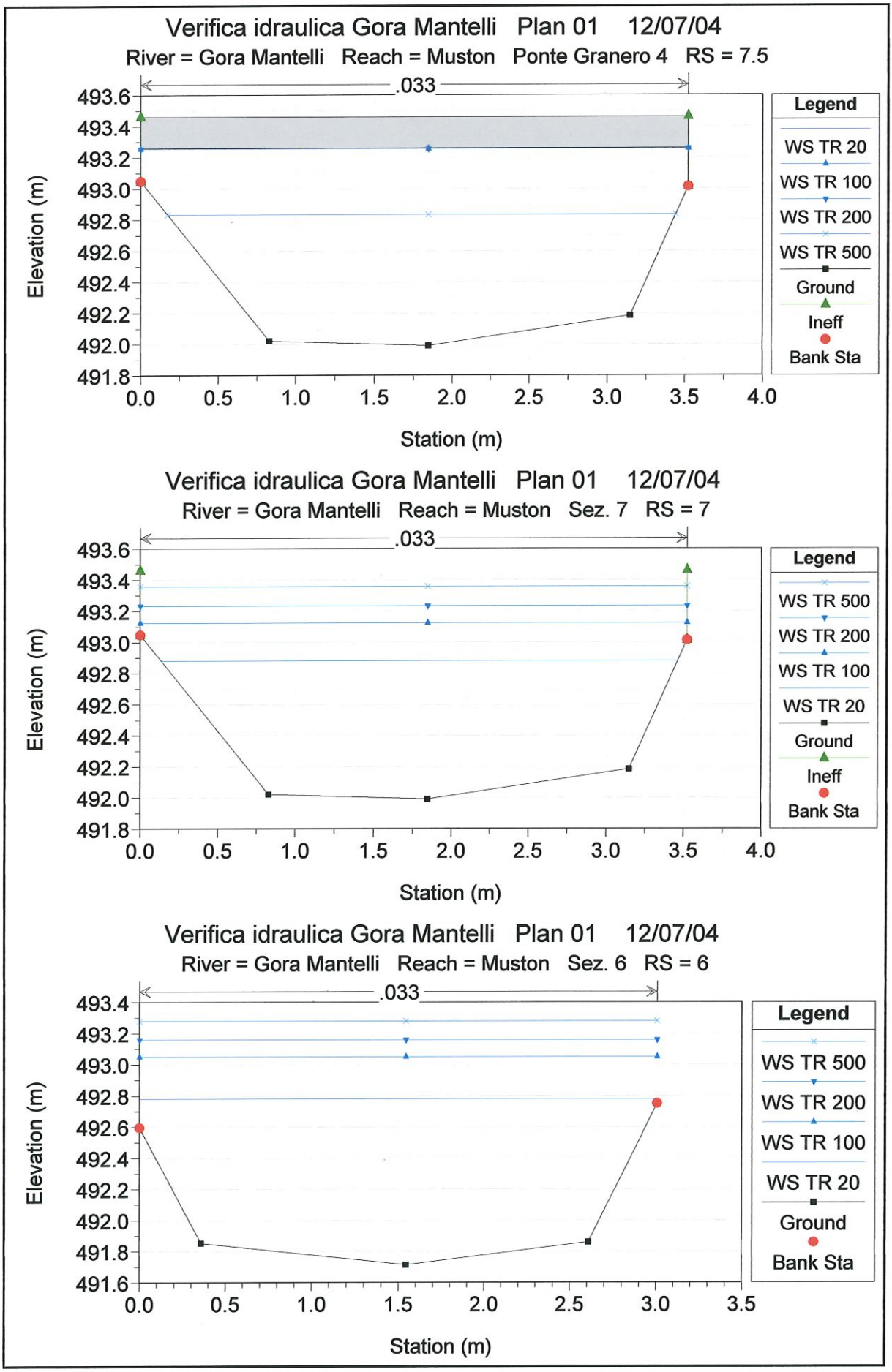
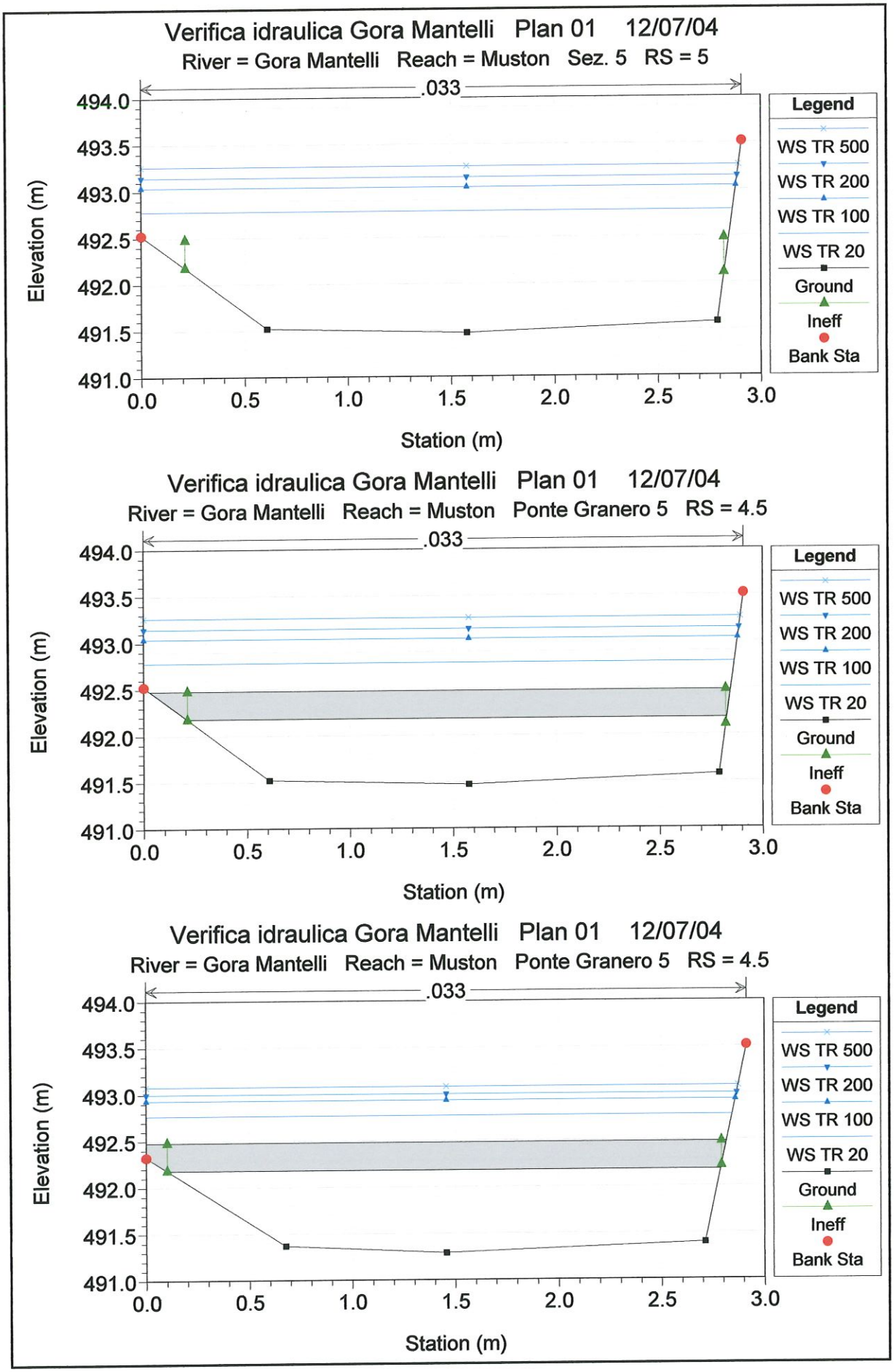
River = Gora Mantelli Reach = Muston Sez. 14 RS = 14
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Levee
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Granero 2 RS = 13.5
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Levee
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Granero 2 RS = 13.5
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 20
WS TR 100
Ground
Levee
Ineff
Bank Sta

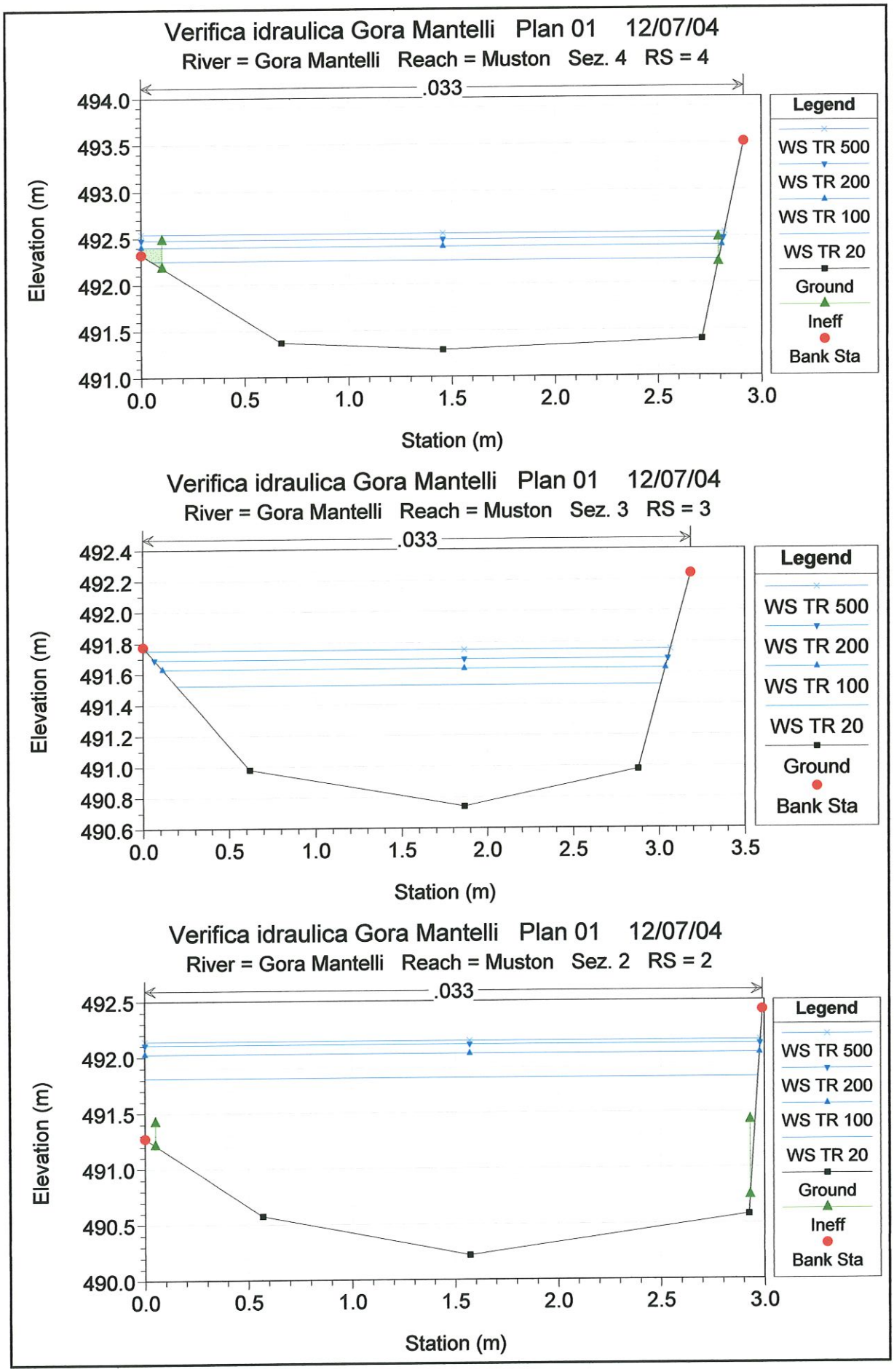

Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 13 RS = 13
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 100
WS TR 20
WS TR 200
Ground
Levee
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 12 RS = 12
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 200
WS TR 100
WS TR 500
WS TR 20
Ground
Levee
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 11 RS = 11
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Levee
Ineff
Bank Sta

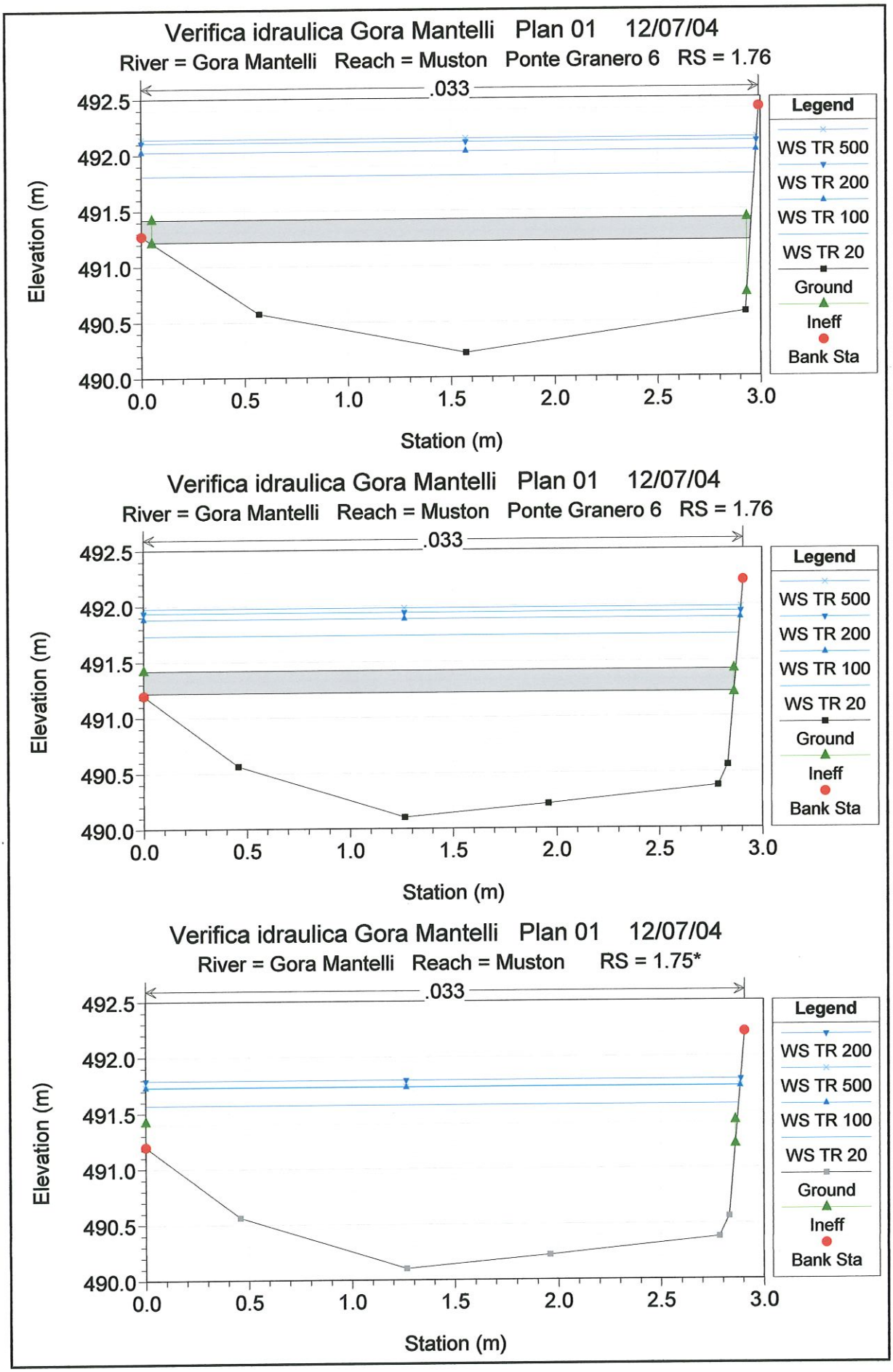

Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Granero 3 RS = 10.5
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Levee
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Granero 3 RS = 10.5
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 20
WS TR 100
WS TR 200
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 10 RS = 10
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 100
WS TR 200
WS TR 20
Ground
Ineff
Bank Sta

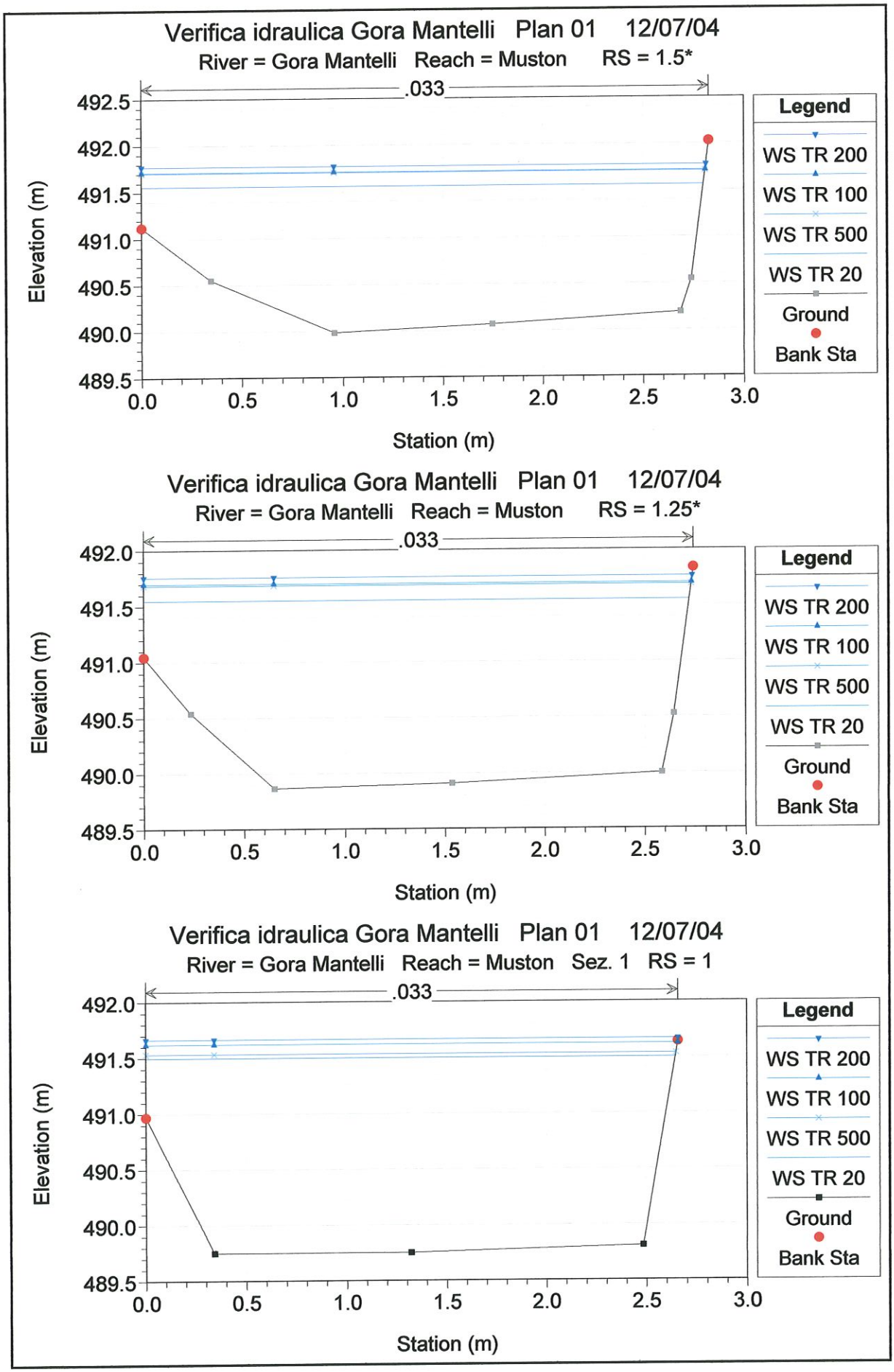

Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 9 RS = 9
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Levee
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 8 RS = 8
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 20
WS TR 200
WS TR 100
Ground
Levee
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Granero 4 RS = 7.5
.06
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 100
WS TR 200
WS TR 20
Ground
Levee
Ineff
Bank Sta

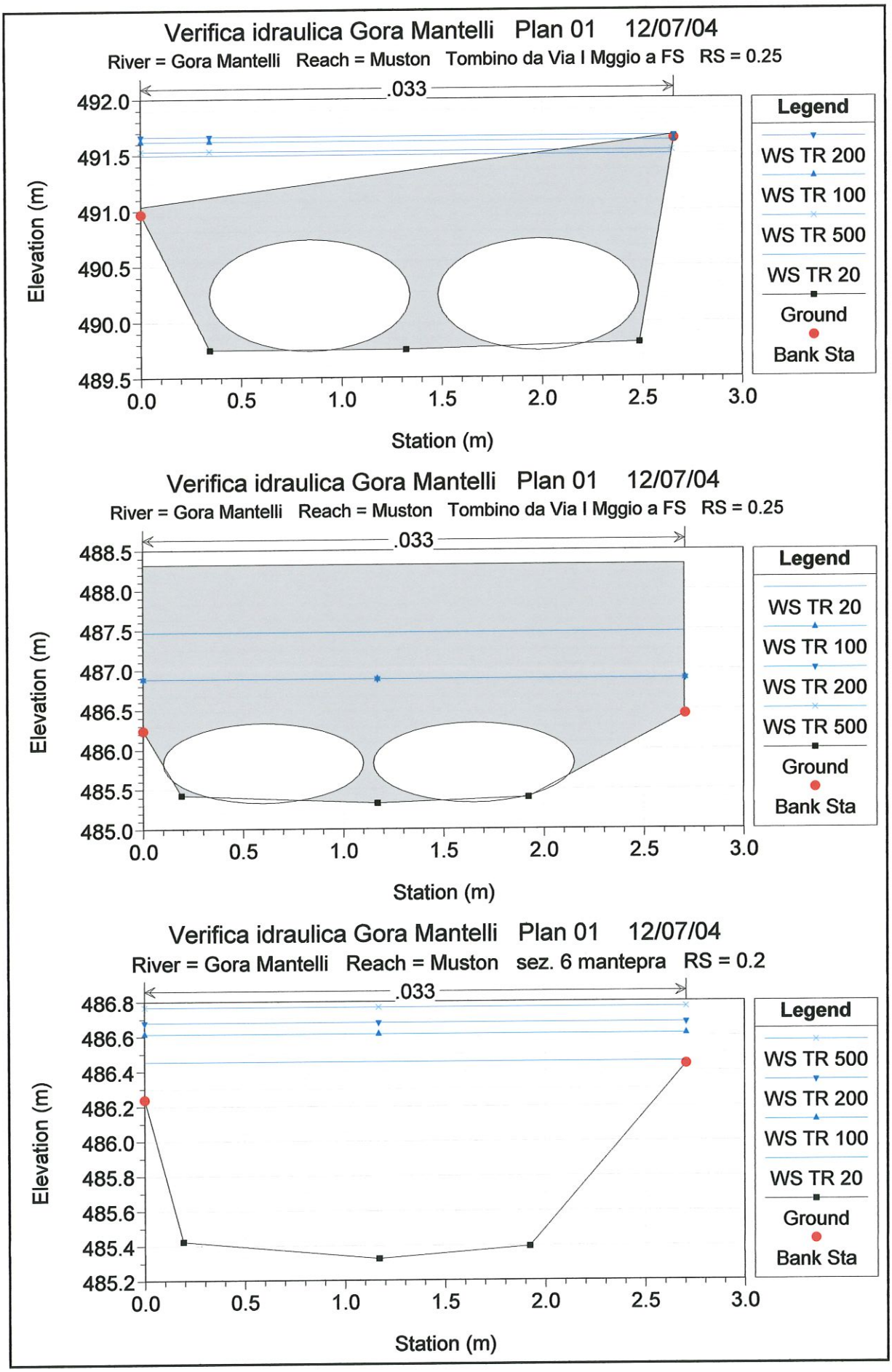

Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Granero 4 RS = 7.5
.033
Elevation (m)
Station (m)
Legend
WS TR 20
WS TR 100
WS TR 200
WS TR 500
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 7 RS = 7
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 6 RS = 6
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta

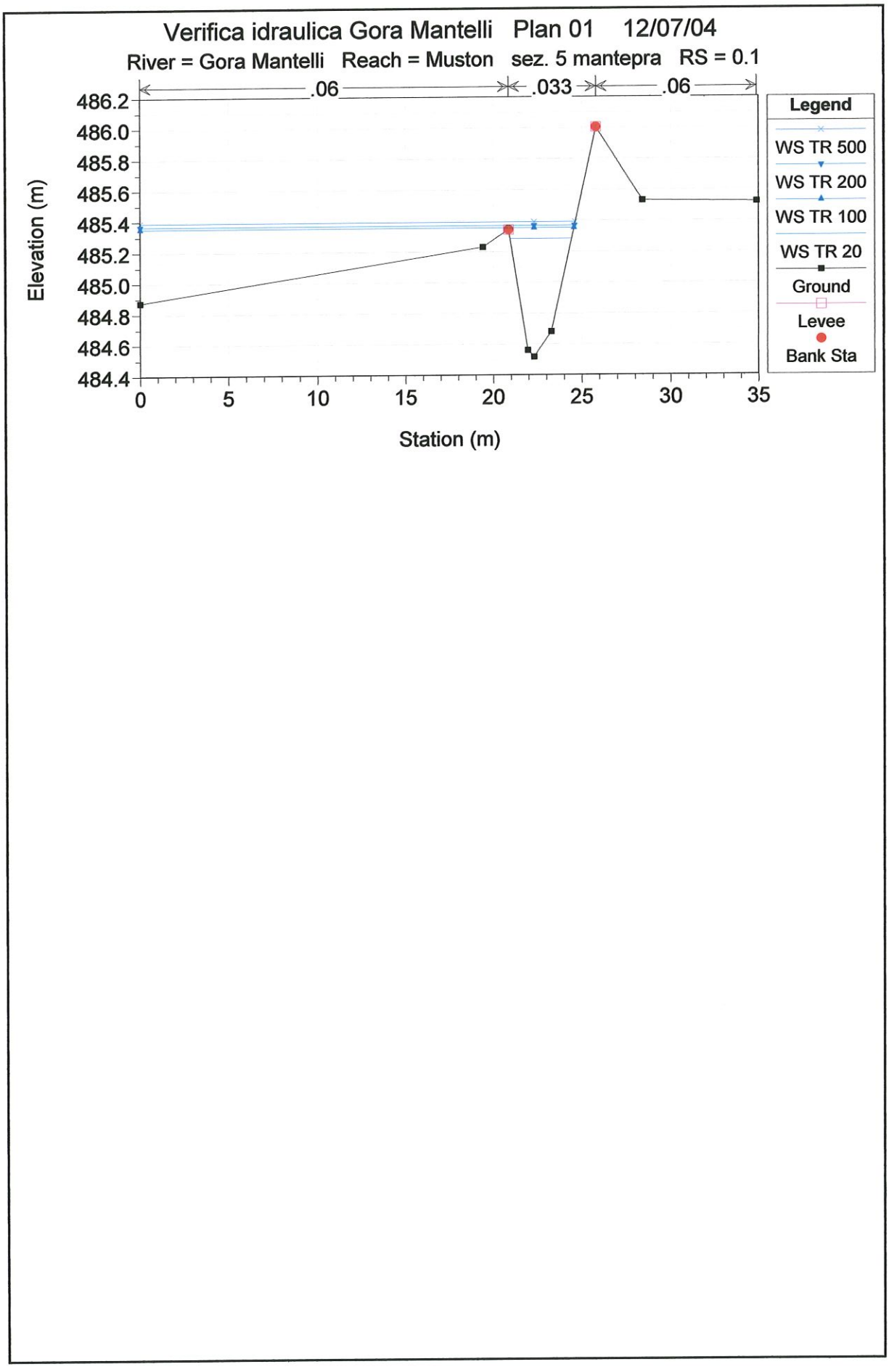

Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 5 RS = 5
.033
Elevation (m)
494.0
493.5
493.0
492.5
492.0
491.5
491.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Granero 5 RS = 4.5
.033
Elevation (m)
494.0
493.5
493.0
492.5
492.0
491.5
491.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Granero 5 RS = 4.5
.033
Elevation (m)
494.0
493.5
493.0
492.5
492.0
491.5
491.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta


Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 4 RS = 4
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 3 RS = 3
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 2 RS = 2
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta


Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Granero 6 RS = 1.76
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Ponte Granero 6 RS = 1.76
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston RS = 1.75*
.033
Elevation (m)
Station (m)
Legend
WS TR 200
WS TR 500
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta


Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston RS = 1.5*
.033
Elevation (m)
Station (m)
Legend
WS TR 200
WS TR 100
WS TR 500
WS TR 20
Ground
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston RS = 1.25*
.033
Elevation (m)
Station (m)
Legend
WS TR 200
WS TR 100
WS TR 500
WS TR 20
Ground
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Sez. 1 RS = 1
.033
Elevation (m)
Station (m)
Legend
WS TR 200
WS TR 100
WS TR 500
WS TR 20
Ground
Bank Sta


Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Tombino da Via I Mggio a FS RS = 0.25
.033
Elevation (m)
Station (m)
Legend
WS TR 200
WS TR 100
WS TR 500
WS TR 20
Ground
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston Tombino da Via I Mggio a FS RS = 0.25
.033
Elevation (m)
Station (m)
Legend
WS TR 20
WS TR 100
WS TR 200
WS TR 500
Ground
Bank Sta
Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston sez. 6 mantepra RS = 0.2
.033
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta


Verifica idraulica Gora Mantelli Plan 01 12/07/04
River = Gora Mantelli Reach = Muston sez. 5 mantepra RS = 0.1
.06
.033
.06
Elevation (m)
486.2
486.0
485.8
485.6
485.4
485.2
485.0
484.8
484.6
484.4
0
5
10
15
20
25
30
35
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Levee
Bank Sta

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 29 Profile: TR 20

E.G. Elev (m)	513.95	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.050	
W.S. Elev (m)	513.80	Reach Len. (m)	4.00	4.00	4.20
Crit W.S. (m)	513.25	Flow Area (m2)		3.14	
E.G. Slope (m/m)	0.012998	Area (m2)		3.14	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	2.43	Top Width (m)		2.43	
Vel Total (m/s)	1.73	Avg. Vel. (m/s)		1.73	
Max Chl Dpth (m)	1.57	Hydr. Depth (m)		1.29	
Conv. Total (m3/s)	47.5	Conv. (m3/s)		47.5	
Length Wtd. (m)	4.00	Wetted Per. (m)		4.76	
Min Ch El (m)	512.23	Shear (N/m2)		84.01	
Alpha	1.00	Stream Power (N/m s)		145.07	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.03	1.60	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.22	1.84	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 29 Profile: TR 100

E.G. Elev (m)	514.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.050	
W.S. Elev (m)	514.07	Reach Len. (m)	4.00	4.00	4.20
Crit W.S. (m)	513.41	Flow Area (m2)		3.82	
E.G. Slope (m/m)	0.012967	Area (m2)		3.82	
Q Total (m3/s)	6.97	Flow (m3/s)		6.97	
Top Width (m)	2.55	Top Width (m)		2.55	
Vel Total (m/s)	1.82	Avg. Vel. (m/s)		1.82	
Max Chl Dpth (m)	1.85	Hydr. Depth (m)		1.50	
Conv. Total (m3/s)	61.2	Conv. (m3/s)		61.2	
Length Wtd. (m)	4.00	Wetted Per. (m)		5.33	
Min Ch El (m)	512.23	Shear (N/m2)		91.16	
Alpha	1.00	Stream Power (N/m s)		166.30	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.17	1.82	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.81	1.87	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 29 Profile: TR 200

E.G. Elev (m)	514.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.050	
W.S. Elev (m)	514.20	Reach Len. (m)	4.00	4.00	4.20
Crit W.S. (m)	513.48	Flow Area (m2)		4.14	
E.G. Slope (m/m)	0.012680	Area (m2)		4.14	
Q Total (m3/s)	7.63	Flow (m3/s)		7.63	
Top Width (m)	2.61	Top Width (m)		2.61	
Vel Total (m/s)	1.84	Avg. Vel. (m/s)		1.84	
Max Chl Dpth (m)	1.97	Hydr. Depth (m)		1.59	
Conv. Total (m3/s)	67.8	Conv. (m3/s)		67.8	
Length Wtd. (m)	4.00	Wetted Per. (m)		5.58	
Min Ch El (m)	512.23	Shear (N/m2)		92.15	
Alpha	1.00	Stream Power (N/m s)		169.94	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.20	1.90	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.90	1.86	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 29 Profile: TR 500

E.G. Elev (m)	514.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.050	
W.S. Elev (m)	514.36	Reach Len. (m)	4.00	4.00	4.20
Crit W.S. (m)	513.56	Flow Area (m2)		4.58	
E.G. Slope (m/m)	0.012149	Area (m2)		4.58	
Q Total (m3/s)	8.49	Flow (m3/s)		8.49	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 29 Profile: TR 500 (Continued)

Top Width (m)	2.67	Top Width (m)		2.67	
Vel Total (m/s)	1.86	Avg. Vel. (m/s)		1.86	
Max Chl Dpth (m)	2.14	Hydr. Depth (m)		1.71	
Conv. Total (m3/s)	77.0	Conv. (m3/s)		77.0	
Length Wtd. (m)	4.00	Wetted Per. (m)		5.93	
Min Ch El (m)	512.23	Shear (N/m2)		91.98	
Alpha	1.00	Stream Power (N/m s)		170.64	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.27	1.92	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.05	1.88	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 28 Profile: TR 20

E.G. Elev (m)	513.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.050	
W.S. Elev (m)	513.75	Reach Len. (m)	2.10	2.10	2.10
Crit W.S. (m)	513.18	Flow Area (m2)		3.01	
E.G. Slope (m/m)	0.004952	Area (m2)		3.39	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	2.56	Top Width (m)		2.56	
Vel Total (m/s)	1.80	Avg. Vel. (m/s)		1.80	
Max Chl Dpth (m)	1.52	Hydr. Depth (m)		1.47	
Conv. Total (m3/s)	77.0	Conv. (m3/s)		77.0	
Length Wtd. (m)	2.10	Wetted Per. (m)		2.08	
Min Ch El (m)	512.23	Shear (N/m2)		70.22	
Alpha	1.00	Stream Power (N/m s)		126.36	
Frctn Loss (m)		Cum Volume (1000 m3)	0.03	1.58	
C & E Loss (m)		Cum SA (1000 m2)	0.22	1.83	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 28 Profile: TR 100

E.G. Elev (m)	514.21	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.050	
W.S. Elev (m)	514.01	Reach Len. (m)	2.10	2.10	2.10
Crit W.S. (m)	513.34	Flow Area (m2)		3.54	
E.G. Slope (m/m)	0.004787	Area (m2)		4.06	
Q Total (m3/s)	6.97	Flow (m3/s)		6.97	
Top Width (m)	2.66	Top Width (m)		2.66	
Vel Total (m/s)	1.97	Avg. Vel. (m/s)		1.97	
Max Chl Dpth (m)	1.78	Hydr. Depth (m)		1.73	
Conv. Total (m3/s)	100.7	Conv. (m3/s)		100.7	
Length Wtd. (m)	2.10	Wetted Per. (m)		2.08	
Min Ch El (m)	512.23	Shear (N/m2)		79.74	
Alpha	1.00	Stream Power (N/m s)		157.08	
Frctn Loss (m)		Cum Volume (1000 m3)	0.17	1.80	
C & E Loss (m)		Cum SA (1000 m2)	0.81	1.86	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 28 Profile: TR 200

E.G. Elev (m)	514.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.050	
W.S. Elev (m)	514.13	Reach Len. (m)	2.10	2.10	2.10
Crit W.S. (m)	513.41	Flow Area (m2)		3.78	
E.G. Slope (m/m)	0.004618	Area (m2)		4.37	
Q Total (m3/s)	7.63	Flow (m3/s)		7.63	
Top Width (m)	2.70	Top Width (m)		2.70	
Vel Total (m/s)	2.02	Avg. Vel. (m/s)		2.02	
Max Chl Dpth (m)	1.90	Hydr. Depth (m)		1.85	
Conv. Total (m3/s)	112.3	Conv. (m3/s)		112.3	
Length Wtd. (m)	2.10	Wetted Per. (m)		2.08	
Min Ch El (m)	512.23	Shear (N/m2)		82.11	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 28 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		165.95	
Frctn Loss (m)		Cum Volume (1000 m3)	0.20	1.88	
C & E Loss (m)		Cum SA (1000 m2)	0.90	1.85	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 28 Profile: TR 500

E.G. Elev (m)	514.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.050	
W.S. Elev (m)	514.29	Reach Len. (m)	2.10	2.10	2.10
Crit W.S. (m)	513.49	Flow Area (m2)		4.10	
E.G. Slope (m/m)	0.004346	Area (m2)		4.81	
Q Total (m3/s)	8.49	Flow (m3/s)		8.49	
Top Width (m)	2.75	Top Width (m)		2.75	
Vel Total (m/s)	2.07	Avg. Vel. (m/s)		2.07	
Max Chl Dpth (m)	2.05	Hydr. Depth (m)		2.01	
Conv. Total (m3/s)	128.8	Conv. (m3/s)		128.8	
Length Wtd. (m)	2.10	Wetted Per. (m)		2.08	
Min Ch El (m)	512.23	Shear (N/m2)		83.89	
Alpha	1.00	Stream Power (N/m s)		173.73	
Frctn Loss (m)		Cum Volume (1000 m3)	0.27	1.90	
C & E Loss (m)		Cum SA (1000 m2)	1.05	1.87	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27.5 BR U Profile: TR 20

E.G. Elev (m)	513.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.68	Wt. n-Val.		0.050	
W.S. Elev (m)	513.21	Reach Len. (m)	7.00	7.00	7.00
Crit W.S. (m)	513.21	Flow Area (m2)		1.49	
E.G. Slope (m/m)	0.125348	Area (m2)		1.49	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	1.10	Top Width (m)		1.10	
Vel Total (m/s)	3.64	Avg. Vel. (m/s)		3.64	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)		1.35	
Conv. Total (m3/s)	15.3	Conv. (m3/s)		15.3	
Length Wtd. (m)	7.00	Wetted Per. (m)		4.04	
Min Ch El (m)	512.23	Shear (N/m2)		453.27	
Alpha	1.00	Stream Power (N/m s)		1650.43	
Frctn Loss (m)		Cum Volume (1000 m3)	0.03	1.58	
C & E Loss (m)		Cum SA (1000 m2)	0.22	1.83	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27.5 BR U Profile: TR 100

E.G. Elev (m)	514.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.92	Wt. n-Val.		0.050	
W.S. Elev (m)	513.36	Reach Len. (m)	7.00	7.00	7.00
Crit W.S. (m)	513.36	Flow Area (m2)		1.64	
E.G. Slope (m/m)	0.168788	Area (m2)		1.64	
Q Total (m3/s)	6.97	Flow (m3/s)		6.97	
Top Width (m)	0.88	Top Width (m)		0.88	
Vel Total (m/s)	4.24	Avg. Vel. (m/s)		4.24	
Max Chl Dpth (m)	1.13	Hydr. Depth (m)		1.87	
Conv. Total (m3/s)	17.0	Conv. (m3/s)		17.0	
Length Wtd. (m)	7.00	Wetted Per. (m)		4.42	
Min Ch El (m)	512.23	Shear (N/m2)		614.59	
Alpha	1.00	Stream Power (N/m s)		2608.77	
Frctn Loss (m)		Cum Volume (1000 m3)	0.17	1.79	
C & E Loss (m)		Cum SA (1000 m2)	0.81	1.86	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27.5 BR U Profile: TR 200

E.G. Elev (m)	514.46	Element	Left OB	Channel	Right OB
Vel Head (m)	1.08	Wt. n-Val.		0.050	
W.S. Elev (m)	513.39	Reach Len. (m)	7.00	7.00	7.00
Crit W.S. (m)	513.39	Flow Area (m2)		1.66	
E.G. Slope (m/m)	0.200422	Area (m2)		1.66	
Q Total (m3/s)	7.63	Flow (m3/s)		7.63	
Top Width (m)	0.80	Top Width (m)		0.80	
Vel Total (m/s)	4.60	Avg. Vel. (m/s)		4.60	
Max Chl Dpth (m)	1.15	Hydr. Depth (m)		2.09	
Conv. Total (m3/s)	17.0	Conv. (m3/s)		17.0	
Length Wtd. (m)	7.00	Wetted Per. (m)		4.52	
Min Ch El (m)	512.23	Shear (N/m2)		722.61	
Alpha	1.00	Stream Power (N/m s)		3320.49	
Frctn Loss (m)		Cum Volume (1000 m3)	0.20	1.87	
C & E Loss (m)		Cum SA (1000 m2)	0.90	1.85	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27.5 BR U Profile: TR 500

E.G. Elev (m)	514.71	Element	Left OB	Channel	Right OB
Vel Head (m)	1.29	Wt. n-Val.		0.050	
W.S. Elev (m)	513.42	Reach Len. (m)	7.00	7.00	7.00
Crit W.S. (m)	513.42	Flow Area (m2)		1.69	
E.G. Slope (m/m)	0.245938	Area (m2)		1.69	
Q Total (m3/s)	8.49	Flow (m3/s)		8.49	
Top Width (m)	0.66	Top Width (m)		0.66	
Vel Total (m/s)	5.03	Avg. Vel. (m/s)		5.03	
Max Chl Dpth (m)	1.19	Hydr. Depth (m)		2.58	
Conv. Total (m3/s)	17.1	Conv. (m3/s)		17.1	
Length Wtd. (m)	7.00	Wetted Per. (m)		4.68	
Min Ch El (m)	512.23	Shear (N/m2)		870.66	
Alpha	1.00	Stream Power (N/m s)		4378.23	
Frctn Loss (m)		Cum Volume (1000 m3)	0.27	1.90	
C & E Loss (m)		Cum SA (1000 m2)	1.05	1.86	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27.5 BR D Profile: TR 20

E.G. Elev (m)	513.22	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.		0.050	
W.S. Elev (m)	512.73	Reach Len. (m)	2.35	2.35	2.35
Crit W.S. (m)	512.73	Flow Area (m2)		1.75	
E.G. Slope (m/m)	0.082235	Area (m2)		1.75	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	1.77	Top Width (m)		1.77	
Vel Total (m/s)	3.10	Avg. Vel. (m/s)		3.10	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.99	
Conv. Total (m3/s)	18.9	Conv. (m3/s)		18.9	
Length Wtd. (m)	2.35	Wetted Per. (m)		4.39	
Min Ch El (m)	511.74	Shear (N/m2)		320.71	
Alpha	1.00	Stream Power (N/m s)		994.74	
Frctn Loss (m)		Cum Volume (1000 m3)	0.03	1.57	
C & E Loss (m)		Cum SA (1000 m2)	0.22	1.82	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27.5 BR D Profile: TR 100

E.G. Elev (m)	513.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.61	Wt. n-Val.		0.050	
W.S. Elev (m)	512.88	Reach Len. (m)	2.35	2.35	2.35
Crit W.S. (m)	512.88	Flow Area (m2)		2.01	
E.G. Slope (m/m)	0.094447	Area (m2)		2.01	
Q Total (m3/s)	6.97	Flow (m3/s)		6.97	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27.5 BR D Profile: TR 100 (Continued)

Top Width (m)	1.63	Top Width (m)		1.63	
Vel Total (m/s)	3.47	Avg. Vel. (m/s)		3.47	
Max Chl Dpth (m)	1.14	Hydr. Depth (m)		1.24	
Conv. Total (m3/s)	22.7	Conv. (m3/s)		22.7	
Length Wtd. (m)	2.35	Wetted Per. (m)		4.73	
Min Ch El (m)	511.74	Shear (N/m2)		392.87	
Alpha	1.00	Stream Power (N/m s)		1363.22	
Frctn Loss (m)		Cum Volume (1000 m3)	0.17	1.78	
C & E Loss (m)		Cum SA (1000 m2)	0.81	1.85	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27.5 BR D Profile: TR 200

E.G. Elev (m)	513.61	Element	Left OB	Channel	Right OB
Vel Head (m)	0.67	Wt. n-Val.		0.050	
W.S. Elev (m)	512.95	Reach Len. (m)	2.35	2.35	2.35
Crit W.S. (m)	512.95	Flow Area (m2)		2.11	
E.G. Slope (m/m)	0.100126	Area (m2)		2.11	
Q Total (m3/s)	7.63	Flow (m3/s)		7.63	
Top Width (m)	1.57	Top Width (m)		1.57	
Vel Total (m/s)	3.62	Avg. Vel. (m/s)		3.62	
Max Chl Dpth (m)	1.20	Hydr. Depth (m)		1.35	
Conv. Total (m3/s)	24.1	Conv. (m3/s)		24.1	
Length Wtd. (m)	2.35	Wetted Per. (m)		4.87	
Min Ch El (m)	511.74	Shear (N/m2)		424.74	
Alpha	1.00	Stream Power (N/m s)		1537.45	
Frctn Loss (m)		Cum Volume (1000 m3)	0.20	1.86	
C & E Loss (m)		Cum SA (1000 m2)	0.90	1.84	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27.5 BR D Profile: TR 500

E.G. Elev (m)	513.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.75	Wt. n-Val.		0.050	
W.S. Elev (m)	513.02	Reach Len. (m)	2.35	2.35	2.35
Crit W.S. (m)	513.02	Flow Area (m2)		2.22	
E.G. Slope (m/m)	0.109032	Area (m2)		2.22	
Q Total (m3/s)	8.49	Flow (m3/s)		8.49	
Top Width (m)	1.50	Top Width (m)		1.50	
Vel Total (m/s)	3.83	Avg. Vel. (m/s)		3.83	
Max Chl Dpth (m)	1.27	Hydr. Depth (m)		1.48	
Conv. Total (m3/s)	25.7	Conv. (m3/s)		25.7	
Length Wtd. (m)	2.35	Wetted Per. (m)		5.03	
Min Ch El (m)	511.74	Shear (N/m2)		471.31	
Alpha	1.00	Stream Power (N/m s)		1802.79	
Frctn Loss (m)		Cum Volume (1000 m3)	0.27	1.88	
C & E Loss (m)		Cum SA (1000 m2)	1.05	1.86	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27 Profile: TR 20

E.G. Elev (m)	513.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.47	Wt. n-Val.		0.050	
W.S. Elev (m)	512.62	Reach Len. (m)	26.60	26.60	26.60
Crit W.S. (m)	512.69	Flow Area (m2)		1.79	
E.G. Slope (m/m)	0.038636	Area (m2)		1.89	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	2.77	Top Width (m)		2.77	
Vel Total (m/s)	3.03	Avg. Vel. (m/s)		3.03	
Max Chl Dpth (m)	0.87	Hydr. Depth (m)		0.70	
Conv. Total (m3/s)	27.6	Conv. (m3/s)		27.6	
Length Wtd. (m)	26.60	Wetted Per. (m)		2.65	
Min Ch El (m)	511.74	Shear (N/m2)		255.76	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		773.72	
Frctn Loss (m)		Cum Volume (1000 m3)	0.03	1.56	
C & E Loss (m)		Cum SA (1000 m2)	0.22	1.81	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27 Profile: TR 100

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	513.33	Wt. n-Val.		0.050	
Vel Head (m)	0.65	Reach Len. (m)	26.60	26.60	26.60
W.S. Elev (m)	512.68	Flow Area (m2)		1.96	
Crit W.S. (m)	512.82	Area (m2)		2.07	
E.G. Slope (m/m)	0.047629	Flow (m3/s)		6.97	
Q Total (m3/s)	6.97	Top Width (m)		2.78	
Top Width (m)	2.78	Avg. Vel. (m/s)		3.56	
Vel Total (m/s)	3.56	Hydr. Depth (m)		0.76	
Max Chl Dpth (m)	0.94	Conv. (m3/s)		31.9	
Conv. Total (m3/s)	31.9	Wetted Per. (m)		2.65	
Length Wtd. (m)	26.60	Shear (N/m2)		344.31	
Min Ch El (m)	511.74	Stream Power (N/m s)		1226.40	
Alpha	1.00	Cum Volume (1000 m3)	0.17	1.78	
Frctn Loss (m)		Cum SA (1000 m2)	0.81	1.84	
C & E Loss (m)					

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27 Profile: TR 200

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	513.43	Wt. n-Val.		0.050	
Vel Head (m)	0.72	Reach Len. (m)	26.60	26.60	26.60
W.S. Elev (m)	512.71	Flow Area (m2)		2.02	
Crit W.S. (m)	512.88	Area (m2)		2.15	
E.G. Slope (m/m)	0.050959	Flow (m3/s)		7.63	
Q Total (m3/s)	7.63	Top Width (m)		2.78	
Top Width (m)	2.78	Avg. Vel. (m/s)		3.77	
Vel Total (m/s)	3.77	Hydr. Depth (m)		0.79	
Max Chl Dpth (m)	0.96	Conv. (m3/s)		33.8	
Conv. Total (m3/s)	33.8	Wetted Per. (m)		2.65	
Length Wtd. (m)	26.60	Shear (N/m2)		381.21	
Min Ch El (m)	511.74	Stream Power (N/m s)		1436.92	
Alpha	1.00	Cum Volume (1000 m3)	0.20	1.86	
Frctn Loss (m)		Cum SA (1000 m2)	0.90	1.84	
C & E Loss (m)					

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 27 Profile: TR 500

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	513.56	Wt. n-Val.		0.050	
Vel Head (m)	0.82	Reach Len. (m)	26.60	26.60	26.60
W.S. Elev (m)	512.74	Flow Area (m2)		2.11	
Crit W.S. (m)	512.95	Area (m2)		2.24	
E.G. Slope (m/m)	0.054730	Flow (m3/s)		8.49	
Q Total (m3/s)	8.49	Top Width (m)		2.78	
Top Width (m)	2.78	Avg. Vel. (m/s)		4.02	
Vel Total (m/s)	4.02	Hydr. Depth (m)		0.83	
Max Chl Dpth (m)	1.00	Conv. (m3/s)		36.3	
Conv. Total (m3/s)	36.3	Wetted Per. (m)		2.65	
Length Wtd. (m)	26.60	Shear (N/m2)		427.20	
Min Ch El (m)	511.74	Stream Power (N/m s)		1716.76	
Alpha	1.00	Cum Volume (1000 m3)	0.27	1.88	
Frctn Loss (m)		Cum SA (1000 m2)	1.05	1.85	
C & E Loss (m)					

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 26 Profile: TR 20

E.G. Elev (m)	511.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.38	Wt. n-Val.	0.060	0.050	
W.S. Elev (m)	511.49	Reach Len. (m)	49.14	49.14	49.14
Crit W.S. (m)	511.59	Flow Area (m2)	0.26	1.87	
E.G. Slope (m/m)	0.052762	Area (m2)	0.26	1.87	
Q Total (m3/s)	5.42	Flow (m3/s)	0.25	5.17	
Top Width (m)	5.43	Top Width (m)	2.02	3.41	
Vel Total (m/s)	2.55	Avg. Vel. (m/s)	0.96	2.77	
Max Chl Dpth (m)	0.64	Hydr. Depth (m)	0.13	0.55	
Conv. Total (m3/s)	23.6	Conv. (m3/s)	1.1	22.5	
Length Wtd. (m)	49.14	Wetted Per. (m)	2.03	3.98	
Min Ch El (m)	510.84	Shear (N/m2)	65.16	242.73	
Alpha	1.13	Stream Power (N/m s)	62.68	673.25	
Frctn Loss (m)	1.19	Cum Volume (1000 m3)	0.02	1.51	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.20	1.73	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 26 Profile: TR 100

E.G. Elev (m)	511.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.	0.060	0.050	
W.S. Elev (m)	511.59	Reach Len. (m)	49.14	49.14	49.14
Crit W.S. (m)	511.69	Flow Area (m2)	0.51	2.22	
E.G. Slope (m/m)	0.046982	Area (m2)	0.51	2.22	
Q Total (m3/s)	6.97	Flow (m3/s)	0.57	6.39	
Top Width (m)	6.26	Top Width (m)	2.83	3.43	
Vel Total (m/s)	2.56	Avg. Vel. (m/s)	1.14	2.89	
Max Chl Dpth (m)	0.74	Hydr. Depth (m)	0.18	0.65	
Conv. Total (m3/s)	32.2	Conv. (m3/s)	2.7	29.5	
Length Wtd. (m)	49.14	Wetted Per. (m)	2.86	4.08	
Min Ch El (m)	510.84	Shear (N/m2)	81.48	250.19	
Alpha	1.18	Stream Power (N/m s)	92.74	721.89	
Frctn Loss (m)	1.27	Cum Volume (1000 m3)	0.16	1.72	
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.77	1.76	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 26 Profile: TR 200

E.G. Elev (m)	512.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.41	Wt. n-Val.	0.060	0.050	
W.S. Elev (m)	511.62	Reach Len. (m)	49.14	49.14	49.14
Crit W.S. (m)	511.73	Flow Area (m2)	0.61	2.34	
E.G. Slope (m/m)	0.046403	Area (m2)	0.61	2.34	
Q Total (m3/s)	7.63	Flow (m3/s)	0.73	6.90	
Top Width (m)	6.55	Top Width (m)	3.11	3.44	
Vel Total (m/s)	2.59	Avg. Vel. (m/s)	1.20	2.95	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)	0.20	0.68	
Conv. Total (m3/s)	35.4	Conv. (m3/s)	3.4	32.0	
Length Wtd. (m)	49.14	Wetted Per. (m)	3.14	4.12	
Min Ch El (m)	510.84	Shear (N/m2)	88.37	258.22	
Alpha	1.19	Stream Power (N/m s)	106.39	762.53	
Frctn Loss (m)	1.30	Cum Volume (1000 m3)	0.19	1.80	
C & E Loss (m)	0.09	Cum SA (1000 m2)	0.85	1.75	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 26 Profile: TR 500

E.G. Elev (m)	512.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.44	Wt. n-Val.	0.060	0.050	
W.S. Elev (m)	511.66	Reach Len. (m)	49.14	49.14	49.14
Crit W.S. (m)	511.78	Flow Area (m2)	0.73	2.46	
E.G. Slope (m/m)	0.047390	Area (m2)	0.73	2.46	
Q Total (m3/s)	8.49	Flow (m3/s)	0.94	7.55	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 26 Profile: TR 500 (Continued)

Top Width (m)	6.84	Top Width (m)	3.40	3.44	
Vel Total (m/s)	2.66	Avg. Vel. (m/s)	1.29	3.07	
Max Chl Dpth (m)	0.81	Hydr. Depth (m)	0.21	0.71	
Conv. Total (m3/s)	39.0	Conv. (m3/s)	4.3	34.7	
Length Wtd. (m)	49.14	Wetted Per. (m)	3.42	4.15	
Min Ch El (m)	510.84	Shear (N/m2)	98.54	275.23	
Alpha	1.21	Stream Power (N/m s)	127.14	845.09	
Frctn Loss (m)	1.35	Cum Volume (1000 m3)	0.26	1.81	
C & E Loss (m)	0.12	Cum SA (1000 m2)	1.00	1.77	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 25 Profile: TR 20

E.G. Elev (m)	510.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.87	Wt. n-Val.		0.017	
W.S. Elev (m)	509.64	Reach Len. (m)	60.36	60.36	60.36
Crit W.S. (m)	509.96	Flow Area (m2)		1.31	
E.G. Slope (m/m)	0.016228	Area (m2)		1.31	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	1.77	Top Width (m)		1.77	
Vel Total (m/s)	4.13	Avg. Vel. (m/s)		4.13	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.74	
Conv. Total (m3/s)	42.5	Conv. (m3/s)		42.5	
Length Wtd. (m)	60.36	Wetted Per. (m)		3.22	
Min Ch El (m)	508.87	Shear (N/m2)		65.00	
Alpha	1.00	Stream Power (N/m s)		268.16	
Frctn Loss (m)	1.31	Cum Volume (1000 m3)	0.02	1.43	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.15	1.60	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 25 Profile: TR 100

E.G. Elev (m)	510.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.94	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	509.81	Reach Len. (m)	60.36	60.36	60.36
Crit W.S. (m)	510.17	Flow Area (m2)	0.11	1.61	
E.G. Slope (m/m)	0.014649	Area (m2)	0.11	1.61	
Q Total (m3/s)	6.97	Flow (m3/s)	0.04	6.93	
Top Width (m)	3.37	Top Width (m)	1.60	1.77	
Vel Total (m/s)	4.06	Avg. Vel. (m/s)	0.33	4.31	
Max Chl Dpth (m)	0.94	Hydr. Depth (m)	0.07	0.91	
Conv. Total (m3/s)	57.6	Conv. (m3/s)	0.3	57.3	
Length Wtd. (m)	60.36	Wetted Per. (m)	1.60	3.42	
Min Ch El (m)	508.87	Shear (N/m2)	9.58	67.66	
Alpha	1.12	Stream Power (N/m s)	3.18	291.60	
Frctn Loss (m)	1.18	Cum Volume (1000 m3)	0.14	1.63	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.66	1.63	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 25 Profile: TR 200

E.G. Elev (m)	510.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.96	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	509.87	Reach Len. (m)	60.36	60.36	60.36
Crit W.S. (m)	510.23	Flow Area (m2)	0.23	1.72	
E.G. Slope (m/m)	0.014112	Area (m2)	0.23	1.72	
Q Total (m3/s)	7.63	Flow (m3/s)	0.10	7.53	
Top Width (m)	4.14	Top Width (m)	2.36	1.77	
Vel Total (m/s)	3.90	Avg. Vel. (m/s)	0.42	4.37	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)	0.10	0.97	
Conv. Total (m3/s)	64.2	Conv. (m3/s)	0.8	63.4	
Length Wtd. (m)	60.36	Wetted Per. (m)	2.37	3.48	
Min Ch El (m)	508.87	Shear (N/m2)	13.66	68.51	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 25 Profile: TR 200 (Continued)

Alpha	1.24	Stream Power (N/m s)	5.78	299.56	
Frctn Loss (m)	1.15	Cum Volume (1000 m3)	0.17	1.70	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.72	1.63	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 25 Profile: TR 500

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	510.93	Wt. n-Val.	0.060	0.017	
Vel Head (m)	0.98	Reach Len. (m)	60.36	60.36	60.36
W.S. Elev (m)	509.95	Flow Area (m2)	0.45	1.86	
Crit W.S. (m)	510.31	Area (m2)	0.45	1.86	
E.G. Slope (m/m)	0.013568	Flow (m3/s)	0.23	8.26	
Q Total (m3/s)	8.49	Top Width (m)	3.27	1.78	
Top Width (m)	5.05	Avg. Vel. (m/s)	0.52	4.44	
Vel Total (m/s)	3.68	Hydr. Depth (m)	0.14	1.05	
Max Chl Dpth (m)	1.08	Conv. (m3/s)	2.0	70.9	
Conv. Total (m3/s)	72.9	Wetted Per. (m)	3.28	3.56	
Length Wtd. (m)	60.36	Shear (N/m2)	18.19	69.52	
Min Ch El (m)	508.87	Stream Power (N/m s)	9.37	309.00	
Alpha	1.42	Cum Volume (1000 m3)	0.23	1.71	
Frctn Loss (m)	1.12	Cum SA (1000 m2)	0.84	1.64	
C & E Loss (m)	0.05				

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 24 Profile: TR 20

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	508.84	Wt. n-Val.	0.060	0.017	
Vel Head (m)	1.85	Reach Len. (m)	51.72	51.72	51.72
W.S. Elev (m)	506.99	Flow Area (m2)	0.00	0.90	
Crit W.S. (m)	507.50	Area (m2)	0.00	0.90	
E.G. Slope (m/m)	0.045756	Flow (m3/s)	0.00	5.42	
Q Total (m3/s)	5.42	Top Width (m)	0.22	1.76	
Top Width (m)	1.98	Avg. Vel. (m/s)	0.21	6.03	
Vel Total (m/s)	6.01	Hydr. Depth (m)	0.01	0.51	
Max Chl Dpth (m)	0.53	Conv. (m3/s)	0.0	25.3	
Conv. Total (m3/s)	25.3	Wetted Per. (m)	0.22	2.71	
Length Wtd. (m)	51.72	Shear (N/m2)	6.52	148.79	
Min Ch El (m)	506.46	Stream Power (N/m s)	1.38	896.89	
Alpha	1.01	Cum Volume (1000 m3)	0.02	1.37	
Frctn Loss (m)	1.55	Cum SA (1000 m2)	0.14	1.49	
C & E Loss (m)	0.10				

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 24 Profile: TR 100

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	509.21	Wt. n-Val.	0.060	0.017	
Vel Head (m)	2.13	Reach Len. (m)	51.72	51.72	51.72
W.S. Elev (m)	507.09	Flow Area (m2)	0.06	1.07	
Crit W.S. (m)	507.66	Area (m2)	0.06	1.07	
E.G. Slope (m/m)	0.043794	Flow (m3/s)	0.03	6.94	
Q Total (m3/s)	6.97	Top Width (m)	0.93	1.77	
Top Width (m)	2.70	Avg. Vel. (m/s)	0.55	6.47	
Vel Total (m/s)	6.16	Hydr. Depth (m)	0.06	0.61	
Max Chl Dpth (m)	0.63	Conv. (m3/s)	0.2	33.1	
Conv. Total (m3/s)	33.3	Wetted Per. (m)	0.94	2.81	
Length Wtd. (m)	51.72	Shear (N/m2)	27.02	163.80	
Min Ch El (m)	506.46	Stream Power (N/m s)	14.91	1060.50	
Alpha	1.10	Cum Volume (1000 m3)	0.14	1.54	
Frctn Loss (m)	1.42	Cum SA (1000 m2)	0.59	1.52	
C & E Loss (m)	0.12				

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 24 Profile: TR 200

E.G. Elev (m)	509.33	Element	Left OB	Channel	Right OB
Vel Head (m)	2.21	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	507.13	Reach Len. (m)	51.72	51.72	51.72
Crit W.S. (m)	507.71	Flow Area (m2)	0.10	1.14	
E.G. Slope (m/m)	0.042641	Area (m2)	0.10	1.14	
Q Total (m3/s)	7.63	Flow (m3/s)	0.07	7.56	
Top Width (m)	3.00	Top Width (m)	1.23	1.77	
Vel Total (m/s)	6.11	Avg. Vel. (m/s)	0.66	6.61	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)	0.08	0.65	
Conv. Total (m3/s)	37.0	Conv. (m3/s)	0.3	36.6	
Length Wtd. (m)	51.72	Wetted Per. (m)	1.25	2.85	
Min Ch El (m)	506.46	Shear (N/m2)	34.85	167.87	
Alpha	1.16	Stream Power (N/m s)	22.88	1109.64	
Frctn Loss (m)	1.37	Cum Volume (1000 m3)	0.16	1.61	
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.61	1.52	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 24 Profile: TR 500

E.G. Elev (m)	509.47	Element	Left OB	Channel	Right OB
Vel Head (m)	2.29	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	507.18	Reach Len. (m)	51.72	51.72	51.72
Crit W.S. (m)	507.78	Flow Area (m2)	0.18	1.24	
E.G. Slope (m/m)	0.041253	Area (m2)	0.18	1.24	
Q Total (m3/s)	8.49	Flow (m3/s)	0.14	8.35	
Top Width (m)	3.38	Top Width (m)	1.61	1.77	
Vel Total (m/s)	6.01	Avg. Vel. (m/s)	0.77	6.76	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)	0.11	0.70	
Conv. Total (m3/s)	41.8	Conv. (m3/s)	0.7	41.1	
Length Wtd. (m)	51.72	Wetted Per. (m)	1.63	2.90	
Min Ch El (m)	506.46	Shear (N/m2)	44.05	172.23	
Alpha	1.25	Stream Power (N/m s)	34.00	1164.51	
Frctn Loss (m)	1.32	Cum Volume (1000 m3)	0.21	1.61	
C & E Loss (m)	0.13	Cum SA (1000 m2)	0.69	1.53	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 23 Profile: TR 20

E.G. Elev (m)	506.59	Element	Left OB	Channel	Right OB
Vel Head (m)	1.63	Wt. n-Val.		0.017	
W.S. Elev (m)	504.96	Reach Len. (m)	80.20	80.20	80.20
Crit W.S. (m)	505.50	Flow Area (m2)		0.96	
E.G. Slope (m/m)	0.038952	Area (m2)		0.96	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	1.75	Top Width (m)		1.75	
Vel Total (m/s)	5.66	Avg. Vel. (m/s)		5.66	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	27.5	Conv. (m3/s)		27.5	
Length Wtd. (m)	80.20	Wetted Per. (m)		2.81	
Min Ch El (m)	504.39	Shear (N/m2)		130.09	
Alpha	1.00	Stream Power (N/m s)		736.51	
Frctn Loss (m)	2.18	Cum Volume (1000 m3)	0.02	1.32	
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.14	1.40	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 23 Profile: TR 100

E.G. Elev (m)	506.99	Element	Left OB	Channel	Right OB
Vel Head (m)	1.93	Wt. n-Val.		0.017	
W.S. Elev (m)	505.06	Reach Len. (m)	80.20	80.20	80.20
Crit W.S. (m)	505.69	Flow Area (m2)		1.13	
E.G. Slope (m/m)	0.040448	Area (m2)		1.13	
Q Total (m3/s)	6.97	Flow (m3/s)		6.97	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 23 Profile: TR 100 (Continued)

Top Width (m)	1.76	Top Width (m)		1.76	
Vel Total (m/s)	6.16	Avg. Vel. (m/s)		6.16	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	34.7	Conv. (m3/s)		34.7	
Length Wtd. (m)	80.20	Wetted Per. (m)		3.01	
Min Ch El (m)	504.39	Shear (N/m2)		149.10	
Alpha	1.00	Stream Power (N/m s)		918.68	
Frctn Loss (m)	2.17	Cum Volume (1000 m3)	0.14	1.49	
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.56	1.43	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 23 Profile: TR 200

E.G. Elev (m)	507.14	Element	Left OB	Channel	Right OB
Vel Head (m)	2.04	Wt. n-Val.		0.017	
W.S. Elev (m)	505.10	Reach Len. (m)	80.20	80.20	80.20
Crit W.S. (m)	505.76	Flow Area (m2)		1.21	
E.G. Slope (m/m)	0.040635	Area (m2)		1.21	
Q Total (m3/s)	7.63	Flow (m3/s)		7.63	
Top Width (m)	1.77	Top Width (m)		1.77	
Vel Total (m/s)	6.33	Avg. Vel. (m/s)		6.33	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	37.9	Conv. (m3/s)		37.9	
Length Wtd. (m)	80.20	Wetted Per. (m)		3.09	
Min Ch El (m)	504.39	Shear (N/m2)		155.33	
Alpha	1.00	Stream Power (N/m s)		982.86	
Frctn Loss (m)	2.15	Cum Volume (1000 m3)	0.16	1.55	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.58	1.43	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 23 Profile: TR 500

E.G. Elev (m)	507.32	Element	Left OB	Channel	Right OB
Vel Head (m)	2.16	Wt. n-Val.		0.017	
W.S. Elev (m)	505.15	Reach Len. (m)	80.20	80.20	80.20
Crit W.S. (m)	505.83	Flow Area (m2)		1.30	
E.G. Slope (m/m)	0.040722	Area (m2)		1.30	
Q Total (m3/s)	8.49	Flow (m3/s)		8.49	
Top Width (m)	1.77	Top Width (m)		1.77	
Vel Total (m/s)	6.52	Avg. Vel. (m/s)		6.52	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.74	
Conv. Total (m3/s)	42.1	Conv. (m3/s)		42.1	
Length Wtd. (m)	80.20	Wetted Per. (m)		3.20	
Min Ch El (m)	504.39	Shear (N/m2)		162.41	
Alpha	1.00	Stream Power (N/m s)		1058.23	
Frctn Loss (m)	2.12	Cum Volume (1000 m3)	0.20	1.55	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.65	1.44	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 22 Profile: TR 20

E.G. Elev (m)	503.47	Element	Left OB	Channel	Right OB
Vel Head (m)	1.65	Wt. n-Val.		0.017	
W.S. Elev (m)	501.82	Reach Len. (m)	12.20	12.20	122012.20
Crit W.S. (m)	502.26	Flow Area (m2)		0.95	
E.G. Slope (m/m)	0.039401	Area (m2)		0.95	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	1.79	Top Width (m)		1.79	
Vel Total (m/s)	5.69	Avg. Vel. (m/s)		5.69	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	27.3	Conv. (m3/s)		27.3	
Length Wtd. (m)	12.20	Wetted Per. (m)		2.80	
Min Ch El (m)	501.25	Shear (N/m2)		131.40	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 22 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		747.51	
Frctn Loss (m)	3.13	Cum Volume (1000 m3)	0.02	1.24	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.14	1.26	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 22 Profile: TR 100

E.G. Elev (m)	503.80	Element	Left OB	Channel	Right OB
Vel Head (m)	1.88	Wt. n-Val.		0.017	
W.S. Elev (m)	501.93	Reach Len. (m)	12.20	12.20	122012.20
Crit W.S. (m)	502.44	Flow Area (m2)		1.15	
E.G. Slope (m/m)	0.038675	Area (m2)		1.15	
Q Total (m3/s)	6.97	Flow (m3/s)		6.97	
Top Width (m)	1.80	Top Width (m)		1.80	
Vel Total (m/s)	6.07	Avg. Vel. (m/s)		6.07	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	35.4	Conv. (m3/s)		35.4	
Length Wtd. (m)	12.20	Wetted Per. (m)		3.02	
Min Ch El (m)	501.25	Shear (N/m2)		144.17	
Alpha	1.00	Stream Power (N/m s)		875.18	
Frctn Loss (m)	3.17	Cum Volume (1000 m3)	0.14	1.40	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.56	1.29	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 22 Profile: TR 200

E.G. Elev (m)	503.94	Element	Left OB	Channel	Right OB
Vel Head (m)	1.97	Wt. n-Val.		0.017	
W.S. Elev (m)	501.97	Reach Len. (m)	12.20	12.20	122012.20
Crit W.S. (m)	502.51	Flow Area (m2)		1.23	
E.G. Slope (m/m)	0.038624	Area (m2)		1.23	
Q Total (m3/s)	7.63	Flow (m3/s)		7.63	
Top Width (m)	1.81	Top Width (m)		1.81	
Vel Total (m/s)	6.22	Avg. Vel. (m/s)		6.22	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	38.8	Conv. (m3/s)		38.8	
Length Wtd. (m)	12.20	Wetted Per. (m)		3.11	
Min Ch El (m)	501.25	Shear (N/m2)		149.52	
Alpha	1.00	Stream Power (N/m s)		930.17	
Frctn Loss (m)	3.18	Cum Volume (1000 m3)	0.16	1.45	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.58	1.28	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 22 Profile: TR 500

E.G. Elev (m)	504.11	Element	Left OB	Channel	Right OB
Vel Head (m)	2.09	Wt. n-Val.		0.017	
W.S. Elev (m)	502.03	Reach Len. (m)	12.20	12.20	122012.20
Crit W.S. (m)	502.60	Flow Area (m2)		1.33	
E.G. Slope (m/m)	0.038651	Area (m2)		1.33	
Q Total (m3/s)	8.49	Flow (m3/s)		8.49	
Top Width (m)	1.81	Top Width (m)		1.81	
Vel Total (m/s)	6.40	Avg. Vel. (m/s)		6.40	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.73	
Conv. Total (m3/s)	43.2	Conv. (m3/s)		43.2	
Length Wtd. (m)	12.20	Wetted Per. (m)		3.22	
Min Ch El (m)	501.25	Shear (N/m2)		156.18	
Alpha	1.00	Stream Power (N/m s)		1000.19	
Frctn Loss (m)	3.18	Cum Volume (1000 m3)	0.20	1.44	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.65	1.30	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 21 Profile: TR 20

E.G. Elev (m)	502.96	Element	Left OB	Channel	Right OB
Vel Head (m)	1.71	Wt. n-Val.		0.017	
W.S. Elev (m)	501.24	Reach Len. (m)	12.70	11.20	10.30
Crit W.S. (m)	501.69	Flow Area (m2)		0.93	
E.G. Slope (m/m)	0.042476	Area (m2)		0.93	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	1.99	Top Width (m)		1.99	
Vel Total (m/s)	5.80	Avg. Vel. (m/s)		5.80	
Max Chl Dpth (m)	0.50	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	26.3	Conv. (m3/s)		26.3	
Length Wtd. (m)	11.21	Wetted Per. (m)		2.83	
Min Ch El (m)	500.74	Shear (N/m2)		137.73	
Alpha	1.00	Stream Power (N/m s)		798.42	
Frctn Loss (m)	0.50	Cum Volume (1000 m3)	0.02	1.23	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.14	1.24	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 21 Profile: TR 100

E.G. Elev (m)	503.29	Element	Left OB	Channel	Right OB
Vel Head (m)	1.95	Wt. n-Val.		0.017	
W.S. Elev (m)	501.34	Reach Len. (m)	12.70	11.20	10.30
Crit W.S. (m)	501.85	Flow Area (m2)		1.13	
E.G. Slope (m/m)	0.041333	Area (m2)		1.13	
Q Total (m3/s)	6.97	Flow (m3/s)		6.97	
Top Width (m)	2.03	Top Width (m)		2.03	
Vel Total (m/s)	6.19	Avg. Vel. (m/s)		6.19	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	34.3	Conv. (m3/s)		34.3	
Length Wtd. (m)	11.21	Wetted Per. (m)		3.02	
Min Ch El (m)	500.74	Shear (N/m2)		151.04	
Alpha	1.00	Stream Power (N/m s)		935.32	
Frctn Loss (m)	0.49	Cum Volume (1000 m3)	0.14	1.38	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.56	1.27	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 21 Profile: TR 200

E.G. Elev (m)	503.43	Element	Left OB	Channel	Right OB
Vel Head (m)	2.06	Wt. n-Val.		0.017	
W.S. Elev (m)	501.38	Reach Len. (m)	12.70	11.20	10.30
Crit W.S. (m)	501.92	Flow Area (m2)		1.20	
E.G. Slope (m/m)	0.041207	Area (m2)		1.20	
Q Total (m3/s)	7.63	Flow (m3/s)		7.63	
Top Width (m)	2.04	Top Width (m)		2.04	
Vel Total (m/s)	6.35	Avg. Vel. (m/s)		6.35	
Max Chl Dpth (m)	0.64	Hydr. Depth (m)		0.59	
Conv. Total (m3/s)	37.6	Conv. (m3/s)		37.6	
Length Wtd. (m)	11.21	Wetted Per. (m)		3.10	
Min Ch El (m)	500.74	Shear (N/m2)		156.80	
Alpha	1.00	Stream Power (N/m s)		996.07	
Frctn Loss (m)	0.49	Cum Volume (1000 m3)	0.16	1.44	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.58	1.26	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 21 Profile: TR 500

E.G. Elev (m)	503.61	Element	Left OB	Channel	Right OB
Vel Head (m)	2.18	Wt. n-Val.		0.017	
W.S. Elev (m)	501.42	Reach Len. (m)	12.70	11.20	10.30
Crit W.S. (m)	502.00	Flow Area (m2)		1.30	
E.G. Slope (m/m)	0.041161	Area (m2)		1.30	
Q Total (m3/s)	8.49	Flow (m3/s)		8.49	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 21 Profile: TR 500 (Continued)

Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	6.55	Avg. Vel. (m/s)		6.55	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	41.8	Conv. (m3/s)		41.8	
Length Wtd. (m)	11.20	Wetted Per. (m)		3.19	
Min Ch El (m)	500.74	Shear (N/m2)		164.03	
Alpha	1.00	Stream Power (N/m s)		1074.00	
Frctn Loss (m)	0.49	Cum Volume (1000 m3)	0.20	1.43	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.65	1.27	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 20 Profile: TR 20

E.G. Elev (m)	500.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	500.75	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	499.85	Flow Area (m2)	0.33	5.54	
E.G. Slope (m/m)	0.000348	Area (m2)	0.33	5.54	
Q Total (m3/s)	6.13	Flow (m3/s)	0.04	6.09	
Top Width (m)	4.05	Top Width (m)	0.51	3.54	
Vel Total (m/s)	1.04	Avg. Vel. (m/s)	0.12	1.10	
Max Chl Dpth (m)	1.86	Hydr. Depth (m)	0.64	1.57	
Conv. Total (m3/s)	328.6	Conv. (m3/s)	2.1	326.5	
Length Wtd. (m)	1.20	Wetted Per. (m)	1.39	5.53	
Min Ch El (m)	498.89	Shear (N/m2)	0.81	3.42	
Alpha	1.10	Stream Power (N/m s)	0.10	3.76	
Frctn Loss (m)		Cum Volume (1000 m3)	0.02	1.19	
C & E Loss (m)		Cum SA (1000 m2)	0.13	1.21	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 20 Profile: TR 100

E.G. Elev (m)	501.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	500.98	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	499.98	Flow Area (m2)	0.46	6.35	
E.G. Slope (m/m)	0.000383	Area (m2)	0.46	6.35	
Q Total (m3/s)	7.87	Flow (m3/s)	0.06	7.81	
Top Width (m)	4.15	Top Width (m)	0.60	3.55	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)	0.14	1.23	
Max Chl Dpth (m)	2.09	Hydr. Depth (m)	0.76	1.79	
Conv. Total (m3/s)	402.1	Conv. (m3/s)	3.3	398.8	
Length Wtd. (m)	1.20	Wetted Per. (m)	1.63	5.76	
Min Ch El (m)	498.89	Shear (N/m2)	1.05	4.14	
Alpha	1.12	Stream Power (N/m s)	0.15	5.09	
Frctn Loss (m)		Cum Volume (1000 m3)	0.13	1.34	
C & E Loss (m)		Cum SA (1000 m2)	0.56	1.24	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 20 Profile: TR 200

E.G. Elev (m)	501.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	501.06	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	500.03	Flow Area (m2)	0.51	6.63	
E.G. Slope (m/m)	0.000404	Area (m2)	0.51	6.63	
Q Total (m3/s)	8.62	Flow (m3/s)	0.08	8.54	
Top Width (m)	4.18	Top Width (m)	0.63	3.55	
Vel Total (m/s)	1.21	Avg. Vel. (m/s)	0.15	1.29	
Max Chl Dpth (m)	2.17	Hydr. Depth (m)	0.80	1.87	
Conv. Total (m3/s)	428.8	Conv. (m3/s)	3.7	425.1	
Length Wtd. (m)	1.20	Wetted Per. (m)	1.72	5.84	
Min Ch El (m)	498.89	Shear (N/m2)	1.17	4.50	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 20 Profile: TR 200 (Continued)

Alpha	1.13	Stream Power (N/m s)	0.17	5.80	
Frctn Loss (m)		Cum Volume (1000 m3)	0.15	1.39	
C & E Loss (m)		Cum SA (1000 m2)	0.58	1.23	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 20 Profile: TR 500

E.G. Elev (m)	502.78	Element	Left OB	Channel	Right OB
Vel Head (m)	3.27	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	499.52	Reach Len. (m)	1.20	1.20	1.20
Crit W.S. (m)	500.09	Flow Area (m2)	0.00	1.20	
E.G. Slope (m/m)	0.101432	Area (m2)	0.00	1.20	
Q Total (m3/s)	9.59	Flow (m3/s)	0.00	9.59	
Top Width (m)	3.50	Top Width (m)	0.02	3.48	
Vel Total (m/s)	8.00	Avg. Vel. (m/s)	0.23	8.01	
Max Chl Dpth (m)	0.63	Hydr. Depth (m)	0.02	0.34	
Conv. Total (m3/s)	30.1	Conv. (m3/s)	0.0	30.1	
Length Wtd. (m)	1.20	Wetted Per. (m)	0.05	4.29	
Min Ch El (m)	498.89	Shear (N/m2)	9.10	277.86	
Alpha	1.00	Stream Power (N/m s)	2.11	2224.43	
Frctn Loss (m)	0.71	Cum Volume (1000 m3)	0.20	1.41	
C & E Loss (m)	0.11	Cum SA (1000 m2)	0.65	1.24	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19.5 BR U Profile: TR 20

E.G. Elev (m)	500.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.			
W.S. Elev (m)	500.75	Reach Len. (m)	6.50	6.50	6.50
Crit W.S. (m)	500.66	Flow Area (m2)	0.10	2.74	
E.G. Slope (m/m)		Area (m2)	0.10	2.74	
Q Total (m3/s)	6.13	Flow (m3/s)	0.04	6.09	
Top Width (m)	4.05	Top Width (m)	0.51	3.54	
Vel Total (m/s)	2.16	Avg. Vel. (m/s)	0.37	2.23	0.30
Max Chl Dpth (m)	1.86	Hydr. Depth (m)	0.20	0.77	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	6.50	Wetted Per. (m)	1.09	11.75	
Min Ch El (m)	498.89	Shear (N/m2)			
Alpha	1.06	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.02	1.19	
C & E Loss (m)		Cum SA (1000 m2)	0.13	1.20	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19.5 BR U Profile: TR 100

E.G. Elev (m)	501.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.			
W.S. Elev (m)	500.98	Reach Len. (m)	6.50	6.50	6.50
Crit W.S. (m)	500.78	Flow Area (m2)	0.23	3.55	
E.G. Slope (m/m)		Area (m2)	0.23	3.55	
Q Total (m3/s)	7.87	Flow (m3/s)	0.11	7.78	
Top Width (m)	4.15	Top Width (m)	0.60	3.55	
Vel Total (m/s)	2.08	Avg. Vel. (m/s)	0.48	2.19	0.30
Max Chl Dpth (m)	2.09	Hydr. Depth (m)	0.38	1.00	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	6.50	Wetted Per. (m)	1.34	11.98	
Min Ch El (m)	498.89	Shear (N/m2)			
Alpha	1.09	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.13	1.33	
C & E Loss (m)		Cum SA (1000 m2)	0.56	1.23	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19.5 BR U Profile: TR 200

E.G. Elev (m)	501.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.			
W.S. Elev (m)	501.06	Reach Len. (m)	6.50	6.50	6.50
Crit W.S. (m)	500.83	Flow Area (m2)	0.28	3.83	
E.G. Slope (m/m)		Area (m2)	0.28	3.83	
Q Total (m3/s)	8.62	Flow (m3/s)	0.14	8.47	
Top Width (m)	4.18	Top Width (m)	0.63	3.55	
Vel Total (m/s)	2.10	Avg. Vel. (m/s)	0.51	2.21	0.30
Max Chl Dpth (m)	2.17	Hydr. Depth (m)	0.44	1.08	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	6.50	Wetted Per. (m)	1.42	12.06	
Min Ch El (m)	498.89	Shear (N/m2)			
Alpha	1.10	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.15	1.39	
C & E Loss (m)		Cum SA (1000 m2)	0.57	1.23	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19.5 BR U Profile: TR 500

E.G. Elev (m)	502.62	Element	Left OB	Channel	Right OB
Vel Head (m)	3.10	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	499.53	Reach Len. (m)	6.50	6.50	6.50
Crit W.S. (m)	500.89	Flow Area (m2)	0.00	1.23	
E.G. Slope (m/m)	0.093070	Area (m2)	0.00	1.23	
Q Total (m3/s)	9.59	Flow (m3/s)	0.00	9.59	
Top Width (m)	3.51	Top Width (m)	0.02	3.48	
Vel Total (m/s)	7.79	Avg. Vel. (m/s)	0.25	7.79	
Max Chl Dpth (m)	0.63	Hydr. Depth (m)	0.03	0.35	
Conv. Total (m3/s)	31.4	Conv. (m3/s)	0.0	31.4	
Length Wtd. (m)	6.50	Wetted Per. (m)	0.06	4.30	
Min Ch El (m)	498.89	Shear (N/m2)	9.92	261.28	
Alpha	1.00	Stream Power (N/m s)	2.47	2036.62	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.20	1.41	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.65	1.24	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19.5 BR D Profile: TR 20

E.G. Elev (m)	500.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.			
W.S. Elev (m)	500.46	Reach Len. (m)	1.70	1.70	1.70
Crit W.S. (m)	499.35	Flow Area (m2)		3.95	
E.G. Slope (m/m)		Area (m2)	0.95	4.01	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	12.34	Top Width (m)	7.31	5.03	
Vel Total (m/s)	1.55	Avg. Vel. (m/s)	0.30	1.55	0.30
Max Chl Dpth (m)	1.77	Hydr. Depth (m)		0.87	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	1.70	Wetted Per. (m)		14.70	
Min Ch El (m)	498.69	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	1.17	
C & E Loss (m)		Cum SA (1000 m2)	0.11	1.18	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19.5 BR D Profile: TR 100

E.G. Elev (m)	500.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.			
W.S. Elev (m)	500.58	Reach Len. (m)	1.70	1.70	1.70
Crit W.S. (m)	499.46	Flow Area (m2)	1.83	4.62	
E.G. Slope (m/m)		Area (m2)	1.83	4.62	
Q Total (m3/s)	7.87	Flow (m3/s)	0.99	6.89	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19.5 BR D Profile: TR 100 (Continued)

Top Width (m)	12.34	Top Width (m)	7.31	5.03	
Vel Total (m/s)	1.22	Avg. Vel. (m/s)	0.54	1.49	0.30
Max Chl Dpth (m)	1.89	Hydr. Depth (m)	0.25	0.92	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	1.70	Wetted Per. (m)	7.56	15.92	
Min Ch El (m)	498.69	Shear (N/m2)			
Alpha	1.20	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.13	1.31	
C & E Loss (m)		Cum SA (1000 m2)	0.53	1.20	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19.5 BR D Profile: TR 200

E.G. Elev (m)	500.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.			
W.S. Elev (m)	500.58	Reach Len. (m)	1.70	1.70	1.70
Crit W.S. (m)	499.50	Flow Area (m2)	1.83	4.62	
E.G. Slope (m/m)		Area (m2)	1.83	4.62	
Q Total (m3/s)	8.62	Flow (m3/s)	1.04	7.57	
Top Width (m)	12.34	Top Width (m)	7.31	5.03	
Vel Total (m/s)	1.34	Avg. Vel. (m/s)	0.57	1.64	0.30
Max Chl Dpth (m)	1.89	Hydr. Depth (m)	0.25	0.92	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	1.70	Wetted Per. (m)	7.56	15.92	
Min Ch El (m)	498.69	Shear (N/m2)			
Alpha	1.20	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.15	1.36	
C & E Loss (m)		Cum SA (1000 m2)	0.55	1.20	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19.5 BR D Profile: TR 500

E.G. Elev (m)	501.45	Element	Left OB	Channel	Right OB
Vel Head (m)	2.36	Wt. n-Val.		0.033	
W.S. Elev (m)	499.09	Reach Len. (m)	1.70	1.70	1.70
Crit W.S. (m)	499.53	Flow Area (m2)		1.41	
E.G. Slope (m/m)	0.252136	Area (m2)		1.41	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	4.22	Top Width (m)		4.22	
Vel Total (m/s)	6.80	Avg. Vel. (m/s)		6.80	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	19.1	Conv. (m3/s)		19.1	
Length Wtd. (m)	1.70	Wetted Per. (m)		4.71	
Min Ch El (m)	498.69	Shear (N/m2)		739.43	
Alpha	1.00	Stream Power (N/m s)		5031.48	
Frctn Loss (m)	0.94	Cum Volume (1000 m3)	0.20	1.40	
C & E Loss (m)	0.22	Cum SA (1000 m2)	0.65	1.21	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19 Profile: TR 20

E.G. Elev (m)	499.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.29	Wt. n-Val.		0.033	
W.S. Elev (m)	499.36	Reach Len. (m)	15.00	15.30	15.70
Crit W.S. (m)	499.36	Flow Area (m2)		2.58	
E.G. Slope (m/m)	0.016115	Area (m2)		2.58	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	4.43	Top Width (m)		4.43	
Vel Total (m/s)	2.38	Avg. Vel. (m/s)		2.38	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	48.3	Conv. (m3/s)		48.3	
Length Wtd. (m)	15.30	Wetted Per. (m)		5.30	
Min Ch El (m)	498.69	Shear (N/m2)		76.84	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		182.77	
Frctn Loss (m)	0.25	Cum Volume (1000 m3)	0.01	1.16	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.10	1.17	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19 Profile: TR 100

E.G. Elev (m)	499.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.34	Wt. n-Val.		0.033	
W.S. Elev (m)	499.46	Reach Len. (m)	15.00	15.30	15.70
Crit W.S. (m)	499.46	Flow Area (m2)		3.06	
E.G. Slope (m/m)	0.015918	Area (m2)		3.06	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	4.50	Top Width (m)		4.50	
Vel Total (m/s)	2.57	Avg. Vel. (m/s)		2.57	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	62.4	Conv. (m3/s)		62.4	
Length Wtd. (m)	15.30	Wetted Per. (m)		5.53	
Min Ch El (m)	498.69	Shear (N/m2)		86.23	
Alpha	1.00	Stream Power (N/m s)		221.95	
Frctn Loss (m)	0.24	Cum Volume (1000 m3)	0.13	1.30	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.53	1.20	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19 Profile: TR 200

E.G. Elev (m)	499.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.36	Wt. n-Val.		0.033	
W.S. Elev (m)	499.51	Reach Len. (m)	15.00	15.30	15.70
Crit W.S. (m)	499.51	Flow Area (m2)		3.25	
E.G. Slope (m/m)	0.015853	Area (m2)		3.25	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	4.54	Top Width (m)		4.54	
Vel Total (m/s)	2.65	Avg. Vel. (m/s)		2.65	
Max Chl Dpth (m)	0.82	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	68.5	Conv. (m3/s)		68.5	
Length Wtd. (m)	15.30	Wetted Per. (m)		5.61	
Min Ch El (m)	498.69	Shear (N/m2)		90.06	
Alpha	1.00	Stream Power (N/m s)		238.80	
Frctn Loss (m)	0.24	Cum Volume (1000 m3)	0.14	1.35	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.54	1.19	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 19 Profile: TR 500

E.G. Elev (m)	500.94	Element	Left OB	Channel	Right OB
Vel Head (m)	1.80	Wt. n-Val.		0.033	
W.S. Elev (m)	499.13	Reach Len. (m)	15.00	15.30	15.70
Crit W.S. (m)	499.56	Flow Area (m2)		1.61	
E.G. Slope (m/m)	0.165877	Area (m2)		1.61	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	4.26	Top Width (m)		4.26	
Vel Total (m/s)	5.95	Avg. Vel. (m/s)		5.95	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	23.5	Conv. (m3/s)		23.5	
Length Wtd. (m)	15.30	Wetted Per. (m)		4.82	
Min Ch El (m)	498.69	Shear (N/m2)		544.40	
Alpha	1.00	Stream Power (N/m s)		3238.72	
Frctn Loss (m)	0.34	Cum Volume (1000 m3)	0.20	1.40	
C & E Loss (m)	0.17	Cum SA (1000 m2)	0.65	1.21	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 18 Profile: TR 20

E.G. Elev (m)	499.22	Element	Left OB	Channel	Right OB
Vel Head (m)	0.67	Wt. n-Val.		0.033	
W.S. Elev (m)	498.55	Reach Len. (m)	16.20	16.20	16.20
Crit W.S. (m)	498.75	Flow Area (m2)		1.69	
E.G. Slope (m/m)	0.042445	Area (m2)		1.69	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	3.24	Top Width (m)		3.24	
Vel Total (m/s)	3.63	Avg. Vel. (m/s)		3.63	
Max Chl Dpth (m)	0.65	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	29.8	Conv. (m3/s)		29.8	
Length Wtd. (m)	16.20	Wetted Per. (m)		3.81	
Min Ch El (m)	497.90	Shear (N/m2)		184.59	
Alpha	1.00	Stream Power (N/m s)		670.18	
Frctn Loss (m)	0.38	Cum Volume (1000 m3)	0.01	1.13	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.10	1.11	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 18 Profile: TR 100

E.G. Elev (m)	499.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.73	Wt. n-Val.		0.033	
W.S. Elev (m)	498.67	Reach Len. (m)	16.20	16.20	16.20
Crit W.S. (m)	498.88	Flow Area (m2)		2.08	
E.G. Slope (m/m)	0.038595	Area (m2)		2.08	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	3.42	Top Width (m)		3.42	
Vel Total (m/s)	3.78	Avg. Vel. (m/s)		3.78	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	40.1	Conv. (m3/s)		40.1	
Length Wtd. (m)	16.20	Wetted Per. (m)		4.10	
Min Ch El (m)	497.90	Shear (N/m2)		191.87	
Alpha	1.00	Stream Power (N/m s)		726.21	
Frctn Loss (m)	0.37	Cum Volume (1000 m3)	0.13	1.26	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.53	1.13	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 18 Profile: TR 200

E.G. Elev (m)	499.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.76	Wt. n-Val.		0.033	
W.S. Elev (m)	498.71	Reach Len. (m)	16.20	16.20	16.20
Crit W.S. (m)	498.94	Flow Area (m2)		2.23	
E.G. Slope (m/m)	0.037915	Area (m2)		2.23	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	3.48	Top Width (m)		3.48	
Vel Total (m/s)	3.86	Avg. Vel. (m/s)		3.86	
Max Chl Dpth (m)	0.81	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	44.3	Conv. (m3/s)		44.3	
Length Wtd. (m)	16.20	Wetted Per. (m)		4.21	
Min Ch El (m)	497.90	Shear (N/m2)		196.98	
Alpha	1.00	Stream Power (N/m s)		760.97	
Frctn Loss (m)	0.36	Cum Volume (1000 m3)	0.14	1.31	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.54	1.13	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 18 Profile: TR 500

E.G. Elev (m)	499.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.81	Wt. n-Val.		0.033	
W.S. Elev (m)	498.76	Reach Len. (m)	16.20	16.20	16.20
Crit W.S. (m)	499.00	Flow Area (m2)		2.40	
E.G. Slope (m/m)	0.038273	Area (m2)		2.40	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 18 Profile: TR 500 (Continued)

Top Width (m)	3.55	Top Width (m)		3.55	
Vel Total (m/s)	4.00	Avg. Vel. (m/s)		4.00	
Max Chl Dpth (m)	0.86	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	49.0	Conv. (m3/s)		49.0	
Length Wtd. (m)	16.20	Wetted Per. (m)		4.33	
Min Ch El (m)	497.90	Shear (N/m2)		207.88	
Alpha	1.00	Stream Power (N/m s)		831.18	
Frctn Loss (m)	1.07	Cum Volume (1000 m3)	0.20	1.37	
C & E Loss (m)	0.30	Cum SA (1000 m2)	0.65	1.15	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 17 Profile: TR 20

E.G. Elev (m)	498.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	498.38	Reach Len. (m)	1.67	1.67	1.67
Crit W.S. (m)	497.88	Flow Area (m2)	0.03	3.32	
E.G. Slope (m/m)	0.001648	Area (m2)	0.03	3.32	
Q Total (m3/s)	6.13	Flow (m3/s)	0.00	6.13	
Top Width (m)	3.27	Top Width (m)	0.75	2.52	
Vel Total (m/s)	1.83	Avg. Vel. (m/s)	0.08	1.84	
Max Chl Dpth (m)	1.44	Hydr. Depth (m)	0.04	1.32	
Conv. Total (m3/s)	151.0	Conv. (m3/s)	0.1	151.0	
Length Wtd. (m)	1.67	Wetted Per. (m)	0.75	4.90	
Min Ch El (m)	496.93	Shear (N/m2)	0.67	10.96	
Alpha	1.02	Stream Power (N/m s)	0.05	20.21	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	1.09	
C & E Loss (m)		Cum SA (1000 m2)	0.09	1.06	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 17 Profile: TR 100

E.G. Elev (m)	498.90	Element	Left OB	Channel	Right OB
Vel Head (m)	1.23	Wt. n-Val.		0.017	
W.S. Elev (m)	497.67	Reach Len. (m)	1.67	1.67	1.67
Crit W.S. (m)	498.04	Flow Area (m2)		1.60	
E.G. Slope (m/m)	0.020260	Area (m2)		1.60	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.33	Top Width (m)		2.33	
Vel Total (m/s)	4.92	Avg. Vel. (m/s)		4.92	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.69	
Conv. Total (m3/s)	55.3	Conv. (m3/s)		55.3	
Length Wtd. (m)	1.67	Wetted Per. (m)		3.55	
Min Ch El (m)	496.93	Shear (N/m2)		89.54	
Alpha	1.00	Stream Power (N/m s)		440.67	
Frctn Loss (m)	0.44	Cum Volume (1000 m3)	0.13	1.23	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.53	1.09	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 17 Profile: TR 200

E.G. Elev (m)	498.99	Element	Left OB	Channel	Right OB
Vel Head (m)	1.27	Wt. n-Val.		0.017	
W.S. Elev (m)	497.72	Reach Len. (m)	1.67	1.67	1.67
Crit W.S. (m)	498.11	Flow Area (m2)		1.73	
E.G. Slope (m/m)	0.019587	Area (m2)		1.73	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.34	Top Width (m)		2.34	
Vel Total (m/s)	4.99	Avg. Vel. (m/s)		4.99	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.74	
Conv. Total (m3/s)	61.6	Conv. (m3/s)		61.6	
Length Wtd. (m)	1.67	Wetted Per. (m)		3.66	
Min Ch El (m)	496.93	Shear (N/m2)		90.67	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 17 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		452.50	
Frctn Loss (m)	0.43	Cum Volume (1000 m3)	0.14	1.28	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.54	1.08	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 17 Profile: TR 500

E.G. Elev (m)	499.10	Element	Left OB	Channel	Right OB
Vel Head (m)	1.31	Wt. n-Val.		0.017	
W.S. Elev (m)	497.79	Reach Len. (m)	1.67	1.67	1.67
Crit W.S. (m)	498.19	Flow Area (m2)		1.89	
E.G. Slope (m/m)	0.018895	Area (m2)		1.89	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	2.36	Top Width (m)		2.36	
Vel Total (m/s)	5.08	Avg. Vel. (m/s)		5.08	
Max Chl Dpth (m)	0.86	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	69.8	Conv. (m3/s)		69.8	
Length Wtd. (m)	1.67	Wetted Per. (m)		3.80	
Min Ch El (m)	496.93	Shear (N/m2)		92.16	
Alpha	1.00	Stream Power (N/m s)		467.83	
Frctn Loss (m)	0.42	Cum Volume (1000 m3)	0.20	1.34	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.65	1.10	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16.5 BR U Profile: TR 20

E.G. Elev (m)	498.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.			
W.S. Elev (m)	498.38	Reach Len. (m)	30.95	30.95	30.95
Crit W.S. (m)	497.88	Flow Area (m2)	0.03	2.70	
E.G. Slope (m/m)		Area (m2)	0.03	2.70	
Q Total (m3/s)	6.13	Flow (m3/s)	0.32	5.79	
Top Width (m)	3.27	Top Width (m)	0.75	2.52	
Vel Total (m/s)	2.25	Avg. Vel. (m/s)	12.68	2.14	0.30
Max Chl Dpth (m)	1.44	Hydr. Depth (m)	0.03	1.07	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	30.95	Wetted Per. (m)	0.75	9.40	
Min Ch El (m)	496.93	Shear (N/m2)			
Alpha	1.02	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	1.08	
C & E Loss (m)		Cum SA (1000 m2)	0.09	1.06	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16.5 BR U Profile: TR 100

E.G. Elev (m)	498.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	498.43	Reach Len. (m)	30.95	30.95	30.95
Crit W.S. (m)	498.04	Flow Area (m2)	0.07	2.83	
E.G. Slope (m/m)	0.011092	Area (m2)	0.07	2.83	
Q Total (m3/s)	7.87	Flow (m3/s)	0.02	7.85	
Top Width (m)	3.72	Top Width (m)	1.19	2.52	
Vel Total (m/s)	2.71	Avg. Vel. (m/s)	0.27	2.77	
Max Chl Dpth (m)	1.49	Hydr. Depth (m)	0.06	1.12	
Conv. Total (m3/s)	74.7	Conv. (m3/s)	0.2	74.5	
Length Wtd. (m)	30.95	Wetted Per. (m)	1.20	9.45	
Min Ch El (m)	496.93	Shear (N/m2)	6.73	32.58	
Alpha	1.05	Stream Power (N/m s)	1.85	90.37	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.13	1.23	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.53	1.08	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16.5 BR U Profile: TR 200

E.G. Elev (m)	498.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.47	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	498.43	Reach Len. (m)	30.95	30.95	30.95
Crit W.S. (m)	498.38	Flow Area (m2)	0.08	2.84	
E.G. Slope (m/m)	0.013167	Area (m2)	0.08	2.84	
Q Total (m3/s)	8.62	Flow (m3/s)	0.02	8.60	
Top Width (m)	3.75	Top Width (m)	1.23	2.52	
Vel Total (m/s)	2.95	Avg. Vel. (m/s)	0.31	3.03	
Max Chl Dpth (m)	1.50	Hydr. Depth (m)	0.06	1.12	
Conv. Total (m3/s)	75.1	Conv. (m3/s)	0.2	74.9	
Length Wtd. (m)	30.95	Wetted Per. (m)	1.23	9.45	
Min Ch El (m)	496.93	Shear (N/m2)	8.24	38.79	
Alpha	1.05	Stream Power (N/m s)	2.52	117.43	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.14	1.28	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.54	1.08	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16.5 BR U Profile: TR 500

E.G. Elev (m)	499.05	Element	Left OB	Channel	Right OB
Vel Head (m)	1.24	Wt. n-Val.		0.017	
W.S. Elev (m)	497.82	Reach Len. (m)	30.95	30.95	30.95
Crit W.S. (m)	498.64	Flow Area (m2)		1.95	
E.G. Slope (m/m)	0.017379	Area (m2)		1.95	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	2.37	Top Width (m)		2.37	
Vel Total (m/s)	4.92	Avg. Vel. (m/s)		4.92	
Max Chl Dpth (m)	0.88	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	72.8	Conv. (m3/s)		72.8	
Length Wtd. (m)	30.95	Wetted Per. (m)		3.85	
Min Ch El (m)	496.93	Shear (N/m2)		86.25	
Alpha	1.00	Stream Power (N/m s)		424.73	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.20	1.33	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.65	1.09	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16.5 BR D Profile: TR 20

E.G. Elev (m)	497.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.			
W.S. Elev (m)	497.65	Reach Len. (m)	1.08	1.08	1.08
Crit W.S. (m)	496.89	Flow Area (m2)	0.08	3.62	
E.G. Slope (m/m)		Area (m2)	0.13	3.63	
Q Total (m3/s)	6.13	Flow (m3/s)	0.33	5.78	
Top Width (m)	3.53	Top Width (m)	0.62	2.91	
Vel Total (m/s)	1.66	Avg. Vel. (m/s)	4.34	1.60	0.30
Max Chl Dpth (m)	1.60	Hydr. Depth (m)	0.23	1.26	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	1.08	Wetted Per. (m)	1.02	10.47	
Min Ch El (m)	496.04	Shear (N/m2)			
Alpha	1.04	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.99	
C & E Loss (m)		Cum SA (1000 m2)	0.07	0.97	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16.5 BR D Profile: TR 100

E.G. Elev (m)	498.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	497.82	Reach Len. (m)	1.08	1.08	1.08
Crit W.S. (m)	497.04	Flow Area (m2)	0.13	4.13	
E.G. Slope (m/m)	0.003608	Area (m2)	0.24	4.13	
Q Total (m3/s)	7.87	Flow (m3/s)	0.03	7.83	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16.5 BR D Profile: TR 100 (Continued)

Top Width (m)	3.53	Top Width (m)	0.62	2.91	
Vel Total (m/s)	1.85	Avg. Vel. (m/s)	0.26	1.90	
Max Chl Dpth (m)	1.78	Hydr. Depth (m)	0.40	1.43	
Conv. Total (m3/s)	131.0	Conv. (m3/s)	0.6	130.4	
Length Wtd. (m)	1.08	Wetted Per. (m)	1.02	10.47	
Min Ch El (m)	496.04	Shear (N/m2)	4.68	13.94	
Alpha	1.05	Stream Power (N/m s)	1.22	26.47	
Frctn Loss (m)	0.70	Cum Volume (1000 m3)	0.12	1.12	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.50	1.00	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16.5 BR D Profile: TR 200

E.G. Elev (m)	498.09	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	497.89	Reach Len. (m)	1.08	1.08	1.08
Crit W.S. (m)	497.11	Flow Area (m2)	0.16	4.32	
E.G. Slope (m/m)	0.003713	Area (m2)	0.28	4.33	
Q Total (m3/s)	8.62	Flow (m3/s)	0.05	8.57	
Top Width (m)	3.53	Top Width (m)	0.62	2.91	
Vel Total (m/s)	1.93	Avg. Vel. (m/s)	0.29	1.99	
Max Chl Dpth (m)	1.84	Hydr. Depth (m)	0.47	1.50	
Conv. Total (m3/s)	141.5	Conv. (m3/s)	0.8	140.7	
Length Wtd. (m)	1.08	Wetted Per. (m)	1.02	10.47	
Min Ch El (m)	496.04	Shear (N/m2)	5.62	15.02	
Alpha	1.06	Stream Power (N/m s)	1.64	29.82	
Frctn Loss (m)	0.68	Cum Volume (1000 m3)	0.14	1.16	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.51	0.99	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16.5 BR D Profile: TR 500

E.G. Elev (m)	498.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	497.97	Reach Len. (m)	1.08	1.08	1.08
Crit W.S. (m)	497.18	Flow Area (m2)	0.18	4.56	
E.G. Slope (m/m)	0.003828	Area (m2)	0.33	4.57	
Q Total (m3/s)	9.59	Flow (m3/s)	0.06	9.53	
Top Width (m)	3.53	Top Width (m)	0.62	2.91	
Vel Total (m/s)	2.02	Avg. Vel. (m/s)	0.33	2.09	
Max Chl Dpth (m)	1.93	Hydr. Depth (m)	0.55	1.58	
Conv. Total (m3/s)	155.0	Conv. (m3/s)	1.0	154.0	
Length Wtd. (m)	1.08	Wetted Per. (m)	1.02	10.47	
Min Ch El (m)	496.04	Shear (N/m2)	6.83	16.34	
Alpha	1.06	Stream Power (N/m s)	2.26	34.16	
Frctn Loss (m)	0.66	Cum Volume (1000 m3)	0.20	1.23	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.64	1.01	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16 Profile: TR 20

E.G. Elev (m)	497.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.40	Wt. n-Val.		0.017	
W.S. Elev (m)	496.90	Reach Len. (m)	24.20	24.20	24.20
Crit W.S. (m)	496.90	Flow Area (m2)		2.20	
E.G. Slope (m/m)	0.005215	Area (m2)		2.20	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	2.77	Top Width (m)		2.77	
Vel Total (m/s)	2.79	Avg. Vel. (m/s)		2.79	
Max Chl Dpth (m)	0.85	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	84.9	Conv. (m3/s)		84.9	
Length Wtd. (m)	24.20	Wetted Per. (m)		4.14	
Min Ch El (m)	496.04	Shear (N/m2)		27.18	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		75.74	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)	0.01	0.98	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.07	0.97	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16 Profile: TR 100

E.G. Elev (m)	497.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.46	Wt. n-Val.		0.017	
W.S. Elev (m)	497.04	Reach Len. (m)	24.20	24.20	24.20
Crit W.S. (m)	497.04	Flow Area (m2)		2.61	
E.G. Slope (m/m)	0.005325	Area (m2)		2.61	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.84	Top Width (m)		2.84	
Vel Total (m/s)	3.01	Avg. Vel. (m/s)		3.01	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.92	
Conv. Total (m3/s)	107.8	Conv. (m3/s)		107.8	
Length Wtd. (m)	24.20	Wetted Per. (m)		4.44	
Min Ch El (m)	496.04	Shear (N/m2)		30.71	
Alpha	1.00	Stream Power (N/m s)		92.53	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.12	1.12	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.50	1.00	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16 Profile: TR 200

E.G. Elev (m)	497.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.		0.017	
W.S. Elev (m)	497.11	Reach Len. (m)	24.20	24.20	24.20
Crit W.S. (m)	497.10	Flow Area (m2)		2.79	
E.G. Slope (m/m)	0.005344	Area (m2)		2.79	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.86	Top Width (m)		2.86	
Vel Total (m/s)	3.09	Avg. Vel. (m/s)		3.09	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.97	
Conv. Total (m3/s)	117.9	Conv. (m3/s)		117.9	
Length Wtd. (m)	24.20	Wetted Per. (m)		4.57	
Min Ch El (m)	496.04	Shear (N/m2)		31.98	
Alpha	1.00	Stream Power (N/m s)		98.94	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.14	1.16	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.51	0.99	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 16 Profile: TR 500

E.G. Elev (m)	497.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.52	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	497.18	Reach Len. (m)	24.20	24.20	24.20
Crit W.S. (m)	497.18	Flow Area (m2)	0.01	3.01	
E.G. Slope (m/m)	0.005288	Area (m2)	0.01	3.01	
Q Total (m3/s)	9.59	Flow (m3/s)	0.00	9.59	
Top Width (m)	3.10	Top Width (m)	0.22	2.88	
Vel Total (m/s)	3.18	Avg. Vel. (m/s)	0.11	3.19	
Max Chl Dpth (m)	1.14	Hydr. Depth (m)	0.03	1.04	
Conv. Total (m3/s)	131.9	Conv. (m3/s)	0.0	131.9	
Length Wtd. (m)	24.20	Wetted Per. (m)	0.23	4.67	
Min Ch El (m)	496.04	Shear (N/m2)	1.33	33.40	
Alpha	1.00	Stream Power (N/m s)	0.14	106.53	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.20	1.23	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.64	1.01	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 15 Profile: TR 20

E.G. Elev (m)	496.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.89	Wt. n-Val.		0.033	
W.S. Elev (m)	496.04	Reach Len. (m)	32.90	32.90	32.90
Crit W.S. (m)	496.32	Flow Area (m2)		1.46	
E.G. Slope (m/m)	0.060814	Area (m2)		1.46	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	2.81	Top Width (m)		2.81	
Vel Total (m/s)	4.18	Avg. Vel. (m/s)		4.18	
Max Chl Dpth (m)	0.65	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	24.9	Conv. (m3/s)		24.9	
Length Wtd. (m)	32.90	Wetted Per. (m)		3.50	
Min Ch El (m)	495.39	Shear (N/m2)		249.94	
Alpha	1.00	Stream Power (N/m s)		1045.98	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	0.01	0.94	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.07	0.90	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 15 Profile: TR 100

E.G. Elev (m)	497.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.99	Wt. n-Val.		0.033	
W.S. Elev (m)	496.15	Reach Len. (m)	32.90	32.90	32.90
Crit W.S. (m)	496.58	Flow Area (m2)		1.78	
E.G. Slope (m/m)	0.056888	Area (m2)		1.78	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.89	Top Width (m)		2.89	
Vel Total (m/s)	4.42	Avg. Vel. (m/s)		4.42	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.62	
Conv. Total (m3/s)	33.0	Conv. (m3/s)		33.0	
Length Wtd. (m)	32.90	Wetted Per. (m)		3.73	
Min Ch El (m)	495.39	Shear (N/m2)		266.36	
Alpha	1.00	Stream Power (N/m s)		1176.04	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	0.12	1.06	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.50	0.93	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 15 Profile: TR 200

E.G. Elev (m)	497.23	Element	Left OB	Channel	Right OB
Vel Head (m)	1.03	Wt. n-Val.		0.033	
W.S. Elev (m)	496.20	Reach Len. (m)	32.90	32.90	32.90
Crit W.S. (m)	496.62	Flow Area (m2)		1.91	
E.G. Slope (m/m)	0.055820	Area (m2)		1.91	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.92	Top Width (m)		2.92	
Vel Total (m/s)	4.51	Avg. Vel. (m/s)		4.51	
Max Chl Dpth (m)	0.81	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	36.5	Conv. (m3/s)		36.5	
Length Wtd. (m)	32.90	Wetted Per. (m)		3.83	
Min Ch El (m)	495.39	Shear (N/m2)		273.44	
Alpha	1.00	Stream Power (N/m s)		1232.49	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	0.14	1.10	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.51	0.92	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 15 Profile: TR 500

E.G. Elev (m)	497.34	Element	Left OB	Channel	Right OB
Vel Head (m)	1.09	Wt. n-Val.		0.033	
W.S. Elev (m)	496.25	Reach Len. (m)	32.90	32.90	32.90
Crit W.S. (m)	496.67	Flow Area (m2)		2.07	
E.G. Slope (m/m)	0.054986	Area (m2)		2.07	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 15 Profile: TR 500 (Continued)

Top Width (m)	2.96	Top Width (m)		2.96	
Vel Total (m/s)	4.63	Avg. Vel. (m/s)		4.63	
Max Chl Dpth (m)	0.86	Hydr. Depth (m)		0.70	
Conv. Total (m3/s)	40.9	Conv. (m3/s)		40.9	
Length Wtd. (m)	32.90	Wetted Per. (m)		3.94	
Min Ch El (m)	495.39	Shear (N/m2)		283.34	
Alpha	1.00	Stream Power (N/m s)		1311.04	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	0.20	1.17	
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.63	0.94	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 14 Profile: TR 20

E.G. Elev (m)	495.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.		0.033	
W.S. Elev (m)	495.25	Reach Len. (m)	0.56	0.56	0.56
Crit W.S. (m)	495.07	Flow Area (m2)		2.66	
E.G. Slope (m/m)	0.010248	Area (m2)		2.67	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	2.74	Top Width (m)		2.74	
Vel Total (m/s)	2.30	Avg. Vel. (m/s)		2.30	
Max Chl Dpth (m)	1.09	Hydr. Depth (m)		0.99	
Conv. Total (m3/s)	60.6	Conv. (m3/s)		60.6	
Length Wtd. (m)	0.56	Wetted Per. (m)		4.10	
Min Ch El (m)	494.15	Shear (N/m2)		65.28	
Alpha	1.00	Stream Power (N/m s)		150.19	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.87	
C & E Loss (m)		Cum SA (1000 m2)	0.07	0.81	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 14 Profile: TR 100

E.G. Elev (m)	495.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.67	Reach Len. (m)	0.56	0.56	0.56
Crit W.S. (m)	495.21	Flow Area (m2)	1.85	3.83	
E.G. Slope (m/m)	0.005160	Area (m2)	1.85	3.83	
Q Total (m3/s)	7.87	Flow (m3/s)	0.89	6.97	
Top Width (m)	9.67	Top Width (m)	6.86	2.81	
Vel Total (m/s)	1.38	Avg. Vel. (m/s)	0.48	1.82	
Max Chl Dpth (m)	1.51	Hydr. Depth (m)	0.27	1.36	
Conv. Total (m3/s)	109.5	Conv. (m3/s)	12.5	97.1	
Length Wtd. (m)	0.56	Wetted Per. (m)	7.18	5.02	
Min Ch El (m)	494.15	Shear (N/m2)	13.02	38.66	
Alpha	1.54	Stream Power (N/m s)	6.30	70.32	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.09	0.97	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.38	0.83	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 14 Profile: TR 200

E.G. Elev (m)	495.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.73	Reach Len. (m)	0.56	0.56	0.56
Crit W.S. (m)	495.28	Flow Area (m2)	2.26	4.00	
E.G. Slope (m/m)	0.005094	Area (m2)	2.26	4.00	
Q Total (m3/s)	8.62	Flow (m3/s)	1.23	7.39	
Top Width (m)	9.67	Top Width (m)	6.86	2.82	
Vel Total (m/s)	1.38	Avg. Vel. (m/s)	0.55	1.85	
Max Chl Dpth (m)	1.57	Hydr. Depth (m)	0.33	1.42	
Conv. Total (m3/s)	120.8	Conv. (m3/s)	17.3	103.5	
Length Wtd. (m)	0.56	Wetted Per. (m)	7.24	5.08	
Min Ch El (m)	494.15	Shear (N/m2)	15.57	39.37	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 14 Profile: TR 200 (Continued)

Alpha	1.56	Stream Power (N/m s)	8.52	72.65	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.10	1.01	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.40	0.83	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 14 Profile: TR 500

E.G. Elev (m)	495.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.77	Reach Len. (m)	0.56	0.56	0.56
Crit W.S. (m)	495.56	Flow Area (m2)	2.53	4.11	
E.G. Slope (m/m)	0.005562	Area (m2)	2.53	4.11	
Q Total (m3/s)	9.59	Flow (m3/s)	1.55	8.04	
Top Width (m)	9.68	Top Width (m)	6.86	2.82	
Vel Total (m/s)	1.44	Avg. Vel. (m/s)	0.61	1.95	
Max Chl Dpth (m)	1.61	Hydr. Depth (m)	0.37	1.46	
Conv. Total (m3/s)	128.6	Conv. (m3/s)	20.8	107.8	
Length Wtd. (m)	0.56	Wetted Per. (m)	7.28	5.12	
Min Ch El (m)	494.15	Shear (N/m2)	18.94	43.84	
Alpha	1.56	Stream Power (N/m s)	11.64	85.64	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.16	1.06	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.52	0.84	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13.5 BR U Profile: TR 20

E.G. Elev (m)	495.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.			
W.S. Elev (m)	495.25	Reach Len. (m)	9.16	9.16	9.16
Crit W.S. (m)	495.06	Flow Area (m2)		2.43	
E.G. Slope (m/m)		Area (m2)		2.43	
Q Total (m3/s)	6.13	Flow (m3/s)		5.72	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.53	Avg. Vel. (m/s)	0.30	2.36	0.30
Max Chl Dpth (m)	1.09	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	9.16	Wetted Per. (m)		6.80	
Min Ch El (m)	494.15	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.87	
C & E Loss (m)		Cum SA (1000 m2)	0.07	0.81	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13.5 BR U Profile: TR 100

E.G. Elev (m)	495.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.61	Reach Len. (m)	9.16	9.16	9.16
Crit W.S. (m)	495.59	Flow Area (m2)	1.44	3.12	
E.G. Slope (m/m)	0.023256	Area (m2)	1.44	3.12	
Q Total (m3/s)	7.87	Flow (m3/s)	1.26	6.61	
Top Width (m)	9.67	Top Width (m)	6.86	2.81	
Vel Total (m/s)	1.73	Avg. Vel. (m/s)	0.88	2.12	
Max Chl Dpth (m)	1.45	Hydr. Depth (m)	0.21	1.11	
Conv. Total (m3/s)	51.6	Conv. (m3/s)	8.3	43.3	
Length Wtd. (m)	9.16	Wetted Per. (m)	7.12	10.03	
Min Ch El (m)	494.15	Shear (N/m2)	46.15	70.87	
Alpha	1.31	Stream Power (N/m s)	40.43	150.26	
Frctn Loss (m)	0.25	Cum Volume (1000 m3)	0.09	0.97	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.38	0.83	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13.5 BR U Profile: TR 200

E.G. Elev (m)	495.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.73	Reach Len. (m)	9.16	9.16	9.16
Crit W.S. (m)	495.62	Flow Area (m2)	2.25	3.45	
E.G. Slope (m/m)	0.015969	Area (m2)	2.25	3.45	
Q Total (m3/s)	8.62	Flow (m3/s)	2.18	6.44	
Top Width (m)	9.67	Top Width (m)	6.86	2.82	
Vel Total (m/s)	1.51	Avg. Vel. (m/s)	0.97	1.87	
Max Chl Dpth (m)	1.57	Hydr. Depth (m)	0.33	1.23	
Conv. Total (m3/s)	68.2	Conv. (m3/s)	17.3	50.9	
Length Wtd. (m)	9.16	Wetted Per. (m)	7.24	10.15	
Min Ch El (m)	494.15	Shear (N/m2)	48.79	53.25	
Alpha	1.24	Stream Power (N/m s)	47.23	99.35	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)	0.10	1.00	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.40	0.82	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13.5 BR U Profile: TR 500

E.G. Elev (m)	495.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.77	Reach Len. (m)	9.16	9.16	9.16
Crit W.S. (m)	495.66	Flow Area (m2)	2.56	3.58	
E.G. Slope (m/m)	0.016282	Area (m2)	2.56	3.58	
Q Total (m3/s)	9.59	Flow (m3/s)	2.71	6.88	
Top Width (m)	9.68	Top Width (m)	6.86	2.82	
Vel Total (m/s)	1.56	Avg. Vel. (m/s)	1.06	1.92	
Max Chl Dpth (m)	1.62	Hydr. Depth (m)	0.37	1.27	
Conv. Total (m3/s)	75.2	Conv. (m3/s)	21.3	53.9	
Length Wtd. (m)	9.16	Wetted Per. (m)	7.28	10.19	
Min Ch El (m)	494.15	Shear (N/m2)	56.14	56.02	
Alpha	1.22	Stream Power (N/m s)	59.48	107.77	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)	0.15	1.06	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.52	0.84	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13.5 BR D Profile: TR 20

E.G. Elev (m)	495.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.			
W.S. Elev (m)	495.25	Reach Len. (m)	0.38	0.38	0.38
Crit W.S. (m)	494.88	Flow Area (m2)		2.76	
E.G. Slope (m/m)		Area (m2)		2.76	
Q Total (m3/s)	6.13	Flow (m3/s)		5.72	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.23	Avg. Vel. (m/s)	0.30	2.08	0.30
Max Chl Dpth (m)	1.24	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.38	Wetted Per. (m)		7.43	
Min Ch El (m)	494.01	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.84	
C & E Loss (m)		Cum SA (1000 m2)	0.07	0.81	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13.5 BR D Profile: TR 100

E.G. Elev (m)	495.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.42	Wt. n-Val.		0.033	
W.S. Elev (m)	495.12	Reach Len. (m)	0.38	0.38	0.38
Crit W.S. (m)	495.03	Flow Area (m2)		2.76	
E.G. Slope (m/m)	0.033349	Area (m2)		2.76	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13.5 BR D Profile: TR 100 (Continued)

Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.86	Avg. Vel. (m/s)		2.86	
Max Chl Dpth (m)	1.11	Hydr. Depth (m)			
Conv. Total (m3/s)	43.1	Conv. (m3/s)		43.1	
Length Wtd. (m)	0.38	Wetted Per. (m)		7.43	
Min Ch El (m)	494.01	Shear (N/m2)		121.26	
Alpha	1.00	Stream Power (N/m s)		346.34	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.08	0.94	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.35	0.82	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13.5 BR D Profile: TR 200

E.G. Elev (m)	495.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.46	Reach Len. (m)	0.38	0.38	0.38
Crit W.S. (m)	495.46	Flow Area (m2)	1.43	3.33	
E.G. Slope (m/m)	0.025087	Area (m2)	1.43	3.33	
Q Total (m3/s)	8.62	Flow (m3/s)	1.24	7.38	
Top Width (m)	10.40	Top Width (m)	7.39	3.00	
Vel Total (m/s)	1.81	Avg. Vel. (m/s)	0.87	2.22	
Max Chl Dpth (m)	1.45	Hydr. Depth (m)	0.19	1.11	
Conv. Total (m3/s)	54.4	Conv. (m3/s)	7.8	46.6	
Length Wtd. (m)	0.38	Wetted Per. (m)	7.58	10.62	
Min Ch El (m)	494.01	Shear (N/m2)	46.26	77.17	
Alpha	1.31	Stream Power (N/m s)	40.08	170.98	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.08	0.97	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.33	0.80	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13.5 BR D Profile: TR 500

E.G. Elev (m)	495.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.50	Reach Len. (m)	0.38	0.38	0.38
Crit W.S. (m)	495.50	Flow Area (m2)	1.72	3.45	
E.G. Slope (m/m)	0.025546	Area (m2)	1.72	3.45	
Q Total (m3/s)	9.59	Flow (m3/s)	1.70	7.89	
Top Width (m)	10.40	Top Width (m)	7.39	3.01	
Vel Total (m/s)	1.85	Avg. Vel. (m/s)	0.99	2.28	
Max Chl Dpth (m)	1.50	Hydr. Depth (m)	0.23	1.15	
Conv. Total (m3/s)	60.0	Conv. (m3/s)	10.7	49.3	
Length Wtd. (m)	0.38	Wetted Per. (m)	7.62	10.66	
Min Ch El (m)	494.01	Shear (N/m2)	56.63	81.12	
Alpha	1.30	Stream Power (N/m s)	55.98	185.27	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.14	1.03	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.45	0.82	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13 Profile: TR 20

E.G. Elev (m)	495.35	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.033	
W.S. Elev (m)	495.11	Reach Len. (m)	7.10	7.10	7.10
Crit W.S. (m)	494.88	Flow Area (m2)		2.88	
E.G. Slope (m/m)	0.009019	Area (m2)		2.88	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	2.93	Top Width (m)		2.93	
Vel Total (m/s)	2.13	Avg. Vel. (m/s)		2.13	
Max Chl Dpth (m)	1.11	Hydr. Depth (m)		0.99	
Conv. Total (m3/s)	64.6	Conv. (m3/s)		64.6	
Length Wtd. (m)	7.10	Wetted Per. (m)		4.53	
Min Ch El (m)	494.01	Shear (N/m2)		56.28	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		119.81	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.01	0.84	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.07	0.81	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13 Profile: TR 100

E.G. Elev (m)	495.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.		0.033	
W.S. Elev (m)	495.15	Reach Len. (m)	7.10	7.10	7.10
Crit W.S. (m)	495.03	Flow Area (m2)		2.99	
E.G. Slope (m/m)	0.013089	Area (m2)		2.99	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.95	Top Width (m)		2.95	
Vel Total (m/s)	2.63	Avg. Vel. (m/s)		2.63	
Max Chl Dpth (m)	1.14	Hydr. Depth (m)		1.03	
Conv. Total (m3/s)	68.8	Conv. (m3/s)		68.8	
Length Wtd. (m)	7.10	Wetted Per. (m)		4.53	
Min Ch El (m)	494.01	Shear (N/m2)		84.84	
Alpha	1.00	Stream Power (N/m s)		223.18	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	0.08	0.94	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.35	0.82	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13 Profile: TR 200

E.G. Elev (m)	495.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.70	Wt. n-Val.		0.033	
W.S. Elev (m)	494.92	Reach Len. (m)	7.10	7.10	7.10
Crit W.S. (m)	495.09	Flow Area (m2)		2.33	
E.G. Slope (m/m)	0.033151	Area (m2)		2.33	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.84	Top Width (m)		2.84	
Vel Total (m/s)	3.70	Avg. Vel. (m/s)		3.70	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	47.3	Conv. (m3/s)		47.3	
Length Wtd. (m)	7.10	Wetted Per. (m)		4.23	
Min Ch El (m)	494.01	Shear (N/m2)		178.75	
Alpha	1.00	Stream Power (N/m s)		661.92	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.08	0.97	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.33	0.80	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 13 Profile: TR 500

E.G. Elev (m)	495.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.		0.033	
W.S. Elev (m)	495.31	Reach Len. (m)	7.10	7.10	7.10
Crit W.S. (m)	495.36	Flow Area (m2)		3.46	
E.G. Slope (m/m)	0.011981	Area (m2)	1.20	3.47	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	10.38	Top Width (m)	7.39	2.98	
Vel Total (m/s)	2.77	Avg. Vel. (m/s)		2.77	
Max Chl Dpth (m)	1.31	Hydr. Depth (m)		1.19	
Conv. Total (m3/s)	87.6	Conv. (m3/s)		87.6	
Length Wtd. (m)	7.10	Wetted Per. (m)		4.53	
Min Ch El (m)	494.01	Shear (N/m2)		89.80	
Alpha	1.00	Stream Power (N/m s)		248.99	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.13	1.03	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.45	0.81	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 12 Profile: TR 20

E.G. Elev (m)	495.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.		0.033	
W.S. Elev (m)	494.95	Reach Len. (m)	5.90	5.90	5.90
Crit W.S. (m)	494.87	Flow Area (m2)		2.50	
E.G. Slope (m/m)	0.013698	Area (m2)		2.50	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	3.04	Top Width (m)		3.04	
Vel Total (m/s)	2.45	Avg. Vel. (m/s)		2.45	
Max Chl Dpth (m)	0.94	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	52.4	Conv. (m3/s)		52.4	
Length Wtd. (m)	5.90	Wetted Per. (m)		4.34	
Min Ch El (m)	494.01	Shear (N/m2)		77.31	
Alpha	1.00	Stream Power (N/m s)		189.71	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	0.01	0.82	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.07	0.79	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 12 Profile: TR 100

E.G. Elev (m)	495.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.18	Reach Len. (m)	5.90	5.90	5.90
Crit W.S. (m)	495.14	Flow Area (m2)	1.74	3.20	
E.G. Slope (m/m)	0.008235	Area (m2)	1.74	3.20	
Q Total (m3/s)	7.87	Flow (m3/s)	0.97	6.90	
Top Width (m)	10.53	Top Width (m)	7.44	3.08	
Vel Total (m/s)	1.59	Avg. Vel. (m/s)	0.56	2.16	
Max Chl Dpth (m)	1.17	Hydr. Depth (m)	0.23	1.04	
Conv. Total (m3/s)	86.7	Conv. (m3/s)	10.7	76.0	
Length Wtd. (m)	5.90	Wetted Per. (m)	7.74	4.59	
Min Ch El (m)	494.01	Shear (N/m2)	18.16	56.16	
Alpha	1.62	Stream Power (N/m s)	10.15	121.20	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.08	0.92	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.32	0.80	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 12 Profile: TR 200

E.G. Elev (m)	495.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.20	Reach Len. (m)	5.90	5.90	5.90
Crit W.S. (m)	495.18	Flow Area (m2)	1.87	3.25	
E.G. Slope (m/m)	0.009156	Area (m2)	1.87	3.25	
Q Total (m3/s)	8.62	Flow (m3/s)	1.16	7.46	
Top Width (m)	10.53	Top Width (m)	7.44	3.09	
Vel Total (m/s)	1.68	Avg. Vel. (m/s)	0.62	2.30	
Max Chl Dpth (m)	1.19	Hydr. Depth (m)	0.25	1.05	
Conv. Total (m3/s)	90.1	Conv. (m3/s)	12.1	78.0	
Length Wtd. (m)	5.90	Wetted Per. (m)	7.76	4.61	
Min Ch El (m)	494.01	Shear (N/m2)	21.67	63.26	
Alpha	1.63	Stream Power (N/m s)	13.40	145.24	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.08	0.95	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.30	0.78	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 12 Profile: TR 500

E.G. Elev (m)	495.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.05	Reach Len. (m)	5.90	5.90	5.90
Crit W.S. (m)	495.23	Flow Area (m2)	0.75	2.78	
E.G. Slope (m/m)	0.022255	Area (m2)	0.75	2.78	
Q Total (m3/s)	9.59	Flow (m3/s)	0.39	9.20	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 12 Profile: TR 500 (Continued)

Top Width (m)	10.50	Top Width (m)	7.44	3.06	
Vel Total (m/s)	2.72	Avg. Vel. (m/s)	0.53	3.30	
Max Chl Dpth (m)	1.04	Hydr. Depth (m)	0.10	0.91	
Conv. Total (m3/s)	64.3	Conv. (m3/s)	2.6	61.6	
Length Wtd. (m)	5.90	Wetted Per. (m)	7.61	4.46	
Min Ch El (m)	494.01	Shear (N/m2)	21.40	136.28	
Alpha	1.42	Stream Power (N/m s)	11.32	450.06	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)	0.13	1.01	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.40	0.79	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 11 Profile: TR 20

E.G. Elev (m)	495.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	494.99	Reach Len. (m)	0.89	0.89	0.89
Crit W.S. (m)	494.79	Flow Area (m2)	1.35	2.92	
E.G. Slope (m/m)	0.007063	Area (m2)	1.35	2.92	
Q Total (m3/s)	6.13	Flow (m3/s)	0.58	5.55	
Top Width (m)	10.78	Top Width (m)	7.53	3.25	
Vel Total (m/s)	1.44	Avg. Vel. (m/s)	0.43	1.90	
Max Chl Dpth (m)	1.13	Hydr. Depth (m)	0.18	0.90	
Conv. Total (m3/s)	72.9	Conv. (m3/s)	6.9	66.0	
Length Wtd. (m)	0.89	Wetted Per. (m)	7.84	4.51	
Min Ch El (m)	493.86	Shear (N/m2)	11.90	44.74	
Alpha	1.59	Stream Power (N/m s)	5.15	85.15	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.81	
C & E Loss (m)		Cum SA (1000 m2)	0.05	0.77	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 11 Profile: TR 100

E.G. Elev (m)	495.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.21	Reach Len. (m)	0.89	0.89	0.89
Crit W.S. (m)	495.03	Flow Area (m2)	2.96	3.62	
E.G. Slope (m/m)	0.004531	Area (m2)	2.96	3.62	
Q Total (m3/s)	7.87	Flow (m3/s)	1.70	6.17	
Top Width (m)	10.82	Top Width (m)	7.53	3.29	
Vel Total (m/s)	1.20	Avg. Vel. (m/s)	0.58	1.71	
Max Chl Dpth (m)	1.35	Hydr. Depth (m)	0.39	1.10	
Conv. Total (m3/s)	116.9	Conv. (m3/s)	25.3	91.6	
Length Wtd. (m)	0.89	Wetted Per. (m)	8.05	4.73	
Min Ch El (m)	493.86	Shear (N/m2)	16.34	33.96	
Alpha	1.64	Stream Power (N/m s)	9.41	57.91	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.06	0.90	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.28	0.78	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 11 Profile: TR 200

E.G. Elev (m)	495.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.23	Reach Len. (m)	0.89	0.89	0.89
Crit W.S. (m)	495.06	Flow Area (m2)	3.12	3.69	
E.G. Slope (m/m)	0.004992	Area (m2)	3.12	3.69	
Q Total (m3/s)	8.62	Flow (m3/s)	1.95	6.67	
Top Width (m)	10.82	Top Width (m)	7.53	3.29	
Vel Total (m/s)	1.27	Avg. Vel. (m/s)	0.63	1.81	
Max Chl Dpth (m)	1.37	Hydr. Depth (m)	0.41	1.12	
Conv. Total (m3/s)	122.0	Conv. (m3/s)	27.7	94.3	
Length Wtd. (m)	0.89	Wetted Per. (m)	8.07	4.75	
Min Ch El (m)	493.86	Shear (N/m2)	18.95	37.98	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 11 Profile: TR 200 (Continued)

Alpha	1.63	Stream Power (N/m s)	11.85	68.65	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.06	0.93	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.26	0.76	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 11 Profile: TR 500

E.G. Elev (m)	495.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.25	Reach Len. (m)	0.89	0.89	0.89
Crit W.S. (m)	495.11	Flow Area (m2)	3.31	3.77	
E.G. Slope (m/m)	0.005626	Area (m2)	3.31	3.77	
Q Total (m3/s)	9.59	Flow (m3/s)	2.28	7.31	
Top Width (m)	10.83	Top Width (m)	7.53	3.30	
Vel Total (m/s)	1.35	Avg. Vel. (m/s)	0.69	1.94	
Max Chl Dpth (m)	1.39	Hydr. Depth (m)	0.44	1.14	
Conv. Total (m3/s)	127.9	Conv. (m3/s)	30.4	97.5	
Length Wtd. (m)	0.89	Wetted Per. (m)	8.10	4.78	
Min Ch El (m)	493.86	Shear (N/m2)	22.55	43.51	
Alpha	1.62	Stream Power (N/m s)	15.53	84.43	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.12	0.99	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.35	0.77	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10.5 BR U Profile: TR 20

E.G. Elev (m)	495.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.			
W.S. Elev (m)	494.99	Reach Len. (m)	2.68	2.68	2.68
Crit W.S. (m)	495.06	Flow Area (m2)	0.87	2.30	
E.G. Slope (m/m)		Area (m2)	0.87	2.30	
Q Total (m3/s)	6.13	Flow (m3/s)	2.08	4.04	
Top Width (m)	10.78	Top Width (m)	7.53	3.25	
Vel Total (m/s)	1.94	Avg. Vel. (m/s)	2.39	1.76	0.30
Max Chl Dpth (m)	1.13	Hydr. Depth (m)	0.12	0.71	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	2.68	Wetted Per. (m)	7.67	10.21	
Min Ch El (m)	493.86	Shear (N/m2)			
Alpha	1.33	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.81	
C & E Loss (m)		Cum SA (1000 m2)	0.04	0.77	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10.5 BR U Profile: TR 100

E.G. Elev (m)	495.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.13	Reach Len. (m)	2.68	2.68	2.68
Crit W.S. (m)	495.13	Flow Area (m2)	1.89	2.74	
E.G. Slope (m/m)	0.028849	Area (m2)	1.89	2.74	
Q Total (m3/s)	7.87	Flow (m3/s)	2.07	5.80	
Top Width (m)	10.80	Top Width (m)	7.53	3.27	
Vel Total (m/s)	1.70	Avg. Vel. (m/s)	1.10	2.12	
Max Chl Dpth (m)	1.27	Hydr. Depth (m)	0.25	0.84	
Conv. Total (m3/s)	46.3	Conv. (m3/s)	12.2	34.1	
Length Wtd. (m)	2.68	Wetted Per. (m)	7.80	10.35	
Min Ch El (m)	493.86	Shear (N/m2)	68.39	74.78	
Alpha	1.25	Stream Power (N/m s)	75.12	158.52	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.06	0.90	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.27	0.78	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10.5 BR U Profile: TR 200

E.G. Elev (m)	495.35	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.15	Reach Len. (m)	2.68	2.68	2.68
Crit W.S. (m)	495.15	Flow Area (m2)	2.05	2.81	
E.G. Slope (m/m)	0.030283	Area (m2)	2.05	2.81	
Q Total (m3/s)	8.62	Flow (m3/s)	2.43	6.19	
Top Width (m)	10.81	Top Width (m)	7.53	3.28	
Vel Total (m/s)	1.78	Avg. Vel. (m/s)	1.19	2.21	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)	0.27	0.86	
Conv. Total (m3/s)	49.5	Conv. (m3/s)	14.0	35.6	
Length Wtd. (m)	2.68	Wetted Per. (m)	7.82	10.37	
Min Ch El (m)	493.86	Shear (N/m2)	77.75	80.35	
Alpha	1.23	Stream Power (N/m s)	92.28	177.25	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.06	0.93	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.25	0.75	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10.5 BR U Profile: TR 500

E.G. Elev (m)	495.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.18	Reach Len. (m)	2.68	2.68	2.68
Crit W.S. (m)	495.18	Flow Area (m2)	2.29	2.91	
E.G. Slope (m/m)	0.030912	Area (m2)	2.29	2.91	
Q Total (m3/s)	9.59	Flow (m3/s)	2.95	6.64	
Top Width (m)	10.81	Top Width (m)	7.53	3.28	
Vel Total (m/s)	1.84	Avg. Vel. (m/s)	1.29	2.28	
Max Chl Dpth (m)	1.32	Hydr. Depth (m)	0.30	0.89	
Conv. Total (m3/s)	54.6	Conv. (m3/s)	16.8	37.8	
Length Wtd. (m)	2.68	Wetted Per. (m)	7.85	10.40	
Min Ch El (m)	493.86	Shear (N/m2)	88.43	84.85	
Alpha	1.21	Stream Power (N/m s)	113.98	193.43	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.11	0.98	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.35	0.77	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10.5 BR D Profile: TR 20

E.G. Elev (m)	495.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.			
W.S. Elev (m)	494.99	Reach Len. (m)	1.93	1.93	1.93
Crit W.S. (m)	494.51	Flow Area (m2)	1.18	3.43	
E.G. Slope (m/m)		Area (m2)	1.18	3.43	
Q Total (m3/s)	6.13	Flow (m3/s)	2.08	4.04	
Top Width (m)	10.55	Top Width (m)	6.89	3.66	
Vel Total (m/s)	1.33	Avg. Vel. (m/s)	1.76	1.18	0.30
Max Chl Dpth (m)	1.30	Hydr. Depth (m)	0.17	0.94	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	1.93	Wetted Per. (m)	7.21	12.05	
Min Ch El (m)	493.70	Shear (N/m2)			
Alpha	1.27	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.80	
C & E Loss (m)		Cum SA (1000 m2)	0.02	0.76	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10.5 BR D Profile: TR 100

E.G. Elev (m)	495.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	494.97	Reach Len. (m)	2.68	2.68	2.68
Crit W.S. (m)	494.97	Flow Area (m2)	1.01	3.33	
E.G. Slope (m/m)	0.027410	Area (m2)	1.01	3.33	
Q Total (m3/s)	7.87	Flow (m3/s)	0.76	7.11	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10.5 BR D Profile: TR 100 (Continued)

Top Width (m)	10.55	Top Width (m)	6.89	3.66	
Vel Total (m/s)	1.81	Avg. Vel. (m/s)	0.75	2.13	
Max Chl Dpth (m)	1.27	Hydr. Depth (m)	0.15	0.91	
Conv. Total (m3/s)	47.5	Conv. (m3/s)	4.6	43.0	
Length Wtd. (m)	2.68	Wetted Per. (m)	7.19	12.03	
Min Ch El (m)	493.70	Shear (N/m2)	37.67	74.52	
Alpha	1.27	Stream Power (N/m s)	28.33	158.95	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)	0.06	0.89	
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.25	0.77	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10.5 BR D Profile: TR 200

E.G. Elev (m)	495.22	Element	Left OB	Channel	Right OB
Vel Head (m)	0.48	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	494.74	Reach Len. (m)	2.68	2.68	2.68
Crit W.S. (m)	495.00	Flow Area (m2)	0.00	2.80	
E.G. Slope (m/m)	0.043447	Area (m2)	0.00	2.80	
Q Total (m3/s)	8.62	Flow (m3/s)	0.00	8.62	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	3.07	Avg. Vel. (m/s)	0.17	3.08	
Max Chl Dpth (m)	1.04	Hydr. Depth (m)			
Conv. Total (m3/s)	41.4	Conv. (m3/s)	0.0	41.4	
Length Wtd. (m)	2.68	Wetted Per. (m)	0.15	8.24	
Min Ch El (m)	493.70	Shear (N/m2)	4.72	144.83	
Alpha	1.00	Stream Power (N/m s)	0.82	445.55	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	0.06	0.92	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.24	0.75	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10.5 BR D Profile: TR 500

E.G. Elev (m)	495.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	495.04	Reach Len. (m)	2.68	2.68	2.68
Crit W.S. (m)	495.04	Flow Area (m2)	1.50	3.60	
E.G. Slope (m/m)	0.027886	Area (m2)	1.50	3.60	
Q Total (m3/s)	9.59	Flow (m3/s)	1.48	8.11	
Top Width (m)	10.56	Top Width (m)	6.89	3.67	
Vel Total (m/s)	1.88	Avg. Vel. (m/s)	0.98	2.25	
Max Chl Dpth (m)	1.34	Hydr. Depth (m)	0.22	0.98	
Conv. Total (m3/s)	57.4	Conv. (m3/s)	8.9	48.6	
Length Wtd. (m)	2.68	Wetted Per. (m)	7.26	12.10	
Min Ch El (m)	493.70	Shear (N/m2)	56.63	81.32	
Alpha	1.26	Stream Power (N/m s)	55.76	183.32	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)	0.11	0.98	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.33	0.76	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10 Profile: TR 20

E.G. Elev (m)	494.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.	0.000	0.033	
W.S. Elev (m)	494.51	Reach Len. (m)	14.80	14.80	14.80
Crit W.S. (m)	494.51	Flow Area (m2)	0.00	2.40	
E.G. Slope (m/m)	0.016589	Area (m2)	0.01	2.40	
Q Total (m3/s)	6.13	Flow (m3/s)	0.00	6.13	
Top Width (m)	5.64	Top Width (m)	2.05	3.59	
Vel Total (m/s)	2.56	Avg. Vel. (m/s)	0.12	2.56	
Max Chl Dpth (m)	0.81	Hydr. Depth (m)	0.01	0.67	
Conv. Total (m3/s)	47.6	Conv. (m3/s)	0.0	47.6	
Length Wtd. (m)	14.80	Wetted Per. (m)	0.02	4.52	
Min Ch El (m)	493.70	Shear (N/m2)		86.27	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		220.59	
Frctn Loss (m)	0.26	Cum Volume (1000 m3)	0.00	0.79	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.02	0.75	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10 Profile: TR 100

E.G. Elev (m)	495.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.46	Wt. n-Val.	0.000	0.033	
W.S. Elev (m)	494.57	Reach Len. (m)	14.80	14.80	14.80
Crit W.S. (m)	494.87	Flow Area (m2)	0.00	2.61	
E.G. Slope (m/m)	0.020920	Area (m2)	0.35	2.61	
Q Total (m3/s)	7.87	Flow (m3/s)	0.00	7.87	
Top Width (m)	10.49	Top Width (m)	6.89	3.60	
Vel Total (m/s)	3.01	Avg. Vel. (m/s)	0.42	3.01	
Max Chl Dpth (m)	0.87	Hydr. Depth (m)	0.07	0.73	
Conv. Total (m3/s)	54.4	Conv. (m3/s)	0.0	54.4	
Length Wtd. (m)	14.80	Wetted Per. (m)	0.02	4.58	
Min Ch El (m)	493.70	Shear (N/m2)	14.80	116.94	
Alpha	1.00	Stream Power (N/m s)	6.18	352.35	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.06	0.88	
C & E Loss (m)	0.09	Cum SA (1000 m2)	0.23	0.76	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10 Profile: TR 200

E.G. Elev (m)	495.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.61	Wt. n-Val.	0.000	0.033	
W.S. Elev (m)	494.54	Reach Len. (m)	14.80	14.80	14.80
Crit W.S. (m)	494.87	Flow Area (m2)	0.00	2.50	
E.G. Slope (m/m)	0.028724	Area (m2)	0.14	2.50	
Q Total (m3/s)	8.62	Flow (m3/s)	0.00	8.62	
Top Width (m)	10.30	Top Width (m)	6.70	3.60	
Vel Total (m/s)	3.45	Avg. Vel. (m/s)	0.34	3.45	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)	0.04	0.70	
Conv. Total (m3/s)	50.9	Conv. (m3/s)	0.0	50.9	
Length Wtd. (m)	14.80	Wetted Per. (m)	0.02	4.55	
Min Ch El (m)	493.70	Shear (N/m2)	11.68	154.83	
Alpha	1.00	Stream Power (N/m s)	3.95	533.56	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	0.06	0.91	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.23	0.74	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 10 Profile: TR 500

E.G. Elev (m)	495.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	494.87	Reach Len. (m)	14.80	14.80	14.80
Crit W.S. (m)	494.87	Flow Area (m2)	2.44	3.71	
E.G. Slope (m/m)	0.007186	Area (m2)	2.44	3.71	
Q Total (m3/s)	9.59	Flow (m3/s)	1.67	7.92	
Top Width (m)	10.53	Top Width (m)	6.89	3.64	
Vel Total (m/s)	1.56	Avg. Vel. (m/s)	0.68	2.14	
Max Chl Dpth (m)	1.17	Hydr. Depth (m)	0.35	1.02	
Conv. Total (m3/s)	113.1	Conv. (m3/s)	19.7	93.5	
Length Wtd. (m)	14.80	Wetted Per. (m)	7.22	4.89	
Min Ch El (m)	493.70	Shear (N/m2)	23.77	53.46	
Alpha	1.58	Stream Power (N/m s)	16.27	114.25	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.10	0.97	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.31	0.75	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 9 Profile: TR 20

E.G. Elev (m)	494.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.70	Wt. n-Val.		0.033	
W.S. Elev (m)	493.72	Reach Len. (m)	17.00	17.00	17.00
Crit W.S. (m)	493.93	Flow Area (m2)		1.65	
E.G. Slope (m/m)	0.042264	Area (m2)		1.65	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	2.70	Top Width (m)		2.70	
Vel Total (m/s)	3.72	Avg. Vel. (m/s)		3.72	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	29.8	Conv. (m3/s)		29.8	
Length Wtd. (m)	17.00	Wetted Per. (m)		3.57	
Min Ch El (m)	492.93	Shear (N/m2)		191.22	
Alpha	1.00	Stream Power (N/m s)		711.25	
Frctn Loss (m)	0.37	Cum Volume (1000 m3)		0.76	
C & E Loss (m)	0.04	Cum SA (1000 m2)		0.71	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 9 Profile: TR 100

E.G. Elev (m)	494.61	Element	Left OB	Channel	Right OB
Vel Head (m)	0.73	Wt. n-Val.		0.033	
W.S. Elev (m)	493.88	Reach Len. (m)	17.00	17.00	17.00
Crit W.S. (m)	494.21	Flow Area (m2)		2.08	
E.G. Slope (m/m)	0.036152	Area (m2)		2.08	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.78	Top Width (m)		2.78	
Vel Total (m/s)	3.79	Avg. Vel. (m/s)		3.79	
Max Chl Dpth (m)	0.95	Hydr. Depth (m)		0.75	
Conv. Total (m3/s)	41.4	Conv. (m3/s)		41.4	
Length Wtd. (m)	17.00	Wetted Per. (m)		3.90	
Min Ch El (m)	492.93	Shear (N/m2)		188.91	
Alpha	1.00	Stream Power (N/m s)		715.37	
Frctn Loss (m)	0.40	Cum Volume (1000 m3)	0.05	0.85	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.18	0.71	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 9 Profile: TR 200

E.G. Elev (m)	494.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.72	Wt. n-Val.		0.033	
W.S. Elev (m)	493.95	Reach Len. (m)	17.00	17.00	17.00
Crit W.S. (m)	494.24	Flow Area (m2)		2.29	
E.G. Slope (m/m)	0.033129	Area (m2)		2.29	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.82	Top Width (m)		2.82	
Vel Total (m/s)	3.77	Avg. Vel. (m/s)		3.77	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.81	
Conv. Total (m3/s)	47.4	Conv. (m3/s)		47.4	
Length Wtd. (m)	17.00	Wetted Per. (m)		4.06	
Min Ch El (m)	492.93	Shear (N/m2)		183.30	
Alpha	1.00	Stream Power (N/m s)		690.31	
Frctn Loss (m)	0.46	Cum Volume (1000 m3)	0.06	0.88	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	0.70	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 9 Profile: TR 500

E.G. Elev (m)	494.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.80	Wt. n-Val.		0.033	
W.S. Elev (m)	494.00	Reach Len. (m)	17.00	17.00	17.00
Crit W.S. (m)	494.29	Flow Area (m2)		2.41	
E.G. Slope (m/m)	0.035372	Area (m2)		2.41	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 9 Profile: TR 500 (Continued)

Top Width (m)	2.85	Top Width (m)		2.85	
Vel Total (m/s)	3.97	Avg. Vel. (m/s)		3.97	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.85	
Conv. Total (m3/s)	51.0	Conv. (m3/s)		51.0	
Length Wtd. (m)	17.00	Wetted Per. (m)		4.15	
Min Ch El (m)	492.93	Shear (N/m2)		201.85	
Alpha	1.00	Stream Power (N/m s)		801.85	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)	0.08	0.92	
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.26	0.70	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 8 Profile: TR 20

E.G. Elev (m)	493.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.033	
W.S. Elev (m)	493.47	Reach Len. (m)	2.40	2.40	2.40
Crit W.S. (m)	493.03	Flow Area (m2)		3.49	
E.G. Slope (m/m)	0.005419	Area (m2)		3.49	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	3.04	Top Width (m)		3.04	
Vel Total (m/s)	1.75	Avg. Vel. (m/s)		1.75	
Max Chl Dpth (m)	1.33	Hydr. Depth (m)		1.15	
Conv. Total (m3/s)	83.3	Conv. (m3/s)		83.3	
Length Wtd. (m)	2.40	Wetted Per. (m)		5.01	
Min Ch El (m)	492.14	Shear (N/m2)		37.06	
Alpha	1.00	Stream Power (N/m s)		65.02	
Frctn Loss (m)		Cum Volume (1000 m3)		0.72	
C & E Loss (m)		Cum SA (1000 m2)		0.66	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 8 Profile: TR 100

E.G. Elev (m)	493.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.96	Wt. n-Val.		0.033	
W.S. Elev (m)	492.89	Reach Len. (m)	2.40	2.40	2.40
Crit W.S. (m)	493.18	Flow Area (m2)		1.82	
E.G. Slope (m/m)	0.054273	Area (m2)		1.82	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.69	Top Width (m)		2.69	
Vel Total (m/s)	4.33	Avg. Vel. (m/s)		4.33	
Max Chl Dpth (m)	0.75	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	33.8	Conv. (m3/s)		33.8	
Length Wtd. (m)	2.40	Wetted Per. (m)		3.78	
Min Ch El (m)	492.14	Shear (N/m2)		255.88	
Alpha	1.00	Stream Power (N/m s)		1108.60	
Frctn Loss (m)	0.74	Cum Volume (1000 m3)	0.05	0.81	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.18	0.66	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 8 Profile: TR 200

E.G. Elev (m)	493.94	Element	Left OB	Channel	Right OB
Vel Head (m)	1.01	Wt. n-Val.		0.033	
W.S. Elev (m)	492.93	Reach Len. (m)	2.40	2.40	2.40
Crit W.S. (m)	493.24	Flow Area (m2)		1.94	
E.G. Slope (m/m)	0.054161	Area (m2)		1.94	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.72	Top Width (m)		2.72	
Vel Total (m/s)	4.45	Avg. Vel. (m/s)		4.45	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	37.0	Conv. (m3/s)		37.0	
Length Wtd. (m)	2.40	Wetted Per. (m)		3.87	
Min Ch El (m)	492.14	Shear (N/m2)		265.86	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 8 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		1181.99	
Frctn Loss (m)	0.71	Cum Volume (1000 m3)	0.06	0.84	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.18	0.65	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 8 Profile: TR 500

E.G. Elev (m)	493.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	493.82	Reach Len. (m)	2.40	2.40	2.40
Crit W.S. (m)	493.31	Flow Area (m2)	2.63	4.57	
E.G. Slope (m/m)	0.004492	Area (m2)	2.63	4.57	
Q Total (m3/s)	9.59	Flow (m3/s)	1.38	8.21	
Top Width (m)	10.84	Top Width (m)	7.69	3.15	
Vel Total (m/s)	1.33	Avg. Vel. (m/s)	0.52	1.80	
Max Chl Dpth (m)	1.68	Hydr. Depth (m)	0.34	1.45	
Conv. Total (m3/s)	143.1	Conv. (m3/s)	20.5	122.6	
Length Wtd. (m)	2.40	Wetted Per. (m)	8.19	5.50	
Min Ch El (m)	492.14	Shear (N/m2)	14.14	36.65	
Alpha	1.58	Stream Power (N/m s)	7.40	65.84	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.06	0.86	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.19	0.65	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7.5 BR U Profile: TR 20

E.G. Elev (m)	493.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.			
W.S. Elev (m)	493.47	Reach Len. (m)	8.87	8.87	8.87
Crit W.S. (m)	493.02	Flow Area (m2)		2.91	
E.G. Slope (m/m)		Area (m2)		2.91	
Q Total (m3/s)	6.13	Flow (m3/s)		5.60	
Top Width (m)	3.04	Top Width (m)		3.04	
Vel Total (m/s)	2.11	Avg. Vel. (m/s)	0.30	1.93	0.30
Max Chl Dpth (m)	1.33	Hydr. Depth (m)		0.96	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	8.87	Wetted Per. (m)		10.54	
Min Ch El (m)	492.14	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)		0.71	
C & E Loss (m)		Cum SA (1000 m2)		0.65	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7.5 BR U Profile: TR 100

E.G. Elev (m)	493.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.		0.033	
W.S. Elev (m)	493.51	Reach Len. (m)	8.87	8.87	8.87
Crit W.S. (m)	493.18	Flow Area (m2)		3.02	
E.G. Slope (m/m)	0.039678	Area (m2)		3.02	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	3.06	Top Width (m)		3.06	
Vel Total (m/s)	2.61	Avg. Vel. (m/s)		2.61	
Max Chl Dpth (m)	1.37	Hydr. Depth (m)		0.99	
Conv. Total (m3/s)	39.5	Conv. (m3/s)		39.5	
Length Wtd. (m)	8.87	Wetted Per. (m)		10.61	
Min Ch El (m)	492.14	Shear (N/m2)		110.57	
Alpha	1.00	Stream Power (N/m s)		288.49	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	0.05	0.81	
C & E Loss (m)	0.15	Cum SA (1000 m2)	0.18	0.66	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7.5 BR U Profile: TR 200

E.G. Elev (m)	493.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.42	Wt. n-Val.		0.033	
W.S. Elev (m)	493.50	Reach Len. (m)	8.87	8.87	8.87
Crit W.S. (m)	493.66	Flow Area (m2)		3.00	
E.G. Slope (m/m)	0.048552	Area (m2)		3.00	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	3.06	Top Width (m)		3.06	
Vel Total (m/s)	2.88	Avg. Vel. (m/s)		2.88	
Max Chl Dpth (m)	1.36	Hydr. Depth (m)		0.98	
Conv. Total (m3/s)	39.1	Conv. (m3/s)		39.1	
Length Wtd. (m)	8.87	Wetted Per. (m)		10.60	
Min Ch El (m)	492.14	Shear (N/m2)		134.60	
Alpha	1.00	Stream Power (N/m s)		387.15	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)	0.06	0.84	
C & E Loss (m)	0.13	Cum SA (1000 m2)	0.18	0.64	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7.5 BR U Profile: TR 500

E.G. Elev (m)	494.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.57	Wt. n-Val.		0.033	
W.S. Elev (m)	493.70	Reach Len. (m)	8.87	8.87	8.87
Crit W.S. (m)	493.70	Flow Area (m2)		2.86	
E.G. Slope (m/m)	0.043883	Area (m2)		2.86	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	3.35	Avg. Vel. (m/s)		3.35	
Max Chl Dpth (m)	1.56	Hydr. Depth (m)			
Conv. Total (m3/s)	45.8	Conv. (m3/s)		45.8	
Length Wtd. (m)		Wetted Per. (m)		7.48	
Min Ch El (m)	492.14	Shear (N/m2)		164.84	
Alpha	1.00	Stream Power (N/m s)		551.93	
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.85	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.65	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7.5 BR D Profile: TR 20

E.G. Elev (m)	493.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.			
W.S. Elev (m)	493.26	Reach Len. (m)	2.63	2.63	2.63
Crit W.S. (m)	492.88	Flow Area (m2)		3.63	
E.G. Slope (m/m)		Area (m2)		3.63	
Q Total (m3/s)	6.13	Flow (m3/s)		5.60	
Top Width (m)	3.52	Top Width (m)		3.52	
Vel Total (m/s)	1.69	Avg. Vel. (m/s)	0.30	1.54	0.30
Max Chl Dpth (m)	1.26	Hydr. Depth (m)		1.03	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	2.63	Wetted Per. (m)		5.01	
Min Ch El (m)	491.99	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)		0.68	
C & E Loss (m)		Cum SA (1000 m2)		0.62	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7.5 BR D Profile: TR 100

E.G. Elev (m)	493.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.033	
W.S. Elev (m)	493.26	Reach Len. (m)	2.63	2.63	2.63
Crit W.S. (m)	493.02	Flow Area (m2)		3.63	
E.G. Slope (m/m)	0.007865	Area (m2)		3.63	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7.5 BR D Profile: TR 100 (Continued)

Top Width (m)	3.52	Top Width (m)		3.52	
Vel Total (m/s)	2.17	Avg. Vel. (m/s)		2.17	
Max Chl Dpth (m)	1.26	Hydr. Depth (m)		1.03	
Conv. Total (m3/s)	88.7	Conv. (m3/s)		88.7	
Length Wtd. (m)	2.63	Wetted Per. (m)		5.01	
Min Ch El (m)	491.99	Shear (N/m2)		55.89	
Alpha	1.00	Stream Power (N/m s)		121.17	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)	0.05	0.78	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.18	0.63	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7.5 BR D Profile: TR 200

E.G. Elev (m)	493.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.29	Wt. n-Val.		0.033	
W.S. Elev (m)	493.26	Reach Len. (m)	2.63	2.63	2.63
Crit W.S. (m)	493.07	Flow Area (m2)		3.63	
E.G. Slope (m/m)	0.009437	Area (m2)		3.63	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	3.52	Top Width (m)		3.52	
Vel Total (m/s)	2.37	Avg. Vel. (m/s)		2.37	
Max Chl Dpth (m)	1.26	Hydr. Depth (m)		1.03	
Conv. Total (m3/s)	88.7	Conv. (m3/s)		88.7	
Length Wtd. (m)	2.63	Wetted Per. (m)		5.01	
Min Ch El (m)	491.99	Shear (N/m2)		67.05	
Alpha	1.00	Stream Power (N/m s)		159.24	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)	0.06	0.81	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	0.61	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7.5 BR D Profile: TR 500

E.G. Elev (m)	493.83	Element	Left OB	Channel	Right OB
Vel Head (m)	1.00	Wt. n-Val.		0.033	
W.S. Elev (m)	492.83	Reach Len. (m)	8.87	8.87	8.87
Crit W.S. (m)	493.14	Flow Area (m2)		2.17	
E.G. Slope (m/m)	0.049553	Area (m2)		2.17	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	3.27	Top Width (m)		3.27	
Vel Total (m/s)	4.42	Avg. Vel. (m/s)		4.42	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	43.1	Conv. (m3/s)		43.1	
Length Wtd. (m)	8.87	Wetted Per. (m)		4.09	
Min Ch El (m)	491.99	Shear (N/m2)		257.92	
Alpha	1.00	Stream Power (N/m s)		1140.53	
Frctn Loss (m)	0.41	Cum Volume (1000 m3)	0.06	0.83	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.18	0.63	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7 Profile: TR 20

E.G. Elev (m)	493.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.		0.033	
W.S. Elev (m)	492.88	Reach Len. (m)	10.70	10.70	10.70
Crit W.S. (m)	492.88	Flow Area (m2)		2.33	
E.G. Slope (m/m)	0.016650	Area (m2)		2.33	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	3.33	Top Width (m)		3.33	
Vel Total (m/s)	2.64	Avg. Vel. (m/s)		2.64	
Max Chl Dpth (m)	0.89	Hydr. Depth (m)		0.70	
Conv. Total (m3/s)	47.5	Conv. (m3/s)		47.5	
Length Wtd. (m)		Wetted Per. (m)		4.20	
Min Ch El (m)	491.99	Shear (N/m2)		90.40	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		238.36	
Frctn Loss (m)		Cum Volume (1000 m3)		0.68	
C & E Loss (m)		Cum SA (1000 m2)		0.61	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7 Profile: TR 100

E.G. Elev (m)	493.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.		0.033	
W.S. Elev (m)	493.12	Reach Len. (m)	10.70	10.70	10.70
Crit W.S. (m)	493.02	Flow Area (m2)		3.16	
E.G. Slope (m/m)	0.011570	Area (m2)		3.16	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	3.52	Top Width (m)		3.52	
Vel Total (m/s)	2.49	Avg. Vel. (m/s)		2.49	
Max Chl Dpth (m)	1.13	Hydr. Depth (m)		0.90	
Conv. Total (m3/s)	73.2	Conv. (m3/s)		73.2	
Length Wtd. (m)	10.70	Wetted Per. (m)		4.74	
Min Ch El (m)	491.99	Shear (N/m2)		75.64	
Alpha	1.00	Stream Power (N/m s)		188.17	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.05	0.77	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	0.62	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7 Profile: TR 200

E.G. Elev (m)	493.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.		0.033	
W.S. Elev (m)	493.23	Reach Len. (m)	10.70	10.70	10.70
Crit W.S. (m)	493.07	Flow Area (m2)		3.55	
E.G. Slope (m/m)	0.010052	Area (m2)		3.55	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	3.52	Top Width (m)		3.52	
Vel Total (m/s)	2.43	Avg. Vel. (m/s)		2.43	
Max Chl Dpth (m)	1.24	Hydr. Depth (m)		1.01	
Conv. Total (m3/s)	86.0	Conv. (m3/s)		86.0	
Length Wtd. (m)	10.70	Wetted Per. (m)		4.96	
Min Ch El (m)	491.99	Shear (N/m2)		70.47	
Alpha	1.00	Stream Power (N/m s)		171.19	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.06	0.80	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.18	0.60	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 7 Profile: TR 500

E.G. Elev (m)	493.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.29	Wt. n-Val.		0.033	
W.S. Elev (m)	493.36	Reach Len. (m)	10.70	10.70	10.70
Crit W.S. (m)	493.13	Flow Area (m2)		3.99	
E.G. Slope (m/m)	0.008996	Area (m2)		3.99	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	3.52	Top Width (m)		3.52	
Vel Total (m/s)	2.40	Avg. Vel. (m/s)		2.40	
Max Chl Dpth (m)	1.36	Hydr. Depth (m)		1.13	
Conv. Total (m3/s)	101.1	Conv. (m3/s)		101.1	
Length Wtd. (m)	10.70	Wetted Per. (m)		5.21	
Min Ch El (m)	491.99	Shear (N/m2)		67.50	
Alpha	1.00	Stream Power (N/m s)		162.29	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)	0.06	0.80	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	0.60	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 6 Profile: TR 20

E.G. Elev (m)	493.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.28	Wt. n-Val.		0.033	
W.S. Elev (m)	492.78	Reach Len. (m)	8.00	8.00	8.00
Crit W.S. (m)	492.65	Flow Area (m2)		2.63	
E.G. Slope (m/m)	0.011329	Area (m2)		2.63	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	3.01	Top Width (m)		3.01	
Vel Total (m/s)	2.33	Avg. Vel. (m/s)		2.33	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.87	
Conv. Total (m3/s)	57.6	Conv. (m3/s)		57.6	
Length Wtd. (m)	8.00	Wetted Per. (m)		4.28	
Min Ch El (m)	491.71	Shear (N/m2)		68.22	
Alpha	1.00	Stream Power (N/m s)		158.96	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		0.65	
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.58	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 6 Profile: TR 100

E.G. Elev (m)	493.32	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.		0.033	
W.S. Elev (m)	493.05	Reach Len. (m)	8.00	8.00	8.00
Crit W.S. (m)	492.80	Flow Area (m2)		3.44	
E.G. Slope (m/m)	0.008932	Area (m2)		3.44	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	3.01	Top Width (m)		3.01	
Vel Total (m/s)	2.29	Avg. Vel. (m/s)		2.29	
Max Chl Dpth (m)	1.34	Hydr. Depth (m)		1.14	
Conv. Total (m3/s)	83.3	Conv. (m3/s)		83.3	
Length Wtd. (m)	8.00	Wetted Per. (m)		4.82	
Min Ch El (m)	491.71	Shear (N/m2)		62.49	
Alpha	1.00	Stream Power (N/m s)		142.91	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	0.05	0.73	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.18	0.58	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 6 Profile: TR 200

E.G. Elev (m)	493.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.		0.033	
W.S. Elev (m)	493.16	Reach Len. (m)	8.00	8.00	8.00
Crit W.S. (m)	492.85	Flow Area (m2)		3.77	
E.G. Slope (m/m)	0.008408	Area (m2)		3.77	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	3.01	Top Width (m)		3.01	
Vel Total (m/s)	2.29	Avg. Vel. (m/s)		2.29	
Max Chl Dpth (m)	1.45	Hydr. Depth (m)		1.25	
Conv. Total (m3/s)	94.0	Conv. (m3/s)		94.0	
Length Wtd. (m)	8.00	Wetted Per. (m)		5.04	
Min Ch El (m)	491.71	Shear (N/m2)		61.63	
Alpha	1.00	Stream Power (N/m s)		141.03	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	0.06	0.76	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.18	0.57	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 6 Profile: TR 500

E.G. Elev (m)	493.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.		0.033	
W.S. Elev (m)	493.28	Reach Len. (m)	8.00	8.00	8.00
Crit W.S. (m)		Flow Area (m2)		4.13	
E.G. Slope (m/m)	0.008145	Area (m2)		4.13	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 6 Profile: TR 500 (Continued)

Top Width (m)	3.01	Top Width (m)		3.01	
Vel Total (m/s)	2.32	Avg. Vel. (m/s)		2.32	
Max Chl Dpth (m)	1.57	Hydr. Depth (m)		1.37	
Conv. Total (m3/s)	106.3	Conv. (m3/s)		106.3	
Length Wtd. (m)	8.00	Wetted Per. (m)		5.28	
Min Ch El (m)	491.71	Shear (N/m2)		62.47	
Alpha	1.00	Stream Power (N/m s)		145.04	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	0.06	0.76	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.18	0.57	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 5 Profile: TR 20

E.G. Elev (m)	492.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.033	
W.S. Elev (m)	492.78	Reach Len. (m)	0.27	0.27	0.27
Crit W.S. (m)	492.40	Flow Area (m2)		3.27	
E.G. Slope (m/m)	0.006402	Area (m2)		3.27	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	2.86	Top Width (m)		2.86	
Vel Total (m/s)	1.87	Avg. Vel. (m/s)		1.87	
Max Chl Dpth (m)	1.31	Hydr. Depth (m)		1.14	
Conv. Total (m3/s)	76.6	Conv. (m3/s)		76.6	
Length Wtd. (m)	0.27	Wetted Per. (m)		4.82	
Min Ch El (m)	491.47	Shear (N/m2)		42.62	
Alpha	1.00	Stream Power (N/m s)		79.82	
Frctn Loss (m)		Cum Volume (1000 m3)		0.62	
C & E Loss (m)		Cum SA (1000 m2)		0.55	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 5 Profile: TR 100

E.G. Elev (m)	493.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.033	
W.S. Elev (m)	493.04	Reach Len. (m)	0.27	0.27	0.27
Crit W.S. (m)	492.56	Flow Area (m2)		4.01	
E.G. Slope (m/m)	0.006126	Area (m2)		4.01	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.88	Top Width (m)		2.88	
Vel Total (m/s)	1.96	Avg. Vel. (m/s)		1.96	
Max Chl Dpth (m)	1.57	Hydr. Depth (m)		1.40	
Conv. Total (m3/s)	100.5	Conv. (m3/s)		100.5	
Length Wtd. (m)	0.27	Wetted Per. (m)		5.34	
Min Ch El (m)	491.47	Shear (N/m2)		45.16	
Alpha	1.00	Stream Power (N/m s)		88.55	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	0.70	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.56	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 5 Profile: TR 200

E.G. Elev (m)	493.35	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.033	
W.S. Elev (m)	493.15	Reach Len. (m)	0.27	0.27	0.27
Crit W.S. (m)	492.61	Flow Area (m2)		4.32	
E.G. Slope (m/m)	0.006068	Area (m2)		4.32	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.88	Top Width (m)		2.88	
Vel Total (m/s)	2.00	Avg. Vel. (m/s)		2.00	
Max Chl Dpth (m)	1.67	Hydr. Depth (m)		1.50	
Conv. Total (m3/s)	110.7	Conv. (m3/s)		110.7	
Length Wtd. (m)	0.27	Wetted Per. (m)		5.55	
Min Ch El (m)	491.47	Shear (N/m2)		46.29	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 5 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		92.42	
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.73	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.55	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 5 Profile: TR 500

E.G. Elev (m)	493.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.033	
W.S. Elev (m)	493.26	Reach Len. (m)	0.27	0.27	0.27
Crit W.S. (m)	492.68	Flow Area (m2)		4.66	
E.G. Slope (m/m)	0.006164	Area (m2)		4.66	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	2.89	Top Width (m)		2.89	
Vel Total (m/s)	2.06	Avg. Vel. (m/s)		2.06	
Max Chl Dpth (m)	1.79	Hydr. Depth (m)		1.61	
Conv. Total (m3/s)	122.2	Conv. (m3/s)		122.2	
Length Wtd. (m)	0.27	Wetted Per. (m)		5.79	
Min Ch El (m)	491.47	Shear (N/m2)		48.66	
Alpha	1.00	Stream Power (N/m s)		100.20	
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.72	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.55	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4.5 BR U Profile: TR 20

E.G. Elev (m)	492.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.			
W.S. Elev (m)	492.78	Reach Len. (m)	3.85	3.85	3.85
Crit W.S. (m)	492.70	Flow Area (m2)		2.45	
E.G. Slope (m/m)		Area (m2)		2.45	
Q Total (m3/s)	6.13	Flow (m3/s)		6.12	
Top Width (m)	2.86	Top Width (m)		2.86	
Vel Total (m/s)	2.50	Avg. Vel. (m/s)	0.30	2.50	0.30
Max Chl Dpth (m)	1.31	Hydr. Depth (m)		0.86	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	3.85	Wetted Per. (m)		9.60	
Min Ch El (m)	491.47	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)		0.62	
C & E Loss (m)		Cum SA (1000 m2)		0.55	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4.5 BR U Profile: TR 100

E.G. Elev (m)	493.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.			
W.S. Elev (m)	493.04	Reach Len. (m)	3.85	3.85	3.85
Crit W.S. (m)	492.84	Flow Area (m2)		3.19	
E.G. Slope (m/m)		Area (m2)		3.19	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.88	Top Width (m)		2.88	
Vel Total (m/s)	2.46	Avg. Vel. (m/s)	0.30	2.46	0.30
Max Chl Dpth (m)	1.57	Hydr. Depth (m)		1.11	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	3.85	Wetted Per. (m)		10.11	
Min Ch El (m)	491.47	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	0.70	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.56	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4.5 BR U Profile: TR 200

E.G. Elev (m)	493.35	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.			
W.S. Elev (m)	493.15	Reach Len. (m)	3.85	3.85	3.85
Crit W.S. (m)	492.69	Flow Area (m2)		3.50	
E.G. Slope (m/m)		Area (m2)		3.50	
Q Total (m3/s)	8.62	Flow (m3/s)		8.60	
Top Width (m)	2.88	Top Width (m)		2.88	
Vel Total (m/s)	2.46	Avg. Vel. (m/s)	0.30	2.46	0.30
Max Chl Dpth (m)	1.67	Hydr. Depth (m)		1.21	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	3.85	Wetted Per. (m)		10.33	
Min Ch El (m)	491.47	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.73	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.54	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4.5 BR U Profile: TR 500

E.G. Elev (m)	493.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.			
W.S. Elev (m)	493.26	Reach Len. (m)	3.85	3.85	3.85
Crit W.S. (m)	492.98	Flow Area (m2)		3.84	
E.G. Slope (m/m)		Area (m2)		3.84	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	2.89	Top Width (m)		2.89	
Vel Total (m/s)	2.50	Avg. Vel. (m/s)	0.30	2.50	0.30
Max Chl Dpth (m)	1.79	Hydr. Depth (m)		1.33	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	3.85	Wetted Per. (m)		10.56	
Min Ch El (m)	491.47	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.72	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.55	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4.5 BR D Profile: TR 20

E.G. Elev (m)	492.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.			
W.S. Elev (m)	492.77	Reach Len. (m)	0.78	0.78	0.78
Crit W.S. (m)	492.57	Flow Area (m2)		2.78	
E.G. Slope (m/m)		Area (m2)		2.78	
Q Total (m3/s)	6.13	Flow (m3/s)		6.12	
Top Width (m)	2.84	Top Width (m)		2.84	
Vel Total (m/s)	2.20	Avg. Vel. (m/s)	0.30	2.20	0.30
Max Chl Dpth (m)	1.48	Hydr. Depth (m)		0.98	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.78	Wetted Per. (m)		9.90	
Min Ch El (m)	491.29	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)		0.61	
C & E Loss (m)		Cum SA (1000 m2)		0.54	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4.5 BR D Profile: TR 100

E.G. Elev (m)	493.17	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.			
W.S. Elev (m)	492.93	Reach Len. (m)	0.78	0.78	0.78
Crit W.S. (m)	492.71	Flow Area (m2)		3.25	
E.G. Slope (m/m)		Area (m2)		3.25	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4.5 BR D Profile: TR 100 (Continued)

Top Width (m)	2.86	Top Width (m)		2.86	
Vel Total (m/s)	2.42	Avg. Vel. (m/s)	0.30	2.42	0.30
Max Chl Dpth (m)	1.64	Hydr. Depth (m)		1.14	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.78	Wetted Per. (m)		10.23	
Min Ch El (m)	491.29	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	0.69	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.55	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4.5 BR D Profile: TR 200

E.G. Elev (m)	493.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.			
W.S. Elev (m)	493.00	Reach Len. (m)	0.78	0.78	0.78
Crit W.S. (m)	492.77	Flow Area (m2)		3.45	
E.G. Slope (m/m)		Area (m2)		3.45	
Q Total (m3/s)	8.62	Flow (m3/s)		8.60	
Top Width (m)	2.87	Top Width (m)		2.87	
Vel Total (m/s)	2.50	Avg. Vel. (m/s)	0.30	2.50	0.30
Max Chl Dpth (m)	1.71	Hydr. Depth (m)		1.20	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.78	Wetted Per. (m)		10.36	
Min Ch El (m)	491.29	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.71	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.53	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4.5 BR D Profile: TR 500

E.G. Elev (m)	493.38	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.			
W.S. Elev (m)	493.08	Reach Len. (m)	0.78	0.78	0.78
Crit W.S. (m)	492.84	Flow Area (m2)		3.67	
E.G. Slope (m/m)		Area (m2)		3.67	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	2.87	Top Width (m)		2.87	
Vel Total (m/s)	2.61	Avg. Vel. (m/s)	0.30	2.61	0.30
Max Chl Dpth (m)	1.79	Hydr. Depth (m)		1.28	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.78	Wetted Per. (m)		10.52	
Min Ch El (m)	491.29	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.71	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.53	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4 Profile: TR 20

E.G. Elev (m)	492.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.41	Wt. n-Val.		0.033	
W.S. Elev (m)	492.25	Reach Len. (m)	14.90	14.90	14.90
Crit W.S. (m)	492.25	Flow Area (m2)		2.17	
E.G. Slope (m/m)	0.018564	Area (m2)		2.17	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	2.74	Top Width (m)		2.74	
Vel Total (m/s)	2.82	Avg. Vel. (m/s)		2.82	
Max Chl Dpth (m)	0.96	Hydr. Depth (m)		0.81	
Conv. Total (m3/s)	45.0	Conv. (m3/s)		45.0	
Length Wtd. (m)	14.90	Wetted Per. (m)		3.85	
Min Ch El (m)	491.29	Shear (N/m2)		102.83	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		290.11	
Frctn Loss (m)	0.27	Cum Volume (1000 m3)		0.61	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.54	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4 Profile: TR 100

E.G. Elev (m)	492.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.48	Wt. n-Val.		0.033	
W.S. Elev (m)	492.40	Reach Len. (m)	14.90	14.90	14.90
Crit W.S. (m)	492.40	Flow Area (m2)		2.57	
E.G. Slope (m/m)	0.017476	Area (m2)		2.59	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.81	Top Width (m)		2.81	
Vel Total (m/s)	3.06	Avg. Vel. (m/s)		3.06	
Max Chl Dpth (m)	1.11	Hydr. Depth (m)		0.96	
Conv. Total (m3/s)	59.5	Conv. (m3/s)		59.5	
Length Wtd. (m)	14.90	Wetted Per. (m)		3.85	
Min Ch El (m)	491.29	Shear (N/m2)		114.50	
Alpha	1.00	Stream Power (N/m s)		350.57	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)	0.05	0.69	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.18	0.54	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4 Profile: TR 200

E.G. Elev (m)	492.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.48	Wt. n-Val.		0.033	
W.S. Elev (m)	492.48	Reach Len. (m)	14.90	14.90	14.90
Crit W.S. (m)	492.48	Flow Area (m2)		2.81	
E.G. Slope (m/m)	0.019001	Area (m2)		2.81	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.82	Top Width (m)		2.82	
Vel Total (m/s)	3.07	Avg. Vel. (m/s)		3.07	
Max Chl Dpth (m)	1.19	Hydr. Depth (m)		1.00	
Conv. Total (m3/s)	62.5	Conv. (m3/s)		62.5	
Length Wtd. (m)	14.90	Wetted Per. (m)		4.46	
Min Ch El (m)	491.29	Shear (N/m2)		117.36	
Alpha	1.00	Stream Power (N/m s)		360.21	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)	0.06	0.71	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.18	0.53	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 4 Profile: TR 500

E.G. Elev (m)	493.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.		0.033	
W.S. Elev (m)	492.54	Reach Len. (m)	14.90	14.90	14.90
Crit W.S. (m)	492.54	Flow Area (m2)		2.98	
E.G. Slope (m/m)	0.019954	Area (m2)		2.98	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	2.82	Top Width (m)		2.82	
Vel Total (m/s)	3.21	Avg. Vel. (m/s)		3.21	
Max Chl Dpth (m)	1.25	Hydr. Depth (m)		1.06	
Conv. Total (m3/s)	67.9	Conv. (m3/s)		67.9	
Length Wtd. (m)	14.90	Wetted Per. (m)		4.58	
Min Ch El (m)	491.29	Shear (N/m2)		127.37	
Alpha	1.00	Stream Power (N/m s)		409.48	
Frctn Loss (m)	0.25	Cum Volume (1000 m3)	0.06	0.71	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.18	0.53	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 3 Profile: TR 20

E.G. Elev (m)	492.23	Element	Left OB	Channel	Right OB
Vel Head (m)	0.71	Wt. n-Val.		0.033	
W.S. Elev (m)	491.52	Reach Len. (m)	11.70	11.70	11.70
Crit W.S. (m)	491.73	Flow Area (m2)		1.65	
E.G. Slope (m/m)	0.042212	Area (m2)		1.65	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	2.81	Top Width (m)		2.81	
Vel Total (m/s)	3.72	Avg. Vel. (m/s)		3.72	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	29.8	Conv. (m3/s)		29.8	
Length Wtd. (m)		Wetted Per. (m)		3.56	
Min Ch El (m)	490.74	Shear (N/m2)		191.56	
Alpha	1.00	Stream Power (N/m s)		713.54	
Frctn Loss (m)	0.40	Cum Volume (1000 m3)		0.58	
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.50	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 3 Profile: TR 100

E.G. Elev (m)	492.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.83	Wt. n-Val.		0.033	
W.S. Elev (m)	491.63	Reach Len. (m)	11.70	11.70	11.70
Crit W.S. (m)	491.87	Flow Area (m2)		1.95	
E.G. Slope (m/m)	0.043065	Area (m2)		1.95	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.92	Top Width (m)		2.92	
Vel Total (m/s)	4.03	Avg. Vel. (m/s)		4.03	
Max Chl Dpth (m)	0.89	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	37.9	Conv. (m3/s)		37.9	
Length Wtd. (m)	11.70	Wetted Per. (m)		3.80	
Min Ch El (m)	490.74	Shear (N/m2)		216.82	
Alpha	1.00	Stream Power (N/m s)		874.22	
Frctn Loss (m)	0.39	Cum Volume (1000 m3)	0.05	0.65	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.18	0.50	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 3 Profile: TR 200

E.G. Elev (m)	492.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.83	Wt. n-Val.		0.033	
W.S. Elev (m)	491.69	Reach Len. (m)	11.70	11.70	11.70
Crit W.S. (m)	491.93	Flow Area (m2)		2.13	
E.G. Slope (m/m)	0.040301	Area (m2)		2.13	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.99	Top Width (m)		2.99	
Vel Total (m/s)	4.04	Avg. Vel. (m/s)		4.04	
Max Chl Dpth (m)	0.95	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	42.9	Conv. (m3/s)		42.9	
Length Wtd. (m)	11.70	Wetted Per. (m)		3.94	
Min Ch El (m)	490.74	Shear (N/m2)		213.87	
Alpha	1.00	Stream Power (N/m s)		863.98	
Frctn Loss (m)	0.40	Cum Volume (1000 m3)	0.06	0.67	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.18	0.49	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 3 Profile: TR 500

E.G. Elev (m)	492.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.88	Wt. n-Val.		0.033	
W.S. Elev (m)	491.75	Reach Len. (m)	11.70	11.70	11.70
Crit W.S. (m)	492.00	Flow Area (m2)		2.31	
E.G. Slope (m/m)	0.039871	Area (m2)		2.31	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 3 Profile: TR 500 (Continued)

Top Width (m)	3.05	Top Width (m)		3.05	
Vel Total (m/s)	4.15	Avg. Vel. (m/s)		4.15	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		0.76	
Conv. Total (m3/s)	48.0	Conv. (m3/s)		48.0	
Length Wtd. (m)	11.70	Wetted Per. (m)		4.08	
Min Ch El (m)	490.74	Shear (N/m2)		221.72	
Alpha	1.00	Stream Power (N/m s)		919.16	
Frctn Loss (m)	0.41	Cum Volume (1000 m3)	0.06	0.67	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.18	0.49	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 2 Profile: TR 20

E.G. Elev (m)	491.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.033	
W.S. Elev (m)	491.81	Reach Len. (m)	0.32	0.32	0.32
Crit W.S. (m)	491.27	Flow Area (m2)		3.85	
E.G. Slope (m/m)	0.004039	Area (m2)		3.85	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	2.97	Top Width (m)		2.97	
Vel Total (m/s)	1.59	Avg. Vel. (m/s)		1.59	
Max Chl Dpth (m)	1.59	Hydr. Depth (m)		1.30	
Conv. Total (m3/s)	96.5	Conv. (m3/s)		96.5	
Length Wtd. (m)	0.32	Wetted Per. (m)		5.13	
Min Ch El (m)	490.22	Shear (N/m2)		29.74	
Alpha	1.00	Stream Power (N/m s)		47.32	
Frctn Loss (m)		Cum Volume (1000 m3)		0.55	
C & E Loss (m)		Cum SA (1000 m2)		0.46	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 2 Profile: TR 100

E.G. Elev (m)	492.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.033	
W.S. Elev (m)	492.03	Reach Len. (m)	0.32	0.32	0.32
Crit W.S. (m)	491.42	Flow Area (m2)		4.50	
E.G. Slope (m/m)	0.004424	Area (m2)		4.50	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.98	Top Width (m)		2.98	
Vel Total (m/s)	1.75	Avg. Vel. (m/s)		1.75	
Max Chl Dpth (m)	1.81	Hydr. Depth (m)		1.51	
Conv. Total (m3/s)	118.3	Conv. (m3/s)		118.3	
Length Wtd. (m)	0.32	Wetted Per. (m)		5.57	
Min Ch El (m)	490.22	Shear (N/m2)		35.07	
Alpha	1.00	Stream Power (N/m s)		61.34	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	0.62	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.47	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 2 Profile: TR 200

E.G. Elev (m)	492.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.033	
W.S. Elev (m)	492.11	Reach Len. (m)	0.32	0.32	0.32
Crit W.S. (m)	491.46	Flow Area (m2)		4.75	
E.G. Slope (m/m)	0.004617	Area (m2)		4.75	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.98	Top Width (m)		2.98	
Vel Total (m/s)	1.82	Avg. Vel. (m/s)		1.82	
Max Chl Dpth (m)	1.89	Hydr. Depth (m)		1.59	
Conv. Total (m3/s)	126.9	Conv. (m3/s)		126.9	
Length Wtd. (m)	0.32	Wetted Per. (m)		5.73	
Min Ch El (m)	490.22	Shear (N/m2)		37.49	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 2 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		68.08	
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.63	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.45	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 2 Profile: TR 500

E.G. Elev (m)	492.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.033	
W.S. Elev (m)	492.14	Reach Len. (m)	0.32	0.32	0.32
Crit W.S. (m)	491.53	Flow Area (m2)		4.84	
E.G. Slope (m/m)	0.005437	Area (m2)		4.84	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	2.98	Top Width (m)		2.98	
Vel Total (m/s)	1.98	Avg. Vel. (m/s)		1.98	
Max Chl Dpth (m)	1.92	Hydr. Depth (m)		1.62	
Conv. Total (m3/s)	130.1	Conv. (m3/s)		130.1	
Length Wtd. (m)	0.32	Wetted Per. (m)		5.79	
Min Ch El (m)	490.22	Shear (N/m2)		44.53	
Alpha	1.00	Stream Power (N/m s)		88.24	
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.62	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.45	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.76 BR U Profile: TR 20

E.G. Elev (m)	491.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.			
W.S. Elev (m)	491.81	Reach Len. (m)	4.41	4.41	4.41
Crit W.S. (m)	491.47	Flow Area (m2)		3.26	
E.G. Slope (m/m)		Area (m2)		3.26	
Q Total (m3/s)	6.13	Flow (m3/s)		6.12	
Top Width (m)	2.97	Top Width (m)		2.97	
Vel Total (m/s)	1.88	Avg. Vel. (m/s)	0.30	1.88	0.30
Max Chl Dpth (m)	1.59	Hydr. Depth (m)		1.10	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	4.41	Wetted Per. (m)		10.57	
Min Ch El (m)	490.22	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)		0.55	
C & E Loss (m)		Cum SA (1000 m2)		0.46	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.76 BR U Profile: TR 100

E.G. Elev (m)	492.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.			
W.S. Elev (m)	492.03	Reach Len. (m)	4.41	4.41	4.41
Crit W.S. (m)	491.61	Flow Area (m2)		3.91	
E.G. Slope (m/m)		Area (m2)		3.91	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.98	Top Width (m)		2.98	
Vel Total (m/s)	2.01	Avg. Vel. (m/s)	0.30	2.01	0.30
Max Chl Dpth (m)	1.81	Hydr. Depth (m)		1.31	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	4.41	Wetted Per. (m)		11.00	
Min Ch El (m)	490.22	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	0.62	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.47	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.76 BR U Profile: TR 200

E.G. Elev (m)	492.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.86	Wt. n-Val.			
W.S. Elev (m)	492.11	Reach Len. (m)	4.41	4.41	4.41
Crit W.S. (m)	491.42	Flow Area (m2)		2.10	
E.G. Slope (m/m)		Area (m2)		2.10	
Q Total (m3/s)	8.62	Flow (m3/s)		8.60	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	4.10	Avg. Vel. (m/s)	0.30	4.09	0.30
Max Chl Dpth (m)	1.89	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	4.41	Wetted Per. (m)		6.83	
Min Ch El (m)	490.22	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.63	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.45	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.76 BR U Profile: TR 500

E.G. Elev (m)	492.34	Element	Left OB	Channel	Right OB
Vel Head (m)	1.06	Wt. n-Val.			
W.S. Elev (m)	492.14	Reach Len. (m)	4.41	4.41	4.41
Crit W.S. (m)	491.42	Flow Area (m2)		2.10	
E.G. Slope (m/m)		Area (m2)		2.10	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	4.56	Avg. Vel. (m/s)	0.30	4.56	0.30
Max Chl Dpth (m)	1.92	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	4.41	Wetted Per. (m)		6.83	
Min Ch El (m)	490.22	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.62	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.45	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.76 BR D Profile: TR 20

E.G. Elev (m)	491.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.			
W.S. Elev (m)	491.73	Reach Len. (m)	0.82	0.82	0.82
Crit W.S. (m)	491.16	Flow Area (m2)		3.31	
E.G. Slope (m/m)		Area (m2)		3.31	
Q Total (m3/s)	6.13	Flow (m3/s)		6.12	
Top Width (m)	2.88	Top Width (m)		2.88	
Vel Total (m/s)	1.85	Avg. Vel. (m/s)	0.30	1.85	0.30
Max Chl Dpth (m)	1.63	Hydr. Depth (m)		1.15	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.82	Wetted Per. (m)		10.48	
Min Ch El (m)	490.10	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)		0.54	
C & E Loss (m)		Cum SA (1000 m2)		0.45	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.76 BR D Profile: TR 100

E.G. Elev (m)	492.12	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.			
W.S. Elev (m)	491.88	Reach Len. (m)	0.82	0.82	0.82
Crit W.S. (m)	491.50	Flow Area (m2)		3.74	
E.G. Slope (m/m)		Area (m2)		3.74	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.76 BR D Profile: TR 100 (Continued)

Top Width (m)	2.89	Top Width (m)		2.89	
Vel Total (m/s)	2.10	Avg. Vel. (m/s)	0.30	2.10	0.30
Max Chl Dpth (m)	1.78	Hydr. Depth (m)		1.29	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.82	Wetted Per. (m)		10.78	
Min Ch El (m)	490.10	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	0.60	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.45	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.76 BR D Profile: TR 200

E.G. Elev (m)	492.20	Element	Left OB	Channel	Right OB
Vel Head (m)	0.65	Wt. n-Val.			
W.S. Elev (m)	491.94	Reach Len. (m)	0.82	0.82	0.82
Crit W.S. (m)	491.42	Flow Area (m2)		2.40	
E.G. Slope (m/m)		Area (m2)		2.40	
Q Total (m3/s)	8.62	Flow (m3/s)		8.60	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	3.58	Avg. Vel. (m/s)	0.30	3.58	0.30
Max Chl Dpth (m)	1.84	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.82	Wetted Per. (m)		6.98	
Min Ch El (m)	490.10	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.62	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.45	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.76 BR D Profile: TR 500

E.G. Elev (m)	492.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.81	Wt. n-Val.			
W.S. Elev (m)	491.98	Reach Len. (m)	0.82	0.82	0.82
Crit W.S. (m)	491.42	Flow Area (m2)		2.40	
E.G. Slope (m/m)		Area (m2)		2.40	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	3.99	Avg. Vel. (m/s)	0.30	3.99	0.30
Max Chl Dpth (m)	1.88	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.82	Wetted Per. (m)		6.98	
Min Ch El (m)	490.10	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.61	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.45	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.75* Profile: TR 20

E.G. Elev (m)	491.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.033	
W.S. Elev (m)	491.57	Reach Len. (m)	5.55	5.55	5.55
Crit W.S. (m)	491.15	Flow Area (m2)		3.41	
E.G. Slope (m/m)	0.005571	Area (m2)		3.41	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	2.88	Top Width (m)		2.88	
Vel Total (m/s)	1.80	Avg. Vel. (m/s)		1.80	
Max Chl Dpth (m)	1.47	Hydr. Depth (m)		1.19	
Conv. Total (m3/s)	82.1	Conv. (m3/s)		82.1	
Length Wtd. (m)	5.55	Wetted Per. (m)		4.83	
Min Ch El (m)	490.10	Shear (N/m2)		38.64	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.75* Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		69.39	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)		0.53	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.45	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.75* Profile: TR 100

E.G. Elev (m)	491.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.033	
W.S. Elev (m)	491.73	Reach Len. (m)	5.55	5.55	5.55
Crit W.S. (m)	491.30	Flow Area (m2)		3.87	
E.G. Slope (m/m)	0.006566	Area (m2)		3.87	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.88	Top Width (m)		2.88	
Vel Total (m/s)	2.03	Avg. Vel. (m/s)		2.03	
Max Chl Dpth (m)	1.63	Hydr. Depth (m)		1.34	
Conv. Total (m3/s)	97.1	Conv. (m3/s)		97.1	
Length Wtd. (m)	5.55	Wetted Per. (m)		5.15	
Min Ch El (m)	490.10	Shear (N/m2)		48.46	
Alpha	1.00	Stream Power (N/m s)		98.46	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.05	0.60	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	0.45	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.75* Profile: TR 200

E.G. Elev (m)	492.02	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.033	
W.S. Elev (m)	491.79	Reach Len. (m)	5.55	5.55	5.55
Crit W.S. (m)	491.35	Flow Area (m2)		4.05	
E.G. Slope (m/m)	0.006992	Area (m2)		4.05	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.89	Top Width (m)		2.89	
Vel Total (m/s)	2.13	Avg. Vel. (m/s)		2.13	
Max Chl Dpth (m)	1.69	Hydr. Depth (m)		1.40	
Conv. Total (m3/s)	103.1	Conv. (m3/s)		103.1	
Length Wtd. (m)	5.55	Wetted Per. (m)		5.27	
Min Ch El (m)	490.10	Shear (N/m2)		52.72	
Alpha	1.00	Stream Power (N/m s)		112.13	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.06	0.62	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	0.45	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.75* Profile: TR 500

E.G. Elev (m)	492.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.		0.033	
W.S. Elev (m)	491.74	Reach Len. (m)	5.55	5.55	5.55
Crit W.S. (m)	491.43	Flow Area (m2)		3.89	
E.G. Slope (m/m)	0.009655	Area (m2)		3.89	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	2.88	Top Width (m)		2.88	
Vel Total (m/s)	2.47	Avg. Vel. (m/s)		2.47	
Max Chl Dpth (m)	1.63	Hydr. Depth (m)		1.35	
Conv. Total (m3/s)	97.6	Conv. (m3/s)		97.6	
Length Wtd. (m)	5.55	Wetted Per. (m)		5.16	
Min Ch El (m)	490.10	Shear (N/m2)		71.39	
Alpha	1.00	Stream Power (N/m s)		176.11	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.06	0.61	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	0.45	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.5* Profile: TR 20

E.G. Elev (m)	491.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.033	
W.S. Elev (m)	491.56	Reach Len. (m)	5.55	5.55	5.55
Crit W.S. (m)		Flow Area (m2)		3.68	
E.G. Slope (m/m)	0.004592	Area (m2)		3.68	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	2.80	Top Width (m)		2.80	
Vel Total (m/s)	1.66	Avg. Vel. (m/s)		1.66	
Max Chl Dpth (m)	1.57	Hydr. Depth (m)		1.32	
Conv. Total (m3/s)	90.5	Conv. (m3/s)		90.5	
Length Wtd. (m)	5.55	Wetted Per. (m)		5.05	
Min Ch El (m)	489.98	Shear (N/m2)		32.84	
Alpha	1.00	Stream Power (N/m s)		54.65	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		0.51	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.43	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.5* Profile: TR 100

E.G. Elev (m)	491.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.033	
W.S. Elev (m)	491.71	Reach Len. (m)	5.55	5.55	5.55
Crit W.S. (m)		Flow Area (m2)		4.12	
E.G. Slope (m/m)	0.005657	Area (m2)		4.12	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.81	Top Width (m)		2.81	
Vel Total (m/s)	1.91	Avg. Vel. (m/s)		1.91	
Max Chl Dpth (m)	1.73	Hydr. Depth (m)		1.47	
Conv. Total (m3/s)	104.6	Conv. (m3/s)		104.6	
Length Wtd. (m)	5.55	Wetted Per. (m)		5.36	
Min Ch El (m)	489.98	Shear (N/m2)		42.60	
Alpha	1.00	Stream Power (N/m s)		81.43	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.05	0.57	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	0.44	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.5* Profile: TR 200

E.G. Elev (m)	491.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.033	
W.S. Elev (m)	491.77	Reach Len. (m)	5.55	5.55	5.55
Crit W.S. (m)		Flow Area (m2)		4.29	
E.G. Slope (m/m)	0.006115	Area (m2)		4.29	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.81	Top Width (m)		2.81	
Vel Total (m/s)	2.01	Avg. Vel. (m/s)		2.01	
Max Chl Dpth (m)	1.79	Hydr. Depth (m)		1.52	
Conv. Total (m3/s)	110.2	Conv. (m3/s)		110.2	
Length Wtd. (m)	5.55	Wetted Per. (m)		5.48	
Min Ch El (m)	489.98	Shear (N/m2)		46.89	
Alpha	1.00	Stream Power (N/m s)		94.32	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.06	0.60	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	0.44	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.5* Profile: TR 500

E.G. Elev (m)	491.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.28	Wt. n-Val.		0.033	
W.S. Elev (m)	491.71	Reach Len. (m)	5.55	5.55	5.55
Crit W.S. (m)		Flow Area (m2)		4.10	
E.G. Slope (m/m)	0.008492	Area (m2)		4.10	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.5* Profile: TR 500 (Continued)

Top Width (m)	2.81	Top Width (m)		2.81	
Vel Total (m/s)	2.34	Avg. Vel. (m/s)		2.34	
Max Chl Dpth (m)	1.72	Hydr. Depth (m)		1.46	
Conv. Total (m3/s)	104.1	Conv. (m3/s)		104.1	
Length Wtd. (m)	5.55	Wetted Per. (m)		5.35	
Min Ch El (m)	489.98	Shear (N/m2)		63.84	
Alpha	1.00	Stream Power (N/m s)		149.33	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.06	0.59	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	0.44	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.25* Profile: TR 20

E.G. Elev (m)	491.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.033	
W.S. Elev (m)	491.55	Reach Len. (m)	5.55	5.55	5.55
Crit W.S. (m)		Flow Area (m2)		4.00	
E.G. Slope (m/m)	0.003773	Area (m2)		4.00	
Q Total (m3/s)	6.13	Flow (m3/s)		6.13	
Top Width (m)	2.72	Top Width (m)		2.72	
Vel Total (m/s)	1.53	Avg. Vel. (m/s)		1.53	
Max Chl Dpth (m)	1.68	Hydr. Depth (m)		1.47	
Conv. Total (m3/s)	99.8	Conv. (m3/s)		99.8	
Length Wtd. (m)	5.55	Wetted Per. (m)		5.35	
Min Ch El (m)	489.87	Shear (N/m2)		27.66	
Alpha	1.00	Stream Power (N/m s)		42.42	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		0.49	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.42	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.25* Profile: TR 100

E.G. Elev (m)	491.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.033	
W.S. Elev (m)	491.70	Reach Len. (m)	5.55	5.55	5.55
Crit W.S. (m)		Flow Area (m2)		4.41	
E.G. Slope (m/m)	0.004833	Area (m2)		4.41	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.73	Top Width (m)		2.73	
Vel Total (m/s)	1.79	Avg. Vel. (m/s)		1.79	
Max Chl Dpth (m)	1.83	Hydr. Depth (m)		1.61	
Conv. Total (m3/s)	113.2	Conv. (m3/s)		113.2	
Length Wtd. (m)	5.55	Wetted Per. (m)		5.65	
Min Ch El (m)	489.87	Shear (N/m2)		36.99	
Alpha	1.00	Stream Power (N/m s)		66.04	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.05	0.55	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.18	0.42	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.25* Profile: TR 200

E.G. Elev (m)	491.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.033	
W.S. Elev (m)	491.76	Reach Len. (m)	5.55	5.55	5.55
Crit W.S. (m)		Flow Area (m2)		4.57	
E.G. Slope (m/m)	0.005296	Area (m2)		4.57	
Q Total (m3/s)	8.62	Flow (m3/s)		8.62	
Top Width (m)	2.73	Top Width (m)		2.73	
Vel Total (m/s)	1.89	Avg. Vel. (m/s)		1.89	
Max Chl Dpth (m)	1.89	Hydr. Depth (m)		1.67	
Conv. Total (m3/s)	118.4	Conv. (m3/s)		118.4	
Length Wtd. (m)	5.55	Wetted Per. (m)		5.76	
Min Ch El (m)	489.87	Shear (N/m2)		41.14	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.25* Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		77.67	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.06	0.57	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	0.42	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1.25* Profile: TR 500

E.G. Elev (m)	491.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.		0.033	
W.S. Elev (m)	491.69	Reach Len. (m)	5.55	5.55	5.55
Crit W.S. (m)		Flow Area (m2)		4.37	
E.G. Slope (m/m)	0.007345	Area (m2)		4.37	
Q Total (m3/s)	9.59	Flow (m3/s)		9.59	
Top Width (m)	2.73	Top Width (m)		2.73	
Vel Total (m/s)	2.20	Avg. Vel. (m/s)		2.20	
Max Chl Dpth (m)	1.82	Hydr. Depth (m)		1.60	
Conv. Total (m3/s)	111.9	Conv. (m3/s)		111.9	
Length Wtd. (m)	5.55	Wetted Per. (m)		5.62	
Min Ch El (m)	489.87	Shear (N/m2)		55.99	
Alpha	1.00	Stream Power (N/m s)		122.95	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.06	0.57	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.18	0.42	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1 Profile: TR 20

E.G. Elev (m)	491.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.033	
W.S. Elev (m)	491.50	Reach Len. (m)	130.00	130.00	130.00
Crit W.S. (m)	490.78	Flow Area (m2)		4.24	
E.G. Slope (m/m)	0.004556	Area (m2)		4.24	
Q Total (m3/s)	7.17	Flow (m3/s)		7.17	
Top Width (m)	2.64	Top Width (m)		2.64	
Vel Total (m/s)	1.69	Avg. Vel. (m/s)		1.69	
Max Chl Dpth (m)	1.75	Hydr. Depth (m)		1.60	
Conv. Total (m3/s)	106.2	Conv. (m3/s)		106.2	
Length Wtd. (m)	130.00	Wetted Per. (m)		5.64	
Min Ch El (m)	489.75	Shear (N/m2)		33.59	
Alpha	1.00	Stream Power (N/m s)		56.80	
Frctn Loss (m)		Cum Volume (1000 m3)		0.47	
C & E Loss (m)		Cum SA (1000 m2)		0.40	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1 Profile: TR 100

E.G. Elev (m)	491.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.033	
W.S. Elev (m)	491.62	Reach Len. (m)	130.00	130.00	130.00
Crit W.S. (m)	490.95	Flow Area (m2)		4.57	
E.G. Slope (m/m)	0.006191	Area (m2)		4.57	
Q Total (m3/s)	9.19	Flow (m3/s)		9.19	
Top Width (m)	2.66	Top Width (m)		2.66	
Vel Total (m/s)	2.01	Avg. Vel. (m/s)		2.01	
Max Chl Dpth (m)	1.87	Hydr. Depth (m)		1.72	
Conv. Total (m3/s)	116.8	Conv. (m3/s)		116.8	
Length Wtd. (m)	130.00	Wetted Per. (m)		5.89	
Min Ch El (m)	489.75	Shear (N/m2)		47.09	
Alpha	1.00	Stream Power (N/m s)		94.78	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	0.52	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.41	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1 Profile: TR 200

E.G. Elev (m)	491.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.033	
W.S. Elev (m)	491.67	Reach Len. (m)	130.00	130.00	130.00
Crit W.S. (m)	491.02	Flow Area (m2)		4.68	
E.G. Slope (m/m)	0.006957	Area (m2)		4.68	
Q Total (m3/s)	10.06	Flow (m3/s)		10.06	
Top Width (m)	2.66	Top Width (m)		2.66	
Vel Total (m/s)	2.15	Avg. Vel. (m/s)		2.15	
Max Chl Dpth (m)	1.92	Hydr. Depth (m)		1.76	
Conv. Total (m3/s)	120.6	Conv. (m3/s)		120.6	
Length Wtd. (m)	130.00	Wetted Per. (m)		5.97	
Min Ch El (m)	489.75	Shear (N/m2)		53.48	
Alpha	1.00	Stream Power (N/m s)		114.90	
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.55	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.41	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 1 Profile: TR 500

E.G. Elev (m)	491.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.34	Wt. n-Val.		0.033	
W.S. Elev (m)	491.53	Reach Len. (m)	130.00	130.00	130.00
Crit W.S. (m)	491.11	Flow Area (m2)		4.33	
E.G. Slope (m/m)	0.010511	Area (m2)		4.33	
Q Total (m3/s)	11.19	Flow (m3/s)		11.19	
Top Width (m)	2.65	Top Width (m)		2.65	
Vel Total (m/s)	2.58	Avg. Vel. (m/s)		2.58	
Max Chl Dpth (m)	1.78	Hydr. Depth (m)		1.64	
Conv. Total (m3/s)	109.2	Conv. (m3/s)		109.2	
Length Wtd. (m)	130.00	Wetted Per. (m)		5.71	
Min Ch El (m)	489.75	Shear (N/m2)		78.20	
Alpha	1.00	Stream Power (N/m s)		202.08	
Frctn Loss (m)		Cum Volume (1000 m3)	0.06	0.54	
C & E Loss (m)		Cum SA (1000 m2)	0.18	0.41	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 0.2 Profile: TR 20

E.G. Elev (m)	486.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.45	Wt. n-Val.		0.033	
W.S. Elev (m)	486.46	Reach Len. (m)	17.58	17.78	17.56
Crit W.S. (m)	486.46	Flow Area (m2)		2.42	
E.G. Slope (m/m)	0.019287	Area (m2)		2.42	
Q Total (m3/s)	7.17	Flow (m3/s)		7.17	
Top Width (m)	2.70	Top Width (m)		2.70	
Vel Total (m/s)	2.96	Avg. Vel. (m/s)		2.96	
Max Chl Dpth (m)	1.13	Hydr. Depth (m)		0.90	
Conv. Total (m3/s)	51.6	Conv. (m3/s)		51.6	
Length Wtd. (m)	17.78	Wetted Per. (m)		4.11	
Min Ch El (m)	485.32	Shear (N/m2)		111.45	
Alpha	1.00	Stream Power (N/m s)		329.65	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.11	Cum SA (1000 m2)		0.05	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 0.2 Profile: TR 100

E.G. Elev (m)	487.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.		0.033	
W.S. Elev (m)	486.62	Reach Len. (m)	17.58	17.78	17.56
Crit W.S. (m)	486.62	Flow Area (m2)		2.86	
E.G. Slope (m/m)	0.020265	Area (m2)		2.86	
Q Total (m3/s)	9.19	Flow (m3/s)		9.19	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 0.2 Profile: TR 100 (Continued)

Top Width (m)	2.70	Top Width (m)		2.70	
Vel Total (m/s)	3.22	Avg. Vel. (m/s)		3.22	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)		1.06	
Conv. Total (m3/s)	64.5	Conv. (m3/s)		64.5	
Length Wtd. (m)	17.72	Wetted Per. (m)		4.43	
Min Ch El (m)	485.32	Shear (N/m2)		128.01	
Alpha	1.00	Stream Power (N/m s)		411.90	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	0.05	0.04	
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.18	0.06	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 0.2 Profile: TR 200

E.G. Elev (m)	487.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.56	Wt. n-Val.		0.033	
W.S. Elev (m)	486.68	Reach Len. (m)	17.58	17.78	17.56
Crit W.S. (m)	486.68	Flow Area (m2)		3.03	
E.G. Slope (m/m)	0.020666	Area (m2)		3.03	
Q Total (m3/s)	10.06	Flow (m3/s)		10.06	
Top Width (m)	2.70	Top Width (m)		2.70	
Vel Total (m/s)	3.32	Avg. Vel. (m/s)		3.32	
Max Chl Dpth (m)	1.36	Hydr. Depth (m)		1.12	
Conv. Total (m3/s)	70.0	Conv. (m3/s)		70.0	
Length Wtd. (m)	17.72	Wetted Per. (m)		4.56	
Min Ch El (m)	485.32	Shear (N/m2)		134.66	
Alpha	1.00	Stream Power (N/m s)		446.71	
Frctn Loss (m)	0.31	Cum Volume (1000 m3)	0.06	0.04	
C & E Loss (m)	0.13	Cum SA (1000 m2)	0.18	0.06	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 0.2 Profile: TR 500

E.G. Elev (m)	487.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.60	Wt. n-Val.		0.033	
W.S. Elev (m)	486.77	Reach Len. (m)	17.58	17.78	17.56
Crit W.S. (m)	486.77	Flow Area (m2)		3.27	
E.G. Slope (m/m)	0.020946	Area (m2)		3.27	
Q Total (m3/s)	11.19	Flow (m3/s)		11.19	
Top Width (m)	2.70	Top Width (m)		2.70	
Vel Total (m/s)	3.42	Avg. Vel. (m/s)		3.42	
Max Chl Dpth (m)	1.44	Hydr. Depth (m)		1.21	
Conv. Total (m3/s)	77.3	Conv. (m3/s)		77.3	
Length Wtd. (m)	17.72	Wetted Per. (m)		4.74	
Min Ch El (m)	485.32	Shear (N/m2)		141.68	
Alpha	1.00	Stream Power (N/m s)		485.09	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)	0.06	0.05	
C & E Loss (m)	0.14	Cum SA (1000 m2)	0.18	0.06	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 0.1 Profile: TR 20

E.G. Elev (m)	486.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.98	Wt. n-Val.		0.033	
W.S. Elev (m)	485.28	Reach Len. (m)			
Crit W.S. (m)	485.34	Flow Area (m2)		1.63	
E.G. Slope (m/m)	0.066697	Area (m2)		1.63	
Q Total (m3/s)	7.17	Flow (m3/s)		7.17	
Top Width (m)	3.48	Top Width (m)		3.48	
Vel Total (m/s)	4.40	Avg. Vel. (m/s)		4.40	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	27.8	Conv. (m3/s)		27.8	
Length Wtd. (m)		Wetted Per. (m)		3.88	
Min Ch El (m)	484.52	Shear (N/m2)		275.31	

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 0.1 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		1210.12	
Frctn Loss (m)	0.58	Cum Volume (1000 m3)			
C & E Loss (m)	0.05	Cum SA (1000 m2)			

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 0.1 Profile: TR 100

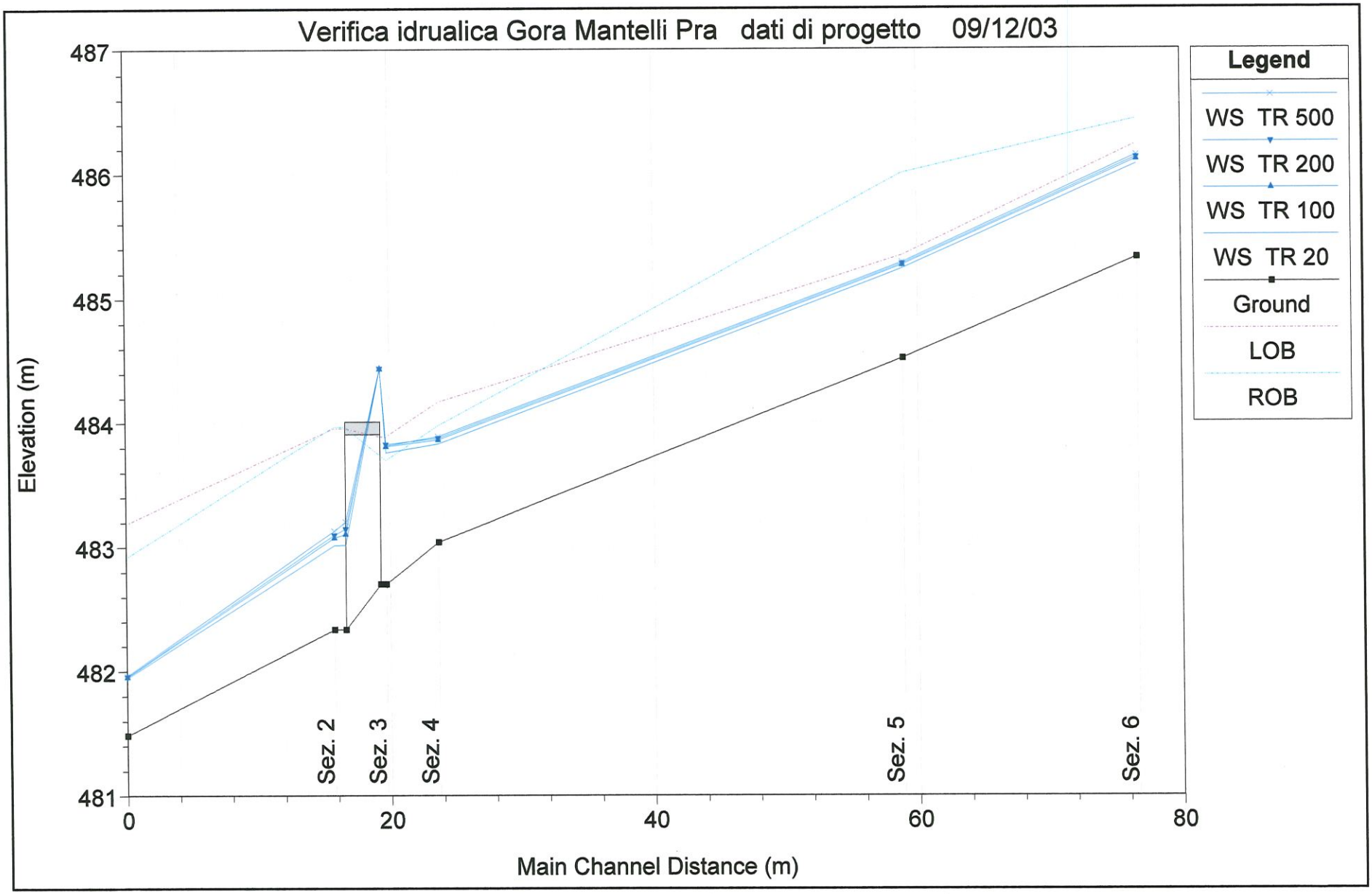
E.G. Elev (m)	485.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	485.35	Reach Len. (m)			
Crit W.S. (m)	485.35	Flow Area (m2)	5.97	1.88	
E.G. Slope (m/m)	0.014470	Area (m2)	5.97	1.88	
Q Total (m3/s)	9.19	Flow (m3/s)	5.12	4.07	
Top Width (m)	24.55	Top Width (m)	20.85	3.70	
Vel Total (m/s)	1.17	Avg. Vel. (m/s)	0.86	2.16	
Max Chl Dpth (m)	0.83	Hydr. Depth (m)	0.29	0.51	
Conv. Total (m3/s)	76.4	Conv. (m3/s)	42.6	33.8	
Length Wtd. (m)		Wetted Per. (m)	21.34	4.13	
Min Ch El (m)	484.52	Shear (N/m2)	39.71	64.73	
Alpha	1.81	Stream Power (N/m s)	34.07	139.82	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 0.1 Profile: TR 200

E.G. Elev (m)	485.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	485.37	Reach Len. (m)			
Crit W.S. (m)	485.37	Flow Area (m2)	6.28	1.94	
E.G. Slope (m/m)	0.015201	Area (m2)	6.28	1.94	
Q Total (m3/s)	10.06	Flow (m3/s)	5.71	4.35	
Top Width (m)	24.57	Top Width (m)	20.85	3.73	
Vel Total (m/s)	1.22	Avg. Vel. (m/s)	0.91	2.25	
Max Chl Dpth (m)	0.85	Hydr. Depth (m)	0.30	0.52	
Conv. Total (m3/s)	81.6	Conv. (m3/s)	46.3	35.3	
Length Wtd. (m)		Wetted Per. (m)	21.35	4.16	
Min Ch El (m)	484.52	Shear (N/m2)	43.86	69.45	
Alpha	1.77	Stream Power (N/m s)	39.86	155.95	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan 01 River: Gora Mantelli Reach:Muston Riv Sta: 0.1 Profile: TR 500

E.G. Elev (m)	485.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	485.39	Reach Len. (m)			
Crit W.S. (m)	485.39	Flow Area (m2)	6.75	2.02	
E.G. Slope (m/m)	0.015513	Area (m2)	6.75	2.02	
Q Total (m3/s)	11.19	Flow (m3/s)	6.51	4.68	
Top Width (m)	24.62	Top Width (m)	20.85	3.77	
Vel Total (m/s)	1.27	Avg. Vel. (m/s)	0.96	2.32	
Max Chl Dpth (m)	0.87	Hydr. Depth (m)	0.32	0.54	
Conv. Total (m3/s)	89.8	Conv. (m3/s)	52.2	37.6	
Length Wtd. (m)		Wetted Per. (m)	21.37	4.21	
Min Ch El (m)	484.52	Shear (N/m2)	48.08	73.13	
Alpha	1.71	Stream Power (N/m s)	46.30	169.36	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			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Elevation (m)
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486
485
484
483
482
481
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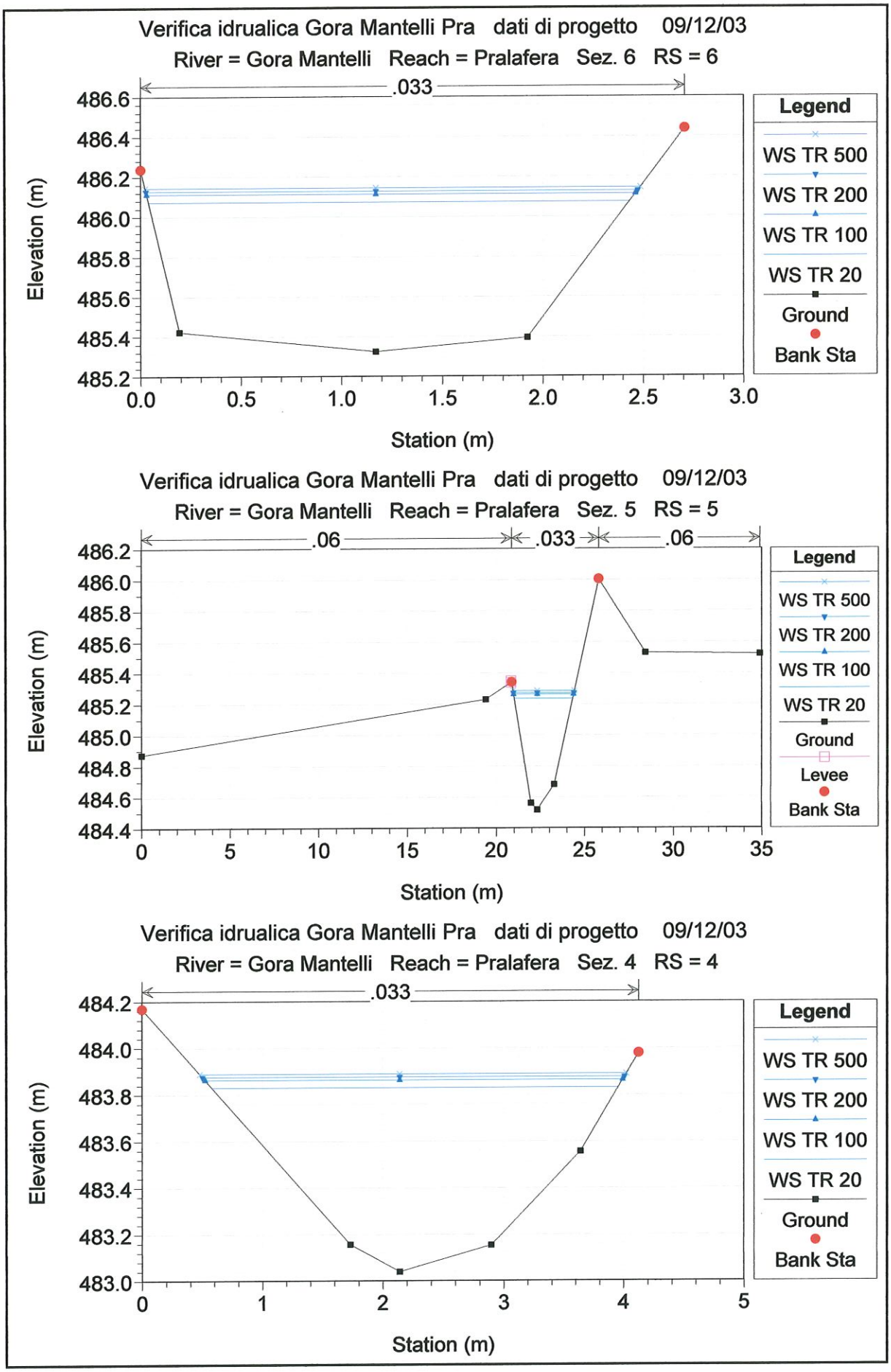
20
40
60
80
Main Channel Distance (m)
Sez. 2
Sez. 3
Sez. 4
Sez. 5
Sez. 6
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
LOB
ROB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Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta
Verifica idrualica Gora Mantelli Pra dati di progetto 09/12/03
River = Gora Mantelli Reach = Pralafera Sez. 5 RS = 5
.06
.033
.06
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Levee
Bank Sta
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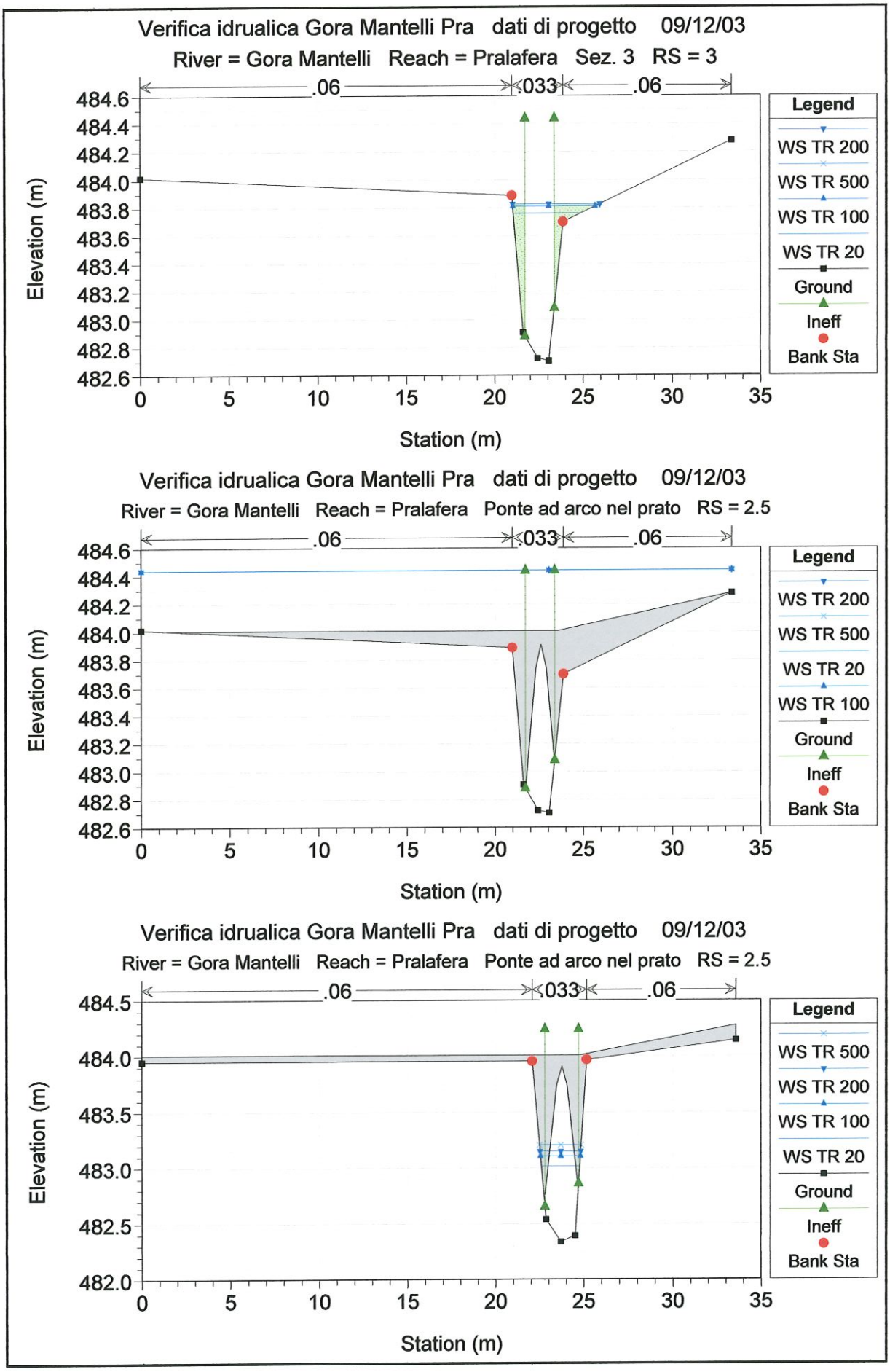
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta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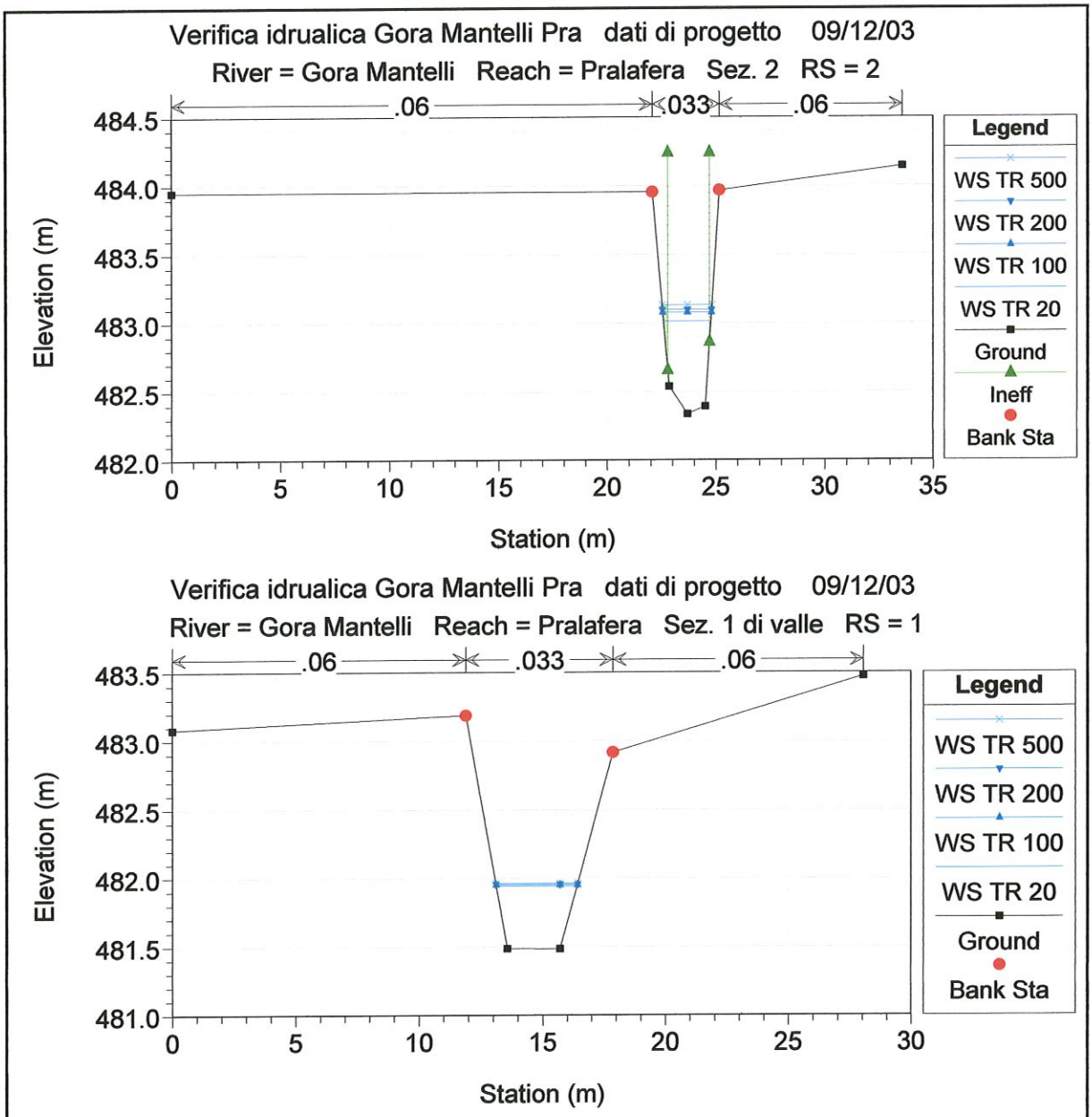
033
.06
Elevation (m)
Station (m)
Legend
WS TR 200
WS TR 500
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idrualica Gora Mantelli Pra dati di progetto 09/12/03
River = Gora Mantelli Reach = Pralafera Ponte ad arco nel prato RS = 2.5
.06
033
.06
Elevation (m)
Station (m)
Legend
WS TR 200
WS TR 500
WS TR 20
WS TR 100
Ground
Ineff
Bank Sta
Verifica idrualica Gora Mantelli Pra dati di progetto 09/12/03
River = Gora Mantelli Reach = Pralafera Ponte ad arco nel prato RS = 2.5
.06
033
.06
Elevation (m)
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta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.06
.033
.06
484.5
484.0
483.5
483.0
482.5
482.0
Elevation (m)
0
5
10
15
20
25
30
35
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Ineff
Bank Sta
Verifica idrualica Gora Mantelli Pra dati di progetto 09/12/03
River = Gora Mantelli Reach = Pralafera Sez. 1 di valle RS = 1
.06
.033
.06
483.5
483.0
482.5
482.0
481.5
481.0
Elevation (m)
0
5
10
15
20
25
30
Station (m)
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
Bank Sta

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 6 Profile: TR 20

E.G. Elev (m)	486.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.72	Wt. n-Val.		0.033	
W.S. Elev (m)	486.07	Reach Len. (m)	17.58	17.78	17.56
Crit W.S. (m)	486.28	Flow Area (m2)		1.44	
E.G. Slope (m/m)	0.045351	Area (m2)		1.44	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	2.39	Top Width (m)		2.39	
Vel Total (m/s)	3.75	Avg. Vel. (m/s)		3.75	
Max Chl Dpth (m)	0.75	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	25.5	Conv. (m3/s)		25.5	
Length Wtd. (m)	17.78	Wetted Per. (m)		3.25	
Min Ch El (m)	485.32	Shear (N/m2)		197.32	
Alpha	1.00	Stream Power (N/m s)		740.75	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.11	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.03	0.23	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 6 Profile: TR 100

E.G. Elev (m)	486.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.75	Wt. n-Val.		0.033	
W.S. Elev (m)	486.11	Reach Len. (m)	17.58	17.78	17.56
Crit W.S. (m)	486.33	Flow Area (m2)		1.54	
E.G. Slope (m/m)	0.045348	Area (m2)		1.54	
Q Total (m3/s)	5.92	Flow (m3/s)		5.92	
Top Width (m)	2.43	Top Width (m)		2.43	
Vel Total (m/s)	3.85	Avg. Vel. (m/s)		3.85	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	27.8	Conv. (m3/s)		27.8	
Length Wtd. (m)	17.78	Wetted Per. (m)		3.34	
Min Ch El (m)	485.32	Shear (N/m2)		204.68	
Alpha	1.00	Stream Power (N/m s)		787.40	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.12	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.03	0.24	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 6 Profile: TR 200

E.G. Elev (m)	486.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.77	Wt. n-Val.		0.033	
W.S. Elev (m)	486.13	Reach Len. (m)	17.58	17.78	17.56
Crit W.S. (m)	486.35	Flow Area (m2)		1.58	
E.G. Slope (m/m)	0.045350	Area (m2)		1.58	
Q Total (m3/s)	6.12	Flow (m3/s)		6.12	
Top Width (m)	2.45	Top Width (m)		2.45	
Vel Total (m/s)	3.88	Avg. Vel. (m/s)		3.88	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	28.7	Conv. (m3/s)		28.7	
Length Wtd. (m)	17.78	Wetted Per. (m)		3.38	
Min Ch El (m)	485.32	Shear (N/m2)		207.49	
Alpha	1.00	Stream Power (N/m s)		805.43	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.12	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.03	0.24	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 6 Profile: TR 500

E.G. Elev (m)	486.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.78	Wt. n-Val.		0.033	
W.S. Elev (m)	486.14	Reach Len. (m)	17.58	17.78	17.56
Crit W.S. (m)	486.38	Flow Area (m2)		1.62	
E.G. Slope (m/m)	0.045348	Area (m2)		1.62	
Q Total (m3/s)	6.34	Flow (m3/s)		6.34	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 6 Profile: TR 500 (Continued)

Top Width (m)	2.46	Top Width (m)		2.46	
Vel Total (m/s)	3.92	Avg. Vel. (m/s)		3.92	
Max Chl Dpth (m)	0.82	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	29.8	Conv. (m3/s)		29.8	
Length Wtd. (m)	17.78	Wetted Per. (m)		3.42	
Min Ch El (m)	485.32	Shear (N/m2)		210.52	
Alpha	1.00	Stream Power (N/m s)		825.15	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.13	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.03	0.24	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 5 Profile: TR 20

E.G. Elev (m)	485.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.70	Wt. n-Val.		0.033	
W.S. Elev (m)	485.24	Reach Len. (m)	35.85	35.19	34.81
Crit W.S. (m)	485.35	Flow Area (m2)		1.47	
E.G. Slope (m/m)	0.050805	Area (m2)		1.47	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	3.32	Top Width (m)		3.32	
Vel Total (m/s)	3.69	Avg. Vel. (m/s)		3.69	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	24.0	Conv. (m3/s)		24.0	
Length Wtd. (m)	35.19	Wetted Per. (m)		3.69	
Min Ch El (m)	484.52	Shear (N/m2)		198.21	
Alpha	1.00	Stream Power (N/m s)		732.30	
Frctn Loss (m)	0.85	Cum Volume (1000 m3)	0.01	0.09	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.03	0.18	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 5 Profile: TR 100

E.G. Elev (m)	486.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.74	Wt. n-Val.		0.033	
W.S. Elev (m)	485.26	Reach Len. (m)	35.85	35.19	34.81
Crit W.S. (m)	485.35	Flow Area (m2)		1.56	
E.G. Slope (m/m)	0.051496	Area (m2)		1.56	
Q Total (m3/s)	5.92	Flow (m3/s)		5.92	
Top Width (m)	3.41	Top Width (m)		3.41	
Vel Total (m/s)	3.80	Avg. Vel. (m/s)		3.80	
Max Chl Dpth (m)	0.74	Hydr. Depth (m)		0.46	
Conv. Total (m3/s)	26.1	Conv. (m3/s)		26.1	
Length Wtd. (m)	35.19	Wetted Per. (m)		3.79	
Min Ch El (m)	484.52	Shear (N/m2)		207.46	
Alpha	1.00	Stream Power (N/m s)		788.38	
Frctn Loss (m)	0.86	Cum Volume (1000 m3)	0.01	0.09	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.03	0.19	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 5 Profile: TR 200

E.G. Elev (m)	486.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.75	Wt. n-Val.		0.033	
W.S. Elev (m)	485.27	Reach Len. (m)	35.85	35.19	34.81
Crit W.S. (m)	485.35	Flow Area (m2)		1.59	
E.G. Slope (m/m)	0.052101	Area (m2)		1.59	
Q Total (m3/s)	6.12	Flow (m3/s)		6.12	
Top Width (m)	3.44	Top Width (m)		3.44	
Vel Total (m/s)	3.85	Avg. Vel. (m/s)		3.85	
Max Chl Dpth (m)	0.75	Hydr. Depth (m)		0.46	
Conv. Total (m3/s)	26.8	Conv. (m3/s)		26.8	
Length Wtd. (m)	35.19	Wetted Per. (m)		3.83	
Min Ch El (m)	484.52	Shear (N/m2)		212.14	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 5 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		816.65	
Frctn Loss (m)	0.86	Cum Volume (1000 m3)	0.01	0.10	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.03	0.19	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 5 Profile: TR 500

E.G. Elev (m)	486.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.77	Wt. n-Val.		0.033	
W.S. Elev (m)	485.28	Reach Len. (m)	35.85	35.19	34.81
Crit W.S. (m)	485.35	Flow Area (m2)		1.63	
E.G. Slope (m/m)	0.051874	Area (m2)		1.63	
Q Total (m3/s)	6.34	Flow (m3/s)		6.34	
Top Width (m)	3.48	Top Width (m)		3.48	
Vel Total (m/s)	3.88	Avg. Vel. (m/s)		3.88	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	27.8	Conv. (m3/s)		27.8	
Length Wtd. (m)	35.19	Wetted Per. (m)		3.88	
Min Ch El (m)	484.52	Shear (N/m2)		214.35	
Alpha	1.00	Stream Power (N/m s)		831.50	
Frctn Loss (m)	0.87	Cum Volume (1000 m3)	0.01	0.10	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.03	0.19	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 4 Profile: TR 20

E.G. Elev (m)	484.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.56	Wt. n-Val.		0.033	
W.S. Elev (m)	483.83	Reach Len. (m)	3.22	3.97	4.39
Crit W.S. (m)	484.00	Flow Area (m2)		1.64	
E.G. Slope (m/m)	0.036390	Area (m2)		1.64	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	3.38	Top Width (m)		3.38	
Vel Total (m/s)	3.31	Avg. Vel. (m/s)		3.31	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	28.4	Conv. (m3/s)		28.4	
Length Wtd. (m)	3.97	Wetted Per. (m)		3.79	
Min Ch El (m)	483.04	Shear (N/m2)		154.38	
Alpha	1.00	Stream Power (N/m s)		510.47	
Frctn Loss (m)	1.50	Cum Volume (1000 m3)	0.01	0.03	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.03	0.06	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 4 Profile: TR 100

E.G. Elev (m)	484.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.58	Wt. n-Val.		0.033	
W.S. Elev (m)	483.86	Reach Len. (m)	3.22	3.97	4.39
Crit W.S. (m)	484.04	Flow Area (m2)		1.75	
E.G. Slope (m/m)	0.036214	Area (m2)		1.75	
Q Total (m3/s)	5.92	Flow (m3/s)		5.92	
Top Width (m)	3.47	Top Width (m)		3.47	
Vel Total (m/s)	3.38	Avg. Vel. (m/s)		3.38	
Max Chl Dpth (m)	0.82	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	31.1	Conv. (m3/s)		31.1	
Length Wtd. (m)	3.97	Wetted Per. (m)		3.90	
Min Ch El (m)	483.04	Shear (N/m2)		159.35	
Alpha	1.00	Stream Power (N/m s)		538.56	
Frctn Loss (m)	1.51	Cum Volume (1000 m3)	0.01	0.04	0.00
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.03	0.06	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 4 Profile: TR 200

E.G. Elev (m)	484.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.59	Wt. n-Val.		0.033	
W.S. Elev (m)	483.88	Reach Len. (m)	3.22	3.97	4.39
Crit W.S. (m)	484.05	Flow Area (m2)		1.80	
E.G. Slope (m/m)	0.036026	Area (m2)		1.80	
Q Total (m3/s)	6.12	Flow (m3/s)		6.12	
Top Width (m)	3.51	Top Width (m)		3.51	
Vel Total (m/s)	3.40	Avg. Vel. (m/s)		3.40	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	32.2	Conv. (m3/s)		32.2	
Length Wtd. (m)	3.97	Wetted Per. (m)		3.95	
Min Ch El (m)	483.04	Shear (N/m2)		160.79	
Alpha	1.00	Stream Power (N/m s)		547.19	
Frctn Loss (m)	1.51	Cum Volume (1000 m3)	0.01	0.04	0.00
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.03	0.07	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 4 Profile: TR 500

E.G. Elev (m)	484.49	Element	Left OB	Channel	Right OB
Vel Head (m)	0.60	Wt. n-Val.		0.033	
W.S. Elev (m)	483.89	Reach Len. (m)	3.22	3.97	4.39
Crit W.S. (m)	484.07	Flow Area (m2)		1.84	
E.G. Slope (m/m)	0.036124	Area (m2)		1.84	
Q Total (m3/s)	6.34	Flow (m3/s)		6.34	
Top Width (m)	3.55	Top Width (m)		3.55	
Vel Total (m/s)	3.44	Avg. Vel. (m/s)		3.44	
Max Chl Dpth (m)	0.85	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	33.4	Conv. (m3/s)		33.4	
Length Wtd. (m)	3.97	Wetted Per. (m)		4.00	
Min Ch El (m)	483.04	Shear (N/m2)		163.44	
Alpha	1.00	Stream Power (N/m s)		562.04	
Frctn Loss (m)	1.51	Cum Volume (1000 m3)	0.01	0.04	0.00
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.03	0.07	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 3 Profile: TR 20

E.G. Elev (m)	484.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.58	Wt. n-Val.		0.033	
W.S. Elev (m)	483.76	Reach Len. (m)	0.43	0.43	0.43
Crit W.S. (m)	483.82	Flow Area (m2)		1.61	
E.G. Slope (m/m)	0.014833	Area (m2)		2.13	0.03
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	3.81	Top Width (m)		2.82	0.99
Vel Total (m/s)	3.36	Avg. Vel. (m/s)		3.36	
Max Chl Dpth (m)	1.05	Hydr. Depth (m)		0.97	
Conv. Total (m3/s)	44.5	Conv. (m3/s)		44.5	
Length Wtd. (m)		Wetted Per. (m)		1.85	
Min Ch El (m)	482.71	Shear (N/m2)		126.64	
Alpha	1.00	Stream Power (N/m s)		426.14	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)	0.01	0.03	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.03	0.05	0.01

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 3 Profile: TR 100

E.G. Elev (m)	484.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.62	Wt. n-Val.		0.033	
W.S. Elev (m)	483.81	Reach Len. (m)	0.43	0.43	0.43
Crit W.S. (m)	483.88	Flow Area (m2)		1.69	
E.G. Slope (m/m)	0.015012	Area (m2)		2.27	0.10
Q Total (m3/s)	5.92	Flow (m3/s)		5.92	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 3 Profile: TR 100 (Continued)

Top Width (m)	4.65	Top Width (m)		2.85	1.80
Vel Total (m/s)	3.50	Avg. Vel. (m/s)		3.50	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		1.02	
Conv. Total (m3/s)	48.3	Conv. (m3/s)		48.3	
Length Wtd. (m)		Wetted Per. (m)		1.85	
Min Ch El (m)	482.71	Shear (N/m2)		134.67	
Alpha	1.00	Stream Power (N/m s)		471.16	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.01	0.03	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.03	0.05	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 3 Profile: TR 200

E.G. Elev (m)	484.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.65	Wt. n-Val.		0.033	
W.S. Elev (m)	483.83	Reach Len. (m)	0.43	0.43	0.43
Crit W.S. (m)	484.44	Flow Area (m2)		1.72	
E.G. Slope (m/m)	0.015197	Area (m2)		2.31	0.13
Q Total (m3/s)	6.12	Flow (m3/s)		6.12	
Top Width (m)	4.93	Top Width (m)		2.86	2.07
Vel Total (m/s)	3.56	Avg. Vel. (m/s)		3.56	
Max Chl Dpth (m)	1.12	Hydr. Depth (m)		1.04	
Conv. Total (m3/s)	49.6	Conv. (m3/s)		49.6	
Length Wtd. (m)		Wetted Per. (m)		1.85	
Min Ch El (m)	482.71	Shear (N/m2)		138.54	
Alpha	1.00	Stream Power (N/m s)		492.95	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.01	0.03	0.00
C & E Loss (m)	0.09	Cum SA (1000 m2)	0.03	0.05	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 3 Profile: TR 500

E.G. Elev (m)	484.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.71	Wt. n-Val.		0.033	
W.S. Elev (m)	483.82	Reach Len. (m)	0.43	0.43	0.43
Crit W.S. (m)	484.44	Flow Area (m2)		1.70	
E.G. Slope (m/m)	0.016816	Area (m2)		2.29	0.11
Q Total (m3/s)	6.34	Flow (m3/s)		6.34	
Top Width (m)	4.77	Top Width (m)		2.85	1.92
Vel Total (m/s)	3.72	Avg. Vel. (m/s)		3.72	
Max Chl Dpth (m)	1.11	Hydr. Depth (m)		1.03	
Conv. Total (m3/s)	48.9	Conv. (m3/s)		48.9	
Length Wtd. (m)		Wetted Per. (m)		1.85	
Min Ch El (m)	482.71	Shear (N/m2)		151.91	
Alpha	1.00	Stream Power (N/m s)		565.13	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.01	0.03	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.03	0.05	0.02

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2.5 BR U Profile: TR 20

E.G. Elev (m)	484.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	484.44	Reach Len. (m)	2.66	2.66	2.66
Crit W.S. (m)	484.44	Flow Area (m2)	9.00	2.46	2.77
E.G. Slope (m/m)	0.001487	Area (m2)	9.00	2.46	2.77
Q Total (m3/s)	5.42	Flow (m3/s)	3.25	1.40	0.77
Top Width (m)	33.34	Top Width (m)	20.95	2.90	9.49
Vel Total (m/s)	0.38	Avg. Vel. (m/s)	0.36	0.57	0.28
Max Chl Dpth (m)	1.73	Hydr. Depth (m)	0.43	0.85	0.29
Conv. Total (m3/s)	140.5	Conv. (m3/s)	84.3	36.2	20.1
Length Wtd. (m)	2.66	Wetted Per. (m)	21.38	7.26	9.65
Min Ch El (m)	482.71	Shear (N/m2)	6.14	4.94	4.19

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2.5 BR U Profile: TR 20 (Continued)

Alpha	1.19	Stream Power (N/m s)	2.22	2.80	1.17
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.02	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.03	0.05	0.01

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2.5 BR U Profile: TR 100

E.G. Elev (m)	484.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	484.44	Reach Len. (m)	2.66	2.66	2.66
Crit W.S. (m)	484.44	Flow Area (m2)	9.00	2.46	2.77
E.G. Slope (m/m)	0.001775	Area (m2)	9.00	2.46	2.77
Q Total (m3/s)	5.92	Flow (m3/s)	3.55	1.52	0.85
Top Width (m)	33.34	Top Width (m)	20.95	2.90	9.49
Vel Total (m/s)	0.42	Avg. Vel. (m/s)	0.39	0.62	0.31
Max Chl Dpth (m)	1.73	Hydr. Depth (m)	0.43	0.85	0.29
Conv. Total (m3/s)	140.5	Conv. (m3/s)	84.3	36.2	20.1
Length Wtd. (m)	2.66	Wetted Per. (m)	21.38	7.26	9.65
Min Ch El (m)	482.71	Shear (N/m2)	7.33	5.89	5.00
Alpha	1.19	Stream Power (N/m s)	2.89	3.66	1.53
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.03	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.03	0.05	0.01

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2.5 BR U Profile: TR 200

E.G. Elev (m)	484.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	484.44	Reach Len. (m)	2.66	2.66	2.66
Crit W.S. (m)	484.44	Flow Area (m2)	9.05	2.46	2.79
E.G. Slope (m/m)	0.001865	Area (m2)	9.05	2.46	2.79
Q Total (m3/s)	6.12	Flow (m3/s)	3.67	1.57	0.88
Top Width (m)	33.34	Top Width (m)	20.95	2.90	9.49
Vel Total (m/s)	0.43	Avg. Vel. (m/s)	0.41	0.64	0.31
Max Chl Dpth (m)	1.74	Hydr. Depth (m)	0.43	0.85	0.29
Conv. Total (m3/s)	141.7	Conv. (m3/s)	85.0	36.3	20.4
Length Wtd. (m)	2.66	Wetted Per. (m)	21.38	7.26	9.66
Min Ch El (m)	482.71	Shear (N/m2)	7.74	6.21	5.29
Alpha	1.19	Stream Power (N/m s)	3.14	3.96	1.66
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.03	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.03	0.05	0.01

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2.5 BR U Profile: TR 500

E.G. Elev (m)	484.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	484.44	Reach Len. (m)	2.66	2.66	2.66
Crit W.S. (m)	484.44	Flow Area (m2)	9.05	2.46	2.79
E.G. Slope (m/m)	0.002002	Area (m2)	9.05	2.46	2.79
Q Total (m3/s)	6.34	Flow (m3/s)	3.80	1.63	0.91
Top Width (m)	33.34	Top Width (m)	20.95	2.90	9.49
Vel Total (m/s)	0.44	Avg. Vel. (m/s)	0.42	0.66	0.33
Max Chl Dpth (m)	1.74	Hydr. Depth (m)	0.43	0.85	0.29
Conv. Total (m3/s)	141.7	Conv. (m3/s)	85.0	36.3	20.4
Length Wtd. (m)	2.66	Wetted Per. (m)	21.38	7.26	9.66
Min Ch El (m)	482.71	Shear (N/m2)	8.31	6.67	5.68
Alpha	1.19	Stream Power (N/m s)	3.49	4.40	1.85
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.03	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.03	0.05	0.01

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2.5 BR D Profile: TR 20

E.G. Elev (m)	484.31	Element	Left OB	Channel	Right OB
Vel Head (m)	1.29	Wt. n-Val.		0.033	
W.S. Elev (m)	483.01	Reach Len. (m)	0.86	0.86	0.86
Crit W.S. (m)	483.33	Flow Area (m2)		1.08	
E.G. Slope (m/m)	0.101212	Area (m2)		1.08	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	1.58	Top Width (m)		1.58	
Vel Total (m/s)	5.03	Avg. Vel. (m/s)		5.03	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	17.0	Conv. (m3/s)		17.0	
Length Wtd. (m)	0.86	Wetted Per. (m)		2.85	
Min Ch El (m)	482.34	Shear (N/m2)		374.46	
Alpha	1.00	Stream Power (N/m s)		1884.84	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.13	Cum SA (1000 m2)		0.04	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2.5 BR D Profile: TR 100

E.G. Elev (m)	484.32	Element	Left OB	Channel	Right OB
Vel Head (m)	1.21	Wt. n-Val.		0.033	
W.S. Elev (m)	483.11	Reach Len. (m)	0.86	0.86	0.86
Crit W.S. (m)	483.38	Flow Area (m2)		1.22	
E.G. Slope (m/m)	0.089112	Area (m2)		1.22	
Q Total (m3/s)	5.92	Flow (m3/s)		5.92	
Top Width (m)	1.45	Top Width (m)		1.45	
Vel Total (m/s)	4.87	Avg. Vel. (m/s)		4.87	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	19.8	Conv. (m3/s)		19.8	
Length Wtd. (m)	0.86	Wetted Per. (m)		3.07	
Min Ch El (m)	482.34	Shear (N/m2)		345.42	
Alpha	1.00	Stream Power (N/m s)		1682.91	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.12	Cum SA (1000 m2)		0.05	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2.5 BR D Profile: TR 200

E.G. Elev (m)	484.32	Element	Left OB	Channel	Right OB
Vel Head (m)	1.17	Wt. n-Val.		0.033	
W.S. Elev (m)	483.15	Reach Len. (m)	0.86	0.86	0.86
Crit W.S. (m)	483.40	Flow Area (m2)		1.28	
E.G. Slope (m/m)	0.084487	Area (m2)		1.28	
Q Total (m3/s)	6.12	Flow (m3/s)		6.12	
Top Width (m)	1.40	Top Width (m)		1.40	
Vel Total (m/s)	4.79	Avg. Vel. (m/s)		4.79	
Max Chl Dpth (m)	0.81	Hydr. Depth (m)		0.91	
Conv. Total (m3/s)	21.1	Conv. (m3/s)		21.1	
Length Wtd. (m)	0.86	Wetted Per. (m)		3.18	
Min Ch El (m)	482.34	Shear (N/m2)		332.75	
Alpha	1.00	Stream Power (N/m s)		1595.43	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.12	Cum SA (1000 m2)		0.05	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2.5 BR D Profile: TR 500

E.G. Elev (m)	484.33	Element	Left OB	Channel	Right OB
Vel Head (m)	1.12	Wt. n-Val.		0.033	
W.S. Elev (m)	483.20	Reach Len. (m)	0.86	0.86	0.86
Crit W.S. (m)	483.42	Flow Area (m2)		1.35	
E.G. Slope (m/m)	0.079318	Area (m2)		1.35	
Q Total (m3/s)	6.34	Flow (m3/s)		6.34	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2.5 BR D Profile: TR 500 (Continued)

Top Width (m)	1.32	Top Width (m)		1.32	
Vel Total (m/s)	4.70	Avg. Vel. (m/s)		4.70	
Max Chl Dpth (m)	0.87	Hydr. Depth (m)		1.02	
Conv. Total (m3/s)	22.5	Conv. (m3/s)		22.5	
Length Wtd. (m)	0.86	Wetted Per. (m)		3.31	
Min Ch El (m)	482.34	Shear (N/m2)		317.39	
Alpha	1.00	Stream Power (N/m s)		1490.21	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.11	Cum SA (1000 m2)		0.05	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2 Profile: TR 20

E.G. Elev (m)	484.21	Element	Left OB	Channel	Right OB
Vel Head (m)	1.20	Wt. n-Val.		0.033	
W.S. Elev (m)	483.01	Reach Len. (m)	15.68	15.76	16.22
Crit W.S. (m)	483.36	Flow Area (m2)		1.12	
E.G. Slope (m/m)	0.068188	Area (m2)		1.16	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	2.18	Top Width (m)		2.18	
Vel Total (m/s)	4.85	Avg. Vel. (m/s)		4.85	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	20.8	Conv. (m3/s)		20.8	
Length Wtd. (m)	15.76	Wetted Per. (m)		2.32	
Min Ch El (m)	482.34	Shear (N/m2)		321.27	
Alpha	1.00	Stream Power (N/m s)		1559.50	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.04	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2 Profile: TR 100

E.G. Elev (m)	484.24	Element	Left OB	Channel	Right OB
Vel Head (m)	1.16	Wt. n-Val.		0.033	
W.S. Elev (m)	483.08	Reach Len. (m)	15.68	15.76	16.22
Crit W.S. (m)	483.42	Flow Area (m2)		1.24	
E.G. Slope (m/m)	0.057638	Area (m2)		1.30	
Q Total (m3/s)	5.92	Flow (m3/s)		5.92	
Top Width (m)	2.24	Top Width (m)		2.24	
Vel Total (m/s)	4.78	Avg. Vel. (m/s)		4.78	
Max Chl Dpth (m)	0.74	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	24.7	Conv. (m3/s)		24.7	
Length Wtd. (m)	15.76	Wetted Per. (m)		2.32	
Min Ch El (m)	482.34	Shear (N/m2)		301.18	
Alpha	1.00	Stream Power (N/m s)		1440.13	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.04	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2 Profile: TR 200

E.G. Elev (m)	484.26	Element	Left OB	Channel	Right OB
Vel Head (m)	1.16	Wt. n-Val.		0.033	
W.S. Elev (m)	483.10	Reach Len. (m)	15.68	15.76	16.22
Crit W.S. (m)	483.44	Flow Area (m2)		1.28	
E.G. Slope (m/m)	0.055164	Area (m2)		1.35	
Q Total (m3/s)	6.12	Flow (m3/s)		6.12	
Top Width (m)	2.26	Top Width (m)		2.26	
Vel Total (m/s)	4.78	Avg. Vel. (m/s)		4.78	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	26.1	Conv. (m3/s)		26.1	
Length Wtd. (m)	15.76	Wetted Per. (m)		2.32	
Min Ch El (m)	482.34	Shear (N/m2)		297.90	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		1424.46	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.04	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 2 Profile: TR 500

E.G. Elev (m)	484.26	Element	Left OB	Channel	Right OB
Vel Head (m)	1.13	Wt. n-Val.		0.033	
W.S. Elev (m)	483.13	Reach Len. (m)	15.68	15.76	16.22
Crit W.S. (m)	483.47	Flow Area (m2)		1.35	
E.G. Slope (m/m)	0.050113	Area (m2)		1.42	
Q Total (m3/s)	6.34	Flow (m3/s)		6.34	
Top Width (m)	2.29	Top Width (m)		2.29	
Vel Total (m/s)	4.71	Avg. Vel. (m/s)		4.71	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.70	
Conv. Total (m3/s)	28.3	Conv. (m3/s)		28.3	
Length Wtd. (m)	15.76	Wetted Per. (m)		2.32	
Min Ch El (m)	482.34	Shear (N/m2)		284.52	
Alpha	1.00	Stream Power (N/m s)		1340.73	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.04	

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 1 Profile: TR 20

E.G. Elev (m)	482.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.98	Wt. n-Val.		0.033	
W.S. Elev (m)	481.94	Reach Len. (m)			
Crit W.S. (m)	482.23	Flow Area (m2)		1.24	
E.G. Slope (m/m)	0.087164	Area (m2)		1.24	
Q Total (m3/s)	5.42	Flow (m3/s)		5.42	
Top Width (m)	3.28	Top Width (m)		3.28	
Vel Total (m/s)	4.38	Avg. Vel. (m/s)		4.38	
Max Chl Dpth (m)	0.46	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	18.4	Conv. (m3/s)		18.4	
Length Wtd. (m)		Wetted Per. (m)		3.61	
Min Ch El (m)	481.49	Shear (N/m2)		293.00	
Alpha	1.00	Stream Power (N/m s)		1283.89	
Frctn Loss (m)	1.22	Cum Volume (1000 m3)			
C & E Loss (m)	0.06	Cum SA (1000 m2)			

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 1 Profile: TR 100

E.G. Elev (m)	483.07	Element	Left OB	Channel	Right OB
Vel Head (m)	1.12	Wt. n-Val.		0.033	
W.S. Elev (m)	481.95	Reach Len. (m)			
Crit W.S. (m)	482.27	Flow Area (m2)		1.27	
E.G. Slope (m/m)	0.097384	Area (m2)		1.27	
Q Total (m3/s)	5.92	Flow (m3/s)		5.92	
Top Width (m)	3.30	Top Width (m)		3.30	
Vel Total (m/s)	4.68	Avg. Vel. (m/s)		4.68	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	19.0	Conv. (m3/s)		19.0	
Length Wtd. (m)		Wetted Per. (m)		3.64	
Min Ch El (m)	481.49	Shear (N/m2)		332.35	
Alpha	1.00	Stream Power (N/m s)		1555.01	
Frctn Loss (m)	1.16	Cum Volume (1000 m3)			
C & E Loss (m)	0.02	Cum SA (1000 m2)			

Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 1 Profile: TR 200

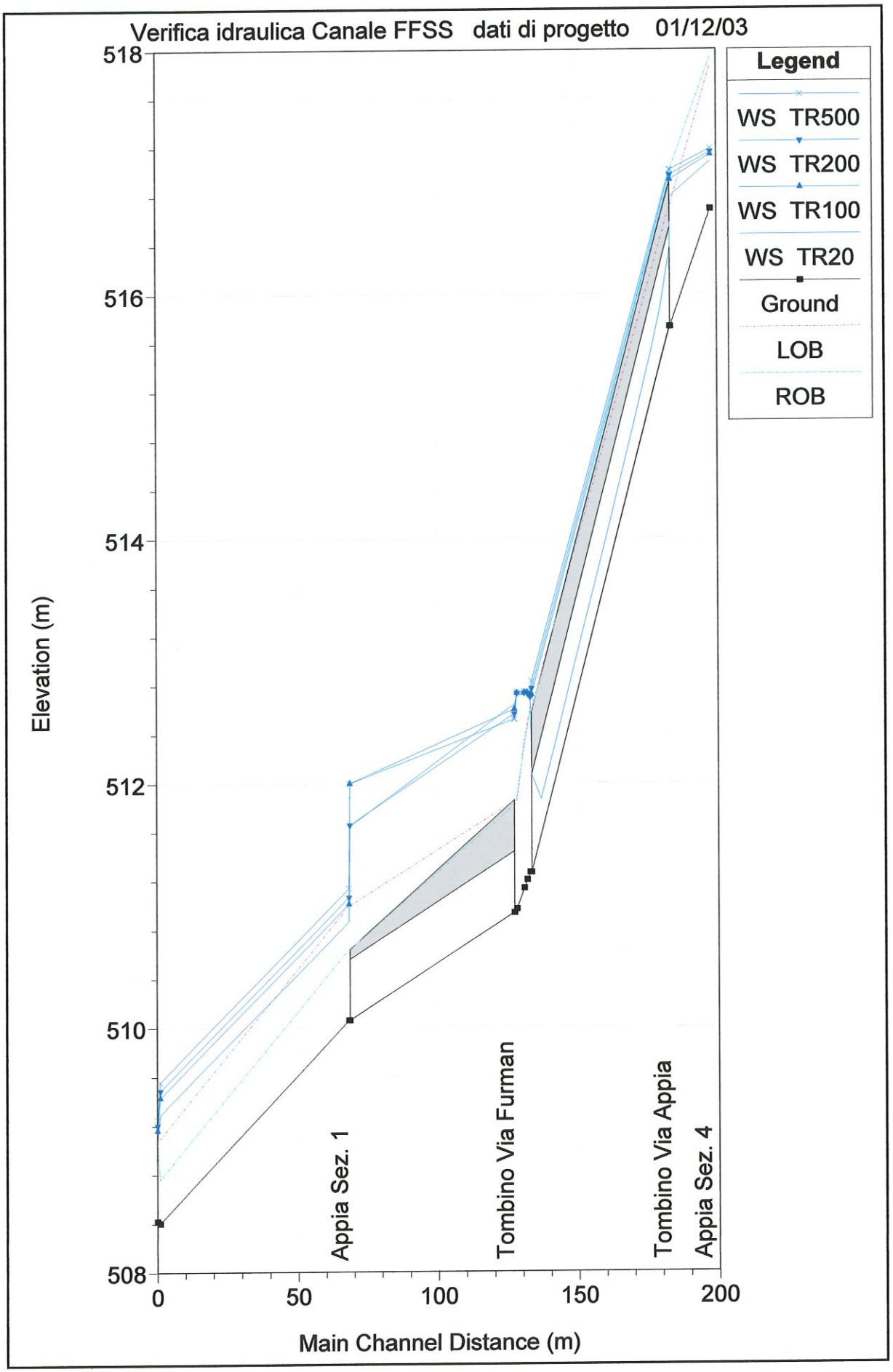
E.G. Elev (m)	483.12	Element	Left OB	Channel	Right OB
Vel Head (m)	1.16	Wt. n-Val.		0.033	
W.S. Elev (m)	481.96	Reach Len. (m)			
Crit W.S. (m)	482.28	Flow Area (m2)		1.28	
E.G. Slope (m/m)	0.100205	Area (m2)		1.28	
Q Total (m3/s)	6.12	Flow (m3/s)		6.12	
Top Width (m)	3.31	Top Width (m)		3.31	
Vel Total (m/s)	4.77	Avg. Vel. (m/s)		4.77	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	19.3	Conv. (m3/s)		19.3	
Length Wtd. (m)		Wetted Per. (m)		3.65	
Min Ch El (m)	481.49	Shear (N/m2)		344.92	
Alpha	1.00	Stream Power (N/m s)		1646.37	
Frctn Loss (m)	1.14	Cum Volume (1000 m3)			
C & E Loss (m)	0.00	Cum SA (1000 m2)			

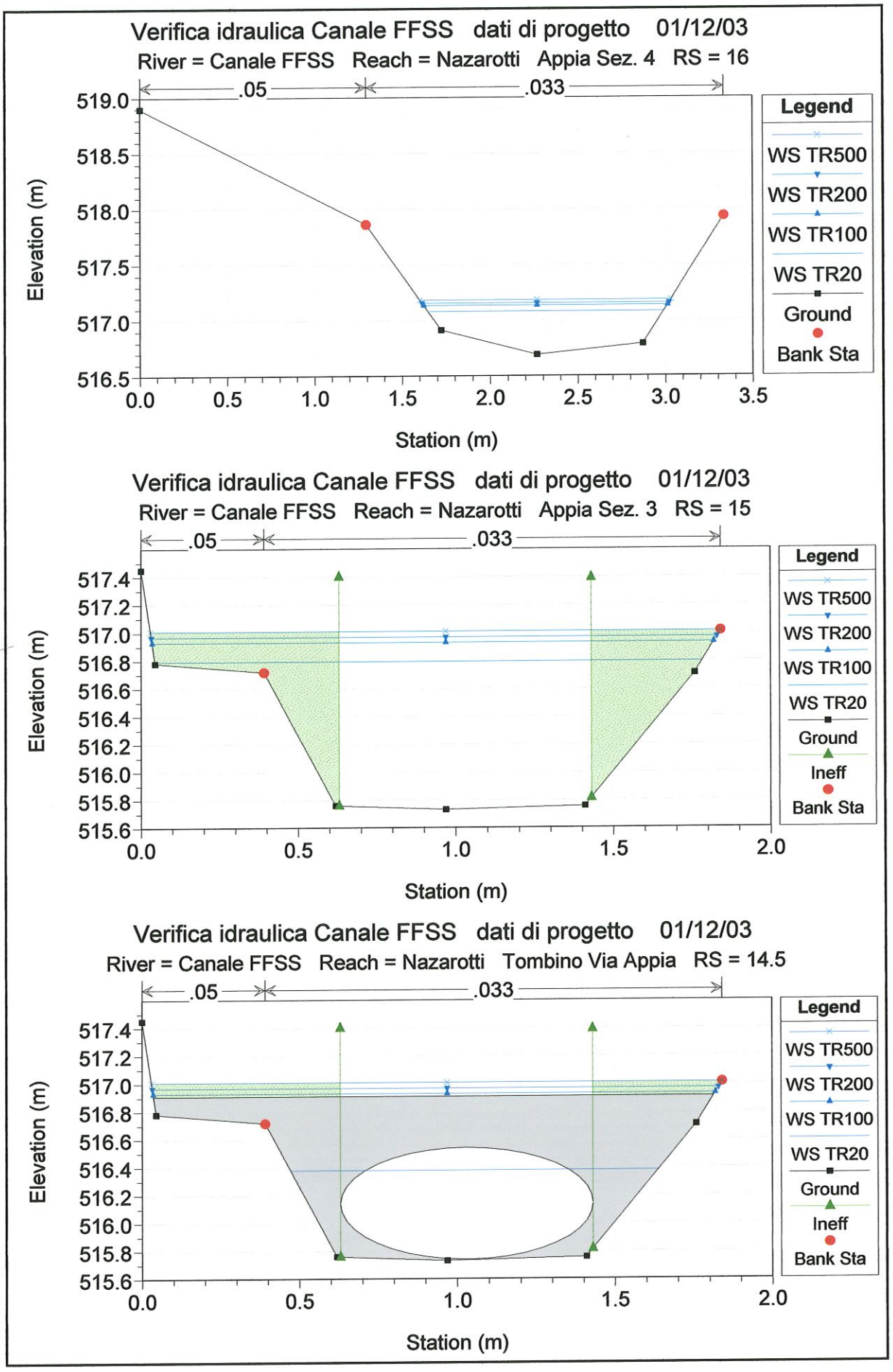
Plan: mantpra River: Gora Mantelli Reach:Pralafera Riv Sta: 1 Profile: TR 500

E.G. Elev (m)	483.17	Element	Left OB	Channel	Right OB
Vel Head (m)	1.20	Wt. n-Val.		0.033	
W.S. Elev (m)	481.97	Reach Len. (m)			
Crit W.S. (m)	482.30	Flow Area (m2)		1.31	
E.G. Slope (m/m)	0.102065	Area (m2)		1.31	
Q Total (m3/s)	6.34	Flow (m3/s)		6.34	
Top Width (m)	3.33	Top Width (m)		3.33	
Vel Total (m/s)	4.86	Avg. Vel. (m/s)		4.86	
Max Chl Dpth (m)	0.48	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	19.8	Conv. (m3/s)		19.8	
Length Wtd. (m)		Wetted Per. (m)		3.68	
Min Ch El (m)	481.49	Shear (N/m2)		355.57	
Alpha	1.00	Stream Power (N/m s)		1726.65	
Frctn Loss (m)	1.09	Cum Volume (1000 m3)			
C & E Loss (m)	0.01	Cum SA (1000 m2)			

9 – ALLEGATI GRAFICI E NUMERICI CANALE FFSS

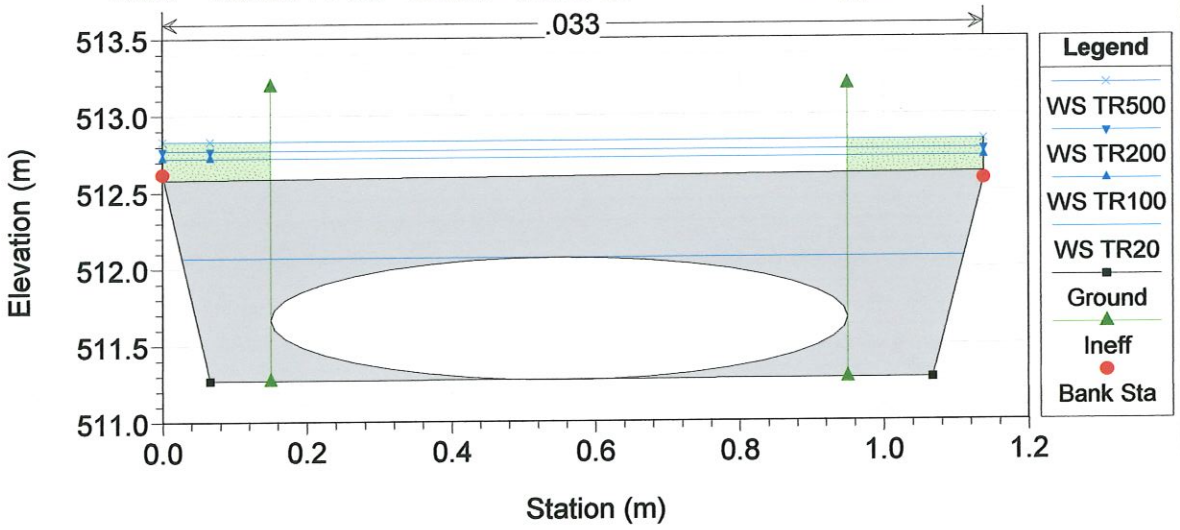
Studio Tecnico ing. Paolo Vaschetto - loc. Sereisie, 172 – 10060 Angrogna (TO)
tel. 0121/944267 - fax 0121/944800 - e-mail: vasco@dag.it - rif. 03v02


Verifica idraulica Canale FFSS dati di progetto 01/12/03
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
LOB
ROB
Elevation (m)
518
516
514
512
510
508
0
50
100
150
200
Main Channel Distance (m)
Appia Sez. 1
Tombino Via Furman
Tombino Via Appia
Appia Sez. 4


Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = Canale FFSS Reach = Nazarotti Appia Sez. 4 RS = 16
.05
.033
Elevation (m)
519.0
518.5
518.0
517.5
517.0
516.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
Station (m)
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
Bank Sta
Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = Canale FFSS Reach = Nazarotti Appia Sez. 3 RS = 15
.05
.033
Elevation (m)
517.4
517.2
517.0
516.8
516.6
516.4
516.2
516.0
515.8
515.6
0.0
0.5
1.0
1.5
2.0
Station (m)
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
Ineff
Bank Sta
Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = Canale FFSS Reach = Nazarotti Tombino Via Appia RS = 14.5
.05
.033
Elevation (m)
517.4
517.2
517.0
516.8
516.6
516.4
516.2
516.0
515.8
515.6
0.0
0.5
1.0
1.5
2.0
Station (m)
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
Ineff
Bank Sta

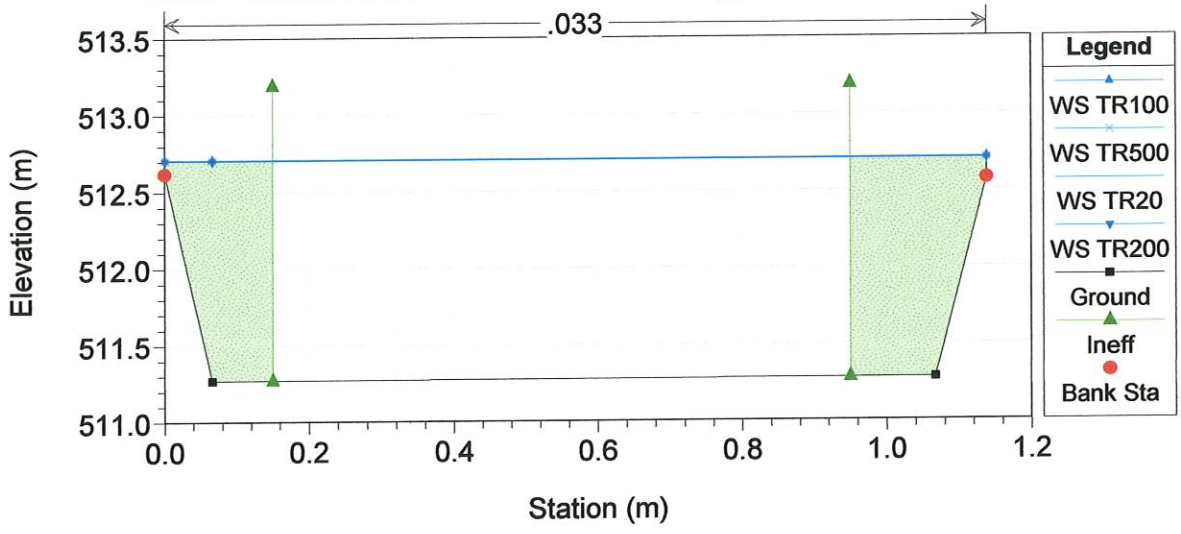
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = Canale FFSS Reach = Nazarotti Tombino Via Appia RS = 14.5



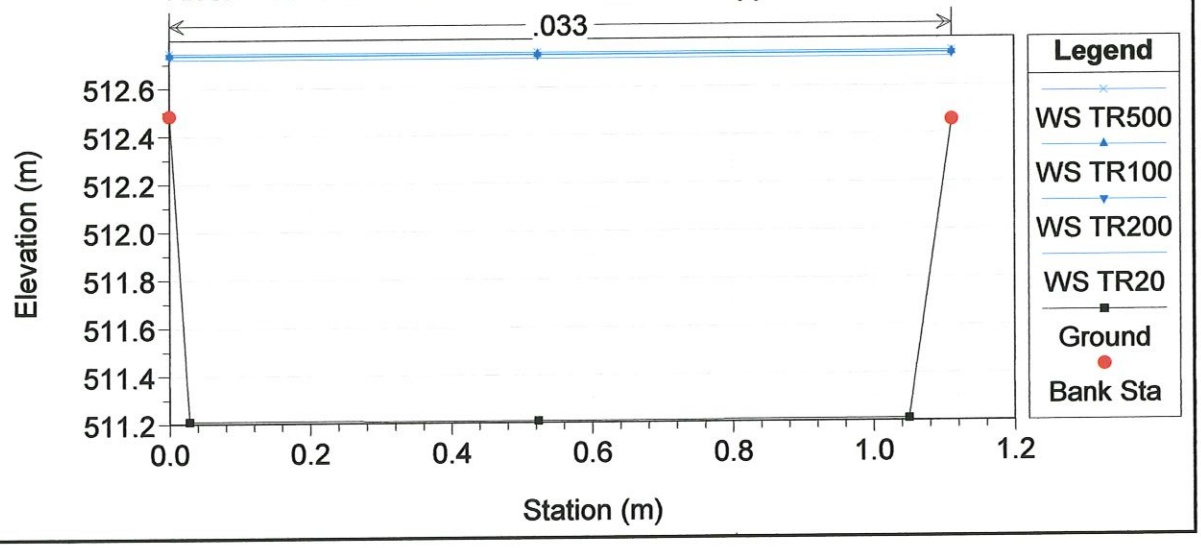
Verifica idraulica Canale FFSS dati di progetto 01/12/03

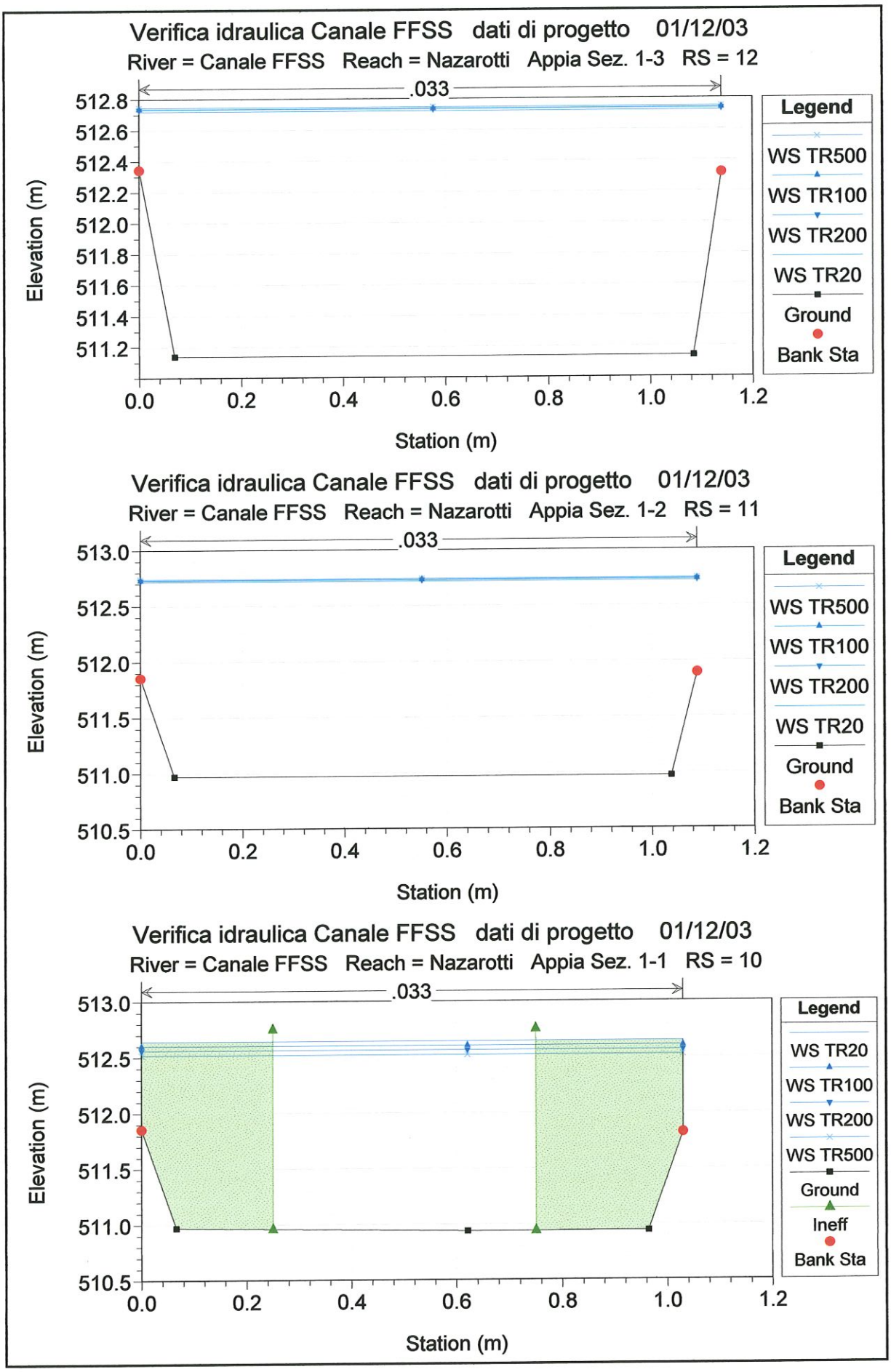
River = Canale FFSS Reach = Nazarotti Appia Sez. 2-1 RS = 14



Verifica idraulica Canale FFSS dati di progetto 01/12/03

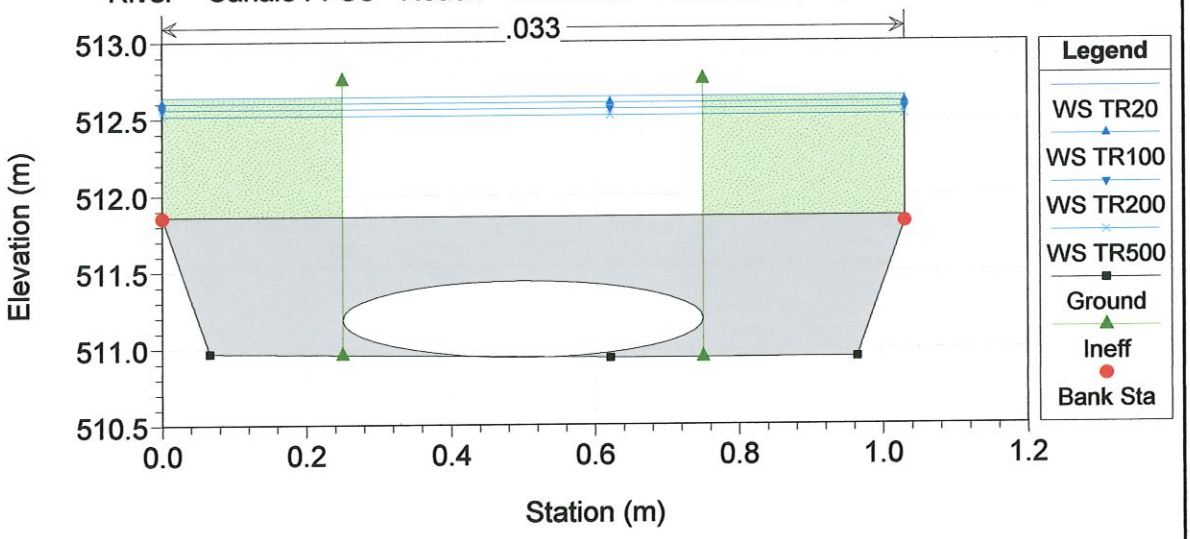
River = Canale FFSS Reach = Nazarotti Appia Sez. 2 RS = 13




Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = Canale FFSS Reach = Nazarotti Appia Sez. 1-3 RS = 12
.033
Elevation (m)
Station (m)
Legend
WS TR500
WS TR100
WS TR200
WS TR20
Ground
Bank Sta
Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = Canale FFSS Reach = Nazarotti Appia Sez. 1-2 RS = 11
.033
Elevation (m)
Station (m)
Legend
WS TR500
WS TR100
WS TR200
WS TR20
Ground
Bank Sta
Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = Canale FFSS Reach = Nazarotti Appia Sez. 1-1 RS = 10
.033
Elevation (m)
Station (m)
Legend
WS TR20
WS TR100
WS TR200
WS TR500
Ground
Ineff
Bank Sta

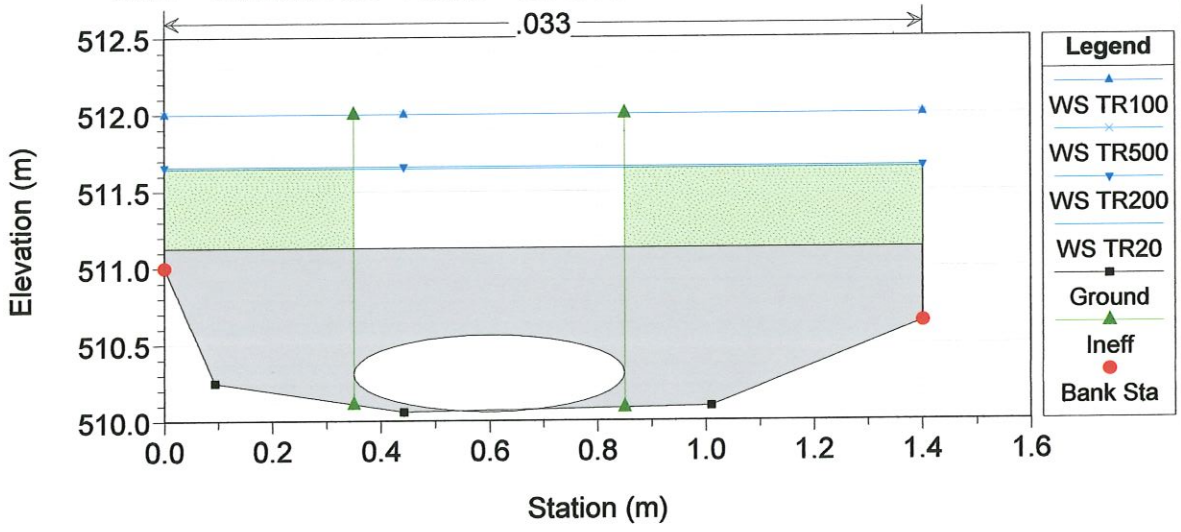
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = Canale FFSS Reach = Nazarotti Tombino Via Furman RS = 9.5



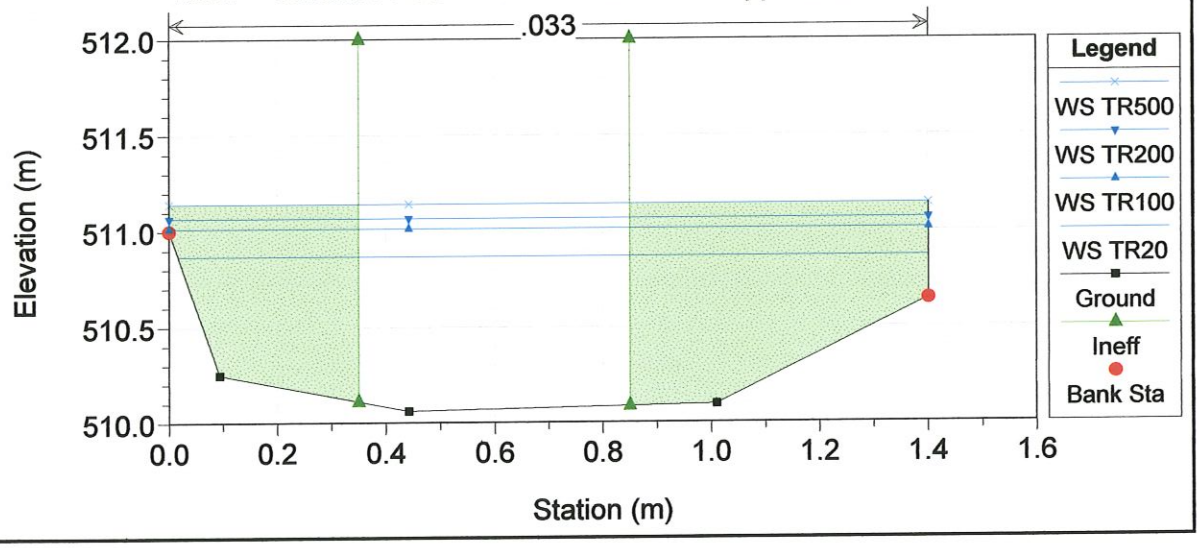
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = Canale FFSS Reach = Nazarotti Tombino Via Furman RS = 9.5



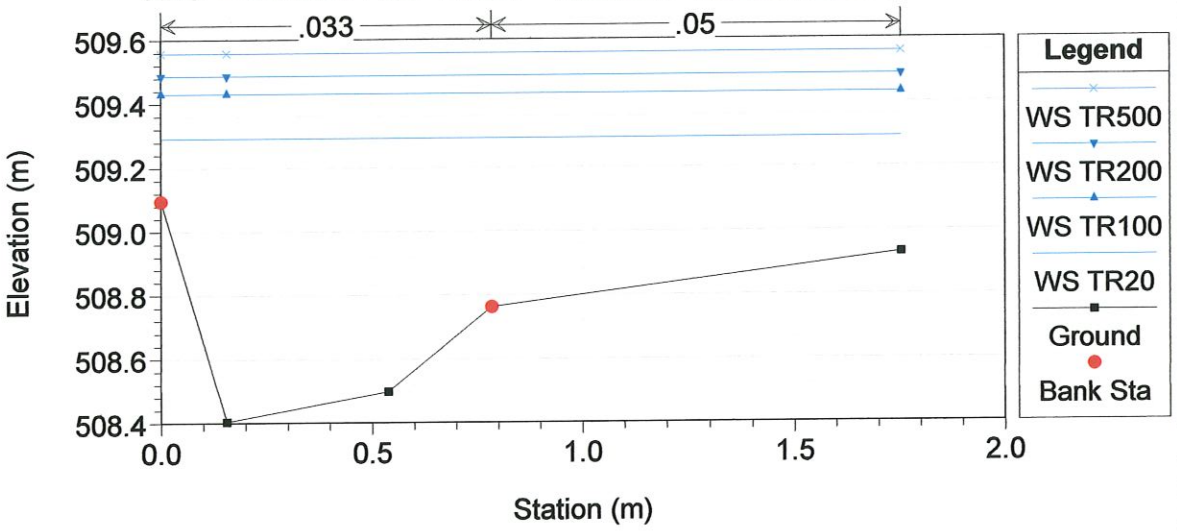
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = Canale FFSS Reach = Nazarotti Appia Sez. 1 RS = 9



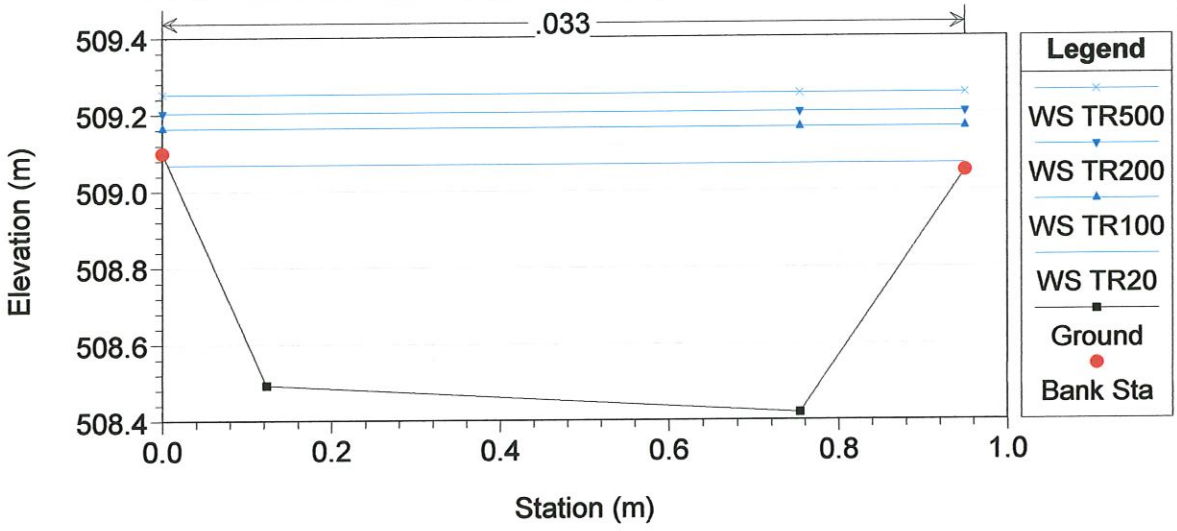
Verifica idraulica Canale FFSS dati di progetto 01/12/03

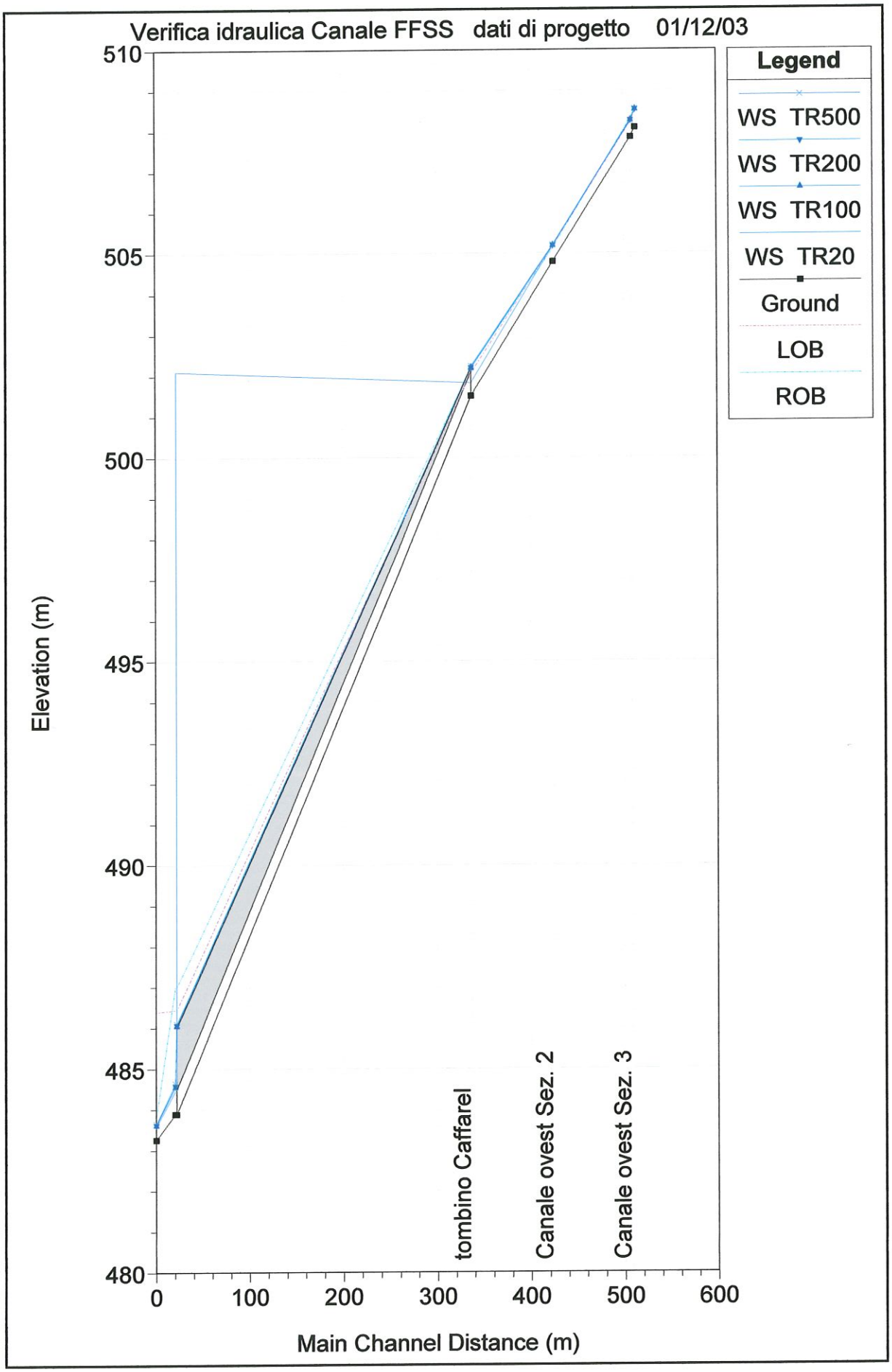
River = Canale FFSS Reach = Nazarotti Nazarotti Sez. 8 RS = 8



Verifica idraulica Canale FFSS dati di progetto 01/12/03

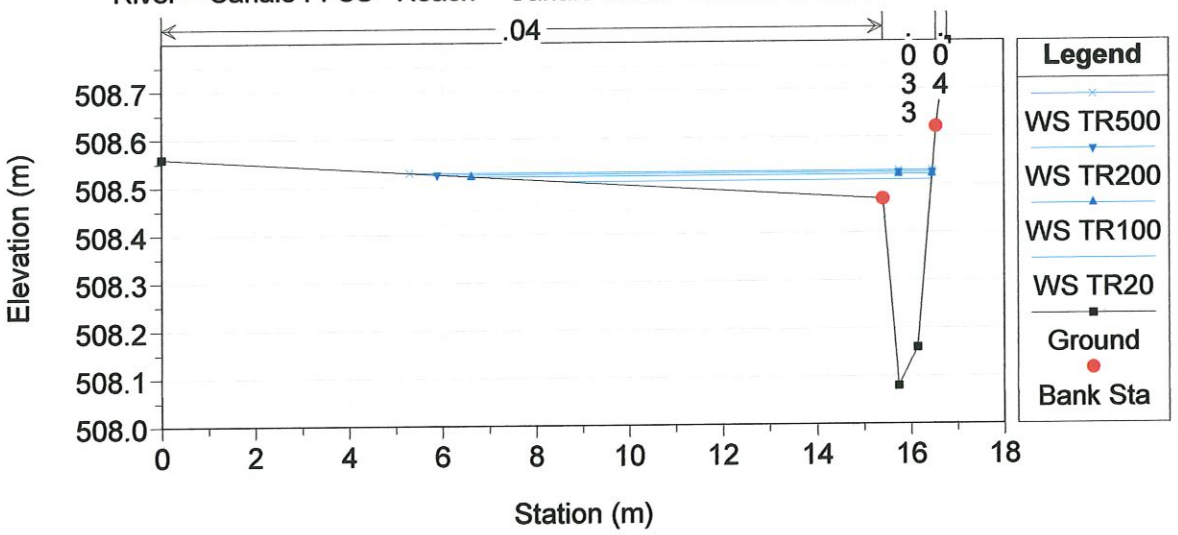
River = Canale FFSS Reach = Nazarotti Nazarotti Sez. 7 RS = 7




Verifica idraulica Canale FFSS dati di progetto 01/12/03
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
LOB
ROB
Elevation (m)
510
505
500
495
490
485
480
0
100
200
300
400
500
600
Main Channel Distance (m)
tombino Caffarel
Canale ovest Sez. 2
Canale ovest Sez. 3

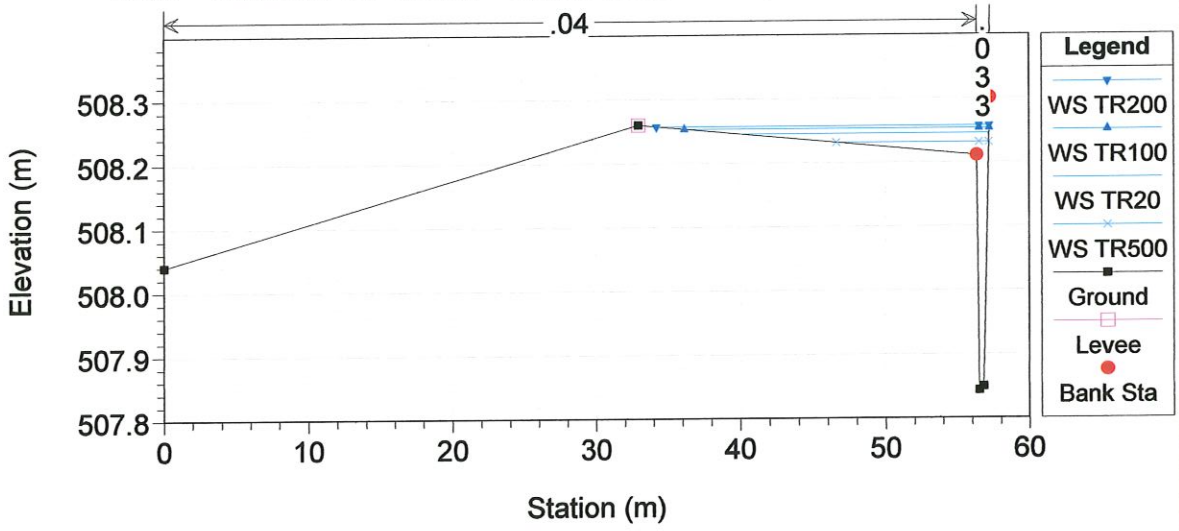
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = Canale FFSS Reach = Canale ovest Canale ovest Sez. 4 RS = 4



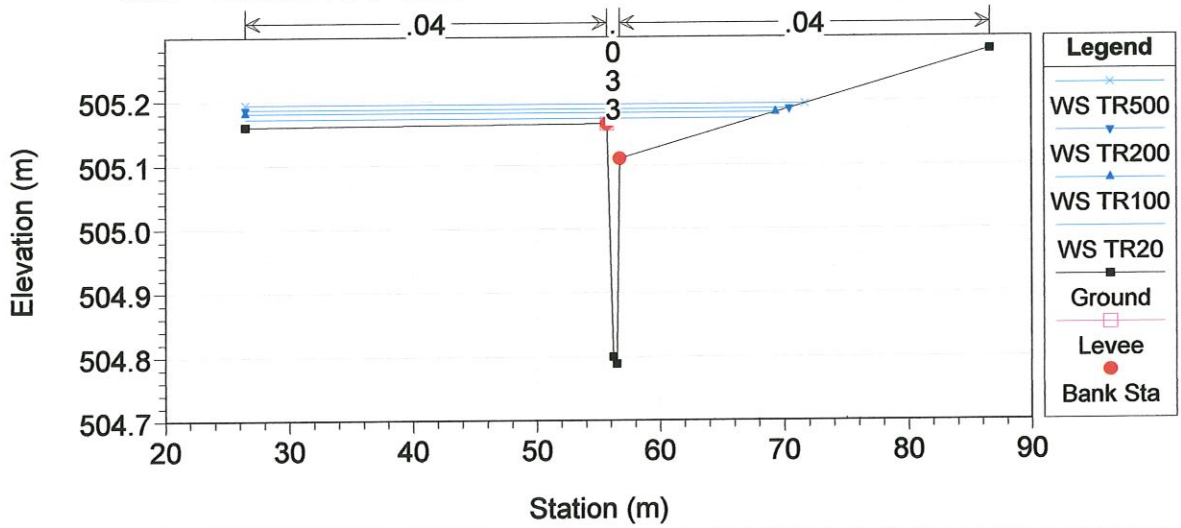
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = Canale FFSS Reach = Canale ovest Canale ovest Sez. 3 RS = 3



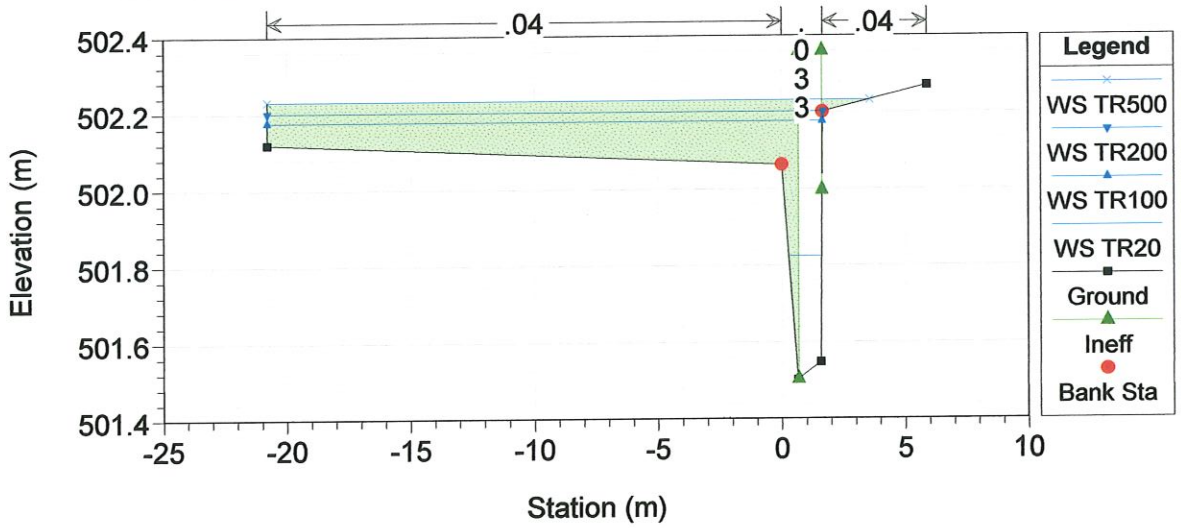
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = Canale FFSS Reach = Canale ovest Canale ovest Sez. 2 RS = 2



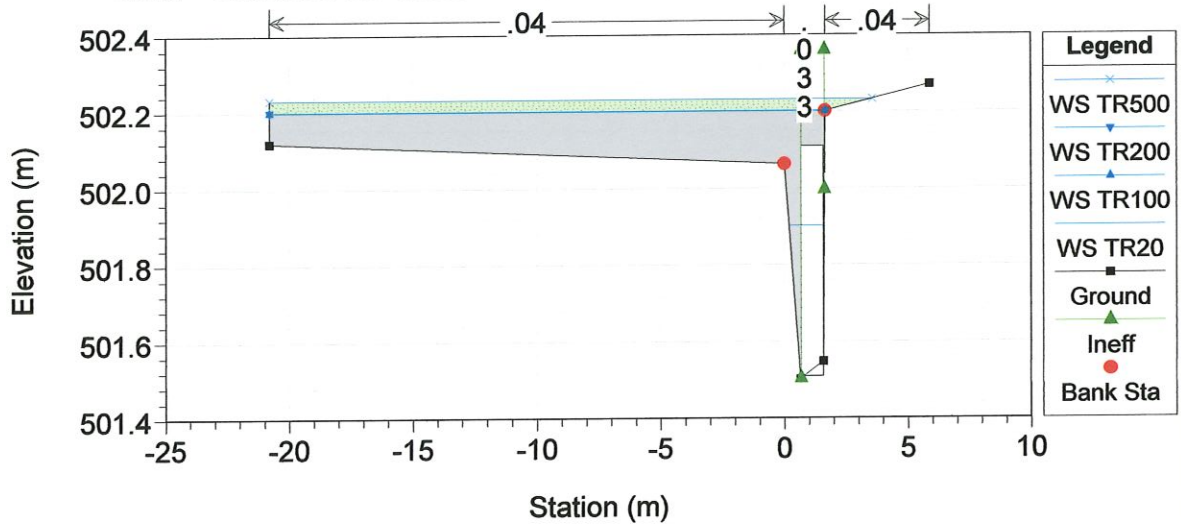
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = Canale FFSS Reach = Canale ovest Canale ovest Sez. 1 imbocco tombino Caff RS = 1



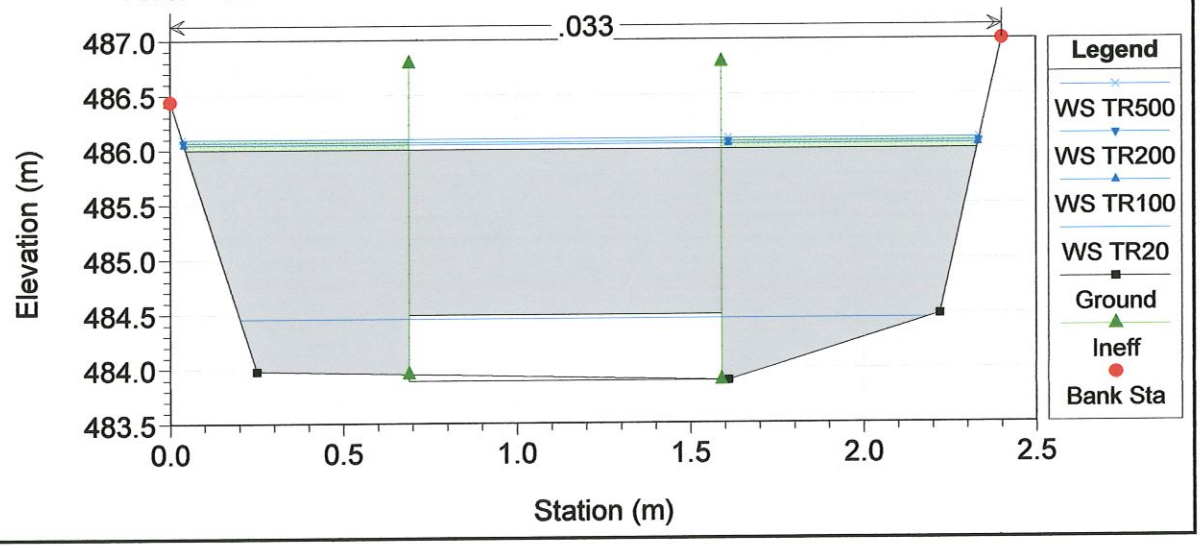
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = Canale FFSS Reach = Canale ovest tombino Caffarel RS = 0.25



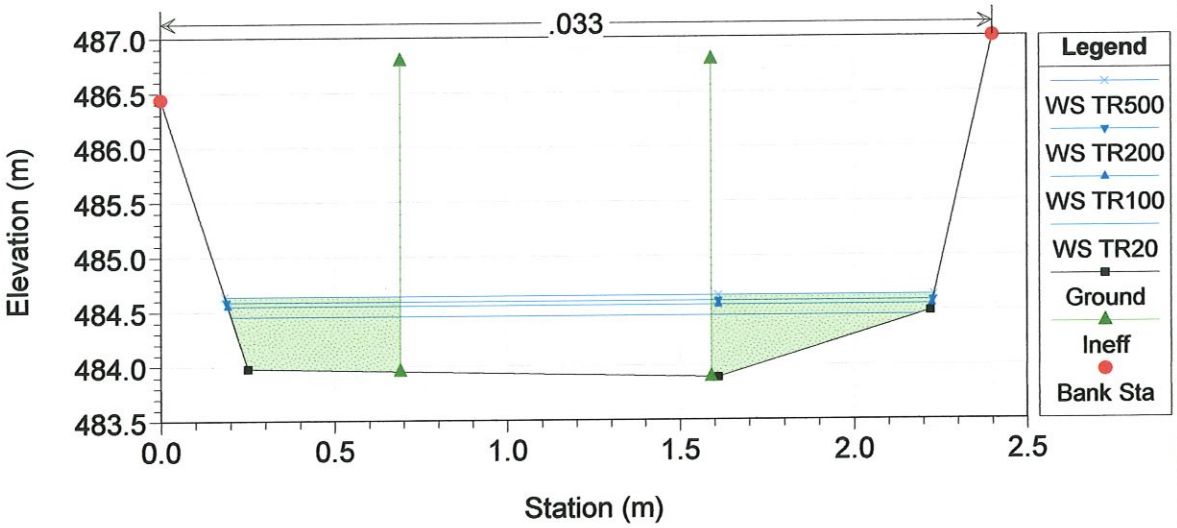
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = Canale FFSS Reach = Canale ovest tombino Caffarel RS = 0.25



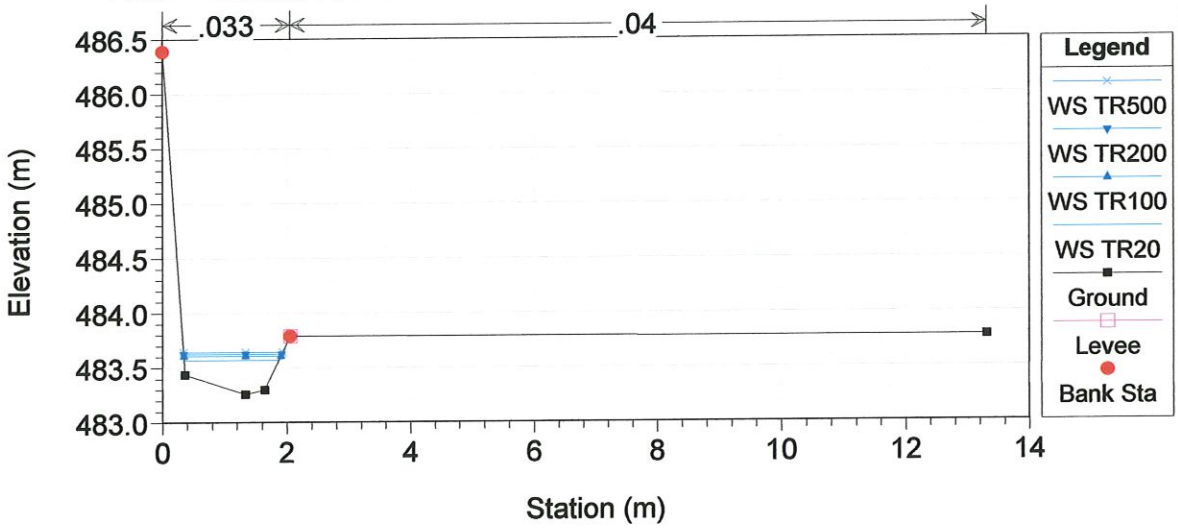
Verifica idraulica Canale FFSS dati di progetto 01/12/03

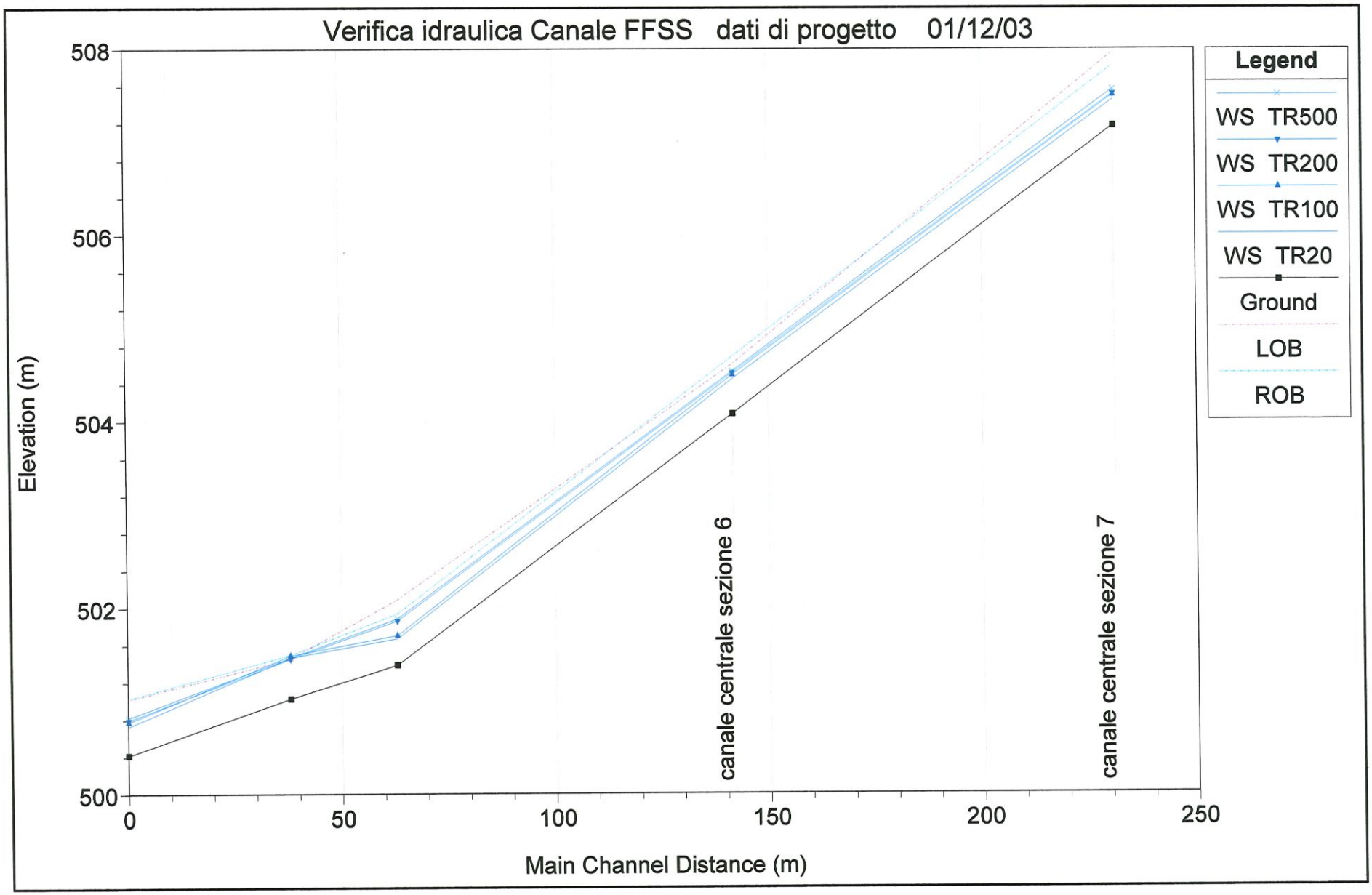
River = Canale FFSS Reach = Canale ovest Scuole medie Sez. 8 sbocco tombino Caffa RS = 0.2

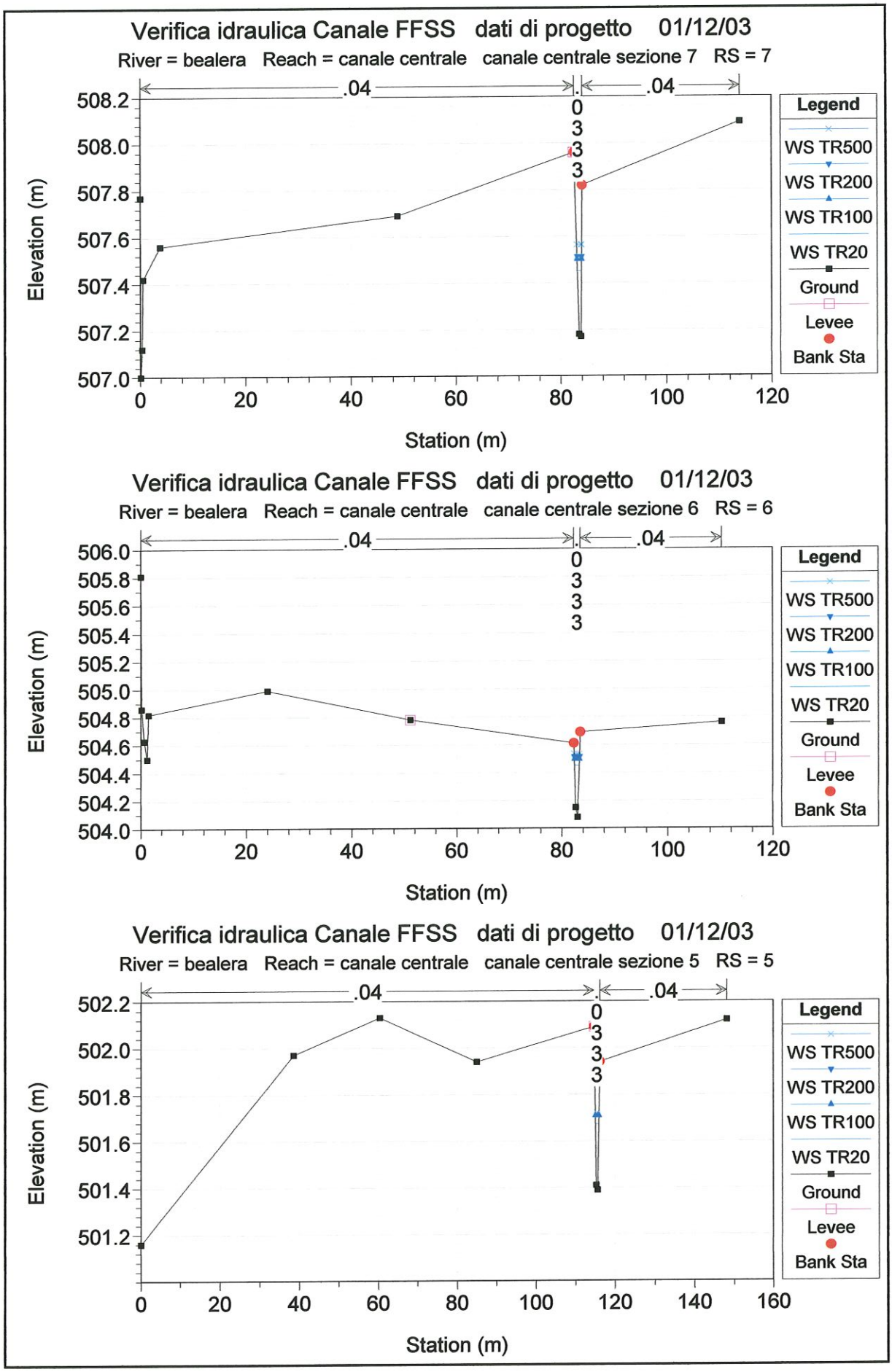


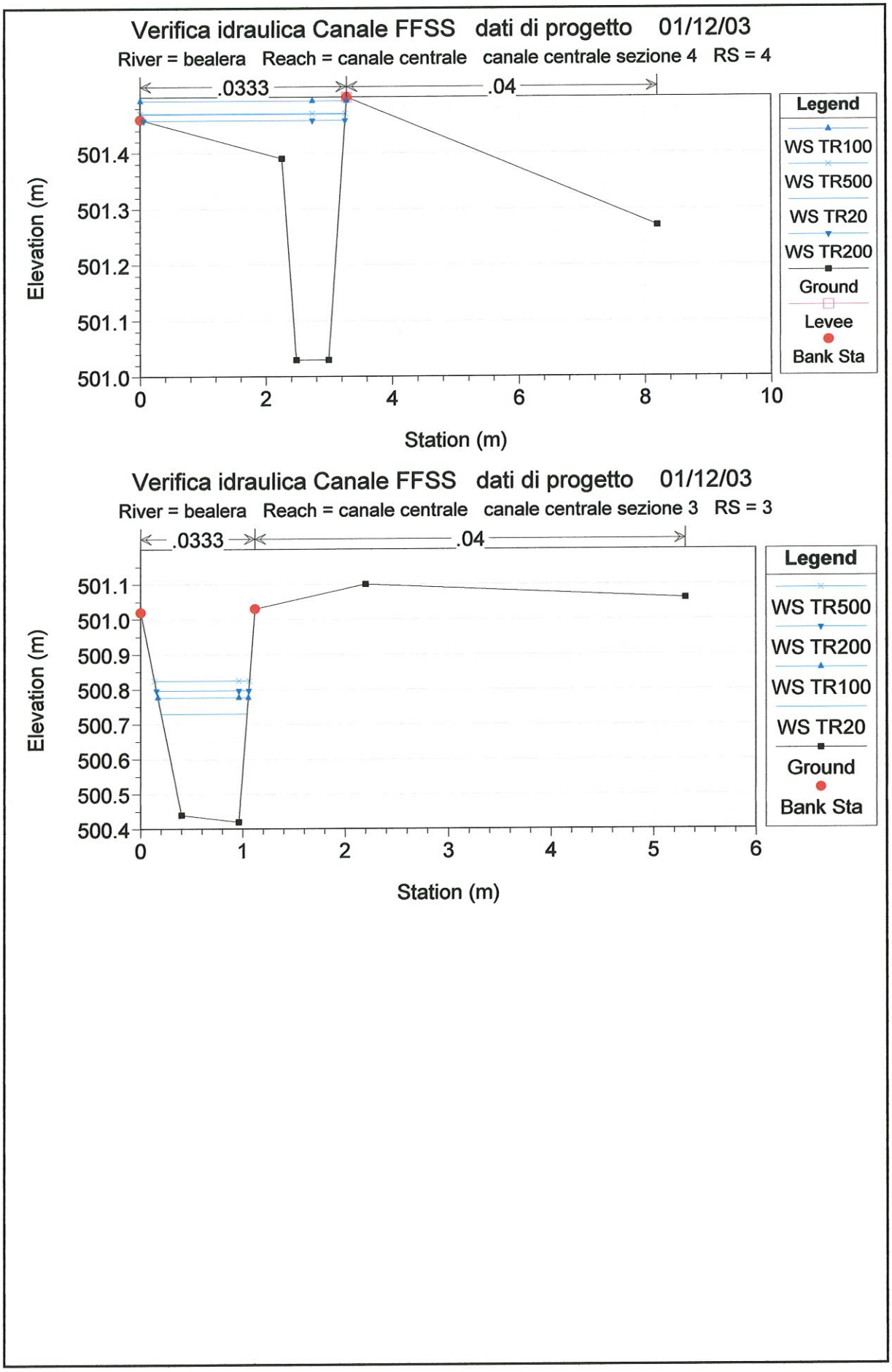
Verifica idraulica Canale FFSS dati di progetto 01/12/03

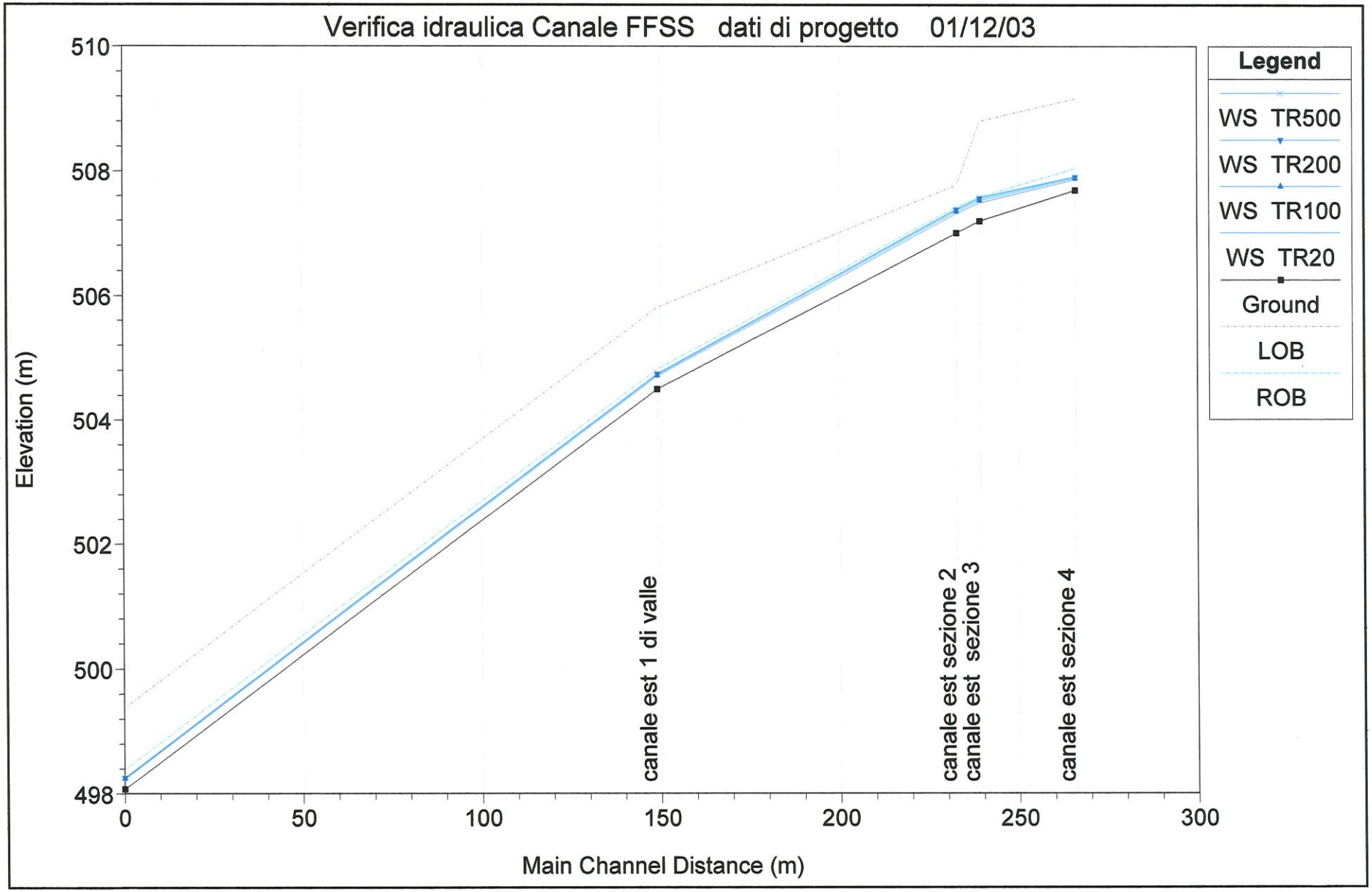
River = Canale FFSS Reach = Canale ovest Scuole medie Sez. 7 RS = 0.1




Verifica idraulica Canale FFSS dati di progetto 01/12/03
Elevation (m)
508
506
504
502
500
0
50
100
150
200
250
Main Channel Distance (m)
canale centrale sezione 6
canale centrale sezione 7
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
LOB
ROB

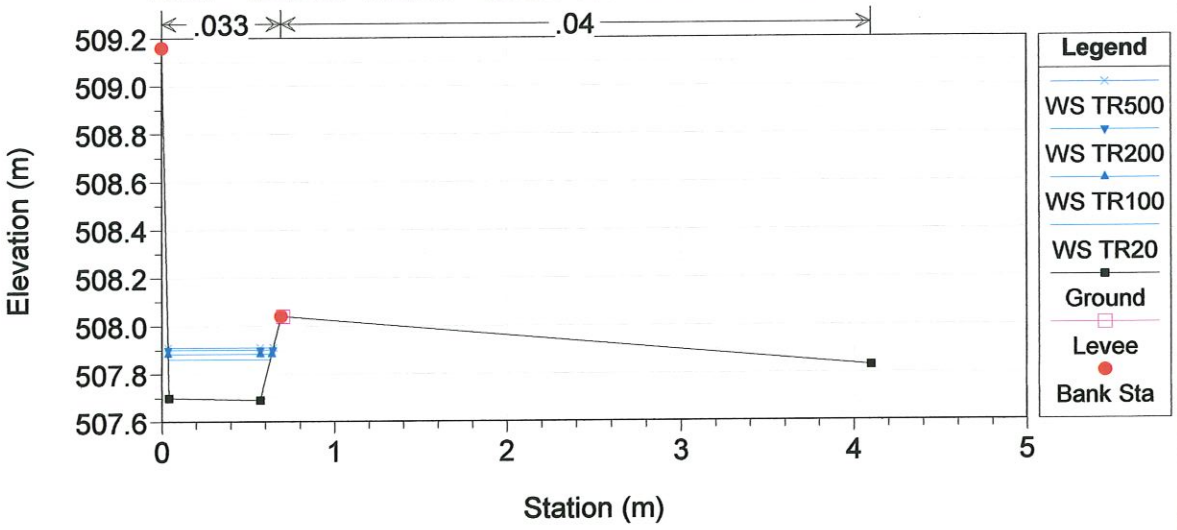

Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = bealera Reach = canale centrale canale centrale sezione 7 RS = 7
.04
.04
0
3
3
3
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
Levee
Bank Sta
Elevation (m)
508.2
508.0
507.8
507.6
507.4
507.2
507.0
0
20
40
60
80
100
120
Station (m)
Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = bealera Reach = canale centrale canale centrale sezione 6 RS = 6
.04
.04
0
3
3
3
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
Levee
Bank Sta
Elevation (m)
506.0
505.8
505.6
505.4
505.2
505.0
504.8
504.6
504.4
504.2
504.0
0
20
40
60
80
100
120
Station (m)
Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = bealera Reach = canale centrale canale centrale sezione 5 RS = 5
.04
.04
0
3
3
3
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
Levee
Bank Sta
Elevation (m)
502.2
502.0
501.8
501.6
501.4
501.2
0
20
40
60
80
100
120
140
160
Station (m)


Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = bealera Reach = canale centrale canale centrale sezione 4 RS = 4
.0333
.04
Elevation (m)
501.4
501.3
501.2
501.1
501.0
0
2
4
6
8
10
Station (m)
Legend
WS TR100
WS TR500
WS TR20
WS TR200
Ground
Levee
Bank Sta
Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = bealera Reach = canale centrale canale centrale sezione 3 RS = 3
.0333
.04
Elevation (m)
501.1
501.0
500.9
500.8
500.7
500.6
500.5
500.4
0
1
2
3
4
5
6
Station (m)
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
Bank Sta


Verifica idraulica Canale FFSS dati di progetto 01/12/03
Elevation (m)
510
508
506
504
502
500
498
0
50
100
150
200
250
300
Main Channel Distance (m)
canale est 1 di valle
canale est sezione 2
canale est sezione 3
canale est sezione 4
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
LOB
ROB

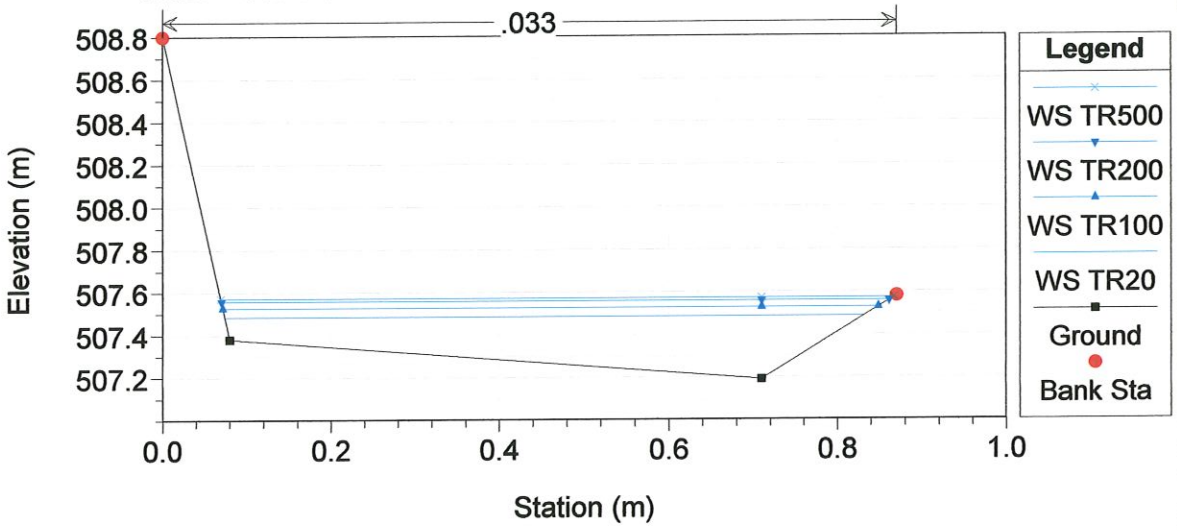
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = bealera Reach = canale est canale est sezione 4 RS = 4



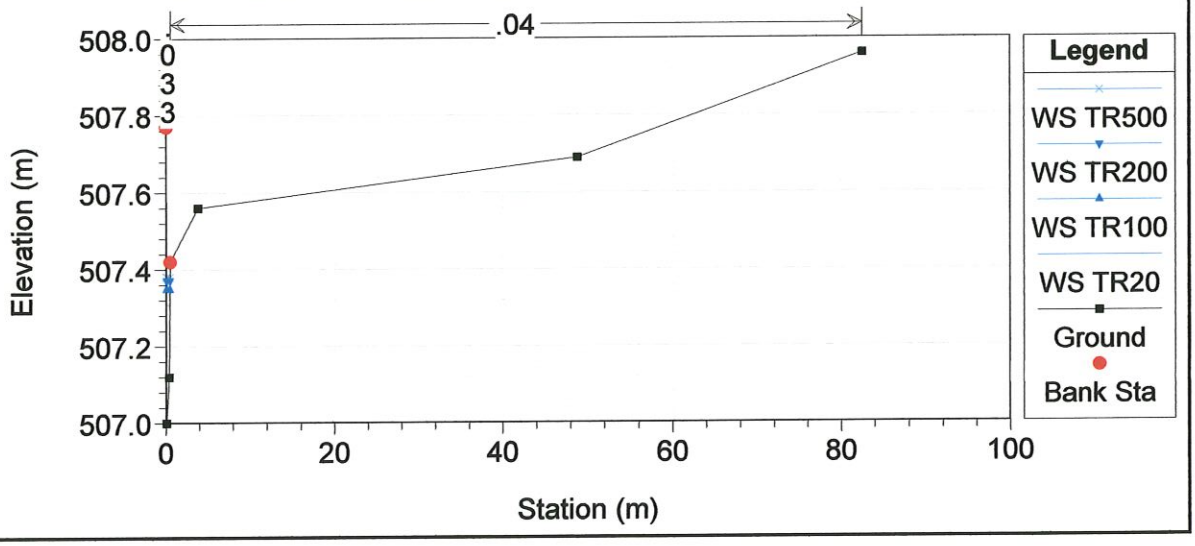
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = bealera Reach = canale est canale est sezione 3 RS = 3



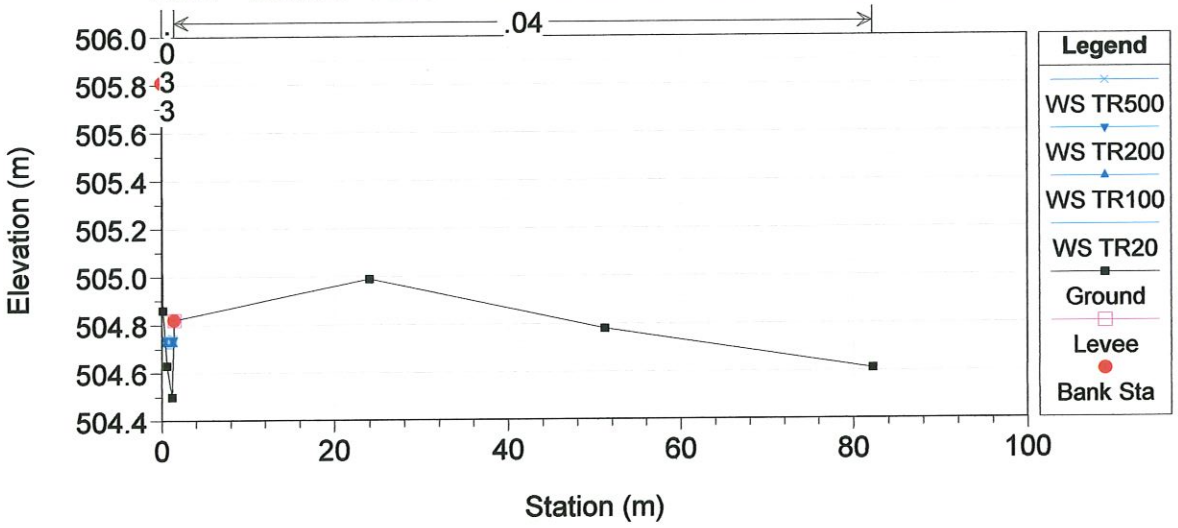
Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = bealera Reach = canale est canale est sezione 2 RS = 2



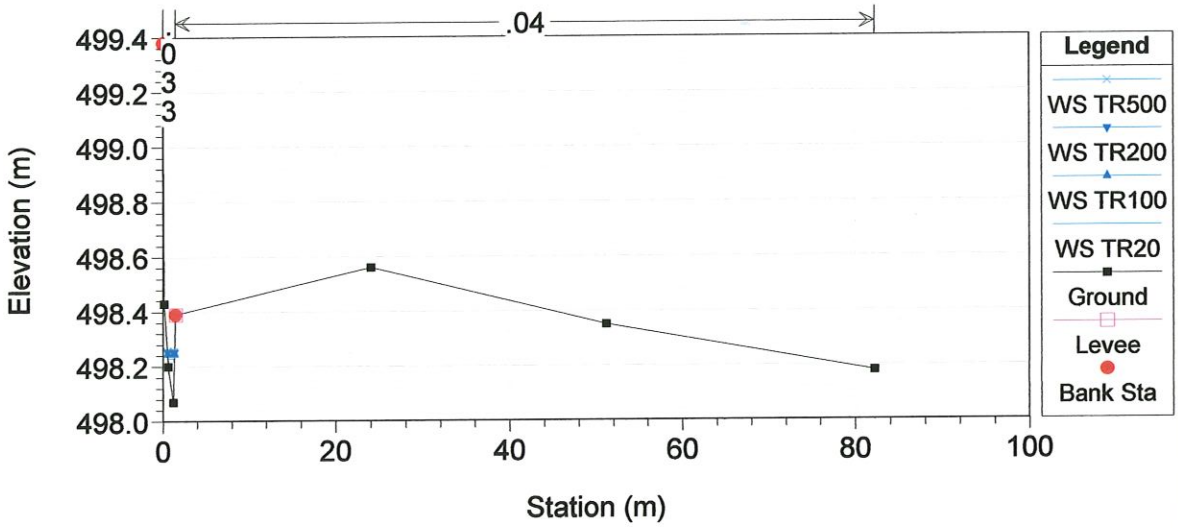
Verifica idraulica Canale FFSS dati di progetto 01/12/03

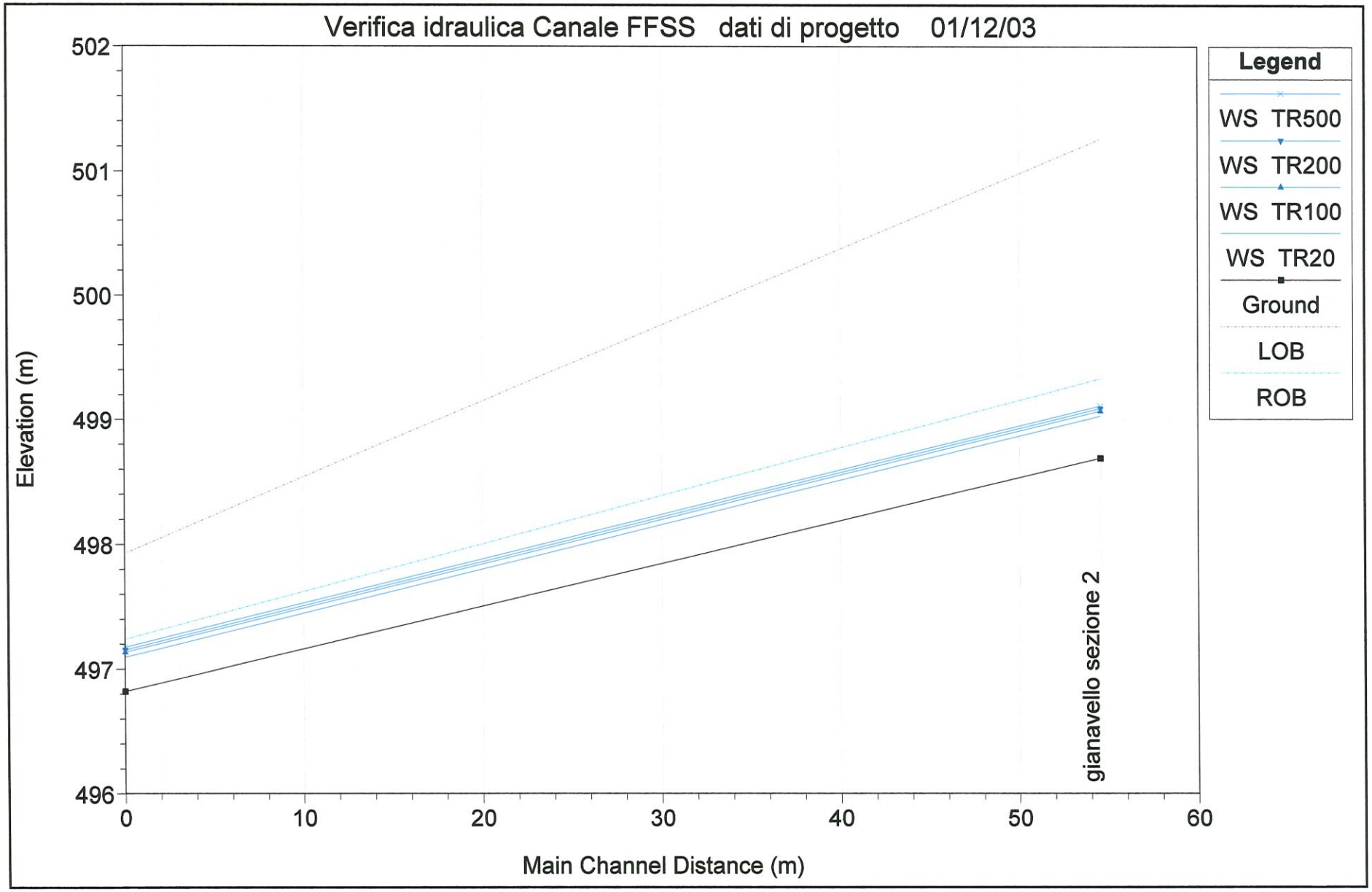
River = bealera Reach = canale est canale est 1 di valle RS = 1

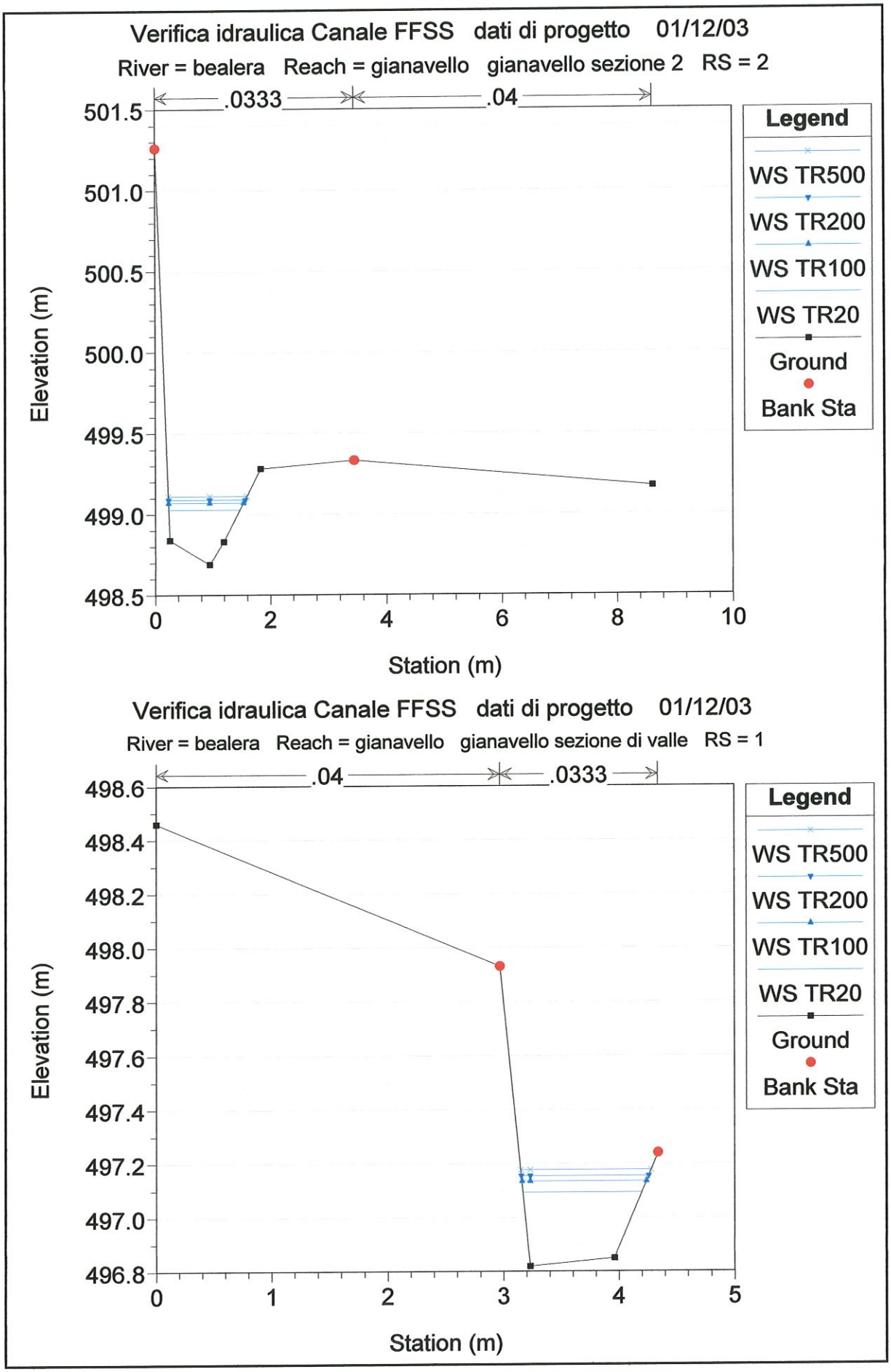


Verifica idraulica Canale FFSS dati di progetto 01/12/03

River = bealera Reach = canale est confluenza RS = 0.5




Verifica idraulica Canale FFSS dati di progetto 01/12/03
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
LOB
ROB
Elevation (m)
502
501
500
499
498
497
496
0
10
20
30
40
50
60
Main Channel Distance (m)
gianavello sezione 2


Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = bealera Reach = gianavello gianavello sezione 2 RS = 2
.0333
.04
501.5
501.0
500.5
500.0
499.5
499.0
498.5
Elevation (m)
0
2
4
6
8
10
Station (m)
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
Bank Sta
Verifica idraulica Canale FFSS dati di progetto 01/12/03
River = bealera Reach = gianavello gianavello sezione di valle RS = 1
.04
.0333
498.6
498.4
498.2
498.0
497.8
497.6
497.4
497.2
497.0
496.8
Elevation (m)
0
1
2
3
4
5
Station (m)
Legend
WS TR500
WS TR200
WS TR100
WS TR20
Ground
Bank Sta

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 16 Profile: TR20

E.G. Elev (m)	517.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.		0.033	
W.S. Elev (m)	517.08	Reach Len. (m)	14.34	14.34	14.34
Crit W.S. (m)	517.21	Flow Area (m2)		0.38	
E.G. Slope (m/m)	0.066975	Area (m2)		0.38	
Q Total (m3/s)	1.10	Flow (m3/s)		1.10	
Top Width (m)	1.34	Top Width (m)		1.34	
Vel Total (m/s)	2.89	Avg. Vel. (m/s)		2.89	
Max Chl Dpth (m)	0.39	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	4.3	Conv. (m3/s)		4.3	
Length Wtd. (m)	14.34	Wetted Per. (m)		1.70	
Min Ch El (m)	516.69	Shear (N/m2)		147.25	
Alpha	1.00	Stream Power (N/m s)		426.19	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.24	0.01
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.23	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 16 Profile: TR100

E.G. Elev (m)	517.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.		0.033	
W.S. Elev (m)	517.13	Reach Len. (m)	14.34	14.34	14.34
Crit W.S. (m)	517.28	Flow Area (m2)		0.45	
E.G. Slope (m/m)	0.066893	Area (m2)		0.45	
Q Total (m3/s)	1.41	Flow (m3/s)		1.41	
Top Width (m)	1.39	Top Width (m)		1.39	
Vel Total (m/s)	3.11	Avg. Vel. (m/s)		3.11	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	5.5	Conv. (m3/s)		5.5	
Length Wtd. (m)	14.34	Wetted Per. (m)		1.81	
Min Ch El (m)	516.69	Shear (N/m2)		164.00	
Alpha	1.00	Stream Power (N/m s)		510.09	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.27	0.02
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.24	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 16 Profile: TR200

E.G. Elev (m)	517.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.52	Wt. n-Val.		0.033	
W.S. Elev (m)	517.16	Reach Len. (m)	14.34	14.34	14.34
Crit W.S. (m)	517.31	Flow Area (m2)		0.48	
E.G. Slope (m/m)	0.066910	Area (m2)		0.48	
Q Total (m3/s)	1.54	Flow (m3/s)		1.54	
Top Width (m)	1.41	Top Width (m)		1.41	
Vel Total (m/s)	3.19	Avg. Vel. (m/s)		3.19	
Max Chl Dpth (m)	0.46	Hydr. Depth (m)		0.34	
Conv. Total (m3/s)	6.0	Conv. (m3/s)		6.0	
Length Wtd. (m)	14.34	Wetted Per. (m)		1.86	
Min Ch El (m)	516.69	Shear (N/m2)		170.52	
Alpha	1.00	Stream Power (N/m s)		544.32	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.28	0.02
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.24	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 16 Profile: TR500

E.G. Elev (m)	517.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.55	Wt. n-Val.		0.033	
W.S. Elev (m)	517.18	Reach Len. (m)	14.34	14.34	14.34
Crit W.S. (m)	517.35	Flow Area (m2)		0.52	
E.G. Slope (m/m)	0.066906	Area (m2)		0.52	
Q Total (m3/s)	1.72	Flow (m3/s)		1.72	

Top Width (m)	1.43	Top Width (m)		1.43	
Vel Total (m/s)	3.29	Avg. Vel. (m/s)		3.29	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	6.6	Conv. (m3/s)		6.6	
Length Wtd. (m)	14.34	Wetted Per. (m)		1.92	
Min Ch El (m)	516.69	Shear (N/m2)		178.37	
Alpha	1.00	Stream Power (N/m s)		586.72	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.29	0.02
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.24	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 15 Profile: TR20

E.G. Elev (m)	516.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.033	
W.S. Elev (m)	516.79	Reach Len. (m)	50.44	50.44	50.44
Crit W.S. (m)	516.32	Flow Area (m2)		0.84	
E.G. Slope (m/m)	0.001898	Area (m2)	0.02	1.15	
Q Total (m3/s)	1.10	Flow (m3/s)		1.10	
Top Width (m)	1.74	Top Width (m)	0.35	1.39	
Vel Total (m/s)	1.32	Avg. Vel. (m/s)		1.32	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		1.05	
Conv. Total (m3/s)	25.3	Conv. (m3/s)		25.3	
Length Wtd. (m)	50.44	Wetted Per. (m)		0.84	
Min Ch El (m)	515.73	Shear (N/m2)		18.52	
Alpha	1.00	Stream Power (N/m s)		24.38	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.23	0.01
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.21	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 15 Profile: TR100

E.G. Elev (m)	517.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.033	
W.S. Elev (m)	516.93	Reach Len. (m)	50.44	50.44	50.44
Crit W.S. (m)	516.43	Flow Area (m2)		0.95	
E.G. Slope (m/m)	0.002073	Area (m2)	0.06	1.34	
Q Total (m3/s)	1.41	Flow (m3/s)		1.41	
Top Width (m)	1.78	Top Width (m)	0.36	1.43	
Vel Total (m/s)	1.49	Avg. Vel. (m/s)		1.49	
Max Chl Dpth (m)	1.20	Hydr. Depth (m)		1.18	
Conv. Total (m3/s)	31.0	Conv. (m3/s)		31.0	
Length Wtd. (m)	50.44	Wetted Per. (m)		0.84	
Min Ch El (m)	515.73	Shear (N/m2)		22.86	
Alpha	1.00	Stream Power (N/m s)		34.10	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.25	0.02
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.22	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 15 Profile: TR200

E.G. Elev (m)	517.09	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.033	
W.S. Elev (m)	516.97	Reach Len. (m)	50.44	50.44	50.44
Crit W.S. (m)	516.47	Flow Area (m2)		0.98	
E.G. Slope (m/m)	0.002234	Area (m2)	0.08	1.40	
Q Total (m3/s)	1.54	Flow (m3/s)		1.54	
Top Width (m)	1.80	Top Width (m)	0.36	1.44	
Vel Total (m/s)	1.58	Avg. Vel. (m/s)		1.58	
Max Chl Dpth (m)	1.24	Hydr. Depth (m)		1.22	
Conv. Total (m3/s)	32.7	Conv. (m3/s)		32.7	
Length Wtd. (m)	50.44	Wetted Per. (m)		0.84	
Min Ch El (m)	515.73	Shear (N/m2)		25.42	

Alpha	1.00	Stream Power (N/m s)		40.20	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.26	0.02
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.22	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 15 Profile: TR500

E.G. Elev (m)	517.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.033	
W.S. Elev (m)	517.01	Reach Len. (m)	50.44	50.44	50.44
Crit W.S. (m)	516.53	Flow Area (m2)		1.01	
E.G. Slope (m/m)	0.002461	Area (m2)	0.09	1.46	
Q Total (m3/s)	1.72	Flow (m3/s)		1.72	
Top Width (m)	1.81	Top Width (m)	0.36	1.45	
Vel Total (m/s)	1.70	Avg. Vel. (m/s)		1.70	
Max Chl Dpth (m)	1.28	Hydr. Depth (m)		1.26	
Conv. Total (m3/s)	34.6	Conv. (m3/s)		34.6	
Length Wtd. (m)	50.44	Wetted Per. (m)		0.84	
Min Ch El (m)	515.73	Shear (N/m2)		28.99	
Alpha	1.00	Stream Power (N/m s)		49.24	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.27	0.02
C & E Loss (m)		Cum SA (1000 m2)	0.01	0.22	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 14 Profile: TR20

E.G. Elev (m)	512.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.033	
W.S. Elev (m)	512.70	Reach Len. (m)	1.04	1.04	1.04
Crit W.S. (m)	511.85	Flow Area (m2)		1.15	
E.G. Slope (m/m)	0.000626	Area (m2)		1.53	
Q Total (m3/s)	1.10	Flow (m3/s)		1.10	
Top Width (m)	1.14	Top Width (m)		1.14	
Vel Total (m/s)	0.96	Avg. Vel. (m/s)		0.96	
Max Chl Dpth (m)	1.43	Hydr. Depth (m)		1.43	
Conv. Total (m3/s)	44.0	Conv. (m3/s)		44.0	
Length Wtd. (m)	1.04	Wetted Per. (m)		0.80	
Min Ch El (m)	511.27	Shear (N/m2)		8.77	
Alpha	1.00	Stream Power (N/m s)		8.43	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.16	0.01
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 14 Profile: TR100

E.G. Elev (m)	512.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.033	
W.S. Elev (m)	512.71	Reach Len. (m)	1.04	1.04	1.04
Crit W.S. (m)	511.95	Flow Area (m2)		1.15	
E.G. Slope (m/m)	0.001010	Area (m2)		1.54	
Q Total (m3/s)	1.41	Flow (m3/s)		1.41	
Top Width (m)	1.14	Top Width (m)		1.14	
Vel Total (m/s)	1.23	Avg. Vel. (m/s)		1.23	
Max Chl Dpth (m)	1.44	Hydr. Depth (m)		1.44	
Conv. Total (m3/s)	44.4	Conv. (m3/s)		44.4	
Length Wtd. (m)	1.04	Wetted Per. (m)		0.80	
Min Ch El (m)	511.27	Shear (N/m2)		14.22	
Alpha	1.00	Stream Power (N/m s)		17.43	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.18	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 14 Profile: TR200

E.G. Elev (m)	512.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.033	
W.S. Elev (m)	512.70	Reach Len. (m)	1.04	1.04	1.04
Crit W.S. (m)	512.00	Flow Area (m2)		1.14	
E.G. Slope (m/m)	0.001233	Area (m2)		1.53	
Q Total (m3/s)	1.54	Flow (m3/s)		1.54	
Top Width (m)	1.14	Top Width (m)		1.14	
Vel Total (m/s)	1.35	Avg. Vel. (m/s)		1.35	
Max Chl Dpth (m)	1.43	Hydr. Depth (m)		1.43	
Conv. Total (m3/s)	43.9	Conv. (m3/s)		43.9	
Length Wtd. (m)	1.04	Wetted Per. (m)		0.80	
Min Ch El (m)	511.27	Shear (N/m2)		17.26	
Alpha	1.00	Stream Power (N/m s)		23.28	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.19	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 14 Profile: TR500

E.G. Elev (m)	512.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.033	
W.S. Elev (m)	512.71	Reach Len. (m)	1.04	1.04	1.04
Crit W.S. (m)	512.05	Flow Area (m2)		1.15	
E.G. Slope (m/m)	0.001512	Area (m2)		1.54	
Q Total (m3/s)	1.72	Flow (m3/s)		1.72	
Top Width (m)	1.14	Top Width (m)		1.14	
Vel Total (m/s)	1.50	Avg. Vel. (m/s)		1.50	
Max Chl Dpth (m)	1.44	Hydr. Depth (m)		1.43	
Conv. Total (m3/s)	44.1	Conv. (m3/s)		44.1	
Length Wtd. (m)	1.04	Wetted Per. (m)		0.80	
Min Ch El (m)	511.27	Shear (N/m2)		21.21	
Alpha	1.00	Stream Power (N/m s)		31.73	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.20	0.02
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 13 Profile: TR20

E.G. Elev (m)	512.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.033	
W.S. Elev (m)	512.72	Reach Len. (m)	1.12	1.12	1.12
Crit W.S. (m)		Flow Area (m2)		1.62	
E.G. Slope (m/m)	0.001691	Area (m2)		1.62	
Q Total (m3/s)	1.10	Flow (m3/s)		1.10	
Top Width (m)	1.11	Top Width (m)		1.11	
Vel Total (m/s)	0.68	Avg. Vel. (m/s)		0.68	
Max Chl Dpth (m)	1.51	Hydr. Depth (m)		1.46	
Conv. Total (m3/s)	26.8	Conv. (m3/s)		26.8	
Length Wtd. (m)	1.12	Wetted Per. (m)		4.04	
Min Ch El (m)	511.21	Shear (N/m2)		6.66	
Alpha	1.00	Stream Power (N/m s)		4.52	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.16	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 13 Profile: TR100

E.G. Elev (m)	512.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.033	
W.S. Elev (m)	512.74	Reach Len. (m)	1.12	1.12	1.12
Crit W.S. (m)		Flow Area (m2)		1.64	
E.G. Slope (m/m)	0.002698	Area (m2)		1.64	
Q Total (m3/s)	1.41	Flow (m3/s)		1.41	

Top Width (m)	1.11	Top Width (m)		1.11	
Vel Total (m/s)	0.86	Avg. Vel. (m/s)		0.86	
Max Chl Dpth (m)	1.53	Hydr. Depth (m)		1.48	
Conv. Total (m3/s)	27.2	Conv. (m3/s)		27.2	
Length Wtd. (m)	1.12	Wetted Per. (m)		4.08	
Min Ch El (m)	511.21	Shear (N/m2)		10.66	
Alpha	1.00	Stream Power (N/m s)		9.15	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.18	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 13 Profile: TR200

E.G. Elev (m)	512.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.033	
W.S. Elev (m)	512.73	Reach Len. (m)	1.12	1.12	1.12
Crit W.S. (m)		Flow Area (m2)		1.64	
E.G. Slope (m/m)	0.003244	Area (m2)		1.64	
Q Total (m3/s)	1.54	Flow (m3/s)		1.54	
Top Width (m)	1.11	Top Width (m)		1.11	
Vel Total (m/s)	0.94	Avg. Vel. (m/s)		0.94	
Max Chl Dpth (m)	1.53	Hydr. Depth (m)		1.47	
Conv. Total (m3/s)	27.1	Conv. (m3/s)		27.1	
Length Wtd. (m)	1.12	Wetted Per. (m)		4.07	
Min Ch El (m)	511.21	Shear (N/m2)		12.81	
Alpha	1.00	Stream Power (N/m s)		12.06	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.19	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 13 Profile: TR500

E.G. Elev (m)	512.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.033	
W.S. Elev (m)	512.75	Reach Len. (m)	1.12	1.12	1.12
Crit W.S. (m)		Flow Area (m2)		1.65	
E.G. Slope (m/m)	0.003939	Area (m2)		1.65	
Q Total (m3/s)	1.72	Flow (m3/s)		1.72	
Top Width (m)	1.11	Top Width (m)		1.11	
Vel Total (m/s)	1.04	Avg. Vel. (m/s)		1.04	
Max Chl Dpth (m)	1.54	Hydr. Depth (m)		1.48	
Conv. Total (m3/s)	27.3	Conv. (m3/s)		27.3	
Length Wtd. (m)	1.12	Wetted Per. (m)		4.09	
Min Ch El (m)	511.21	Shear (N/m2)		15.59	
Alpha	1.00	Stream Power (N/m s)		16.19	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.20	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 12 Profile: TR20

E.G. Elev (m)	512.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.033	
W.S. Elev (m)	512.72	Reach Len. (m)	2.64	2.64	2.64
Crit W.S. (m)		Flow Area (m2)		1.73	
E.G. Slope (m/m)	0.001440	Area (m2)		1.73	
Q Total (m3/s)	1.10	Flow (m3/s)		1.10	
Top Width (m)	1.14	Top Width (m)		1.14	
Vel Total (m/s)	0.64	Avg. Vel. (m/s)		0.64	
Max Chl Dpth (m)	1.58	Hydr. Depth (m)		1.51	
Conv. Total (m3/s)	29.0	Conv. (m3/s)		29.0	
Length Wtd. (m)	2.64	Wetted Per. (m)		4.18	
Min Ch El (m)	511.14	Shear (N/m2)		5.84	

Alpha	1.00	Stream Power (N/m s)		3.72	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.16	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 12 Profile: TR100

E.G. Elev (m)	512.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.033	
W.S. Elev (m)	512.74	Reach Len. (m)	2.64	2.64	2.64
Crit W.S. (m)		Flow Area (m2)		1.75	
E.G. Slope (m/m)	0.002300	Area (m2)		1.75	
Q Total (m3/s)	1.41	Flow (m3/s)		1.41	
Top Width (m)	1.14	Top Width (m)		1.14	
Vel Total (m/s)	0.81	Avg. Vel. (m/s)		0.81	
Max Chl Dpth (m)	1.60	Hydr. Depth (m)		1.53	
Conv. Total (m3/s)	29.4	Conv. (m3/s)		29.4	
Length Wtd. (m)	2.64	Wetted Per. (m)		4.21	
Min Ch El (m)	511.14	Shear (N/m2)		9.35	
Alpha	1.00	Stream Power (N/m s)		7.55	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.00	0.18	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 12 Profile: TR200

E.G. Elev (m)	512.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.033	
W.S. Elev (m)	512.73	Reach Len. (m)	2.64	2.64	2.64
Crit W.S. (m)		Flow Area (m2)		1.74	
E.G. Slope (m/m)	0.002765	Area (m2)		1.74	
Q Total (m3/s)	1.54	Flow (m3/s)		1.54	
Top Width (m)	1.14	Top Width (m)		1.14	
Vel Total (m/s)	0.89	Avg. Vel. (m/s)		0.89	
Max Chl Dpth (m)	1.59	Hydr. Depth (m)		1.53	
Conv. Total (m3/s)	29.3	Conv. (m3/s)		29.3	
Length Wtd. (m)	2.64	Wetted Per. (m)		4.21	
Min Ch El (m)	511.14	Shear (N/m2)		11.23	
Alpha	1.00	Stream Power (N/m s)		9.95	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.00	0.18	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 12 Profile: TR500

E.G. Elev (m)	512.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.033	
W.S. Elev (m)	512.75	Reach Len. (m)	2.64	2.64	2.64
Crit W.S. (m)		Flow Area (m2)		1.76	
E.G. Slope (m/m)	0.003359	Area (m2)		1.76	
Q Total (m3/s)	1.72	Flow (m3/s)		1.72	
Top Width (m)	1.14	Top Width (m)		1.14	
Vel Total (m/s)	0.98	Avg. Vel. (m/s)		0.98	
Max Chl Dpth (m)	1.61	Hydr. Depth (m)		1.54	
Conv. Total (m3/s)	29.6	Conv. (m3/s)		29.6	
Length Wtd. (m)	2.64	Wetted Per. (m)		4.23	
Min Ch El (m)	511.14	Shear (N/m2)		13.68	
Alpha	1.00	Stream Power (N/m s)		13.37	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.00	0.19	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 11 Profile: TR20

E.G. Elev (m)	512.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.033	
W.S. Elev (m)	512.72	Reach Len. (m)	0.00	0.78	1.36
Crit W.S. (m)		Flow Area (m2)		1.85	
E.G. Slope (m/m)	0.001253	Area (m2)		1.85	
Q Total (m3/s)	1.10	Flow (m3/s)		1.10	
Top Width (m)	1.09	Top Width (m)		1.09	
Vel Total (m/s)	0.60	Avg. Vel. (m/s)		0.60	
Max Chl Dpth (m)	1.75	Hydr. Depth (m)		1.70	
Conv. Total (m3/s)	31.1	Conv. (m3/s)		31.1	
Length Wtd. (m)	0.78	Wetted Per. (m)		4.47	
Min Ch El (m)	510.97	Shear (N/m2)		5.08	
Alpha	1.00	Stream Power (N/m s)		3.03	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.15	0.01
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 11 Profile: TR100

E.G. Elev (m)	512.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.033	
W.S. Elev (m)	512.73	Reach Len. (m)	0.00	0.78	1.36
Crit W.S. (m)		Flow Area (m2)		1.87	
E.G. Slope (m/m)	0.002011	Area (m2)		1.87	
Q Total (m3/s)	1.41	Flow (m3/s)		1.41	
Top Width (m)	1.09	Top Width (m)		1.09	
Vel Total (m/s)	0.76	Avg. Vel. (m/s)		0.76	
Max Chl Dpth (m)	1.76	Hydr. Depth (m)		1.72	
Conv. Total (m3/s)	31.4	Conv. (m3/s)		31.4	
Length Wtd. (m)	0.78	Wetted Per. (m)		4.50	
Min Ch El (m)	510.97	Shear (N/m2)		8.17	
Alpha	1.00	Stream Power (N/m s)		6.18	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.17	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 11 Profile: TR200

E.G. Elev (m)	512.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.033	
W.S. Elev (m)	512.73	Reach Len. (m)	0.00	0.78	1.36
Crit W.S. (m)		Flow Area (m2)		1.86	
E.G. Slope (m/m)	0.002418	Area (m2)		1.86	
Q Total (m3/s)	1.54	Flow (m3/s)		1.54	
Top Width (m)	1.09	Top Width (m)		1.09	
Vel Total (m/s)	0.83	Avg. Vel. (m/s)		0.83	
Max Chl Dpth (m)	1.76	Hydr. Depth (m)		1.71	
Conv. Total (m3/s)	31.4	Conv. (m3/s)		31.4	
Length Wtd. (m)	0.78	Wetted Per. (m)		4.50	
Min Ch El (m)	510.97	Shear (N/m2)		9.83	
Alpha	1.00	Stream Power (N/m s)		8.14	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.18	0.02
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 11 Profile: TR500

E.G. Elev (m)	512.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.033	
W.S. Elev (m)	512.74	Reach Len. (m)	0.00	0.78	1.36
Crit W.S. (m)		Flow Area (m2)		1.87	
E.G. Slope (m/m)	0.002947	Area (m2)		1.87	
Q Total (m3/s)	1.72	Flow (m3/s)		1.72	

Top Width (m)	1.09	Top Width (m)		1.09	
Vel Total (m/s)	0.92	Avg. Vel. (m/s)		0.92	
Max Chl Dpth (m)	1.77	Hydr. Depth (m)		1.72	
Conv. Total (m3/s)	31.6	Conv. (m3/s)		31.6	
Length Wtd. (m)	0.78	Wetted Per. (m)		4.52	
Min Ch El (m)	510.97	Shear (N/m2)		11.99	
Alpha	1.00	Stream Power (N/m s)		10.98	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.19	0.02
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 10 Profile: TR20

E.G. Elev (m)	512.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.033	
W.S. Elev (m)	512.64	Reach Len. (m)	59.00	59.00	59.00
Crit W.S. (m)	511.74	Flow Area (m2)		0.85	
E.G. Slope (m/m)	0.000910	Area (m2)		1.69	
Q Total (m3/s)	1.10	Flow (m3/s)		1.10	
Top Width (m)	1.03	Top Width (m)		1.03	
Vel Total (m/s)	1.30	Avg. Vel. (m/s)		1.30	
Max Chl Dpth (m)	1.70	Hydr. Depth (m)		1.70	
Conv. Total (m3/s)	36.5	Conv. (m3/s)		36.5	
Length Wtd. (m)	59.00	Wetted Per. (m)		0.50	
Min Ch El (m)	510.94	Shear (N/m2)		15.12	
Alpha	1.00	Stream Power (N/m s)		19.64	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.15	0.01
C & E Loss (m)		Cum SA (1000 m2)		0.14	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 10 Profile: TR100

E.G. Elev (m)	512.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.033	
W.S. Elev (m)	512.60	Reach Len. (m)	59.00	59.00	59.00
Crit W.S. (m)	511.88	Flow Area (m2)		0.83	
E.G. Slope (m/m)	0.001618	Area (m2)		1.64	
Q Total (m3/s)	1.41	Flow (m3/s)		1.41	
Top Width (m)	1.03	Top Width (m)		1.03	
Vel Total (m/s)	1.70	Avg. Vel. (m/s)		1.70	
Max Chl Dpth (m)	1.66	Hydr. Depth (m)		1.66	
Conv. Total (m3/s)	35.1	Conv. (m3/s)		35.1	
Length Wtd. (m)	59.00	Wetted Per. (m)		0.50	
Min Ch El (m)	510.94	Shear (N/m2)		26.23	
Alpha	1.00	Stream Power (N/m s)		44.70	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.17	0.02
C & E Loss (m)		Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 10 Profile: TR200

E.G. Elev (m)	512.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.033	
W.S. Elev (m)	512.56	Reach Len. (m)	59.00	59.00	59.00
Crit W.S. (m)	511.94	Flow Area (m2)		0.81	
E.G. Slope (m/m)	0.002096	Area (m2)		1.60	
Q Total (m3/s)	1.54	Flow (m3/s)		1.54	
Top Width (m)	1.03	Top Width (m)		1.03	
Vel Total (m/s)	1.91	Avg. Vel. (m/s)		1.91	
Max Chl Dpth (m)	1.62	Hydr. Depth (m)		1.62	
Conv. Total (m3/s)	33.7	Conv. (m3/s)		33.7	
Length Wtd. (m)	59.00	Wetted Per. (m)		0.50	
Min Ch El (m)	510.94	Shear (N/m2)		33.19	

Alpha	1.00	Stream Power (N/m s)		63.38	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.18	0.02
C & E Loss (m)		Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 10 Profile: TR500

E.G. Elev (m)	512.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.033	
W.S. Elev (m)	512.52	Reach Len. (m)	59.00	59.00	59.00
Crit W.S. (m)	512.01	Flow Area (m2)		0.79	
E.G. Slope (m/m)	0.002841	Area (m2)		1.56	
Q Total (m3/s)	1.72	Flow (m3/s)		1.72	
Top Width (m)	1.03	Top Width (m)		1.03	
Vel Total (m/s)	2.18	Avg. Vel. (m/s)		2.18	
Max Chl Dpth (m)	1.58	Hydr. Depth (m)		1.57	
Conv. Total (m3/s)	32.2	Conv. (m3/s)		32.2	
Length Wtd. (m)	59.00	Wetted Per. (m)		0.50	
Min Ch El (m)	510.94	Shear (N/m2)		43.77	
Alpha	1.00	Stream Power (N/m s)		95.54	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.19	0.02
C & E Loss (m)		Cum SA (1000 m2)		0.15	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 9 Profile: TR20

E.G. Elev (m)	511.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.		0.033	
W.S. Elev (m)	510.87	Reach Len. (m)	67.34	67.34	67.34
Crit W.S. (m)	510.87	Flow Area (m2)		0.40	
E.G. Slope (m/m)	0.011913	Area (m2)		0.92	
Q Total (m3/s)	1.10	Flow (m3/s)		1.10	
Top Width (m)	1.39	Top Width (m)		1.39	
Vel Total (m/s)	2.78	Avg. Vel. (m/s)		2.78	
Max Chl Dpth (m)	0.81	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	10.1	Conv. (m3/s)		10.1	
Length Wtd. (m)	67.34	Wetted Per. (m)		0.51	
Min Ch El (m)	510.06	Shear (N/m2)		90.12	
Alpha	1.00	Stream Power (N/m s)		250.72	
Frctn Loss (m)	0.64	Cum Volume (1000 m3)	0.00	0.07	0.01
C & E Loss (m)	0.10	Cum SA (1000 m2)		0.07	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 9 Profile: TR100

E.G. Elev (m)	511.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.46	Wt. n-Val.		0.033	
W.S. Elev (m)	511.01	Reach Len. (m)	67.34	67.34	67.34
Crit W.S. (m)	511.01	Flow Area (m2)		0.47	
E.G. Slope (m/m)	0.011154	Area (m2)		1.12	
Q Total (m3/s)	1.41	Flow (m3/s)		1.41	
Top Width (m)	1.40	Top Width (m)		1.40	
Vel Total (m/s)	3.01	Avg. Vel. (m/s)		3.01	
Max Chl Dpth (m)	0.95	Hydr. Depth (m)		0.94	
Conv. Total (m3/s)	13.4	Conv. (m3/s)		13.4	
Length Wtd. (m)	67.34	Wetted Per. (m)		0.51	
Min Ch El (m)	510.06	Shear (N/m2)		99.82	
Alpha	1.00	Stream Power (N/m s)		300.55	
Frctn Loss (m)	0.59	Cum Volume (1000 m3)	0.00	0.09	0.02
C & E Loss (m)	0.12	Cum SA (1000 m2)		0.07	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 9 Profile: TR200

E.G. Elev (m)	511.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.		0.033	
W.S. Elev (m)	511.07	Reach Len. (m)	67.34	67.34	67.34
Crit W.S. (m)	511.07	Flow Area (m2)		0.50	
E.G. Slope (m/m)	0.011073	Area (m2)		1.19	
Q Total (m3/s)	1.54	Flow (m3/s)		1.54	
Top Width (m)	1.40	Top Width (m)		1.40	
Vel Total (m/s)	3.11	Avg. Vel. (m/s)		3.11	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		0.99	
Conv. Total (m3/s)	14.7	Conv. (m3/s)		14.7	
Length Wtd. (m)	67.34	Wetted Per. (m)		0.51	
Min Ch El (m)	510.06	Shear (N/m2)		104.83	
Alpha	1.00	Stream Power (N/m s)		326.50	
Frctn Loss (m)	0.59	Cum Volume (1000 m3)	0.00	0.10	0.02
C & E Loss (m)	0.13	Cum SA (1000 m2)		0.07	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 9 Profile: TR500

E.G. Elev (m)	511.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.		0.033	
W.S. Elev (m)	511.14	Reach Len. (m)	67.34	67.34	67.34
Crit W.S. (m)	511.14	Flow Area (m2)		0.53	
E.G. Slope (m/m)	0.010774	Area (m2)		1.30	
Q Total (m3/s)	1.72	Flow (m3/s)		1.72	
Top Width (m)	1.40	Top Width (m)		1.40	
Vel Total (m/s)	3.22	Avg. Vel. (m/s)		3.22	
Max Chl Dpth (m)	1.08	Hydr. Depth (m)		1.07	
Conv. Total (m3/s)	16.5	Conv. (m3/s)		16.5	
Length Wtd. (m)	67.34	Wetted Per. (m)		0.51	
Min Ch El (m)	510.06	Shear (N/m2)		109.60	
Alpha	1.00	Stream Power (N/m s)		353.24	
Frctn Loss (m)	0.57	Cum Volume (1000 m3)	0.00	0.10	0.02
C & E Loss (m)	0.14	Cum SA (1000 m2)		0.07	0.03

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 8 Profile: TR20

E.G. Elev (m)	509.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.033	0.050
W.S. Elev (m)	509.29	Reach Len. (m)	0.95	0.95	0.95
Crit W.S. (m)	509.09	Flow Area (m2)		0.57	0.43
E.G. Slope (m/m)	0.007823	Area (m2)		0.57	0.43
Q Total (m3/s)	1.10	Flow (m3/s)		0.74	0.36
Top Width (m)	1.75	Top Width (m)		0.78	0.97
Vel Total (m/s)	1.10	Avg. Vel. (m/s)		1.31	0.83
Max Chl Dpth (m)	0.89	Hydr. Depth (m)		0.72	0.44
Conv. Total (m3/s)	12.5	Conv. (m3/s)		8.4	4.0
Length Wtd. (m)	0.95	Wetted Per. (m)		1.66	1.34
Min Ch El (m)	508.41	Shear (N/m2)		26.27	24.59
Alpha	1.14	Stream Power (N/m s)		34.46	20.37
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.00	0.02	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.00	0.00

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 8 Profile: TR100

E.G. Elev (m)	509.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.033	0.050
W.S. Elev (m)	509.43	Reach Len. (m)	0.95	0.95	0.95
Crit W.S. (m)	509.16	Flow Area (m2)		0.68	0.57
E.G. Slope (m/m)	0.007168	Area (m2)		0.68	0.57
Q Total (m3/s)	1.41	Flow (m3/s)		0.91	0.50

Top Width (m)	1.75	Top Width (m)		0.78	0.97
Vel Total (m/s)	1.13	Avg. Vel. (m/s)		1.34	0.89
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.86	0.58
Conv. Total (m3/s)	16.7	Conv. (m3/s)		10.7	6.0
Length Wtd. (m)	0.95	Wetted Per. (m)		1.80	1.48
Min Ch El (m)	508.41	Shear (N/m2)		26.48	26.82
Alpha	1.11	Stream Power (N/m s)		35.43	23.89
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.00	0.03	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.00	0.00

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 8 Profile: TR200

E.G. Elev (m)	509.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.033	0.050
W.S. Elev (m)	509.49	Reach Len. (m)	0.95	0.95	0.95
Crit W.S. (m)	509.18	Flow Area (m2)		0.72	0.62
E.G. Slope (m/m)	0.007020	Area (m2)		0.72	0.62
Q Total (m3/s)	1.54	Flow (m3/s)		0.98	0.57
Top Width (m)	1.75	Top Width (m)		0.78	0.97
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.35	0.91
Max Chl Dpth (m)	1.08	Hydr. Depth (m)		0.92	0.64
Conv. Total (m3/s)	18.4	Conv. (m3/s)		11.6	6.8
Length Wtd. (m)	0.95	Wetted Per. (m)		1.85	1.54
Min Ch El (m)	508.41	Shear (N/m2)		26.78	27.75
Alpha	1.11	Stream Power (N/m s)		36.24	25.37
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.00	0.03	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.00	0.00

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 8 Profile: TR500

E.G. Elev (m)	509.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.033	0.050
W.S. Elev (m)	509.56	Reach Len. (m)	0.95	0.95	0.95
Crit W.S. (m)	509.22	Flow Area (m2)		0.78	0.69
E.G. Slope (m/m)	0.006887	Area (m2)		0.78	0.69
Q Total (m3/s)	1.72	Flow (m3/s)		1.07	0.65
Top Width (m)	1.75	Top Width (m)		0.78	0.97
Vel Total (m/s)	1.17	Avg. Vel. (m/s)		1.37	0.94
Max Chl Dpth (m)	1.15	Hydr. Depth (m)		0.99	0.71
Conv. Total (m3/s)	20.7	Conv. (m3/s)		12.8	7.8
Length Wtd. (m)	0.95	Wetted Per. (m)		1.92	1.61
Min Ch El (m)	508.41	Shear (N/m2)		27.25	28.90
Alpha	1.10	Stream Power (N/m s)		37.43	27.24
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.00	0.03	0.00
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.00	0.00

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 7 Profile: TR20

E.G. Elev (m)	509.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.		0.033	
W.S. Elev (m)	509.07	Reach Len. (m)	52.74	52.74	52.74
Crit W.S. (m)	509.07	Flow Area (m2)		0.49	
E.G. Slope (m/m)	0.034374	Area (m2)		0.49	
Q Total (m3/s)	1.10	Flow (m3/s)		1.10	
Top Width (m)	0.94	Top Width (m)		0.94	
Vel Total (m/s)	2.26	Avg. Vel. (m/s)		2.26	
Max Chl Dpth (m)	0.65	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	5.9	Conv. (m3/s)		5.9	
Length Wtd. (m)	52.74	Wetted Per. (m)		1.90	
Min Ch El (m)	508.42	Shear (N/m2)		86.17	

Alpha	1.00	Stream Power (N/m s)		194.99	
Frctn Loss (m)	0.28	Cum Volume (1000 m3)	0.00	0.02	
C & E Loss (m)	0.07	Cum SA (1000 m2)			

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 7 Profile: TR100

E.G. Elev (m)	509.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.		0.033	
W.S. Elev (m)	509.16	Reach Len. (m)	52.74	52.74	52.74
Crit W.S. (m)	509.16	Flow Area (m2)		0.58	
E.G. Slope (m/m)	0.036194	Area (m2)		0.58	
Q Total (m3/s)	1.41	Flow (m3/s)		1.41	
Top Width (m)	0.95	Top Width (m)		0.95	
Vel Total (m/s)	2.44	Avg. Vel. (m/s)		2.44	
Max Chl Dpth (m)	0.75	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	7.4	Conv. (m3/s)		7.4	
Length Wtd. (m)	52.74	Wetted Per. (m)		2.10	
Min Ch El (m)	508.42	Shear (N/m2)		97.81	
Alpha	1.00	Stream Power (N/m s)		238.78	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	0.00	0.03	
C & E Loss (m)	0.08	Cum SA (1000 m2)			

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 7 Profile: TR200

E.G. Elev (m)	509.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.		0.033	
W.S. Elev (m)	509.20	Reach Len. (m)	52.74	52.74	52.74
Crit W.S. (m)	509.20	Flow Area (m2)		0.62	
E.G. Slope (m/m)	0.036895	Area (m2)		0.62	
Q Total (m3/s)	1.54	Flow (m3/s)		1.54	
Top Width (m)	0.95	Top Width (m)		0.95	
Vel Total (m/s)	2.51	Avg. Vel. (m/s)		2.51	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	8.0	Conv. (m3/s)		8.0	
Length Wtd. (m)	52.74	Wetted Per. (m)		2.18	
Min Ch El (m)	508.42	Shear (N/m2)		102.34	
Alpha	1.00	Stream Power (N/m s)		256.68	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)	0.00	0.03	
C & E Loss (m)	0.08	Cum SA (1000 m2)			

Plan: canale FFSS River: Canale FFSS Reach:Nazarotti Riv Sta: 7 Profile: TR500

E.G. Elev (m)	509.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.34	Wt. n-Val.		0.033	
W.S. Elev (m)	509.25	Reach Len. (m)	52.74	52.74	52.74
Crit W.S. (m)	509.25	Flow Area (m2)		0.66	
E.G. Slope (m/m)	0.038030	Area (m2)		0.66	
Q Total (m3/s)	1.72	Flow (m3/s)		1.72	
Top Width (m)	0.95	Top Width (m)		0.95	
Vel Total (m/s)	2.60	Avg. Vel. (m/s)		2.60	
Max Chl Dpth (m)	0.83	Hydr. Depth (m)		0.70	
Conv. Total (m3/s)	8.8	Conv. (m3/s)		8.8	
Length Wtd. (m)	52.74	Wetted Per. (m)		2.27	
Min Ch El (m)	508.42	Shear (N/m2)		108.54	
Alpha	1.00	Stream Power (N/m s)		281.69	
Frctn Loss (m)	0.34	Cum Volume (1000 m3)	0.00	0.03	
C & E Loss (m)	0.09	Cum SA (1000 m2)			

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 4 Profile: TR20

E.G. Elev (m)	508.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.	0.040	0.033	
W.S. Elev (m)	508.51	Reach Len. (m)	4.30	4.64	5.48
Crit W.S. (m)	508.57	Flow Area (m2)	0.13	0.29	
E.G. Slope (m/m)	0.039821	Area (m2)	0.13	0.29	
Q Total (m3/s)	0.66	Flow (m3/s)	0.05	0.61	
Top Width (m)	7.87	Top Width (m)	6.82	1.05	
Vel Total (m/s)	1.56	Avg. Vel. (m/s)	0.36	2.12	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)	0.02	0.28	
Conv. Total (m3/s)	3.3	Conv. (m3/s)	0.2	3.1	
Length Wtd. (m)	4.60	Wetted Per. (m)	6.82	1.39	
Min Ch El (m)	508.08	Shear (N/m2)	7.65	81.07	
Alpha	1.71	Stream Power (N/m s)	2.77	171.87	
Frctn Loss (m)	0.59	Cum Volume (1000 m3)	0.04	0.25	0.03
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.23	0.75	0.93

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 4 Profile: TR100

E.G. Elev (m)	508.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.	0.040	0.033	
W.S. Elev (m)	508.52	Reach Len. (m)	4.30	4.64	5.48
Crit W.S. (m)	508.59	Flow Area (m2)	0.23	0.30	
E.G. Slope (m/m)	0.051277	Area (m2)	0.23	0.30	
Q Total (m3/s)	0.85	Flow (m3/s)	0.11	0.74	
Top Width (m)	9.94	Top Width (m)	8.88	1.06	
Vel Total (m/s)	1.61	Avg. Vel. (m/s)	0.49	2.46	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)	0.03	0.28	
Conv. Total (m3/s)	3.8	Conv. (m3/s)	0.5	3.3	
Length Wtd. (m)	4.57	Wetted Per. (m)	8.88	1.40	
Min Ch El (m)	508.08	Shear (N/m2)	12.82	107.66	
Alpha	2.03	Stream Power (N/m s)	6.28	264.39	
Frctn Loss (m)	0.67	Cum Volume (1000 m3)	0.42	0.40	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	7.61	0.82	1.07

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 4 Profile: TR200

E.G. Elev (m)	508.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.29	Wt. n-Val.	0.040	0.033	
W.S. Elev (m)	508.53	Reach Len. (m)	4.30	4.64	5.48
Crit W.S. (m)	508.59	Flow Area (m2)	0.27	0.31	
E.G. Slope (m/m)	0.055605	Area (m2)	0.27	0.31	
Q Total (m3/s)	0.93	Flow (m3/s)	0.14	0.79	
Top Width (m)	10.67	Top Width (m)	9.61	1.06	
Vel Total (m/s)	1.63	Avg. Vel. (m/s)	0.54	2.58	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)	0.03	0.29	
Conv. Total (m3/s)	3.9	Conv. (m3/s)	0.6	3.3	
Length Wtd. (m)	4.56	Wetted Per. (m)	9.61	1.41	
Min Ch El (m)	508.08	Shear (N/m2)	15.04	118.00	
Alpha	2.13	Stream Power (N/m s)	8.10	303.93	
Frctn Loss (m)	0.70	Cum Volume (1000 m3)	0.55	0.42	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	7.70	0.82	1.17

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 4 Profile: TR500

E.G. Elev (m)	508.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.	0.040	0.033	
W.S. Elev (m)	508.53	Reach Len. (m)	4.30	4.64	5.48
Crit W.S. (m)	508.59	Flow Area (m2)	0.30	0.31	
E.G. Slope (m/m)	0.063101	Area (m2)	0.30	0.31	
Q Total (m3/s)	1.03	Flow (m3/s)	0.18	0.85	

Top Width (m)	11.27	Top Width (m)	10.21	1.06	
Vel Total (m/s)	1.70	Avg. Vel. (m/s)	0.60	2.76	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)	0.03	0.29	
Conv. Total (m3/s)	4.1	Conv. (m3/s)	0.7	3.4	
Length Wtd. (m)	4.56	Wetted Per. (m)	10.21	1.41	
Min Ch El (m)	508.08	Shear (N/m2)	18.13	135.07	
Alpha	2.21	Stream Power (N/m s)	10.82	372.73	
Frctn Loss (m)	0.74	Cum Volume (1000 m3)	0.68	0.45	0.06
C & E Loss (m)	0.01	Cum SA (1000 m2)	7.15	0.82	1.66

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 3 Profile: TR20

E.G. Elev (m)	508.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.	0.040	0.033	
W.S. Elev (m)	508.25	Reach Len. (m)	83.46	83.46	83.46
Crit W.S. (m)	508.26	Flow Area (m2)	0.27	0.23	
E.G. Slope (m/m)	0.057082	Area (m2)	0.27	0.23	
Q Total (m3/s)	0.66	Flow (m3/s)	0.11	0.55	
Top Width (m)	17.07	Top Width (m)	16.22	0.85	
Vel Total (m/s)	1.30	Avg. Vel. (m/s)	0.39	2.36	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)	0.02	0.28	
Conv. Total (m3/s)	2.8	Conv. (m3/s)	0.5	2.3	
Length Wtd. (m)	83.46	Wetted Per. (m)	16.22	1.26	
Min Ch El (m)	507.84	Shear (N/m2)	9.47	103.91	
Alpha	2.77	Stream Power (N/m s)	3.73	244.80	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)	0.04	0.25	0.03
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.18	0.74	0.93

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 3 Profile: TR100

E.G. Elev (m)	508.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.	0.040	0.033	
W.S. Elev (m)	508.25	Reach Len. (m)	83.46	83.46	83.46
Crit W.S. (m)	508.26	Flow Area (m2)	0.42	0.24	
E.G. Slope (m/m)	0.069955	Area (m2)	0.42	0.24	
Q Total (m3/s)	0.85	Flow (m3/s)	0.21	0.64	
Top Width (m)	20.97	Top Width (m)	20.11	0.86	
Vel Total (m/s)	1.28	Avg. Vel. (m/s)	0.50	2.64	
Max Chl Dpth (m)	0.41	Hydr. Depth (m)	0.02	0.28	
Conv. Total (m3/s)	3.2	Conv. (m3/s)	0.8	2.4	
Length Wtd. (m)	83.46	Wetted Per. (m)	20.11	1.27	
Min Ch El (m)	507.84	Shear (N/m2)	14.38	129.95	
Alpha	3.23	Stream Power (N/m s)	7.23	343.53	
Frctn Loss (m)	0.27	Cum Volume (1000 m3)	0.42	0.40	0.04
C & E Loss (m)	0.00	Cum SA (1000 m2)	7.55	0.81	1.07

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 3 Profile: TR200

E.G. Elev (m)	508.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.	0.040	0.033	
W.S. Elev (m)	508.26	Reach Len. (m)	83.46	83.46	83.46
Crit W.S. (m)	508.26	Flow Area (m2)	0.51	0.24	
E.G. Slope (m/m)	0.070850	Area (m2)	0.51	0.24	
Q Total (m3/s)	0.93	Flow (m3/s)	0.27	0.66	
Top Width (m)	22.93	Top Width (m)	22.07	0.86	
Vel Total (m/s)	1.23	Avg. Vel. (m/s)	0.54	2.68	
Max Chl Dpth (m)	0.41	Hydr. Depth (m)	0.02	0.28	
Conv. Total (m3/s)	3.5	Conv. (m3/s)	1.0	2.5	
Length Wtd. (m)	83.46	Wetted Per. (m)	22.07	1.28	
Min Ch El (m)	507.84	Shear (N/m2)	15.99	132.94	

Alpha	3.38	Stream Power (N/m s)	8.61	356.05	
Frctn Loss (m)	0.29	Cum Volume (1000 m3)	0.55	0.42	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	7.63	0.81	1.17

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 3 Profile: TR500

E.G. Elev (m)	509.17	Element	Left OB	Channel	Right OB
Vel Head (m)	0.94	Wt. n-Val.	0.040	0.033	
W.S. Elev (m)	508.23	Reach Len. (m)	83.46	83.46	83.46
Crit W.S. (m)	508.26	Flow Area (m2)	0.10	0.22	
E.G. Slope (m/m)	0.208574	Area (m2)	0.10	0.22	
Q Total (m3/s)	1.03	Flow (m3/s)	0.05	0.98	
Top Width (m)	10.47	Top Width (m)	9.64	0.84	
Vel Total (m/s)	3.23	Avg. Vel. (m/s)	0.53	4.40	
Max Chl Dpth (m)	0.39	Hydr. Depth (m)	0.01	0.27	
Conv. Total (m3/s)	2.3	Conv. (m3/s)	0.1	2.1	
Length Wtd. (m)	83.46	Wetted Per. (m)	9.64	1.24	
Min Ch El (m)	507.84	Shear (N/m2)	20.55	366.43	
Alpha	1.77	Stream Power (N/m s)	10.92	1611.61	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)	0.67	0.45	0.06
C & E Loss (m)	0.01	Cum SA (1000 m2)	7.11	0.81	1.66

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 2 Profile: TR20

E.G. Elev (m)	505.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.040	0.033	0.040
W.S. Elev (m)	505.17	Reach Len. (m)	87.56	87.56	87.56
Crit W.S. (m)	505.20	Flow Area (m2)	0.32	0.26	0.33
E.G. Slope (m/m)	0.029205	Area (m2)	0.32	0.26	0.33
Q Total (m3/s)	0.66	Flow (m3/s)	0.07	0.46	0.14
Top Width (m)	41.15	Top Width (m)	29.26	1.01	10.88
Vel Total (m/s)	0.73	Avg. Vel. (m/s)	0.21	1.76	0.42
Max Chl Dpth (m)	0.38	Hydr. Depth (m)	0.01	0.25	0.03
Conv. Total (m3/s)	3.9	Conv. (m3/s)	0.4	2.7	0.8
Length Wtd. (m)	87.56	Wetted Per. (m)	29.27	1.30	10.88
Min Ch El (m)	504.79	Shear (N/m2)	3.09	56.86	8.75
Alpha	4.12	Stream Power (N/m s)	0.64	100.20	3.65
Frctn Loss (m)	3.17	Cum Volume (1000 m3)	0.01	0.23	0.01
C & E Loss (m)	0.04	Cum SA (1000 m2)	1.28	0.66	0.48

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 2 Profile: TR100

E.G. Elev (m)	505.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.	0.040	0.033	0.040
W.S. Elev (m)	505.18	Reach Len. (m)	87.56	87.56	87.56
Crit W.S. (m)	505.21	Flow Area (m2)	0.58	0.27	0.44
E.G. Slope (m/m)	0.028078	Area (m2)	0.58	0.27	0.44
Q Total (m3/s)	0.85	Flow (m3/s)	0.18	0.47	0.20
Top Width (m)	42.77	Top Width (m)	29.26	1.01	12.50
Vel Total (m/s)	0.66	Avg. Vel. (m/s)	0.31	1.77	0.45
Max Chl Dpth (m)	0.39	Hydr. Depth (m)	0.02	0.26	0.04
Conv. Total (m3/s)	5.1	Conv. (m3/s)	1.1	2.8	1.2
Length Wtd. (m)	87.56	Wetted Per. (m)	29.28	1.30	12.50
Min Ch El (m)	504.79	Shear (N/m2)	5.48	56.62	9.67
Alpha	4.17	Stream Power (N/m s)	1.68	100.16	4.34
Frctn Loss (m)	3.21	Cum Volume (1000 m3)	0.38	0.38	0.02
C & E Loss (m)	0.06	Cum SA (1000 m2)	5.48	0.73	0.55

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 2 Profile: TR200

E.G. Elev (m)	505.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.040	0.033	0.040
W.S. Elev (m)	505.19	Reach Len. (m)	87.56	87.56	87.56
Crit W.S. (m)	505.21	Flow Area (m2)	0.76	0.27	0.52
E.G. Slope (m/m)	0.023295	Area (m2)	0.76	0.27	0.52
Q Total (m3/s)	0.93	Flow (m3/s)	0.26	0.45	0.22
Top Width (m)	43.87	Top Width (m)	29.26	1.01	13.60
Vel Total (m/s)	0.60	Avg. Vel. (m/s)	0.34	1.64	0.43
Max Chl Dpth (m)	0.40	Hydr. Depth (m)	0.03	0.27	0.04
Conv. Total (m3/s)	6.1	Conv. (m3/s)	1.7	2.9	1.5
Length Wtd. (m)	87.56	Wetted Per. (m)	29.29	1.30	13.60
Min Ch El (m)	504.79	Shear (N/m2)	5.95	48.08	8.72
Alpha	3.84	Stream Power (N/m s)	2.00	78.67	3.78
Frctn Loss (m)	3.20	Cum Volume (1000 m3)	0.49	0.40	0.02
C & E Loss (m)	0.06	Cum SA (1000 m2)	5.48	0.74	0.61

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 2 Profile: TR500

E.G. Elev (m)	505.25	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.040	0.033	0.040
W.S. Elev (m)	505.20	Reach Len. (m)	87.56	87.56	87.56
Crit W.S. (m)	505.21	Flow Area (m2)	0.97	0.28	0.62
E.G. Slope (m/m)	0.019204	Area (m2)	0.97	0.28	0.62
Q Total (m3/s)	1.03	Flow (m3/s)	0.35	0.42	0.26
Top Width (m)	45.14	Top Width (m)	29.26	1.01	14.86
Vel Total (m/s)	0.55	Avg. Vel. (m/s)	0.36	1.51	0.42
Max Chl Dpth (m)	0.41	Hydr. Depth (m)	0.03	0.28	0.04
Conv. Total (m3/s)	7.4	Conv. (m3/s)	2.5	3.1	1.9
Length Wtd. (m)	87.56	Wetted Per. (m)	29.30	1.30	14.86
Min Ch El (m)	504.79	Shear (N/m2)	6.24	40.68	7.86
Alpha	3.40	Stream Power (N/m s)	2.23	61.49	3.28
Frctn Loss (m)	3.66	Cum Volume (1000 m3)	0.63	0.42	0.03
C & E Loss (m)	0.27	Cum SA (1000 m2)	5.48	0.74	1.04

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 1 Profile: TR20

E.G. Elev (m)	502.12	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.		0.033	
W.S. Elev (m)	501.82	Reach Len. (m)	316.67	316.67	316.67
Crit W.S. (m)	501.90	Flow Area (m2)		0.27	
E.G. Slope (m/m)	0.045114	Area (m2)		0.34	
Q Total (m3/s)	0.66	Flow (m3/s)		0.66	
Top Width (m)	1.33	Top Width (m)		1.33	
Vel Total (m/s)	2.42	Avg. Vel. (m/s)		2.42	
Max Chl Dpth (m)	0.32	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	3.1	Conv. (m3/s)		3.1	
Length Wtd. (m)	316.67	Wetted Per. (m)		1.18	
Min Ch El (m)	501.50	Shear (N/m2)		102.11	
Alpha	1.00	Stream Power (N/m s)		247.29	
Frctn Loss (m)	3.14	Cum Volume (1000 m3)		0.21	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.56	

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 1 Profile: TR100

E.G. Elev (m)	502.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.033	
W.S. Elev (m)	502.18	Reach Len. (m)	316.67	316.67	316.67
Crit W.S. (m)	501.97	Flow Area (m2)		0.61	
E.G. Slope (m/m)	0.006248	Area (m2)	1.76	0.88	
Q Total (m3/s)	0.85	Flow (m3/s)		0.85	

Top Width (m)	22.44	Top Width (m)	20.80	1.64	
Vel Total (m/s)	1.40	Avg. Vel. (m/s)		1.40	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	10.7	Conv. (m3/s)		10.7	
Length Wtd. (m)	316.67	Wetted Per. (m)		1.35	
Min Ch El (m)	501.50	Shear (N/m2)		27.47	
Alpha	1.00	Stream Power (N/m s)		38.55	
Frctn Loss (m)		Cum Volume (1000 m3)	0.28	0.32	
C & E Loss (m)		Cum SA (1000 m2)	3.29	0.62	

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 1 Profile: TR200

E.G. Elev (m)	502.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.033	
W.S. Elev (m)	502.20	Reach Len. (m)	316.67	316.67	316.67
Crit W.S. (m)	502.00	Flow Area (m2)		0.63	
E.G. Slope (m/m)	0.006581	Area (m2)	2.27	0.92	0.00
Q Total (m3/s)	0.93	Flow (m3/s)		0.93	
Top Width (m)	22.50	Top Width (m)	20.80	1.64	0.06
Vel Total (m/s)	1.48	Avg. Vel. (m/s)		1.48	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	11.4	Conv. (m3/s)		11.4	
Length Wtd. (m)	316.67	Wetted Per. (m)		1.35	
Min Ch El (m)	501.50	Shear (N/m2)		30.06	
Alpha	1.00	Stream Power (N/m s)		44.39	
Frctn Loss (m)		Cum Volume (1000 m3)	0.36	0.34	0.00
C & E Loss (m)		Cum SA (1000 m2)	3.29	0.62	0.01

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 1 Profile: TR500

E.G. Elev (m)	502.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.033	
W.S. Elev (m)	502.23	Reach Len. (m)	316.67	316.67	316.67
Crit W.S. (m)	502.03	Flow Area (m2)		0.66	
E.G. Slope (m/m)	0.006971	Area (m2)	2.91	0.97	0.03
Q Total (m3/s)	1.03	Flow (m3/s)		1.03	
Top Width (m)	24.35	Top Width (m)	20.80	1.64	1.91
Vel Total (m/s)	1.57	Avg. Vel. (m/s)		1.57	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.69	
Conv. Total (m3/s)	12.3	Conv. (m3/s)		12.3	
Length Wtd. (m)	316.67	Wetted Per. (m)		1.35	
Min Ch El (m)	501.50	Shear (N/m2)		33.31	
Alpha	1.00	Stream Power (N/m s)		52.18	
Frctn Loss (m)		Cum Volume (1000 m3)	0.46	0.37	0.00
C & E Loss (m)		Cum SA (1000 m2)	3.29	0.62	0.30

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 0.2 Profile: TR20

E.G. Elev (m)	484.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.		0.033	
W.S. Elev (m)	484.46	Reach Len. (m)	20.30	20.30	20.30
Crit W.S. (m)	484.46	Flow Area (m2)		0.48	
E.G. Slope (m/m)	0.013185	Area (m2)		0.88	
Q Total (m3/s)	1.10	Flow (m3/s)		1.10	
Top Width (m)	1.98	Top Width (m)		1.98	
Vel Total (m/s)	2.29	Avg. Vel. (m/s)		2.29	
Max Chl Dpth (m)	0.56	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	9.6	Conv. (m3/s)		9.6	
Length Wtd. (m)	20.30	Wetted Per. (m)		0.90	
Min Ch El (m)	483.89	Shear (N/m2)		68.89	

Alpha	1.00	Stream Power (N/m s)		157.53	
Frctn Loss (m)	0.33	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.03	Cum SA (1000 m2)		0.04	

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 0.2 Profile: TR100

E.G. Elev (m)	484.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.		0.033	
W.S. Elev (m)	484.55	Reach Len. (m)	20.30	20.30	20.30
Crit W.S. (m)	484.55	Flow Area (m2)		0.57	
E.G. Slope (m/m)	0.012407	Area (m2)		1.08	
Q Total (m3/s)	1.41	Flow (m3/s)		1.41	
Top Width (m)	2.03	Top Width (m)		2.03	
Vel Total (m/s)	2.48	Avg. Vel. (m/s)		2.48	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	12.7	Conv. (m3/s)		12.7	
Length Wtd. (m)	20.30	Wetted Per. (m)		0.90	
Min Ch El (m)	483.89	Shear (N/m2)		76.56	
Alpha	1.00	Stream Power (N/m s)		189.77	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.07	Cum SA (1000 m2)		0.04	

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 0.2 Profile: TR200

E.G. Elev (m)	484.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.		0.033	
W.S. Elev (m)	484.59	Reach Len. (m)	20.30	20.30	20.30
Crit W.S. (m)	484.59	Flow Area (m2)		0.60	
E.G. Slope (m/m)	0.012279	Area (m2)		1.15	
Q Total (m3/s)	1.54	Flow (m3/s)		1.54	
Top Width (m)	2.04	Top Width (m)		2.04	
Vel Total (m/s)	2.56	Avg. Vel. (m/s)		2.56	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	13.9	Conv. (m3/s)		13.9	
Length Wtd. (m)	20.30	Wetted Per. (m)		0.90	
Min Ch El (m)	483.89	Shear (N/m2)		80.24	
Alpha	1.00	Stream Power (N/m s)		205.54	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.08	Cum SA (1000 m2)		0.04	

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 0.2 Profile: TR500

E.G. Elev (m)	485.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.36	Wt. n-Val.		0.033	
W.S. Elev (m)	484.64	Reach Len. (m)	20.30	20.30	20.30
Crit W.S. (m)	484.64	Flow Area (m2)		0.65	
E.G. Slope (m/m)	0.011977	Area (m2)		1.25	
Q Total (m3/s)	1.72	Flow (m3/s)		1.72	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	2.65	Avg. Vel. (m/s)		2.65	
Max Chl Dpth (m)	0.75	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	15.7	Conv. (m3/s)		15.7	
Length Wtd. (m)	20.30	Wetted Per. (m)		0.90	
Min Ch El (m)	483.89	Shear (N/m2)		84.03	
Alpha	1.00	Stream Power (N/m s)		222.93	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.09	Cum SA (1000 m2)		0.04	

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 0.1 Profile: TR20

E.G. Elev (m)	484.12	Element	Left OB	Channel	Right OB
Vel Head (m)	0.55	Wt. n-Val.		0.033	
W.S. Elev (m)	483.57	Reach Len. (m)			
Crit W.S. (m)	483.73	Flow Area (m2)		0.34	
E.G. Slope (m/m)	0.107768	Area (m2)		0.34	
Q Total (m3/s)	1.10	Flow (m3/s)		1.10	
Top Width (m)	1.52	Top Width (m)		1.52	
Vel Total (m/s)	3.27	Avg. Vel. (m/s)		3.27	
Max Chl Dpth (m)	0.31	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	3.4	Conv. (m3/s)		3.4	
Length Wtd. (m)		Wetted Per. (m)		1.79	
Min Ch El (m)	483.26	Shear (N/m2)		199.30	
Alpha	1.00	Stream Power (N/m s)		652.00	
Frctn Loss (m)	0.38	Cum Volume (1000 m3)			
C & E Loss (m)	0.05	Cum SA (1000 m2)			

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 0.1 Profile: TR100

E.G. Elev (m)	484.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.65	Wt. n-Val.		0.033	
W.S. Elev (m)	483.61	Reach Len. (m)			
Crit W.S. (m)	483.87	Flow Area (m2)		0.40	
E.G. Slope (m/m)	0.110091	Area (m2)		0.40	
Q Total (m3/s)	1.41	Flow (m3/s)		1.41	
Top Width (m)	1.56	Top Width (m)		1.56	
Vel Total (m/s)	3.56	Avg. Vel. (m/s)		3.56	
Max Chl Dpth (m)	0.35	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	4.3	Conv. (m3/s)		4.3	
Length Wtd. (m)		Wetted Per. (m)		1.87	
Min Ch El (m)	483.26	Shear (N/m2)		227.92	
Alpha	1.00	Stream Power (N/m s)		812.51	
Frctn Loss (m)	0.57	Cum Volume (1000 m3)			
C & E Loss (m)	0.03	Cum SA (1000 m2)			

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 0.1 Profile: TR200

E.G. Elev (m)	484.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.69	Wt. n-Val.		0.033	
W.S. Elev (m)	483.62	Reach Len. (m)			
Crit W.S. (m)	483.88	Flow Area (m2)		0.42	
E.G. Slope (m/m)	0.111106	Area (m2)		0.42	
Q Total (m3/s)	1.54	Flow (m3/s)		1.54	
Top Width (m)	1.58	Top Width (m)		1.58	
Vel Total (m/s)	3.68	Avg. Vel. (m/s)		3.68	
Max Chl Dpth (m)	0.36	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	4.6	Conv. (m3/s)		4.6	
Length Wtd. (m)		Wetted Per. (m)		1.91	
Min Ch El (m)	483.26	Shear (N/m2)		239.44	
Alpha	1.00	Stream Power (N/m s)		880.77	
Frctn Loss (m)	0.57	Cum Volume (1000 m3)			
C & E Loss (m)	0.04	Cum SA (1000 m2)			

Plan: canale FFSS River: Canale FFSS Reach:Canale ovest Riv Sta: 0.1 Profile: TR500

E.G. Elev (m)	484.38	Element	Left OB	Channel	Right OB
Vel Head (m)	0.74	Wt. n-Val.		0.033	
W.S. Elev (m)	483.64	Reach Len. (m)			
Crit W.S. (m)	483.89	Flow Area (m2)		0.45	
E.G. Slope (m/m)	0.111279	Area (m2)		0.45	
Q Total (m3/s)	1.72	Flow (m3/s)		1.72	

Top Width (m)	1.59	Top Width (m)		1.59	
Vel Total (m/s)	3.80	Avg. Vel. (m/s)		3.80	
Max Chl Dpth (m)	0.38	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	5.1	Conv. (m3/s)		5.1	
Length Wtd. (m)		Wetted Per. (m)		1.96	
Min Ch El (m)	483.26	Shear (N/m2)		251.82	
Alpha	1.00	Stream Power (N/m s)		957.71	
Frctn Loss (m)	0.56	Cum Volume (1000 m3)			
C & E Loss (m)	0.04	Cum SA (1000 m2)			

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 7 Profile: TR20

E.G. Elev (m)	507.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.033	
W.S. Elev (m)	507.45	Reach Len. (m)	89.27	89.27	89.27
Crit W.S. (m)	507.52	Flow Area (m2)		0.16	
E.G. Slope (m/m)	0.066760	Area (m2)		0.16	
Q Total (m3/s)	0.33	Flow (m3/s)		0.33	
Top Width (m)	0.78	Top Width (m)		0.78	
Vel Total (m/s)	2.13	Avg. Vel. (m/s)		2.13	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)		0.20	
Conv. Total (m3/s)	1.3	Conv. (m3/s)		1.3	
Length Wtd. (m)	89.27	Wetted Per. (m)		1.08	
Min Ch El (m)	507.17	Shear (N/m2)		94.24	
Alpha	1.00	Stream Power (N/m s)		200.83	
Frctn Loss (m)	1.72	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.04	Cum SA (1000 m2)		0.26	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 7 Profile: TR100

E.G. Elev (m)	507.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.033	
W.S. Elev (m)	507.50	Reach Len. (m)	89.27	89.27	89.27
Crit W.S. (m)	507.57	Flow Area (m2)		0.20	
E.G. Slope (m/m)	0.057368	Area (m2)		0.20	
Q Total (m3/s)	0.42	Flow (m3/s)		0.42	
Top Width (m)	0.86	Top Width (m)		0.86	
Vel Total (m/s)	2.14	Avg. Vel. (m/s)		2.14	
Max Chl Dpth (m)	0.50	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	1.7	Conv. (m3/s)		1.7	
Length Wtd. (m)	89.27	Wetted Per. (m)		1.21	
Min Ch El (m)	507.17	Shear (N/m2)		91.07	
Alpha	1.00	Stream Power (N/m s)		194.57	
Frctn Loss (m)	1.78	Cum Volume (1000 m3)		0.08	
C & E Loss (m)	0.05	Cum SA (1000 m2)		0.28	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 7 Profile: TR200

E.G. Elev (m)	507.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.		0.033	
W.S. Elev (m)	507.51	Reach Len. (m)	89.27	89.27	89.27
Crit W.S. (m)	507.59	Flow Area (m2)		0.21	
E.G. Slope (m/m)	0.059576	Area (m2)		0.21	
Q Total (m3/s)	0.46	Flow (m3/s)		0.46	
Top Width (m)	0.88	Top Width (m)		0.88	
Vel Total (m/s)	2.22	Avg. Vel. (m/s)		2.22	
Max Chl Dpth (m)	0.51	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	1.9	Conv. (m3/s)		1.9	
Length Wtd. (m)	89.27	Wetted Per. (m)		1.24	
Min Ch El (m)	507.17	Shear (N/m2)		97.14	

Alpha	1.00	Stream Power (N/m s)		215.31	
Frctn Loss (m)	1.82	Cum Volume (1000 m3)		0.09	
C & E Loss (m)	0.05	Cum SA (1000 m2)		0.29	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 7 Profile: TR500

E.G. Elev (m)	507.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.033	
W.S. Elev (m)	507.56	Reach Len. (m)	89.27	89.27	89.27
Crit W.S. (m)	507.62	Flow Area (m2)		0.25	
E.G. Slope (m/m)	0.044706	Area (m2)		0.25	
Q Total (m3/s)	0.52	Flow (m3/s)		0.52	
Top Width (m)	0.96	Top Width (m)		0.96	
Vel Total (m/s)	2.05	Avg. Vel. (m/s)		2.05	
Max Chl Dpth (m)	0.56	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	2.5	Conv. (m3/s)		2.5	
Length Wtd. (m)	89.27	Wetted Per. (m)		1.38	
Min Ch El (m)	507.17	Shear (N/m2)		80.63	
Alpha	1.00	Stream Power (N/m s)		165.56	
Frctn Loss (m)	2.00	Cum Volume (1000 m3)		0.09	
C & E Loss (m)	0.05	Cum SA (1000 m2)		0.30	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 6 Profile: TR20

E.G. Elev (m)	504.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.033	
W.S. Elev (m)	504.45	Reach Len. (m)	78.68	78.68	78.68
Crit W.S. (m)	504.45	Flow Area (m2)		0.22	
E.G. Slope (m/m)	0.026002	Area (m2)		0.22	
Q Total (m3/s)	0.33	Flow (m3/s)		0.33	
Top Width (m)	0.93	Top Width (m)		0.93	
Vel Total (m/s)	1.52	Avg. Vel. (m/s)		1.52	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.24	
Conv. Total (m3/s)	2.1	Conv. (m3/s)		2.1	
Length Wtd. (m)	78.68	Wetted Per. (m)		1.25	
Min Ch El (m)	504.08	Shear (N/m2)		44.64	
Alpha	1.00	Stream Power (N/m s)		67.65	
Frctn Loss (m)	1.64	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.19	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 6 Profile: TR100

E.G. Elev (m)	504.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.033	
W.S. Elev (m)	504.50	Reach Len. (m)	78.68	78.68	78.68
Crit W.S. (m)	504.50	Flow Area (m2)		0.26	
E.G. Slope (m/m)	0.025684	Area (m2)		0.26	
Q Total (m3/s)	0.42	Flow (m3/s)		0.42	
Top Width (m)	1.00	Top Width (m)		1.00	
Vel Total (m/s)	1.60	Avg. Vel. (m/s)		1.60	
Max Chl Dpth (m)	0.41	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	2.6	Conv. (m3/s)		2.6	
Length Wtd. (m)	78.68	Wetted Per. (m)		1.37	
Min Ch El (m)	504.08	Shear (N/m2)		48.31	
Alpha	1.00	Stream Power (N/m s)		77.32	
Frctn Loss (m)	1.80	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.19	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 6 Profile: TR200

E.G. Elev (m)	504.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.033	
W.S. Elev (m)	504.52	Reach Len. (m)	78.68	78.68	78.68
Crit W.S. (m)	504.52	Flow Area (m2)		0.28	
E.G. Slope (m/m)	0.025175	Area (m2)		0.28	
Q Total (m3/s)	0.46	Flow (m3/s)		0.46	
Top Width (m)	1.04	Top Width (m)		1.04	
Vel Total (m/s)	1.62	Avg. Vel. (m/s)		1.62	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	2.9	Conv. (m3/s)		2.9	
Length Wtd. (m)	78.68	Wetted Per. (m)		1.42	
Min Ch El (m)	504.08	Shear (N/m2)		49.17	
Alpha	1.00	Stream Power (N/m s)		79.90	
Frctn Loss (m)	1.30	Cum Volume (1000 m3)		0.06	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.21	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 6 Profile: TR500

E.G. Elev (m)	504.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.033	
W.S. Elev (m)	504.53	Reach Len. (m)	78.68	78.68	78.68
Crit W.S. (m)	504.54	Flow Area (m2)		0.30	
E.G. Slope (m/m)	0.027296	Area (m2)		0.30	
Q Total (m3/s)	0.52	Flow (m3/s)		0.52	
Top Width (m)	1.07	Top Width (m)		1.07	
Vel Total (m/s)	1.73	Avg. Vel. (m/s)		1.73	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	3.2	Conv. (m3/s)		3.2	
Length Wtd. (m)	78.68	Wetted Per. (m)		1.46	
Min Ch El (m)	504.08	Shear (N/m2)		55.07	
Alpha	1.00	Stream Power (N/m s)		95.23	
Frctn Loss (m)	3.07	Cum Volume (1000 m3)		0.07	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.21	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 5 Profile: TR20

E.G. Elev (m)	501.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.033	
W.S. Elev (m)	501.67	Reach Len. (m)	24.82	24.95	25.08
Crit W.S. (m)	501.72	Flow Area (m2)		0.17	
E.G. Slope (m/m)	0.048401	Area (m2)		0.17	
Q Total (m3/s)	0.33	Flow (m3/s)		0.33	
Top Width (m)	0.89	Top Width (m)		0.89	
Vel Total (m/s)	1.90	Avg. Vel. (m/s)		1.90	
Max Chl Dpth (m)	0.51	Hydr. Depth (m)		0.20	
Conv. Total (m3/s)	1.5	Conv. (m3/s)		1.5	
Length Wtd. (m)	24.95	Wetted Per. (m)		1.13	
Min Ch El (m)	501.39	Shear (N/m2)		73.24	
Alpha	1.00	Stream Power (N/m s)		139.21	
Frctn Loss (m)	2.71	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.11	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 5 Profile: TR100

E.G. Elev (m)	501.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.033	
W.S. Elev (m)	501.71	Reach Len. (m)	24.82	24.95	25.08
Crit W.S. (m)	501.77	Flow Area (m2)		0.21	
E.G. Slope (m/m)	0.048790	Area (m2)		0.21	
Q Total (m3/s)	0.42	Flow (m3/s)		0.42	

Top Width (m)	0.95	Top Width (m)		0.95	
Vel Total (m/s)	2.03	Avg. Vel. (m/s)		2.03	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	1.9	Conv. (m3/s)		1.9	
Length Wtd. (m)	24.95	Wetted Per. (m)		1.23	
Min Ch El (m)	501.39	Shear (N/m2)		80.76	
Alpha	1.00	Stream Power (N/m s)		163.62	
Frctn Loss (m)	2.70	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.12	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 5 Profile: TR200

E.G. Elev (m)	501.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.033	
W.S. Elev (m)	501.87	Reach Len. (m)	24.82	24.95	25.08
Crit W.S. (m)	501.78	Flow Area (m2)		0.38	
E.G. Slope (m/m)	0.011625	Area (m2)		0.38	
Q Total (m3/s)	0.46	Flow (m3/s)		0.46	
Top Width (m)	1.23	Top Width (m)		1.23	
Vel Total (m/s)	1.21	Avg. Vel. (m/s)		1.21	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.31	
Conv. Total (m3/s)	4.3	Conv. (m3/s)		4.3	
Length Wtd. (m)	24.95	Wetted Per. (m)		1.65	
Min Ch El (m)	501.39	Shear (N/m2)		26.13	
Alpha	1.00	Stream Power (N/m s)		31.69	
Frctn Loss (m)	0.41	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.12	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 5 Profile: TR500

E.G. Elev (m)	501.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.033	
W.S. Elev (m)	501.89	Reach Len. (m)	24.82	24.95	25.08
Crit W.S. (m)	501.81	Flow Area (m2)		0.41	
E.G. Slope (m/m)	0.012453	Area (m2)		0.41	
Q Total (m3/s)	0.52	Flow (m3/s)		0.52	
Top Width (m)	1.27	Top Width (m)		1.27	
Vel Total (m/s)	1.28	Avg. Vel. (m/s)		1.28	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	4.7	Conv. (m3/s)		4.7	
Length Wtd. (m)	24.95	Wetted Per. (m)		1.71	
Min Ch El (m)	501.39	Shear (N/m2)		28.98	
Alpha	1.00	Stream Power (N/m s)		37.22	
Frctn Loss (m)	0.43	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.12	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 4 Profile: TR20

E.G. Elev (m)	501.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.033	
W.S. Elev (m)	501.47	Reach Len. (m)	37.71	38.01	38.39
Crit W.S. (m)	501.34	Flow Area (m2)		0.44	
E.G. Slope (m/m)	0.010521	Area (m2)		0.44	
Q Total (m3/s)	0.33	Flow (m3/s)		0.33	
Top Width (m)	3.26	Top Width (m)		3.26	
Vel Total (m/s)	0.75	Avg. Vel. (m/s)		0.75	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)		0.14	
Conv. Total (m3/s)	3.2	Conv. (m3/s)		3.2	
Length Wtd. (m)	38.01	Wetted Per. (m)		3.71	
Min Ch El (m)	501.03	Shear (N/m2)		12.32	

Alpha	1.00	Stream Power (N/m s)		9.21	
Frctn Loss (m)	0.63	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.06	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 4 Profile: TR100

E.G. Elev (m)	501.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.033	
W.S. Elev (m)	501.49	Reach Len. (m)	37.71	38.01	38.39
Crit W.S. (m)	501.45	Flow Area (m2)		0.52	
E.G. Slope (m/m)	0.009982	Area (m2)		0.52	
Q Total (m3/s)	0.42	Flow (m3/s)		0.42	
Top Width (m)	3.28	Top Width (m)		3.28	
Vel Total (m/s)	0.80	Avg. Vel. (m/s)		0.80	
Max Chl Dpth (m)	0.46	Hydr. Depth (m)		0.16	
Conv. Total (m3/s)	4.2	Conv. (m3/s)		4.2	
Length Wtd. (m)	38.01	Wetted Per. (m)		3.77	
Min Ch El (m)	501.03	Shear (N/m2)		13.56	
Alpha	1.00	Stream Power (N/m s)		10.90	
Frctn Loss (m)	0.60	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.06	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 4 Profile: TR200

E.G. Elev (m)	501.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.033	
W.S. Elev (m)	501.46	Reach Len. (m)	37.71	38.01	38.39
Crit W.S. (m)	501.46	Flow Area (m2)		0.41	
E.G. Slope (m/m)	0.026110	Area (m2)		0.41	
Q Total (m3/s)	0.46	Flow (m3/s)		0.46	
Top Width (m)	3.20	Top Width (m)		3.20	
Vel Total (m/s)	1.13	Avg. Vel. (m/s)		1.13	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)		0.13	
Conv. Total (m3/s)	2.8	Conv. (m3/s)		2.8	
Length Wtd. (m)	38.09	Wetted Per. (m)		3.64	
Min Ch El (m)	501.03	Shear (N/m2)		28.66	
Alpha	1.00	Stream Power (N/m s)		32.30	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.06	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 4 Profile: TR500

E.G. Elev (m)	501.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.033	
W.S. Elev (m)	501.47	Reach Len. (m)	37.71	38.01	38.39
Crit W.S. (m)	501.47	Flow Area (m2)		0.45	
E.G. Slope (m/m)	0.025146	Area (m2)		0.45	
Q Total (m3/s)	0.52	Flow (m3/s)		0.52	
Top Width (m)	3.26	Top Width (m)		3.26	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)		1.16	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)		0.14	
Conv. Total (m3/s)	3.3	Conv. (m3/s)		3.3	
Length Wtd. (m)	38.09	Wetted Per. (m)		3.72	
Min Ch El (m)	501.03	Shear (N/m2)		29.74	
Alpha	1.00	Stream Power (N/m s)		34.57	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.06	

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 3 Profile: TR20

E.G. Elev (m)	500.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.033	
W.S. Elev (m)	500.73	Reach Len. (m)	62.19	62.19	62.19
Crit W.S. (m)	500.73	Flow Area (m2)		0.21	
E.G. Slope (m/m)	0.029347	Area (m2)		0.21	
Q Total (m3/s)	0.33	Flow (m3/s)		0.33	
Top Width (m)	0.84	Top Width (m)		0.84	
Vel Total (m/s)	1.58	Avg. Vel. (m/s)		1.58	
Max Chl Dpth (m)	0.31	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	1.9	Conv. (m3/s)		1.9	
Length Wtd. (m)	62.19	Wetted Per. (m)		1.23	
Min Ch El (m)	500.42	Shear (N/m2)		48.95	
Alpha	1.00	Stream Power (N/m s)		77.30	
Frctn Loss (m)	1.62	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.00	Cum SA (1000 m2)			

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 3 Profile: TR100

E.G. Elev (m)	500.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.033	
W.S. Elev (m)	500.78	Reach Len. (m)	98.00	98.00	98.00
Crit W.S. (m)	500.78	Flow Area (m2)		0.25	
E.G. Slope (m/m)	0.029109	Area (m2)		0.25	
Q Total (m3/s)	0.42	Flow (m3/s)		0.42	
Top Width (m)	0.89	Top Width (m)		0.89	
Vel Total (m/s)	1.67	Avg. Vel. (m/s)		1.67	
Max Chl Dpth (m)	0.36	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	2.5	Conv. (m3/s)		2.5	
Length Wtd. (m)		Wetted Per. (m)		1.34	
Min Ch El (m)	500.42	Shear (N/m2)		53.35	
Alpha	1.00	Stream Power (N/m s)		89.36	
Frctn Loss (m)	1.61	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.00	Cum SA (1000 m2)			

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 3 Profile: TR200

E.G. Elev (m)	500.95	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.033	
W.S. Elev (m)	500.80	Reach Len. (m)	62.19	62.19	62.19
Crit W.S. (m)	500.80	Flow Area (m2)		0.27	
E.G. Slope (m/m)	0.029044	Area (m2)		0.27	
Q Total (m3/s)	0.46	Flow (m3/s)		0.46	
Top Width (m)	0.90	Top Width (m)		0.90	
Vel Total (m/s)	1.71	Avg. Vel. (m/s)		1.71	
Max Chl Dpth (m)	0.38	Hydr. Depth (m)		0.30	
Conv. Total (m3/s)	2.7	Conv. (m3/s)		2.7	
Length Wtd. (m)	62.19	Wetted Per. (m)		1.38	
Min Ch El (m)	500.42	Shear (N/m2)		55.16	
Alpha	1.00	Stream Power (N/m s)		94.48	
Frctn Loss (m)	1.60	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.00	Cum SA (1000 m2)			

Plan: canale FFSS River: bealera Reach:canale centrale Riv Sta: 3 Profile: TR500

E.G. Elev (m)	500.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.033	
W.S. Elev (m)	500.82	Reach Len. (m)	62.19	62.19	62.19
Crit W.S. (m)	500.82	Flow Area (m2)		0.29	
E.G. Slope (m/m)	0.029232	Area (m2)		0.29	
Q Total (m3/s)	0.52	Flow (m3/s)		0.52	

Top Width (m)	0.93	Top Width (m)		0.93	
Vel Total (m/s)	1.77	Avg. Vel. (m/s)		1.77	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	3.0	Conv. (m3/s)		3.0	
Length Wtd. (m)	62.19	Wetted Per. (m)		1.45	
Min Ch El (m)	500.42	Shear (N/m2)		58.21	
Alpha	1.00	Stream Power (N/m s)		103.26	
Frctn Loss (m)	1.60	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.00	Cum SA (1000 m2)			

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 4 Profile: TR20

E.G. Elev (m)	507.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.033	
W.S. Elev (m)	507.86	Reach Len. (m)	27.06	26.69	26.49
Crit W.S. (m)	507.86	Flow Area (m2)		0.09	
E.G. Slope (m/m)	0.030082	Area (m2)		0.09	
Q Total (m3/s)	0.11	Flow (m3/s)		0.11	
Top Width (m)	0.59	Top Width (m)		0.59	
Vel Total (m/s)	1.18	Avg. Vel. (m/s)		1.18	
Max Chl Dpth (m)	0.17	Hydr. Depth (m)		0.16	
Conv. Total (m3/s)	0.6	Conv. (m3/s)		0.6	
Length Wtd. (m)	26.69	Wetted Per. (m)		0.87	
Min Ch El (m)	507.69	Shear (N/m2)		31.55	
Alpha	1.00	Stream Power (N/m s)		37.37	
Frctn Loss (m)	0.40	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.14	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 4 Profile: TR100

E.G. Elev (m)	507.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.033	
W.S. Elev (m)	507.88	Reach Len. (m)	27.06	26.69	26.49
Crit W.S. (m)	507.88	Flow Area (m2)		0.11	
E.G. Slope (m/m)	0.032604	Area (m2)		0.11	
Q Total (m3/s)	0.14	Flow (m3/s)		0.14	
Top Width (m)	0.60	Top Width (m)		0.60	
Vel Total (m/s)	1.30	Avg. Vel. (m/s)		1.30	
Max Chl Dpth (m)	0.19	Hydr. Depth (m)		0.18	
Conv. Total (m3/s)	0.8	Conv. (m3/s)		0.8	
Length Wtd. (m)	26.69	Wetted Per. (m)		0.92	
Min Ch El (m)	507.69	Shear (N/m2)		37.12	
Alpha	1.00	Stream Power (N/m s)		48.35	
Frctn Loss (m)		Cum Volume (1000 m3)		0.05	
C & E Loss (m)		Cum SA (1000 m2)		0.15	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 4 Profile: TR200

E.G. Elev (m)	508.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.033	
W.S. Elev (m)	507.90	Reach Len. (m)	27.06	26.69	26.49
Crit W.S. (m)	507.90	Flow Area (m2)		0.12	
E.G. Slope (m/m)	0.033890	Area (m2)		0.12	
Q Total (m3/s)	0.16	Flow (m3/s)		0.16	
Top Width (m)	0.61	Top Width (m)		0.61	
Vel Total (m/s)	1.38	Avg. Vel. (m/s)		1.38	
Max Chl Dpth (m)	0.21	Hydr. Depth (m)		0.19	
Conv. Total (m3/s)	0.9	Conv. (m3/s)		0.9	
Length Wtd. (m)		Wetted Per. (m)		0.95	
Min Ch El (m)	507.69	Shear (N/m2)		40.81	

Alpha	1.00	Stream Power (N/m s)		56.25	
Frctn Loss (m)		Cum Volume (1000 m3)		0.05	
C & E Loss (m)		Cum SA (1000 m2)		0.16	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 4 Profile: TR500

E.G. Elev (m)	508.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.033	
W.S. Elev (m)	507.91	Reach Len. (m)	27.06	26.69	26.49
Crit W.S. (m)	507.91	Flow Area (m2)		0.12	
E.G. Slope (m/m)	0.032926	Area (m2)		0.12	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	0.61	Top Width (m)		0.61	
Vel Total (m/s)	1.38	Avg. Vel. (m/s)		1.38	
Max Chl Dpth (m)	0.22	Hydr. Depth (m)		0.20	
Conv. Total (m3/s)	0.9	Conv. (m3/s)		0.9	
Length Wtd. (m)		Wetted Per. (m)		0.97	
Min Ch El (m)	507.69	Shear (N/m2)		40.76	
Alpha	1.00	Stream Power (N/m s)		56.40	
Frctn Loss (m)		Cum Volume (1000 m3)		0.06	
C & E Loss (m)		Cum SA (1000 m2)		0.16	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 3 Profile: TR20

E.G. Elev (m)	507.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.033	
W.S. Elev (m)	507.49	Reach Len. (m)	6.82	6.51	6.26
Crit W.S. (m)		Flow Area (m2)		0.14	
E.G. Slope (m/m)	0.009299	Area (m2)		0.14	
Q Total (m3/s)	0.11	Flow (m3/s)		0.11	
Top Width (m)	0.76	Top Width (m)		0.76	
Vel Total (m/s)	0.76	Avg. Vel. (m/s)		0.76	
Max Chl Dpth (m)	0.30	Hydr. Depth (m)		0.19	
Conv. Total (m3/s)	1.1	Conv. (m3/s)		1.1	
Length Wtd. (m)	6.51	Wetted Per. (m)		1.08	
Min Ch El (m)	507.19	Shear (N/m2)		12.17	
Alpha	1.00	Stream Power (N/m s)		9.29	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.13	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 3 Profile: TR100

E.G. Elev (m)	507.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.033	
W.S. Elev (m)	507.53	Reach Len. (m)	6.82	6.51	6.26
Crit W.S. (m)	507.44	Flow Area (m2)		0.18	
E.G. Slope (m/m)	0.008343	Area (m2)		0.18	
Q Total (m3/s)	0.14	Flow (m3/s)		0.14	
Top Width (m)	0.78	Top Width (m)		0.78	
Vel Total (m/s)	0.78	Avg. Vel. (m/s)		0.78	
Max Chl Dpth (m)	0.34	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	1.5	Conv. (m3/s)		1.5	
Length Wtd. (m)	6.51	Wetted Per. (m)		1.17	
Min Ch El (m)	507.19	Shear (N/m2)		12.35	
Alpha	1.00	Stream Power (N/m s)		9.70	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.13	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 3 Profile: TR200

E.G. Elev (m)	507.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.033	
W.S. Elev (m)	507.56	Reach Len. (m)	6.82	6.51	6.26
Crit W.S. (m)	507.46	Flow Area (m2)		0.20	
E.G. Slope (m/m)	0.007890	Area (m2)		0.20	
Q Total (m3/s)	0.16	Flow (m3/s)		0.16	
Top Width (m)	0.79	Top Width (m)		0.79	
Vel Total (m/s)	0.80	Avg. Vel. (m/s)		0.80	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	1.8	Conv. (m3/s)		1.8	
Length Wtd. (m)	6.51	Wetted Per. (m)		1.24	
Min Ch El (m)	507.19	Shear (N/m2)		12.60	
Alpha	1.00	Stream Power (N/m s)		10.11	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.14	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 3 Profile: TR500

E.G. Elev (m)	507.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.033	
W.S. Elev (m)	507.57	Reach Len. (m)	6.82	6.51	6.26
Crit W.S. (m)	507.46	Flow Area (m2)		0.21	
E.G. Slope (m/m)	0.007586	Area (m2)		0.21	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	0.80	Top Width (m)		0.80	
Vel Total (m/s)	0.80	Avg. Vel. (m/s)		0.80	
Max Chl Dpth (m)	0.38	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	2.0	Conv. (m3/s)		2.0	
Length Wtd. (m)	6.51	Wetted Per. (m)		1.26	
Min Ch El (m)	507.19	Shear (N/m2)		12.47	
Alpha	1.00	Stream Power (N/m s)		10.00	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.14	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 2 Profile: TR20

E.G. Elev (m)	507.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.033	
W.S. Elev (m)	507.31	Reach Len. (m)	83.56	83.56	83.56
Crit W.S. (m)	507.29	Flow Area (m2)		0.08	
E.G. Slope (m/m)	0.040690	Area (m2)		0.08	
Q Total (m3/s)	0.11	Flow (m3/s)		0.11	
Top Width (m)	0.39	Top Width (m)		0.39	
Vel Total (m/s)	1.33	Avg. Vel. (m/s)		1.33	
Max Chl Dpth (m)	0.31	Hydr. Depth (m)		0.21	
Conv. Total (m3/s)	0.5	Conv. (m3/s)		0.5	
Length Wtd. (m)	83.56	Wetted Per. (m)		0.82	
Min Ch El (m)	507.00	Shear (N/m2)		40.35	
Alpha	1.00	Stream Power (N/m s)		53.54	
Frctn Loss (m)	2.63	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.12	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 2 Profile: TR100

E.G. Elev (m)	507.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.033	
W.S. Elev (m)	507.35	Reach Len. (m)	83.56	83.56	83.56
Crit W.S. (m)	507.33	Flow Area (m2)		0.10	
E.G. Slope (m/m)	0.040542	Area (m2)		0.10	
Q Total (m3/s)	0.14	Flow (m3/s)		0.14	

Top Width (m)	0.41	Top Width (m)		0.41	
Vel Total (m/s)	1.40	Avg. Vel. (m/s)		1.40	
Max Chl Dpth (m)	0.35	Hydr. Depth (m)		0.24	
Conv. Total (m3/s)	0.7	Conv. (m3/s)		0.7	
Length Wtd. (m)	83.56	Wetted Per. (m)		0.91	
Min Ch El (m)	507.00	Shear (N/m2)		43.57	
Alpha	1.00	Stream Power (N/m s)		60.87	
Frctn Loss (m)	2.65	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.13	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 2 Profile: TR200

E.G. Elev (m)	507.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.033	
W.S. Elev (m)	507.37	Reach Len. (m)	83.56	83.56	83.56
Crit W.S. (m)	507.36	Flow Area (m2)		0.11	
E.G. Slope (m/m)	0.043071	Area (m2)		0.11	
Q Total (m3/s)	0.16	Flow (m3/s)		0.16	
Top Width (m)	0.42	Top Width (m)		0.42	
Vel Total (m/s)	1.48	Avg. Vel. (m/s)		1.48	
Max Chl Dpth (m)	0.37	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	0.8	Conv. (m3/s)		0.8	
Length Wtd. (m)	83.56	Wetted Per. (m)		0.95	
Min Ch El (m)	507.00	Shear (N/m2)		48.23	
Alpha	1.00	Stream Power (N/m s)		71.40	
Frctn Loss (m)	2.66	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.14	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 2 Profile: TR500

E.G. Elev (m)	507.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.033	
W.S. Elev (m)	507.38	Reach Len. (m)	83.56	83.56	83.56
Crit W.S. (m)	507.37	Flow Area (m2)		0.11	
E.G. Slope (m/m)	0.043917	Area (m2)		0.11	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	0.42	Top Width (m)		0.42	
Vel Total (m/s)	1.51	Avg. Vel. (m/s)		1.51	
Max Chl Dpth (m)	0.38	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	0.8	Conv. (m3/s)		0.8	
Length Wtd. (m)	83.56	Wetted Per. (m)		0.97	
Min Ch El (m)	507.00	Shear (N/m2)		49.88	
Alpha	1.00	Stream Power (N/m s)		75.26	
Frctn Loss (m)	2.67	Cum Volume (1000 m3)		0.05	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.14	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 1 Profile: TR20

E.G. Elev (m)	504.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.033	
W.S. Elev (m)	504.70	Reach Len. (m)	149.10	149.10	149.10
Crit W.S. (m)	504.70	Flow Area (m2)		0.11	
E.G. Slope (m/m)	0.025146	Area (m2)		0.11	
Q Total (m3/s)	0.11	Flow (m3/s)		0.11	
Top Width (m)	0.91	Top Width (m)		0.91	
Vel Total (m/s)	1.04	Avg. Vel. (m/s)		1.04	
Max Chl Dpth (m)	0.21	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	0.7	Conv. (m3/s)		0.7	
Length Wtd. (m)	149.10	Wetted Per. (m)		1.04	
Min Ch El (m)	504.50	Shear (N/m2)		25.00	

Alpha	1.00	Stream Power (N/m s)		26.11	
Frctn Loss (m)	3.88	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.07	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 1 Profile: TR100

E.G. Elev (m)	504.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.033	
W.S. Elev (m)	504.72	Reach Len. (m)	149.10	149.10	149.10
Crit W.S. (m)	504.72	Flow Area (m2)		0.12	
E.G. Slope (m/m)	0.025575	Area (m2)		0.12	
Q Total (m3/s)	0.14	Flow (m3/s)		0.14	
Top Width (m)	0.97	Top Width (m)		0.97	
Vel Total (m/s)	1.12	Avg. Vel. (m/s)		1.12	
Max Chl Dpth (m)	0.22	Hydr. Depth (m)		0.13	
Conv. Total (m3/s)	0.9	Conv. (m3/s)		0.9	
Length Wtd. (m)	149.10	Wetted Per. (m)		1.11	
Min Ch El (m)	504.50	Shear (N/m2)		27.91	
Alpha	1.00	Stream Power (N/m s)		31.28	
Frctn Loss (m)	3.84	Cum Volume (1000 m3)		0.03	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.07	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 1 Profile: TR200

E.G. Elev (m)	504.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.033	
W.S. Elev (m)	504.74	Reach Len. (m)	149.10	149.10	149.10
Crit W.S. (m)	504.74	Flow Area (m2)		0.14	
E.G. Slope (m/m)	0.024588	Area (m2)		0.14	
Q Total (m3/s)	0.16	Flow (m3/s)		0.16	
Top Width (m)	1.02	Top Width (m)		1.02	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	0.24	Hydr. Depth (m)		0.14	
Conv. Total (m3/s)	1.0	Conv. (m3/s)		1.0	
Length Wtd. (m)	149.10	Wetted Per. (m)		1.17	
Min Ch El (m)	504.50	Shear (N/m2)		28.82	
Alpha	1.00	Stream Power (N/m s)		33.22	
Frctn Loss (m)	3.68	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.08	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 1 Profile: TR500

E.G. Elev (m)	504.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.033	
W.S. Elev (m)	504.75	Reach Len. (m)	149.10	149.10	149.10
Crit W.S. (m)	504.75	Flow Area (m2)		0.15	
E.G. Slope (m/m)	0.024263	Area (m2)		0.15	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	
Top Width (m)	1.04	Top Width (m)		1.04	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)		1.16	
Max Chl Dpth (m)	0.25	Hydr. Depth (m)		0.14	
Conv. Total (m3/s)	1.1	Conv. (m3/s)		1.1	
Length Wtd. (m)	149.10	Wetted Per. (m)		1.19	
Min Ch El (m)	504.50	Shear (N/m2)		29.13	
Alpha	1.00	Stream Power (N/m s)		33.89	
Frctn Loss (m)	3.67	Cum Volume (1000 m3)		0.04	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.08	

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 0.5 Profile: TR20

E.G. Elev (m)	498.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.033	
W.S. Elev (m)	498.23	Reach Len. (m)	62.19	62.19	62.19
Crit W.S. (m)	498.27	Flow Area (m2)		0.07	
E.G. Slope (m/m)	0.086421	Area (m2)		0.07	
Q Total (m3/s)	0.11	Flow (m3/s)		0.11	
Top Width (m)	0.79	Top Width (m)		0.79	
Vel Total (m/s)	1.62	Avg. Vel. (m/s)		1.62	
Max Chl Dpth (m)	0.16	Hydr. Depth (m)		0.09	
Conv. Total (m3/s)	0.4	Conv. (m3/s)		0.4	
Length Wtd. (m)	62.19	Wetted Per. (m)		0.88	
Min Ch El (m)	498.07	Shear (N/m2)		65.50	
Alpha	1.00	Stream Power (N/m s)		105.87	
Frctn Loss (m)	6.39	Cum Volume (1000 m3)			
C & E Loss (m)	0.01	Cum SA (1000 m2)			

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 0.5 Profile: TR100

E.G. Elev (m)	498.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.033	
W.S. Elev (m)	498.25	Reach Len. (m)	62.19	62.19	62.19
Crit W.S. (m)	498.29	Flow Area (m2)		0.08	
E.G. Slope (m/m)	0.082812	Area (m2)		0.08	
Q Total (m3/s)	0.14	Flow (m3/s)		0.14	
Top Width (m)	0.83	Top Width (m)		0.83	
Vel Total (m/s)	1.70	Avg. Vel. (m/s)		1.70	
Max Chl Dpth (m)	0.18	Hydr. Depth (m)		0.10	
Conv. Total (m3/s)	0.5	Conv. (m3/s)		0.5	
Length Wtd. (m)	62.19	Wetted Per. (m)		0.94	
Min Ch El (m)	498.07	Shear (N/m2)		70.17	
Alpha	1.00	Stream Power (N/m s)		119.60	
Frctn Loss (m)	6.38	Cum Volume (1000 m3)			
C & E Loss (m)	0.01	Cum SA (1000 m2)			

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 0.5 Profile: TR200

E.G. Elev (m)	498.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.033	
W.S. Elev (m)	498.26	Reach Len. (m)	62.19	62.19	62.19
Crit W.S. (m)	498.31	Flow Area (m2)		0.09	
E.G. Slope (m/m)	0.089773	Area (m2)		0.09	
Q Total (m3/s)	0.16	Flow (m3/s)		0.16	
Top Width (m)	0.86	Top Width (m)		0.86	
Vel Total (m/s)	1.83	Avg. Vel. (m/s)		1.83	
Max Chl Dpth (m)	0.18	Hydr. Depth (m)		0.10	
Conv. Total (m3/s)	0.5	Conv. (m3/s)		0.5	
Length Wtd. (m)	62.19	Wetted Per. (m)		0.97	
Min Ch El (m)	498.07	Shear (N/m2)		79.87	
Alpha	1.00	Stream Power (N/m s)		146.43	
Frctn Loss (m)	6.37	Cum Volume (1000 m3)			
C & E Loss (m)	0.01	Cum SA (1000 m2)			

Plan: canale FFSS River: bealera Reach:canale est Riv Sta: 0.5 Profile: TR500

E.G. Elev (m)	498.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.033	
W.S. Elev (m)	498.26	Reach Len. (m)	62.19	62.19	62.19
Crit W.S. (m)	498.31	Flow Area (m2)		0.09	
E.G. Slope (m/m)	0.094259	Area (m2)		0.09	
Q Total (m3/s)	0.17	Flow (m3/s)		0.17	

Top Width (m)	0.86	Top Width (m)		0.86	
Vel Total (m/s)	1.89	Avg. Vel. (m/s)		1.89	
Max Chl Dpth (m)	0.19	Hydr. Depth (m)		0.10	
Conv. Total (m3/s)	0.6	Conv. (m3/s)		0.6	
Length Wtd. (m)	62.19	Wetted Per. (m)		0.98	
Min Ch El (m)	498.07	Shear (N/m2)		84.86	
Alpha	1.00	Stream Power (N/m s)		160.66	
Frctn Loss (m)	6.36	Cum Volume (1000 m3)			
C & E Loss (m)	0.01	Cum SA (1000 m2)			

Plan: canale FFSS River: bealera Reach:gianavello Riv Sta: 2 Profile: TR20

E.G. Elev (m)	499.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.033	
W.S. Elev (m)	499.03	Reach Len. (m)	54.53	54.53	54.53
Crit W.S. (m)	499.04	Flow Area (m2)		0.28	
E.G. Slope (m/m)	0.026357	Area (m2)		0.28	
Q Total (m3/s)	0.44	Flow (m3/s)		0.44	
Top Width (m)	1.24	Top Width (m)		1.24	
Vel Total (m/s)	1.57	Avg. Vel. (m/s)		1.57	
Max Chl Dpth (m)	0.34	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	2.7	Conv. (m3/s)		2.7	
Length Wtd. (m)	54.53	Wetted Per. (m)		1.53	
Min Ch El (m)	498.69	Shear (N/m2)		47.27	
Alpha	1.00	Stream Power (N/m s)		74.26	
Frctn Loss (m)	1.70	Cum Volume (1000 m3)		0.01	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.06	

Plan: canale FFSS River: bealera Reach:gianavello Riv Sta: 2 Profile: TR100

E.G. Elev (m)	499.21	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.033	
W.S. Elev (m)	499.07	Reach Len. (m)	54.53	54.53	54.53
Crit W.S. (m)	499.08	Flow Area (m2)		0.33	
E.G. Slope (m/m)	0.026234	Area (m2)		0.33	
Q Total (m3/s)	0.56	Flow (m3/s)		0.56	
Top Width (m)	1.31	Top Width (m)		1.31	
Vel Total (m/s)	1.68	Avg. Vel. (m/s)		1.68	
Max Chl Dpth (m)	0.38	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	3.5	Conv. (m3/s)		3.5	
Length Wtd. (m)	54.53	Wetted Per. (m)		1.64	
Min Ch El (m)	498.69	Shear (N/m2)		52.21	
Alpha	1.00	Stream Power (N/m s)		87.70	
Frctn Loss (m)	1.70	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.07	

Plan: canale FFSS River: bealera Reach:gianavello Riv Sta: 2 Profile: TR200

E.G. Elev (m)	499.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.033	
W.S. Elev (m)	499.09	Reach Len. (m)	54.53	54.53	54.53
Crit W.S. (m)	499.10	Flow Area (m2)		0.36	
E.G. Slope (m/m)	0.026274	Area (m2)		0.36	
Q Total (m3/s)	0.62	Flow (m3/s)		0.62	
Top Width (m)	1.33	Top Width (m)		1.33	
Vel Total (m/s)	1.73	Avg. Vel. (m/s)		1.73	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	3.8	Conv. (m3/s)		3.8	
Length Wtd. (m)	54.53	Wetted Per. (m)		1.70	
Min Ch El (m)	498.69	Shear (N/m2)		54.49	

Alpha	1.00	Stream Power (N/m s)		94.16	
Frctn Loss (m)	1.70	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.07	

Plan: canale FFSS River: bealera Reach:gianavello Riv Sta: 2 Profile: TR500

E.G. Elev (m)	499.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.033	
W.S. Elev (m)	499.11	Reach Len. (m)	54.53	54.53	54.53
Crit W.S. (m)	499.12	Flow Area (m2)		0.39	
E.G. Slope (m/m)	0.026504	Area (m2)		0.39	
Q Total (m3/s)	0.69	Flow (m3/s)		0.69	
Top Width (m)	1.37	Top Width (m)		1.37	
Vel Total (m/s)	1.79	Avg. Vel. (m/s)		1.79	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	4.2	Conv. (m3/s)		4.2	
Length Wtd. (m)	54.53	Wetted Per. (m)		1.75	
Min Ch El (m)	498.69	Shear (N/m2)		57.35	
Alpha	1.00	Stream Power (N/m s)		102.38	
Frctn Loss (m)	1.71	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.07	

Plan: canale FFSS River: bealera Reach:gianavello Riv Sta: 1 Profile: TR20

E.G. Elev (m)	497.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.033	
W.S. Elev (m)	497.09	Reach Len. (m)			
Crit W.S. (m)	497.14	Flow Area (m2)		0.23	
E.G. Slope (m/m)	0.045785	Area (m2)		0.23	
Q Total (m3/s)	0.44	Flow (m3/s)		0.44	
Top Width (m)	1.03	Top Width (m)		1.03	
Vel Total (m/s)	1.95	Avg. Vel. (m/s)		1.95	
Max Chl Dpth (m)	0.27	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	2.1	Conv. (m3/s)		2.1	
Length Wtd. (m)		Wetted Per. (m)		1.35	
Min Ch El (m)	496.82	Shear (N/m2)		74.96	
Alpha	1.00	Stream Power (N/m s)		146.05	
Frctn Loss (m)	1.86	Cum Volume (1000 m3)			
C & E Loss (m)	0.01	Cum SA (1000 m2)			

Plan: canale FFSS River: bealera Reach:gianavello Riv Sta: 1 Profile: TR100

E.G. Elev (m)	497.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.033	
W.S. Elev (m)	497.14	Reach Len. (m)			
Crit W.S. (m)	497.19	Flow Area (m2)		0.27	
E.G. Slope (m/m)	0.045470	Area (m2)		0.27	
Q Total (m3/s)	0.56	Flow (m3/s)		0.56	
Top Width (m)	1.08	Top Width (m)		1.08	
Vel Total (m/s)	2.08	Avg. Vel. (m/s)		2.08	
Max Chl Dpth (m)	0.31	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	2.6	Conv. (m3/s)		2.6	
Length Wtd. (m)		Wetted Per. (m)		1.45	
Min Ch El (m)	496.82	Shear (N/m2)		82.75	
Alpha	1.00	Stream Power (N/m s)		172.39	
Frctn Loss (m)	1.85	Cum Volume (1000 m3)			
C & E Loss (m)	0.01	Cum SA (1000 m2)			

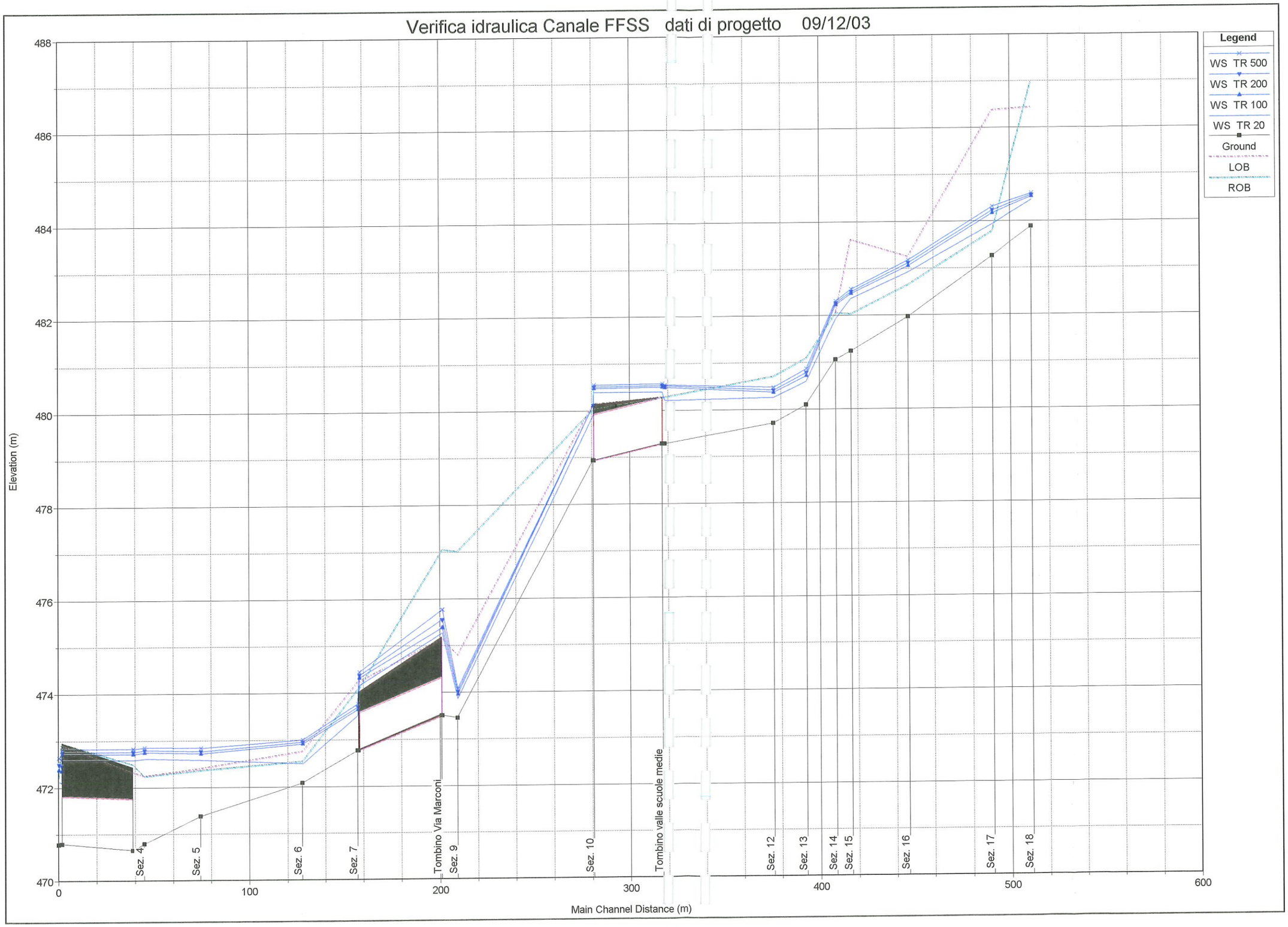
Plan: canale FFSS River: bealera Reach:gianavello Riv Sta: 1 Profile: TR200

E.G. Elev (m)	497.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.033	
W.S. Elev (m)	497.15	Reach Len. (m)			
Crit W.S. (m)	497.21	Flow Area (m2)		0.29	
E.G. Slope (m/m)	0.045170	Area (m2)		0.29	
Q Total (m3/s)	0.62	Flow (m3/s)		0.62	
Top Width (m)	1.11	Top Width (m)		1.11	
Vel Total (m/s)	2.14	Avg. Vel. (m/s)		2.14	
Max Chl Dpth (m)	0.33	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	2.9	Conv. (m3/s)		2.9	
Length Wtd. (m)		Wetted Per. (m)		1.50	
Min Ch El (m)	496.82	Shear (N/m2)		85.85	
Alpha	1.00	Stream Power (N/m s)		183.52	
Frctn Loss (m)	1.85	Cum Volume (1000 m3)			
C & E Loss (m)	0.01	Cum SA (1000 m2)			

Plan: canale FFSS River: bealera Reach:gianavello Riv Sta: 1 Profile: TR500

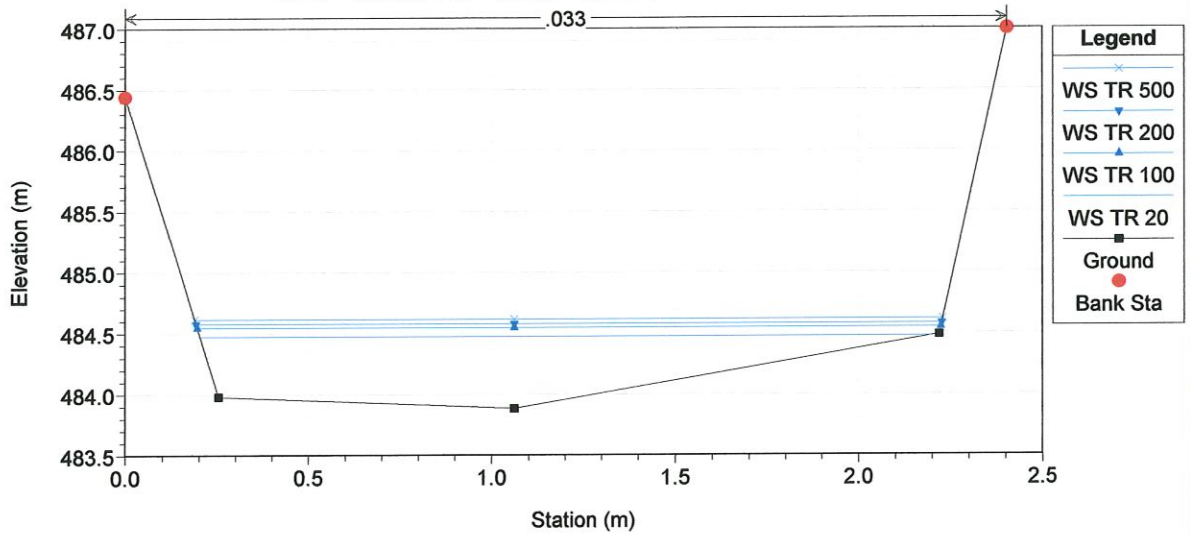
E.G. Elev (m)	497.42	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.033	
W.S. Elev (m)	497.18	Reach Len. (m)			
Crit W.S. (m)	497.24	Flow Area (m2)		0.32	
E.G. Slope (m/m)	0.044613	Area (m2)		0.32	
Q Total (m3/s)	0.69	Flow (m3/s)		0.69	
Top Width (m)	1.13	Top Width (m)		1.13	
Vel Total (m/s)	2.19	Avg. Vel. (m/s)		2.19	
Max Chl Dpth (m)	0.36	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	3.3	Conv. (m3/s)		3.3	
Length Wtd. (m)		Wetted Per. (m)		1.55	
Min Ch El (m)	496.82	Shear (N/m2)		88.89	
Alpha	1.00	Stream Power (N/m s)		194.86	
Frctn Loss (m)	1.84	Cum Volume (1000 m3)			
C & E Loss (m)	0.01	Cum SA (1000 m2)			

Verifica idraulica Canale FFSS dati di progetto 09/12/03



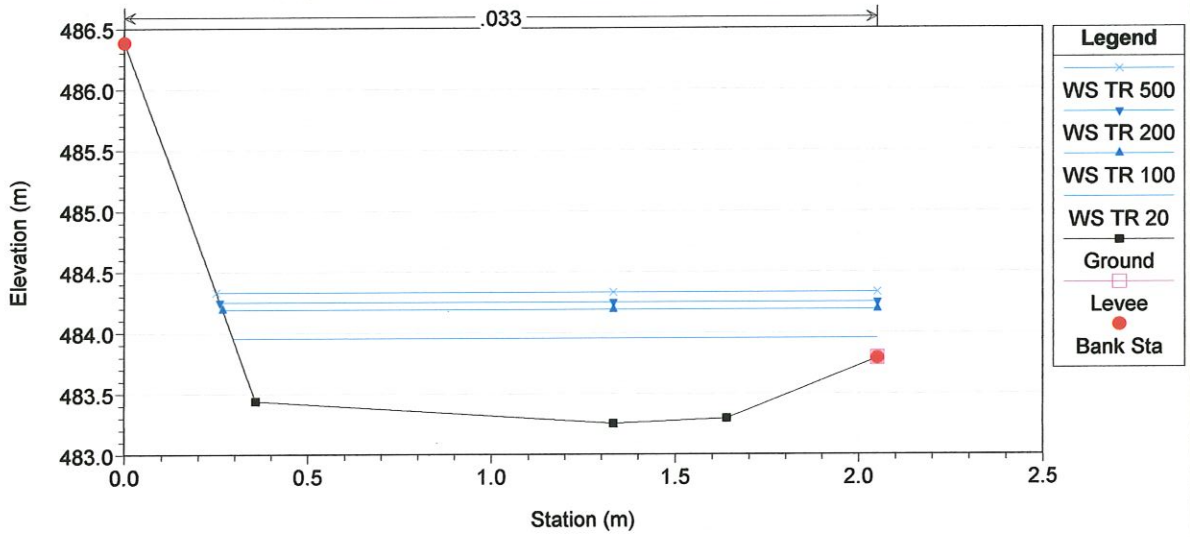
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 18 RS = 18



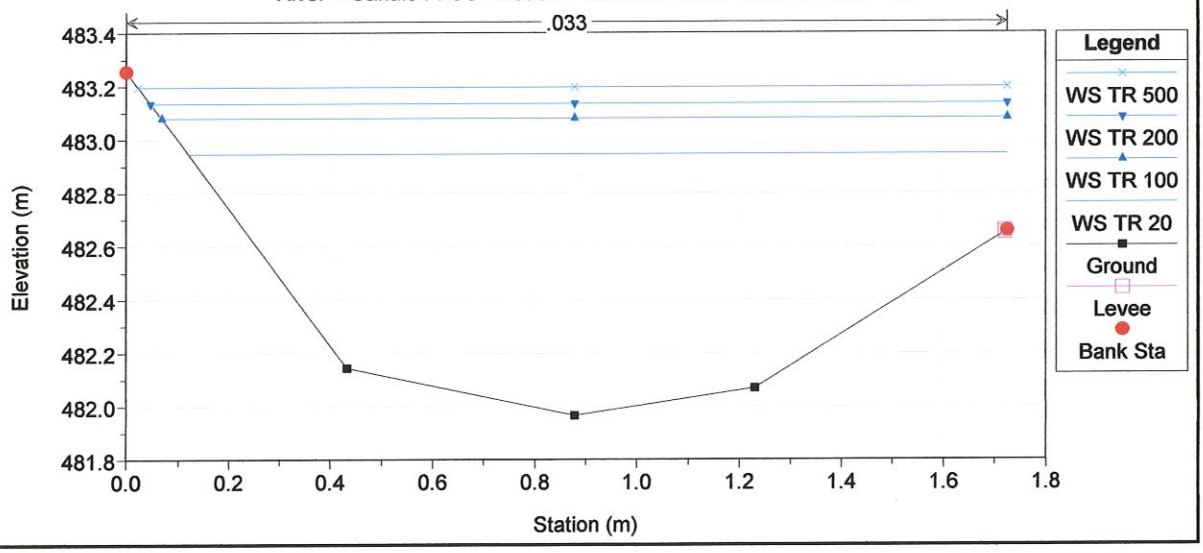
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 17 RS = 17



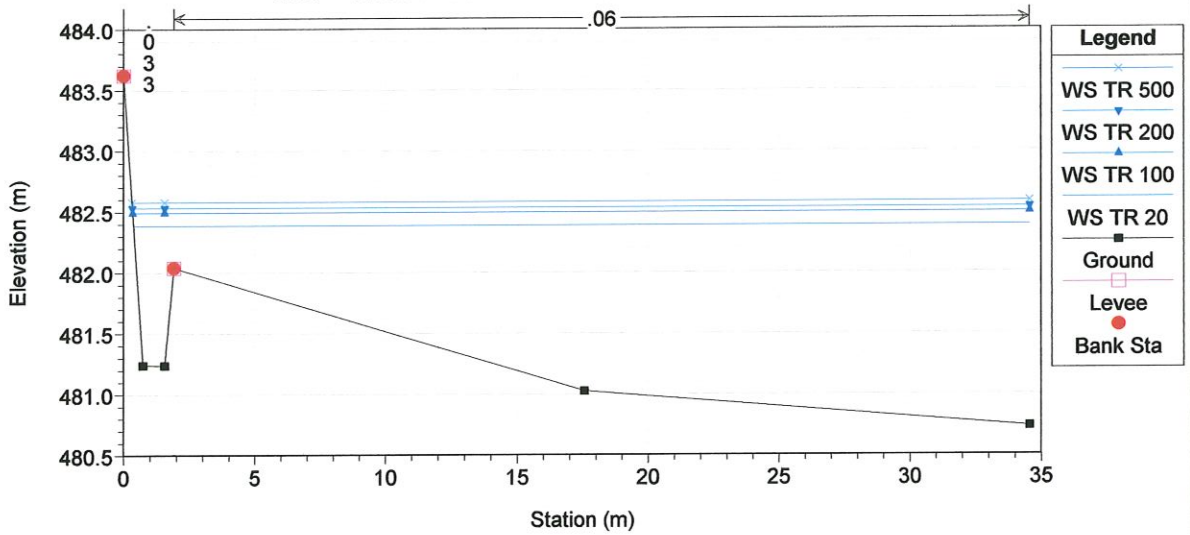
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 16 RS = 16



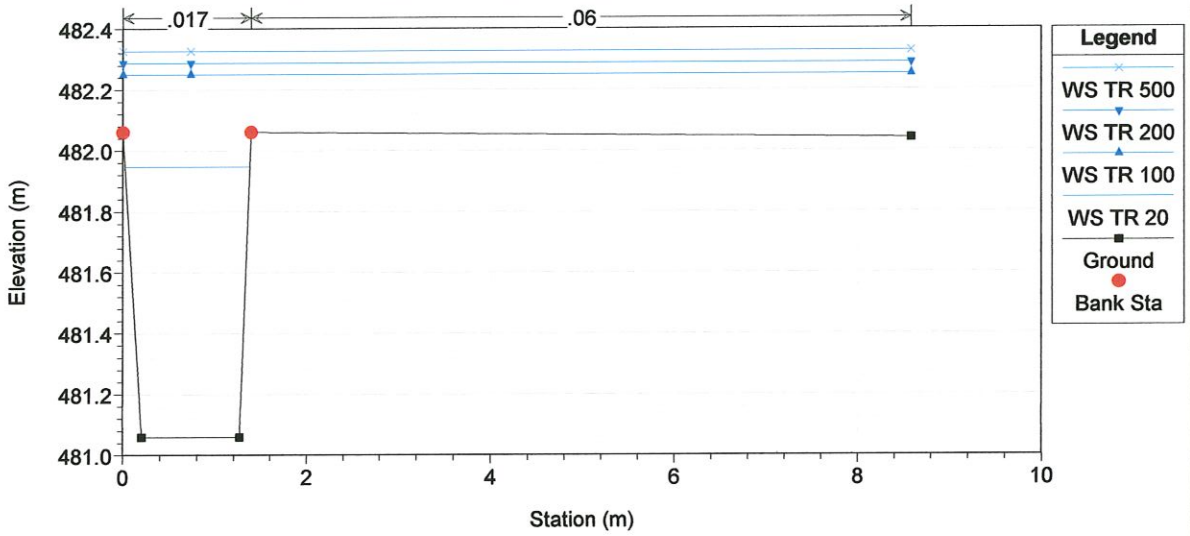
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 15 RS = 15



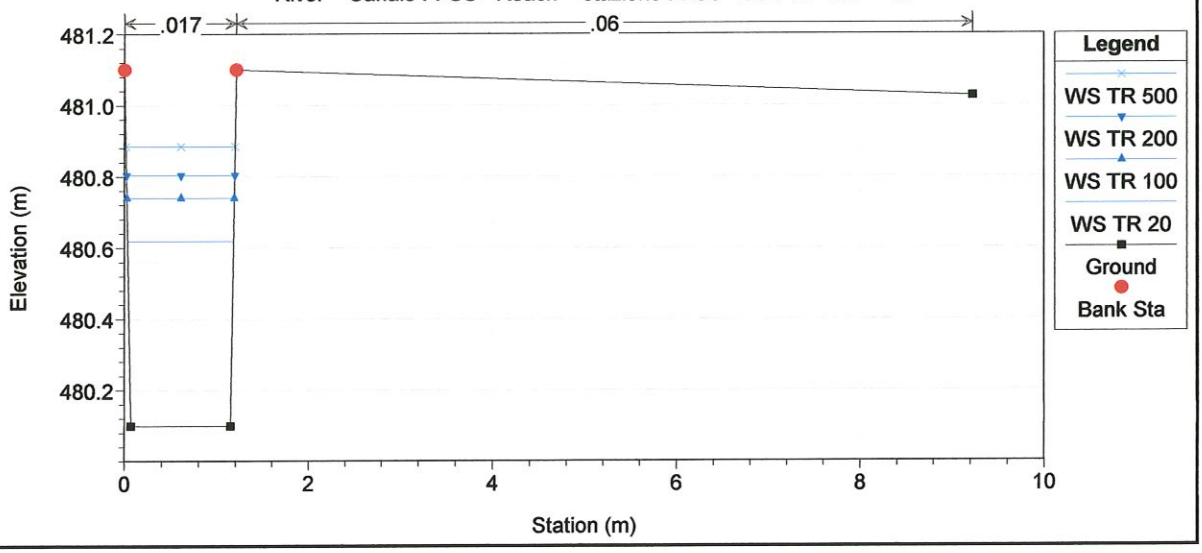
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 14 RS = 14



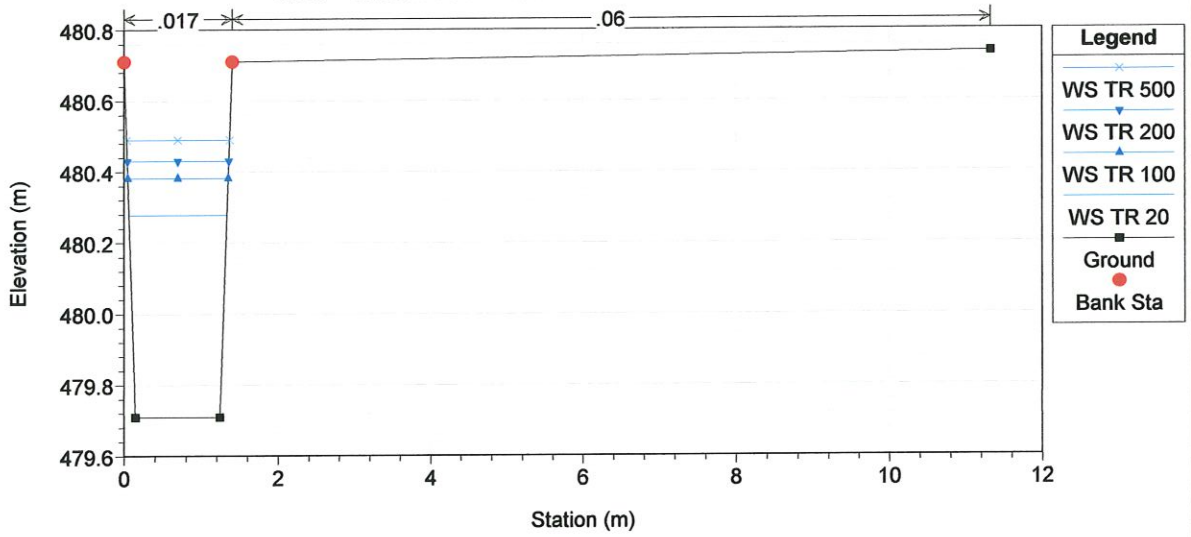
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 13 RS = 13



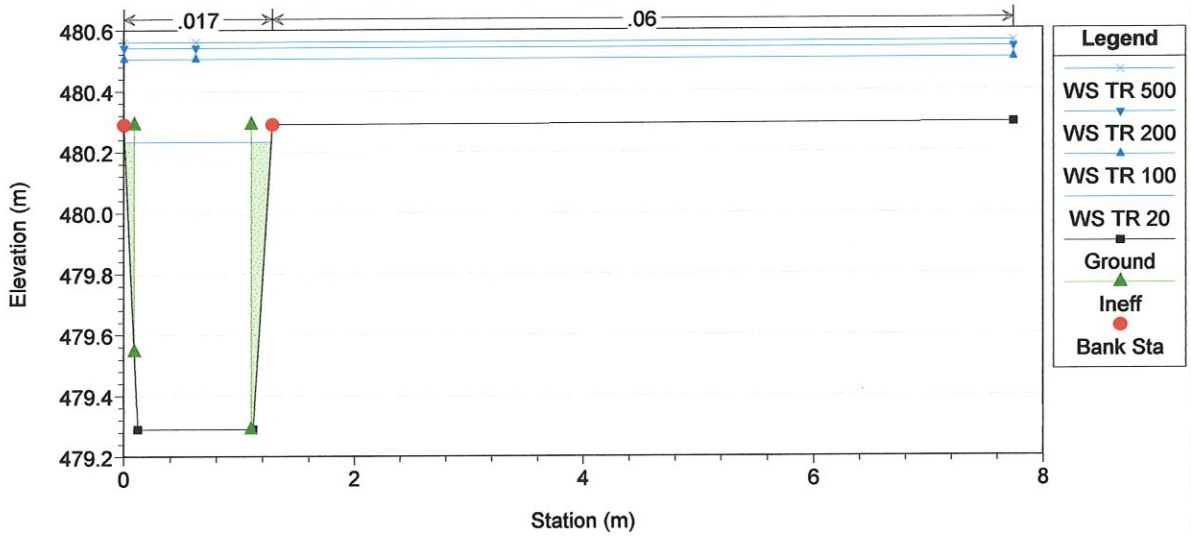
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 12 RS = 12



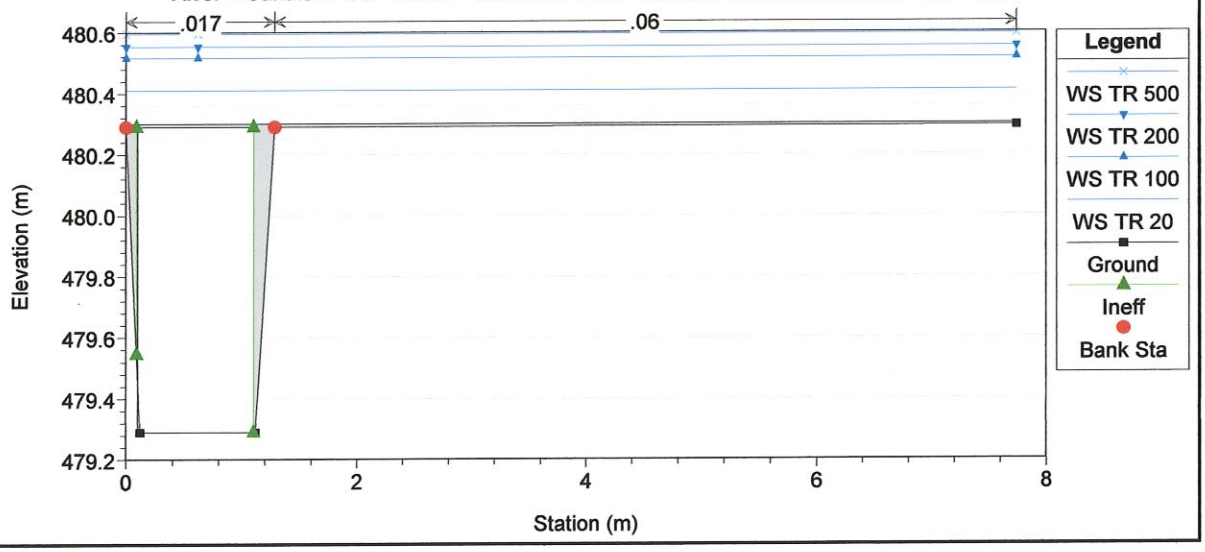
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 11 RS = 11



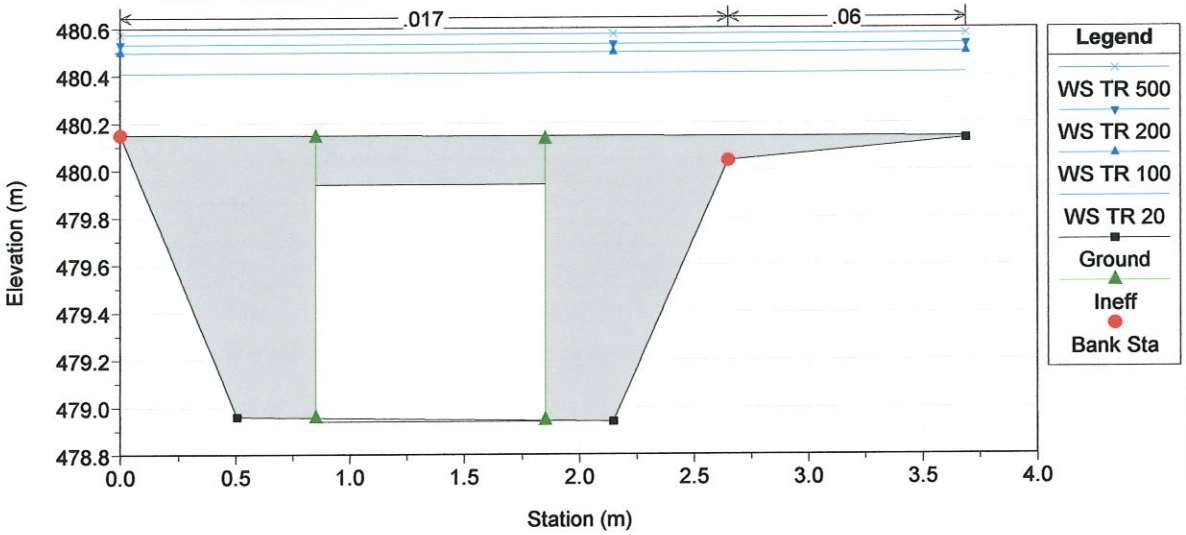
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Tombino valle scuole medie RS = 10.5



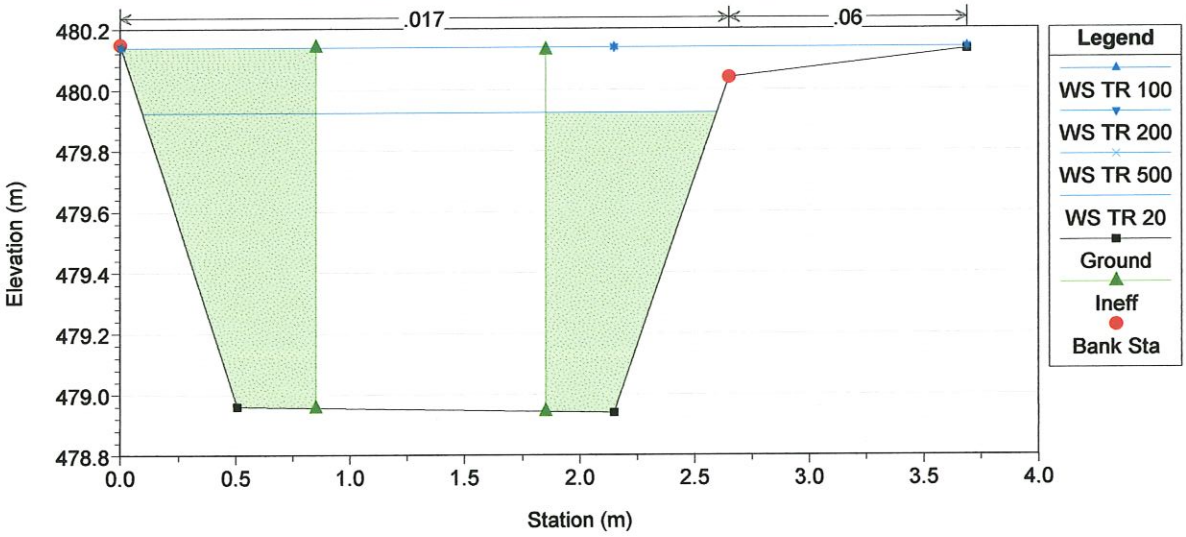
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Tombino valle scuole medie RS = 10.5



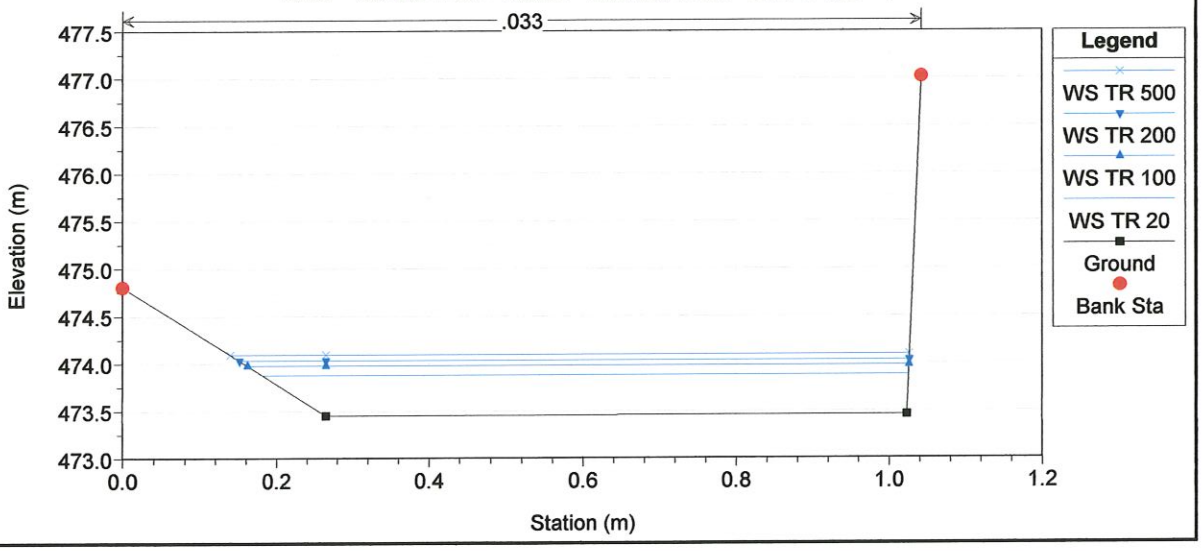
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 10 RS = 10



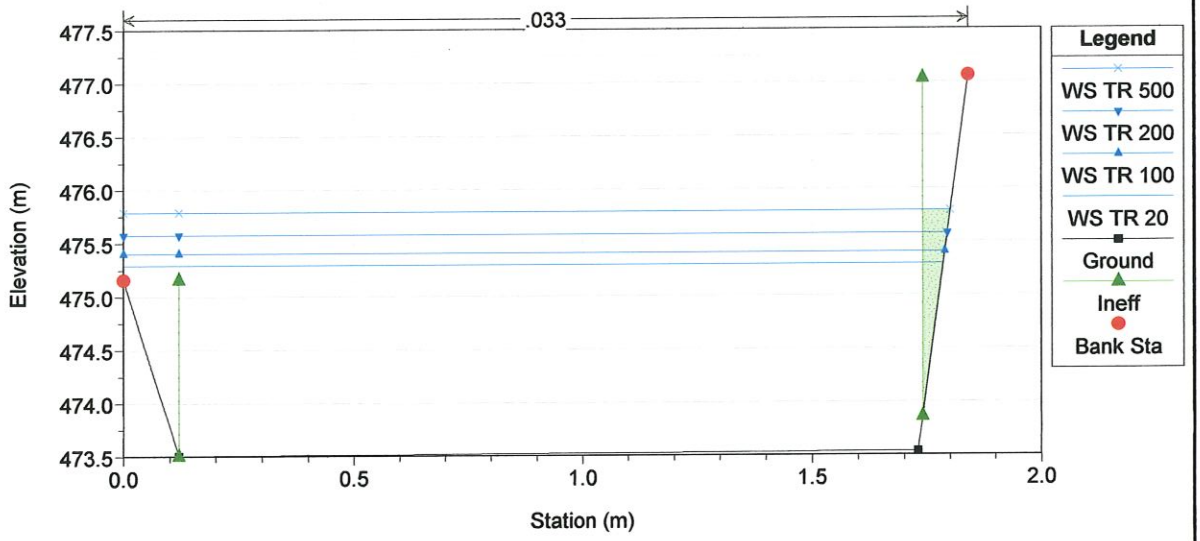
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 9 RS = 9



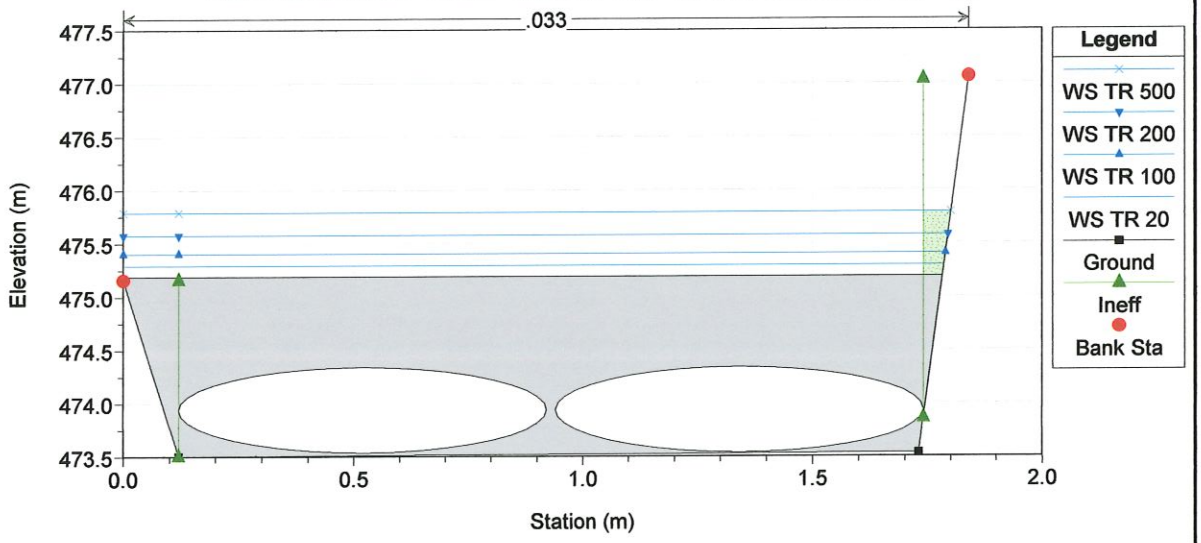
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 8 RS = 8



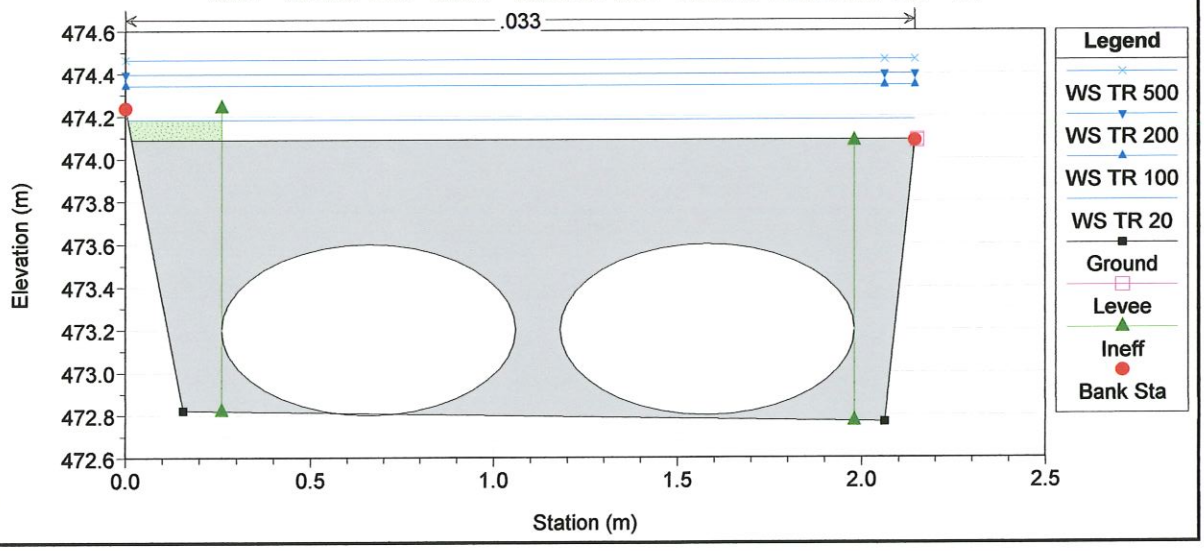
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Tombino Via Marconi RS = 7.5



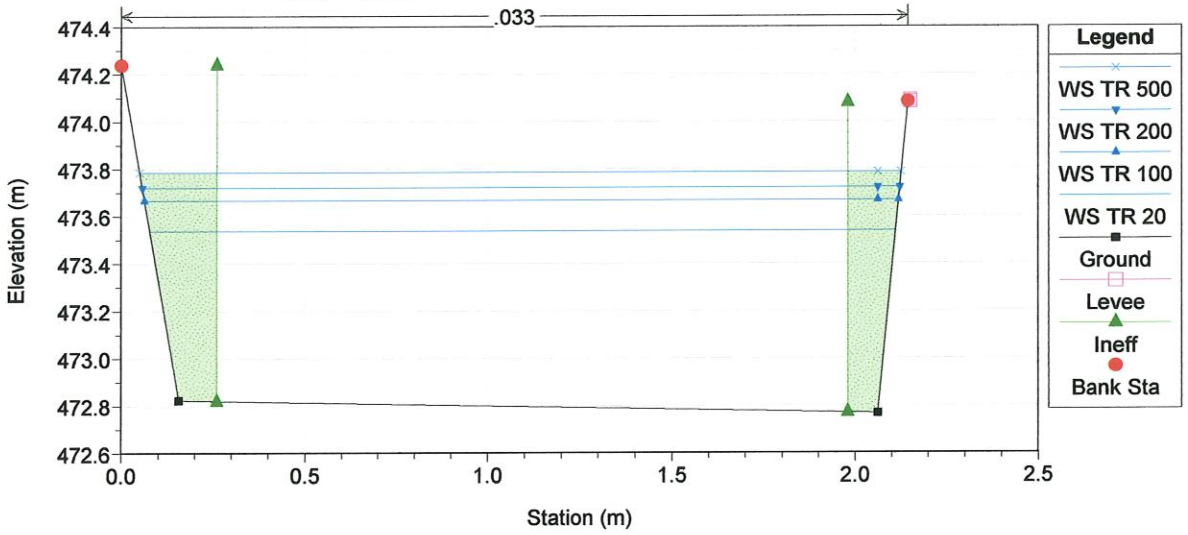
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Tombino Via Marconi RS = 7.5



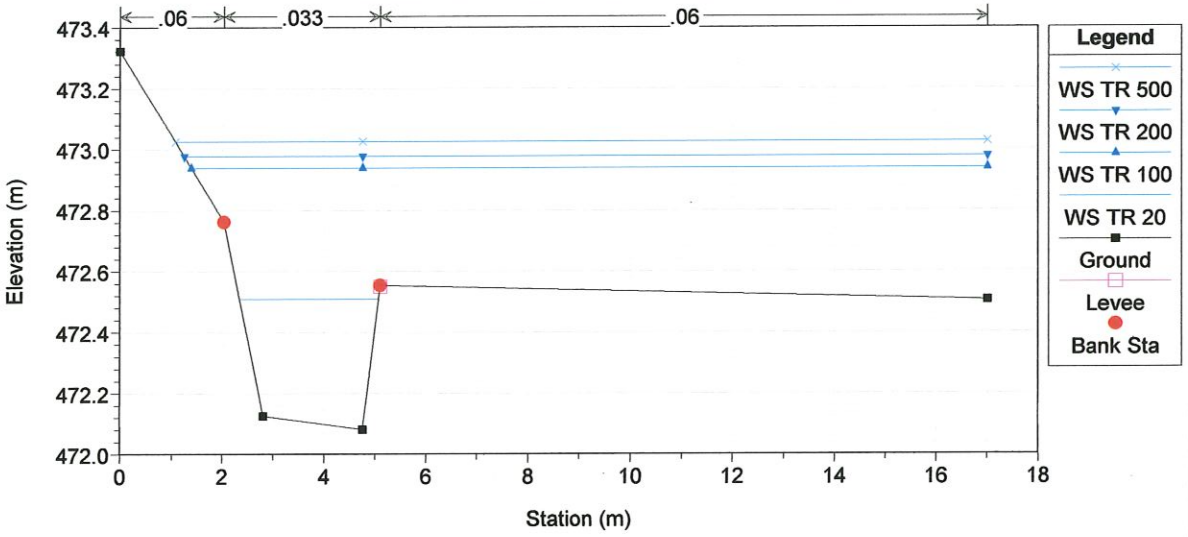
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 7 RS = 7



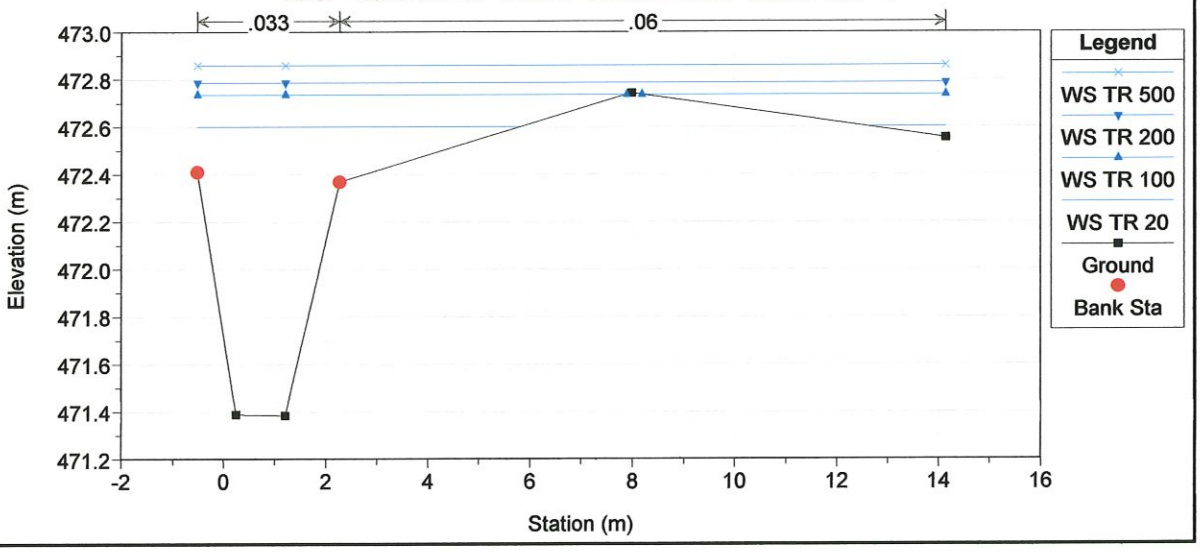
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 6 RS = 6



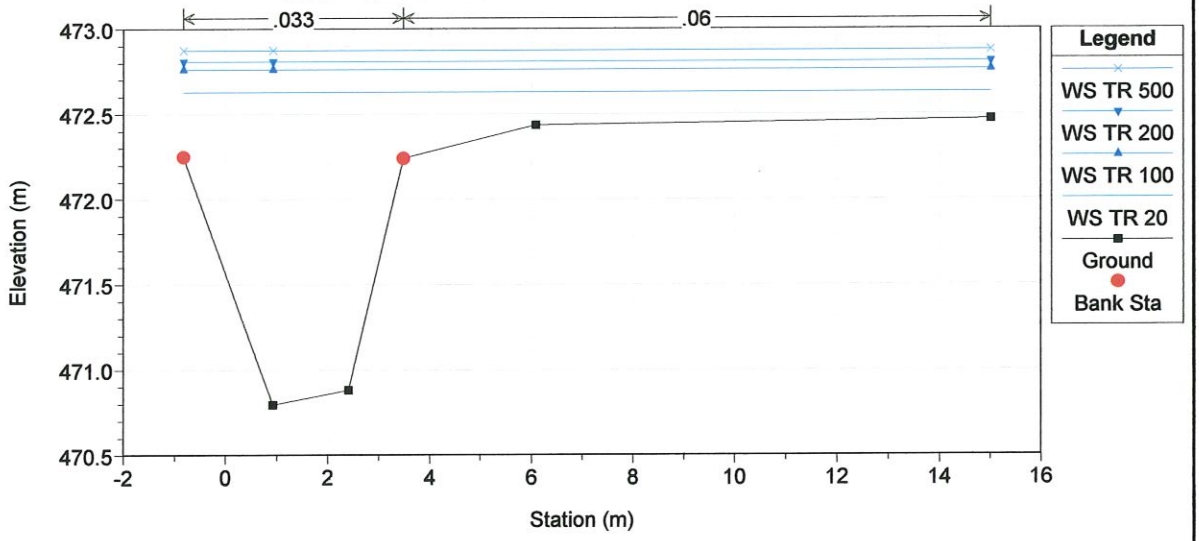
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 5 RS = 5



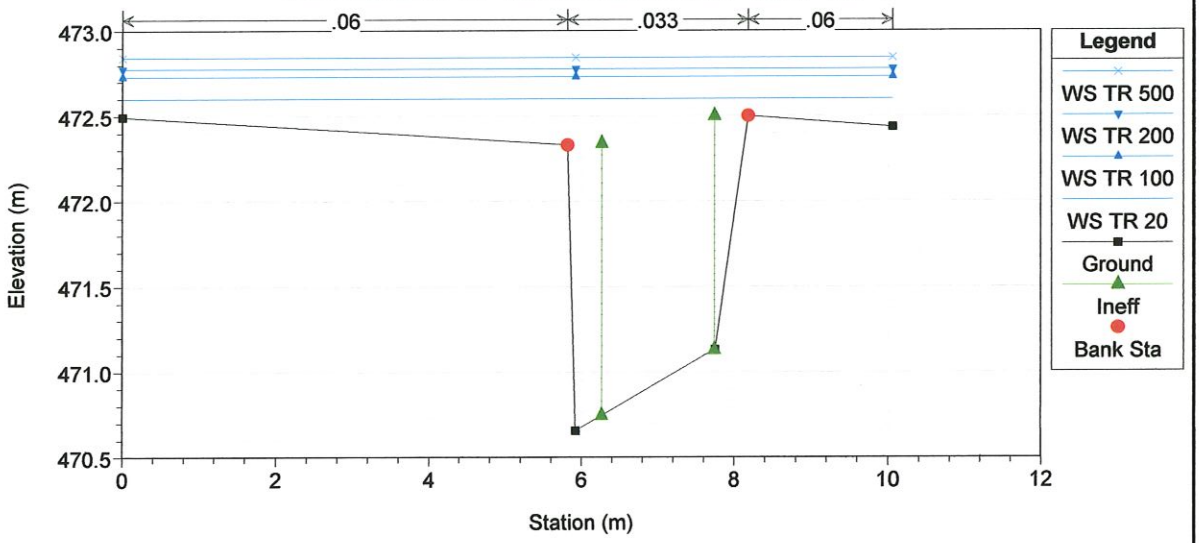
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 4 RS = 4



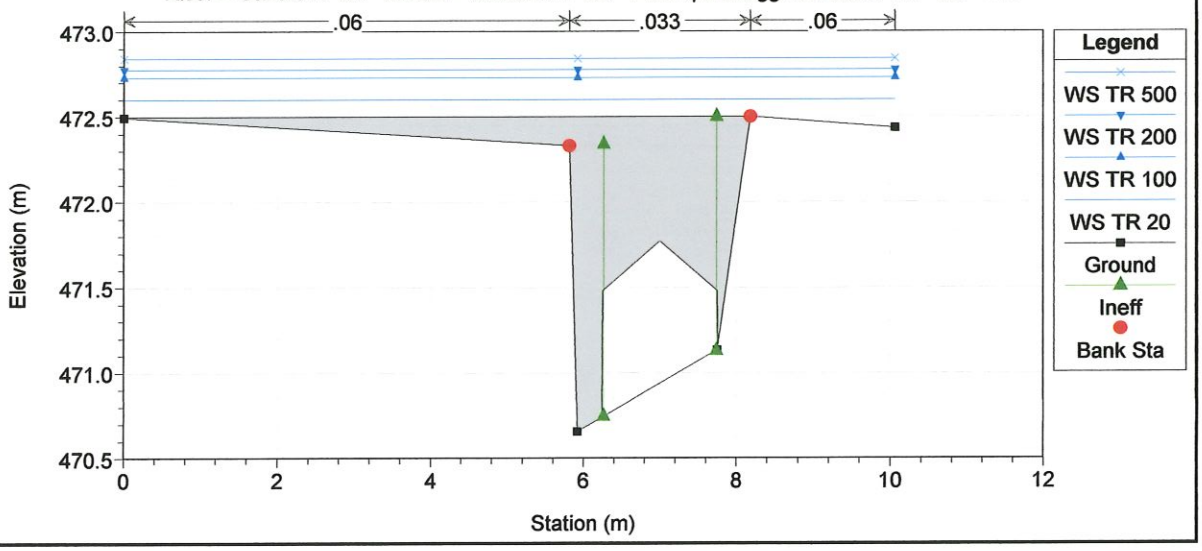
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 3 RS = 3



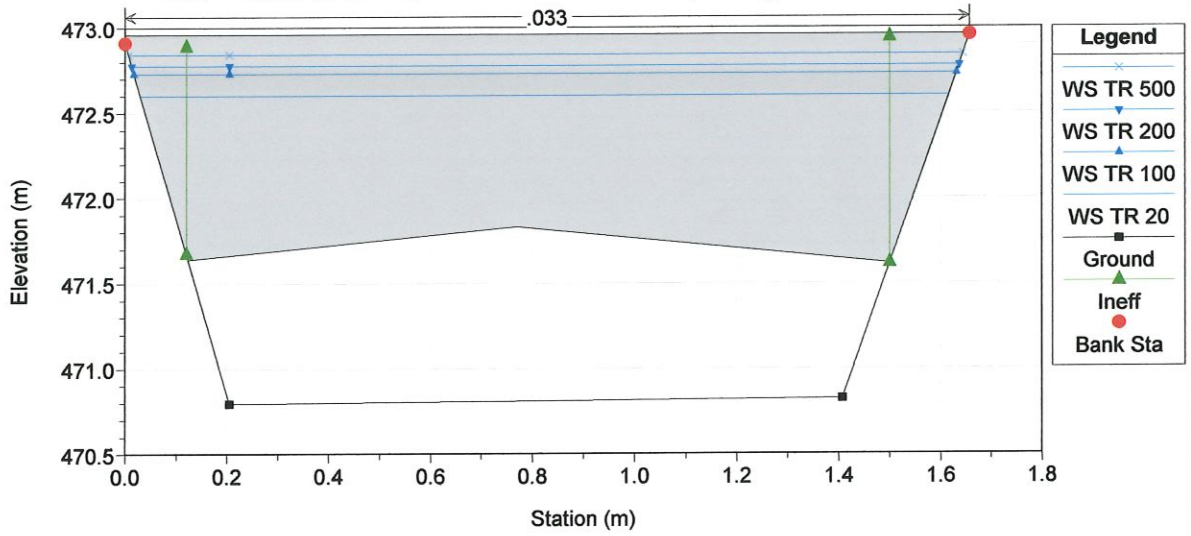
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Ponte parcheggio stazione FS RS = 2.5



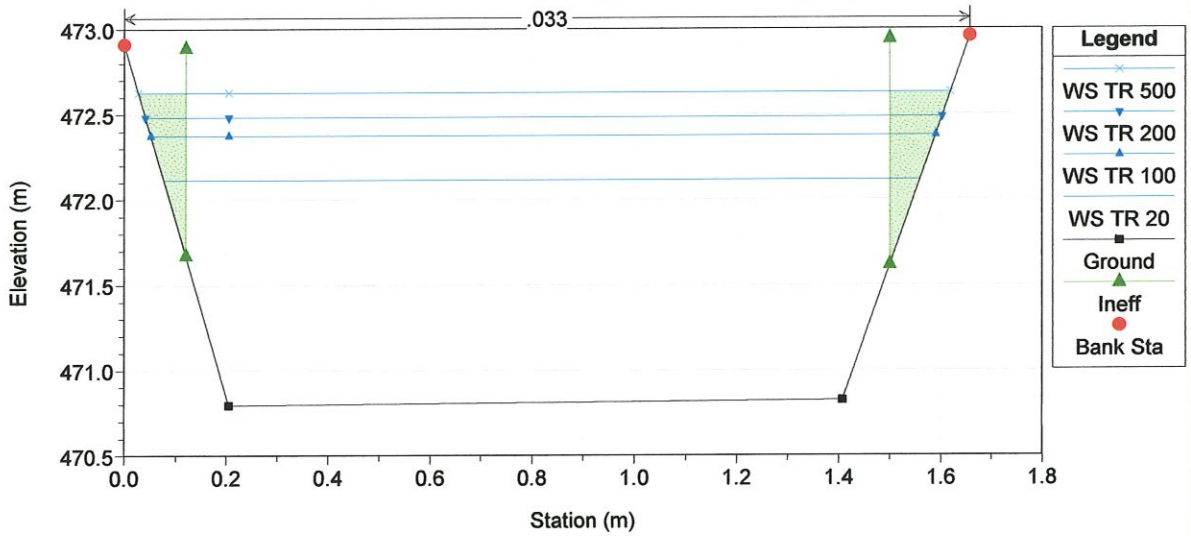
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Ponte parcheggio stazione FS RS = 2.5



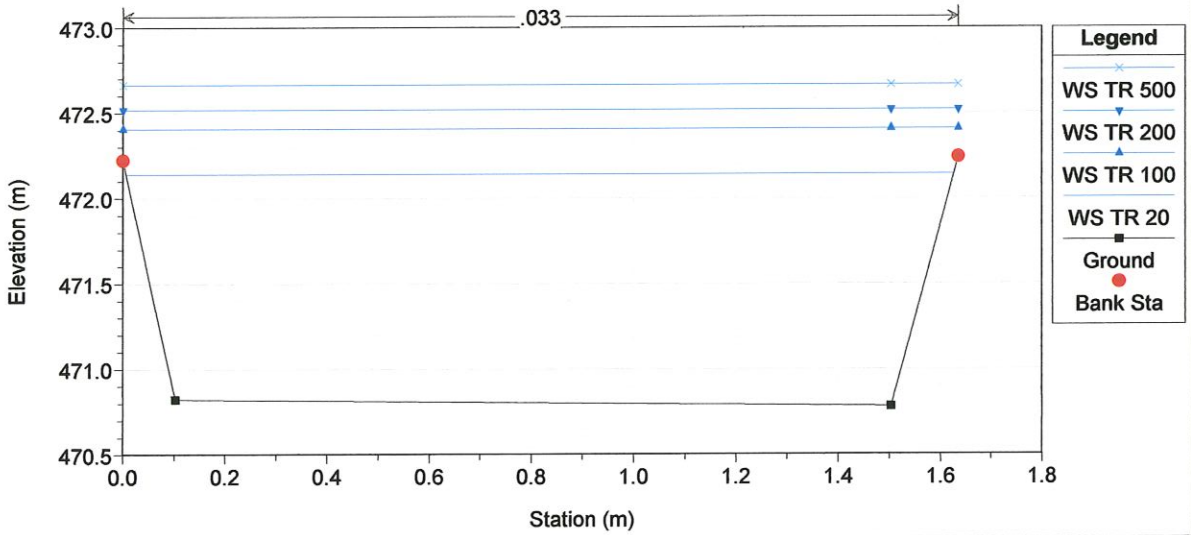
Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 2 RS = 2



Verifica idraulica Canale FFSS dati di progetto 09/12/03

River = Canale FFSS Reach = stazione FFSS Sez. 1 di valle RS = 1



Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 1 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		65.79	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 1 Profile: TR 100

			Left OB	Channel	Right OB
E.G. Elev (m)	472.57	Element		0.033	
Vel Head (m)	0.16	Wt. n-Val.			
W.S. Elev (m)	472.41	Reach Len. (m)		2.46	
Crit W.S. (m)	471.78	Flow Area (m2)		2.46	
E.G. Slope (m/m)	0.008002	Area (m2)		4.37	
Q Total (m3/s)	4.37	Flow (m3/s)		1.63	
Top Width (m)	1.63	Top Width (m)		1.78	
Vel Total (m/s)	1.78	Avg. Vel. (m/s)		1.50	
Max Chl Dpth (m)	1.62	Hydr. Depth (m)		48.8	
Conv. Total (m3/s)	48.8	Conv. (m3/s)		4.62	
Length Wtd. (m)		Wetted Per. (m)		41.71	
Min Ch El (m)	470.78	Shear (N/m2)		74.18	
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 1 Profile: TR 200

			Left OB	Channel	Right OB
E.G. Elev (m)	472.68	Element		0.033	
Vel Head (m)	0.17	Wt. n-Val.			
W.S. Elev (m)	472.52	Reach Len. (m)		2.64	
Crit W.S. (m)	471.83	Flow Area (m2)		2.64	
E.G. Slope (m/m)	0.008001	Area (m2)		4.77	
Q Total (m3/s)	4.77	Flow (m3/s)		1.63	
Top Width (m)	1.63	Top Width (m)		1.81	
Vel Total (m/s)	1.81	Avg. Vel. (m/s)		1.62	
Max Chl Dpth (m)	1.74	Hydr. Depth (m)		53.3	
Conv. Total (m3/s)	53.3	Conv. (m3/s)		4.85	
Length Wtd. (m)		Wetted Per. (m)		42.74	
Min Ch El (m)	470.78	Shear (N/m2)		77.26	
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 1 Profile: TR 500

			Left OB	Channel	Right OB
E.G. Elev (m)	472.84	Element		0.033	
Vel Head (m)	0.17	Wt. n-Val.			
W.S. Elev (m)	472.66	Reach Len. (m)		2.88	
Crit W.S. (m)	471.91	Flow Area (m2)		2.88	
E.G. Slope (m/m)	0.008000	Area (m2)		5.30	
Q Total (m3/s)	5.30	Flow (m3/s)		1.63	
Top Width (m)	1.63	Top Width (m)		1.84	
Vel Total (m/s)	1.84	Avg. Vel. (m/s)		1.76	
Max Chl Dpth (m)	1.88	Hydr. Depth (m)		59.3	
Conv. Total (m3/s)	59.3	Conv. (m3/s)		5.14	
Length Wtd. (m)		Wetted Per. (m)		43.95	
Min Ch El (m)	470.78	Shear (N/m2)		80.95	
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2 Profile: TR 100 (Continued)

Top Width (m)	1.54	Top Width (m)		1.54	
Vel Total (m/s)	2.09	Avg. Vel. (m/s)		2.09	
Max Chl Dpth (m)	1.58	Hydr. Depth (m)		1.51	
Conv. Total (m3/s)	51.1	Conv. (m3/s)		51.1	
Length Wtd. (m)	1.50	Wetted Per. (m)		2.88	
Min Ch El (m)	470.79	Shear (N/m2)		52.06	
Alpha	1.00	Stream Power (N/m s)		108.94	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.00	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2 Profile: TR 200

E.G. Elev (m)	472.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.033	
W.S. Elev (m)	472.48	Reach Len. (m)	1.50	1.50	1.50
Crit W.S. (m)	471.93	Flow Area (m2)		2.24	
E.G. Slope (m/m)	0.006916	Area (m2)		2.32	
Q Total (m3/s)	4.77	Flow (m3/s)		4.77	
Top Width (m)	1.56	Top Width (m)		1.56	
Vel Total (m/s)	2.13	Avg. Vel. (m/s)		2.13	
Max Chl Dpth (m)	1.69	Hydr. Depth (m)		1.62	
Conv. Total (m3/s)	57.4	Conv. (m3/s)		57.4	
Length Wtd. (m)	1.50	Wetted Per. (m)		2.88	
Min Ch El (m)	470.79	Shear (N/m2)		52.74	
Alpha	1.00	Stream Power (N/m s)		112.38	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.00	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2 Profile: TR 500

E.G. Elev (m)	472.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.033	
W.S. Elev (m)	472.63	Reach Len. (m)	1.50	1.50	1.50
Crit W.S. (m)	472.00	Flow Area (m2)		2.44	
E.G. Slope (m/m)	0.006437	Area (m2)		2.54	
Q Total (m3/s)	5.30	Flow (m3/s)		5.30	
Top Width (m)	1.59	Top Width (m)		1.59	
Vel Total (m/s)	2.18	Avg. Vel. (m/s)		2.18	
Max Chl Dpth (m)	1.83	Hydr. Depth (m)		1.77	
Conv. Total (m3/s)	66.1	Conv. (m3/s)		66.1	
Length Wtd. (m)	1.50	Wetted Per. (m)		2.88	
Min Ch El (m)	470.79	Shear (N/m2)		53.42	
Alpha	1.00	Stream Power (N/m s)		116.19	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.00	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 1 Profile: TR 20

E.G. Elev (m)	472.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.033	
W.S. Elev (m)	472.14	Reach Len. (m)			
Crit W.S. (m)	471.63	Flow Area (m2)		2.02	
E.G. Slope (m/m)	0.008000	Area (m2)		2.02	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	1.62	Top Width (m)		1.62	
Vel Total (m/s)	1.70	Avg. Vel. (m/s)		1.70	
Max Chl Dpth (m)	1.36	Hydr. Depth (m)		1.25	
Conv. Total (m3/s)	38.3	Conv. (m3/s)		38.3	
Length Wtd. (m)		Wetted Per. (m)		4.09	
Min Ch El (m)	470.78	Shear (N/m2)		38.81	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2.5 BR D Profile: TR 200

E.G. Elev (m)	472.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.81	Wt. n-Val.			
W.S. Elev (m)	472.78	Reach Len. (m)	0.22	0.22	0.22
Crit W.S. (m)	471.73	Flow Area (m2)		1.20	
E.G. Slope (m/m)		Area (m2)		1.20	
Q Total (m3/s)	4.77	Flow (m3/s)		2.59	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	3.99	Avg. Vel. (m/s)	0.30	2.17	0.30
Max Chl Dpth (m)	1.98	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.22	Wetted Per. (m)		4.28	
Min Ch El (m)	470.79	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)		0.00	
C & E Loss (m)		Cum SA (1000 m2)		0.00	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2.5 BR D Profile: TR 500

E.G. Elev (m)	472.89	Element	Left OB	Channel	Right OB
Vel Head (m)	1.00	Wt. n-Val.			
W.S. Elev (m)	472.84	Reach Len. (m)	0.22	0.22	0.22
Crit W.S. (m)	471.75	Flow Area (m2)		1.20	
E.G. Slope (m/m)		Area (m2)		1.20	
Q Total (m3/s)	5.30	Flow (m3/s)		2.50	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	4.43	Avg. Vel. (m/s)	0.30	2.09	0.30
Max Chl Dpth (m)	2.05	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.22	Wetted Per. (m)		4.28	
Min Ch El (m)	470.79	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)		0.00	
C & E Loss (m)		Cum SA (1000 m2)		0.00	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2 Profile: TR 20

E.G. Elev (m)	472.32	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.033	
W.S. Elev (m)	472.12	Reach Len. (m)	1.50	1.50	1.50
Crit W.S. (m)	471.72	Flow Area (m2)		1.73	
E.G. Slope (m/m)	0.008444	Area (m2)		1.75	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	1.48	Top Width (m)		1.48	
Vel Total (m/s)	1.98	Avg. Vel. (m/s)		1.98	
Max Chl Dpth (m)	1.32	Hydr. Depth (m)		1.25	
Conv. Total (m3/s)	37.3	Conv. (m3/s)		37.3	
Length Wtd. (m)	1.50	Wetted Per. (m)		2.88	
Min Ch El (m)	470.79	Shear (N/m2)		49.74	
Alpha	1.00	Stream Power (N/m s)		98.61	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		0.00	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.00	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2 Profile: TR 100

E.G. Elev (m)	472.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.033	
W.S. Elev (m)	472.37	Reach Len. (m)	1.50	1.50	1.50
Crit W.S. (m)	471.87	Flow Area (m2)		2.09	
E.G. Slope (m/m)	0.007322	Area (m2)		2.15	
Q Total (m3/s)	4.37	Flow (m3/s)		4.37	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2.5 BR U Profile: TR 200 (Continued)

Alpha	1.25	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.03	0.06	0.01
C & E Loss (m)		Cum SA (1000 m2)	0.11	0.05	0.03

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2.5 BR U Profile: TR 500

E.G. Elev (m)	472.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.			
W.S. Elev (m)	472.84	Reach Len. (m)	37.12	37.12	37.12
Crit W.S. (m)	471.70	Flow Area (m2)	1.98	1.84	0.70
E.G. Slope (m/m)		Area (m2)	1.98	1.84	0.70
Q Total (m3/s)	5.30	Flow (m3/s)	2.78	1.64	0.95
Top Width (m)	10.06	Top Width (m)	5.82	2.37	1.87
Vel Total (m/s)	1.17	Avg. Vel. (m/s)	1.40	0.89	1.35
Max Chl Dpth (m)	2.10	Hydr. Depth (m)	0.34	0.78	0.37
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	37.12	Wetted Per. (m)	6.16	6.62	2.28
Min Ch El (m)	470.74	Shear (N/m2)			
Alpha	1.20	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.04	0.06	0.01
C & E Loss (m)		Cum SA (1000 m2)	0.11	0.05	0.03

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2.5 BR D Profile: TR 20

E.G. Elev (m)	472.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.42	Wt. n-Val.			
W.S. Elev (m)	472.60	Reach Len. (m)	0.22	0.22	0.22
Crit W.S. (m)	471.66	Flow Area (m2)		1.20	
E.G. Slope (m/m)		Area (m2)		1.20	
Q Total (m3/s)	3.43	Flow (m3/s)		2.75	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.87	Avg. Vel. (m/s)	0.30	2.30	0.30
Max Chl Dpth (m)	1.81	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.22	Wetted Per. (m)		4.28	
Min Ch El (m)	470.79	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)		0.00	
C & E Loss (m)		Cum SA (1000 m2)		0.00	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2.5 BR D Profile: TR 100

E.G. Elev (m)	472.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.68	Wt. n-Val.			
W.S. Elev (m)	472.73	Reach Len. (m)	0.22	0.22	0.22
Crit W.S. (m)	471.71	Flow Area (m2)		1.20	
E.G. Slope (m/m)		Area (m2)		1.20	
Q Total (m3/s)	4.37	Flow (m3/s)		2.66	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	3.65	Avg. Vel. (m/s)	0.30	2.23	0.30
Max Chl Dpth (m)	1.94	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.22	Wetted Per. (m)		4.28	
Min Ch El (m)	470.79	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)		0.00	
C & E Loss (m)		Cum SA (1000 m2)		0.00	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 3 Profile: TR 500 (Continued)

Top Width (m)	10.06	Top Width (m)	5.82	2.37	1.87
Vel Total (m/s)	0.72	Avg. Vel. (m/s)	0.35	1.02	0.29
Max Chl Dpth (m)	2.19	Hydr. Depth (m)	0.43	1.75	0.37
Conv. Total (m3/s)	139.1	Conv. (m3/s)	22.8	111.0	5.3
Length Wtd. (m)	0.16	Wetted Per. (m)	6.17	5.01	2.28
Min Ch El (m)	470.66	Shear (N/m2)	5.77	11.81	4.38
Alpha	1.64	Stream Power (N/m s)	2.01	12.03	1.27
Frctn Loss (m)		Cum Volume (1000 m3)	0.04	0.06	0.01
C & E Loss (m)		Cum SA (1000 m2)	0.11	0.05	0.04

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2.5 BR U Profile: TR 20

E.G. Elev (m)	472.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.			
W.S. Elev (m)	472.60	Reach Len. (m)	37.12	37.12	37.12
Crit W.S. (m)	471.62	Flow Area (m2)	0.59	1.27	0.25
E.G. Slope (m/m)		Area (m2)	0.59	1.27	0.25
Q Total (m3/s)	3.43	Flow (m3/s)	0.80	2.24	0.36
Top Width (m)	10.06	Top Width (m)	5.82	2.37	1.87
Vel Total (m/s)	1.63	Avg. Vel. (m/s)	1.37	1.76	1.44
Max Chl Dpth (m)	1.86	Hydr. Depth (m)	0.10	0.54	0.13
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	37.12	Wetted Per. (m)	5.92	6.62	2.04
Min Ch El (m)	470.74	Shear (N/m2)			
Alpha	1.48	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.05	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.11	0.05	0.03

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2.5 BR U Profile: TR 100

E.G. Elev (m)	472.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.			
W.S. Elev (m)	472.73	Reach Len. (m)	37.12	37.12	37.12
Crit W.S. (m)	471.67	Flow Area (m2)	1.34	1.58	0.49
E.G. Slope (m/m)		Area (m2)	1.34	1.58	0.49
Q Total (m3/s)	4.37	Flow (m3/s)	1.90	1.80	0.69
Top Width (m)	10.06	Top Width (m)	5.82	2.37	1.87
Vel Total (m/s)	1.28	Avg. Vel. (m/s)	1.41	1.14	1.39
Max Chl Dpth (m)	1.99	Hydr. Depth (m)	0.23	0.67	0.26
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	37.12	Wetted Per. (m)	6.05	6.62	2.17
Min Ch El (m)	470.74	Shear (N/m2)			
Alpha	1.31	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.02	0.06	0.01
C & E Loss (m)		Cum SA (1000 m2)	0.11	0.05	0.03

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 2.5 BR U Profile: TR 200

E.G. Elev (m)	472.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.			
W.S. Elev (m)	472.78	Reach Len. (m)	37.12	37.12	37.12
Crit W.S. (m)	471.68	Flow Area (m2)	1.61	1.69	0.58
E.G. Slope (m/m)		Area (m2)	1.61	1.69	0.58
Q Total (m3/s)	4.77	Flow (m3/s)	2.27	1.71	0.80
Top Width (m)	10.06	Top Width (m)	5.82	2.37	1.87
Vel Total (m/s)	1.23	Avg. Vel. (m/s)	1.41	1.01	1.37
Max Chl Dpth (m)	2.04	Hydr. Depth (m)	0.28	0.71	0.31
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	37.12	Wetted Per. (m)	6.09	6.62	2.22
Min Ch El (m)	470.74	Shear (N/m2)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 3 Profile: TR 20

E.G. Elev (m)	472.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	472.60	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	471.75	Flow Area (m2)	1.10	3.58	0.25
E.G. Slope (m/m)	0.001338	Area (m2)	1.10	3.58	0.25
Q Total (m3/s)	3.43	Flow (m3/s)	0.22	3.17	0.04
Top Width (m)	10.06	Top Width (m)	5.82	2.37	1.87
Vel Total (m/s)	0.70	Avg. Vel. (m/s)	0.20	0.89	0.15
Max Chl Dpth (m)	1.94	Hydr. Depth (m)	0.19	1.51	0.13
Conv. Total (m3/s)	93.7	Conv. (m3/s)	6.0	86.8	1.0
Length Wtd. (m)	0.16	Wetted Per. (m)	5.92	5.01	2.04
Min Ch El (m)	470.66	Shear (N/m2)	2.43	9.38	1.61
Alpha	1.51	Stream Power (N/m s)	0.48	8.32	0.24
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.05	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.11	0.05	0.04

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 3 Profile: TR 100

E.G. Elev (m)	472.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	472.73	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	471.90	Flow Area (m2)	1.85	3.89	0.49
E.G. Slope (m/m)	0.001403	Area (m2)	1.85	3.89	0.49
Q Total (m3/s)	4.37	Flow (m3/s)	0.53	3.73	0.11
Top Width (m)	10.06	Top Width (m)	5.82	2.37	1.87
Vel Total (m/s)	0.70	Avg. Vel. (m/s)	0.28	0.96	0.23
Max Chl Dpth (m)	2.07	Hydr. Depth (m)	0.32	1.64	0.26
Conv. Total (m3/s)	116.6	Conv. (m3/s)	14.0	99.5	3.1
Length Wtd. (m)	0.16	Wetted Per. (m)	6.05	5.01	2.17
Min Ch El (m)	470.66	Shear (N/m2)	4.21	10.69	3.13
Alpha	1.62	Stream Power (N/m s)	1.20	10.25	0.73
Frctn Loss (m)		Cum Volume (1000 m3)	0.03	0.06	0.01
C & E Loss (m)		Cum SA (1000 m2)	0.11	0.05	0.04

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 3 Profile: TR 200

E.G. Elev (m)	472.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	472.78	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	471.95	Flow Area (m2)	2.13	4.00	0.58
E.G. Slope (m/m)	0.001439	Area (m2)	2.13	4.00	0.58
Q Total (m3/s)	4.77	Flow (m3/s)	0.67	3.96	0.15
Top Width (m)	10.06	Top Width (m)	5.82	2.37	1.87
Vel Total (m/s)	0.71	Avg. Vel. (m/s)	0.31	0.99	0.26
Max Chl Dpth (m)	2.12	Hydr. Depth (m)	0.37	1.69	0.31
Conv. Total (m3/s)	125.8	Conv. (m3/s)	17.5	104.3	4.0
Length Wtd. (m)	0.16	Wetted Per. (m)	6.10	5.01	2.22
Min Ch El (m)	470.66	Shear (N/m2)	4.92	11.27	3.70
Alpha	1.63	Stream Power (N/m s)	1.54	11.15	0.96
Frctn Loss (m)		Cum Volume (1000 m3)	0.03	0.06	0.01
C & E Loss (m)		Cum SA (1000 m2)	0.11	0.05	0.04

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 3 Profile: TR 500

E.G. Elev (m)	472.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	472.84	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	472.03	Flow Area (m2)	2.50	4.15	0.70
E.G. Slope (m/m)	0.001452	Area (m2)	2.50	4.15	0.70
Q Total (m3/s)	5.30	Flow (m3/s)	0.87	4.23	0.20

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 4 Profile: TR 20 (Continued)

Alpha	1.59	Stream Power (N/m s)		1.83	0.07
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.02	0.08	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.13	0.07	0.06

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 4 Profile: TR 100

E.G. Elev (m)	472.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	472.76	Reach Len. (m)	7.73	5.74	3.37
Crit W.S. (m)		Flow Area (m2)		6.30	3.89
E.G. Slope (m/m)	0.000367	Area (m2)		6.30	3.89
Q Total (m3/s)	4.37	Flow (m3/s)		3.78	0.59
Top Width (m)	15.83	Top Width (m)		4.30	11.53
Vel Total (m/s)	0.43	Avg. Vel. (m/s)		0.60	0.15
Max Chl Dpth (m)	1.97	Hydr. Depth (m)		1.46	0.34
Conv. Total (m3/s)	228.0	Conv. (m3/s)		197.2	30.8
Length Wtd. (m)	5.67	Wetted Per. (m)		6.00	11.84
Min Ch El (m)	470.79	Shear (N/m2)		3.78	1.18
Alpha	1.71	Stream Power (N/m s)		2.27	0.18
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.03	0.08	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.13	0.07	0.06

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 4 Profile: TR 200

E.G. Elev (m)	472.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	472.81	Reach Len. (m)	7.73	5.74	3.37
Crit W.S. (m)		Flow Area (m2)		6.50	4.44
E.G. Slope (m/m)	0.000379	Area (m2)		6.50	4.44
Q Total (m3/s)	4.77	Flow (m3/s)		4.03	0.75
Top Width (m)	15.83	Top Width (m)		4.30	11.53
Vel Total (m/s)	0.44	Avg. Vel. (m/s)		0.62	0.17
Max Chl Dpth (m)	2.02	Hydr. Depth (m)		1.51	0.38
Conv. Total (m3/s)	245.3	Conv. (m3/s)		206.9	38.3
Length Wtd. (m)	5.66	Wetted Per. (m)		6.05	11.88
Min Ch El (m)	470.79	Shear (N/m2)		3.99	1.39
Alpha	1.72	Stream Power (N/m s)		2.47	0.23
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.04	0.09	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.13	0.07	0.06

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 4 Profile: TR 500

E.G. Elev (m)	472.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	472.87	Reach Len. (m)	7.73	5.74	3.37
Crit W.S. (m)		Flow Area (m2)		6.78	5.18
E.G. Slope (m/m)	0.000386	Area (m2)		6.78	5.18
Q Total (m3/s)	5.30	Flow (m3/s)		4.33	0.97
Top Width (m)	15.83	Top Width (m)		4.30	11.53
Vel Total (m/s)	0.44	Avg. Vel. (m/s)		0.64	0.19
Max Chl Dpth (m)	2.08	Hydr. Depth (m)		1.58	0.45
Conv. Total (m3/s)	269.9	Conv. (m3/s)		220.4	49.5
Length Wtd. (m)	5.64	Wetted Per. (m)		6.11	11.95
Min Ch El (m)	470.79	Shear (N/m2)		4.20	1.64
Alpha	1.73	Stream Power (N/m s)		2.68	0.31
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.05	0.09	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.13	0.07	0.06

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 5 Profile: TR 100 (Continued)

Top Width (m)	14.38	Top Width (m)		2.78	11.59
Vel Total (m/s)	0.99	Avg. Vel. (m/s)		1.39	0.27
Max Chl Dpth (m)	1.35	Hydr. Depth (m)		1.02	0.14
Conv. Total (m3/s)	75.9	Conv. (m3/s)		68.5	7.4
Length Wtd. (m)	29.50	Wetted Per. (m)		4.00	11.79
Min Ch El (m)	471.39	Shear (N/m2)		23.05	4.36
Alpha	1.79	Stream Power (N/m s)		31.98	1.17
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.03	0.22	0.10
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.13	0.17	0.40

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 5 Profile: TR 200

E.G. Elev (m)	472.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	472.79	Reach Len. (m)	29.50	29.50	29.50
Crit W.S. (m)		Flow Area (m2)		2.99	2.20
E.G. Slope (m/m)	0.003112	Area (m2)		2.99	2.20
Q Total (m3/s)	4.77	Flow (m3/s)		4.12	0.66
Top Width (m)	14.66	Top Width (m)		2.78	11.88
Vel Total (m/s)	0.92	Avg. Vel. (m/s)		1.38	0.30
Max Chl Dpth (m)	1.40	Hydr. Depth (m)		1.07	0.19
Conv. Total (m3/s)	85.5	Conv. (m3/s)		73.8	11.7
Length Wtd. (m)	29.50	Wetted Per. (m)		4.06	12.13
Min Ch El (m)	471.39	Shear (N/m2)		22.47	5.54
Alpha	1.95	Stream Power (N/m s)		30.98	1.65
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.04	0.23	0.12
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.13	0.17	0.40

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 5 Profile: TR 500

E.G. Elev (m)	472.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	472.86	Reach Len. (m)	29.50	29.50	29.50
Crit W.S. (m)		Flow Area (m2)		3.19	3.05
E.G. Slope (m/m)	0.002730	Area (m2)		3.19	3.05
Q Total (m3/s)	5.30	Flow (m3/s)		4.24	1.06
Top Width (m)	14.66	Top Width (m)		2.78	11.88
Vel Total (m/s)	0.85	Avg. Vel. (m/s)		1.33	0.35
Max Chl Dpth (m)	1.47	Hydr. Depth (m)		1.14	0.26
Conv. Total (m3/s)	101.5	Conv. (m3/s)		81.2	20.2
Length Wtd. (m)	29.50	Wetted Per. (m)		4.13	12.20
Min Ch El (m)	471.39	Shear (N/m2)		20.66	6.70
Alpha	2.00	Stream Power (N/m s)		27.53	2.32
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.05	0.24	0.14
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.13	0.17	0.40

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 4 Profile: TR 20

E.G. Elev (m)	472.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	472.63	Reach Len. (m)	7.73	5.74	3.37
Crit W.S. (m)		Flow Area (m2)		5.73	2.36
E.G. Slope (m/m)	0.000345	Area (m2)		5.73	2.36
Q Total (m3/s)	3.43	Flow (m3/s)		3.18	0.25
Top Width (m)	15.83	Top Width (m)		4.30	11.53
Vel Total (m/s)	0.42	Avg. Vel. (m/s)		0.55	0.11
Max Chl Dpth (m)	1.84	Hydr. Depth (m)		1.33	0.20
Conv. Total (m3/s)	184.5	Conv. (m3/s)		171.0	13.5
Length Wtd. (m)	5.70	Wetted Per. (m)		5.87	11.70
Min Ch El (m)	470.79	Shear (N/m2)		3.31	0.68

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 6 Profile: TR 200

			Left OB	Channel	Right OB
E.G. Elev (m)	473.01	Element			
Vel Head (m)	0.03	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	472.98	Reach Len. (m)	53.50	53.50	53.50
Crit W.S. (m)	472.76	Flow Area (m2)	0.08	2.34	5.33
E.G. Slope (m/m)	0.002067	Area (m2)	0.08	2.34	5.33
Q Total (m3/s)	4.77	Flow (m3/s)	0.01	2.45	2.31
Top Width (m)	15.76	Top Width (m)	0.79	3.06	11.91
Vel Total (m/s)	0.61	Avg. Vel. (m/s)	0.17	1.05	0.43
Max Chl Dpth (m)	0.89	Hydr. Depth (m)	0.11	0.76	0.45
Conv. Total (m3/s)	104.9	Conv. (m3/s)	0.3	53.9	50.7
Length Wtd. (m)	53.50	Wetted Per. (m)	0.81	3.53	12.38
Min Ch El (m)	472.08	Shear (N/m2)	2.10	13.43	8.74
Alpha	1.73	Stream Power (N/m s)	0.35	14.06	3.78
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	0.04	0.37	0.32
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.15	0.33	1.04

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 6 Profile: TR 500

			Left OB	Channel	Right OB
E.G. Elev (m)	473.06	Element			
Vel Head (m)	0.03	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	473.03	Reach Len. (m)	53.50	53.50	53.50
Crit W.S. (m)	472.77	Flow Area (m2)	0.13	2.49	5.91
E.G. Slope (m/m)	0.001943	Area (m2)	0.13	2.49	5.91
Q Total (m3/s)	5.30	Flow (m3/s)	0.02	2.63	2.65
Top Width (m)	15.93	Top Width (m)	0.96	3.06	11.91
Vel Total (m/s)	0.62	Avg. Vel. (m/s)	0.19	1.06	0.45
Max Chl Dpth (m)	0.94	Hydr. Depth (m)	0.13	0.81	0.50
Conv. Total (m3/s)	120.2	Conv. (m3/s)	0.5	59.7	60.0
Length Wtd. (m)	53.50	Wetted Per. (m)	1.00	3.53	12.43
Min Ch El (m)	472.08	Shear (N/m2)	2.42	13.42	9.06
Alpha	1.70	Stream Power (N/m s)	0.45	14.19	4.06
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.05	0.39	0.38
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.16	0.33	1.04

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 5 Profile: TR 20

			Left OB	Channel	Right OB
E.G. Elev (m)	472.69	Element			
Vel Head (m)	0.09	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	472.60	Reach Len. (m)	29.50	29.50	29.50
Crit W.S. (m)	472.22	Flow Area (m2)		2.47	0.46
E.G. Slope (m/m)	0.003607	Area (m2)		2.47	0.46
Q Total (m3/s)	3.43	Flow (m3/s)		3.33	0.10
Top Width (m)	7.93	Top Width (m)		2.78	5.15
Vel Total (m/s)	1.17	Avg. Vel. (m/s)		1.35	0.23
Max Chl Dpth (m)	1.22	Hydr. Depth (m)		0.89	0.09
Conv. Total (m3/s)	57.1	Conv. (m3/s)		55.4	1.7
Length Wtd. (m)	29.50	Wetted Per. (m)		3.87	5.21
Min Ch El (m)	471.39	Shear (N/m2)		22.56	3.10
Alpha	1.28	Stream Power (N/m s)		30.41	0.70
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.02	0.20	0.05
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.13	0.17	0.30

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 5 Profile: TR 100

			Left OB	Channel	Right OB
E.G. Elev (m)	472.82	Element			
Vel Head (m)	0.09	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	472.74	Reach Len. (m)	29.50	29.50	29.50
Crit W.S. (m)		Flow Area (m2)		2.84	1.58
E.G. Slope (m/m)	0.003311	Area (m2)		2.84	1.58
Q Total (m3/s)	4.37	Flow (m3/s)		3.94	0.43

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 7 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		295.13	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.04	0.43	0.40
C & E Loss (m)	0.13	Cum SA (1000 m2)	0.16	0.40	1.21

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 7 Profile: TR 500

E.G. Elev (m)	474.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.		0.033	
W.S. Elev (m)	473.79	Reach Len. (m)	29.20	29.20	29.20
Crit W.S. (m)	473.79	Flow Area (m2)		1.70	
E.G. Slope (m/m)	0.010710	Area (m2)		1.97	
Q Total (m3/s)	5.30	Flow (m3/s)		5.30	
Top Width (m)	2.07	Top Width (m)		2.07	
Vel Total (m/s)	3.11	Avg. Vel. (m/s)		3.11	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.99	
Conv. Total (m3/s)	51.2	Conv. (m3/s)		51.2	
Length Wtd. (m)	29.20	Wetted Per. (m)		1.72	
Min Ch El (m)	472.77	Shear (N/m2)		103.84	
Alpha	1.00	Stream Power (N/m s)		323.16	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)	0.05	0.46	0.47
C & E Loss (m)	0.14	Cum SA (1000 m2)	0.17	0.40	1.21

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 6 Profile: TR 20

E.G. Elev (m)	473.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.67	Wt. n-Val.		0.033	
W.S. Elev (m)	472.51	Reach Len. (m)	53.50	53.50	53.50
Crit W.S. (m)	472.70	Flow Area (m2)		0.95	
E.G. Slope (m/m)	0.069186	Area (m2)		0.95	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	2.73	Top Width (m)		2.73	
Vel Total (m/s)	3.63	Avg. Vel. (m/s)		3.63	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	13.0	Conv. (m3/s)		13.0	
Length Wtd. (m)	53.50	Wetted Per. (m)		3.08	
Min Ch El (m)	472.08	Shear (N/m2)		208.19	
Alpha	1.00	Stream Power (N/m s)		754.92	
Frctn Loss (m)	0.70	Cum Volume (1000 m3)	0.02	0.29	0.06
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.13	0.32	0.44

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 6 Profile: TR 100

E.G. Elev (m)	472.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	472.94	Reach Len. (m)	53.50	53.50	53.50
Crit W.S. (m)	472.74	Flow Area (m2)	0.06	2.22	4.87
E.G. Slope (m/m)	0.002190	Area (m2)	0.06	2.22	4.87
Q Total (m3/s)	4.37	Flow (m3/s)	0.01	2.31	2.05
Top Width (m)	15.62	Top Width (m)	0.64	3.06	11.91
Vel Total (m/s)	0.61	Avg. Vel. (m/s)	0.15	1.04	0.42
Max Chl Dpth (m)	0.86	Hydr. Depth (m)	0.09	0.73	0.41
Conv. Total (m3/s)	93.4	Conv. (m3/s)	0.2	49.4	43.7
Length Wtd. (m)	53.50	Wetted Per. (m)	0.67	3.53	12.34
Min Ch El (m)	472.08	Shear (N/m2)	1.82	13.51	8.48
Alpha	1.76	Stream Power (N/m s)	0.27	14.06	3.56
Frctn Loss (m)	0.14	Cum Volume (1000 m3)	0.03	0.36	0.27
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.15	0.33	1.03

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 8 Profile: TR 500 (Continued)

Top Width (m)	1.80	Top Width (m)		1.80	
Vel Total (m/s)	1.38	Avg. Vel. (m/s)		1.38	
Max Chl Dpth (m)	2.28	Hydr. Depth (m)		2.21	
Conv. Total (m3/s)	110.1	Conv. (m3/s)		110.1	
Length Wtd. (m)	44.20	Wetted Per. (m)		4.19	
Min Ch El (m)	473.51	Shear (N/m2)		20.85	
Alpha	1.00	Stream Power (N/m s)		28.72	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	0.59	0.47
C & E Loss (m)		Cum SA (1000 m2)	0.17	0.49	1.21

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 7 Profile: TR 20

			Left OB	Channel	Right OB
E.G. Elev (m)	473.91	Element			
Vel Head (m)	0.37	Wt. n-Val.		0.033	
W.S. Elev (m)	473.54	Reach Len. (m)	29.20	29.20	29.20
Crit W.S. (m)	473.54	Flow Area (m2)		1.28	
E.G. Slope (m/m)	0.011681	Area (m2)		1.46	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	2.03	Top Width (m)		2.03	
Vel Total (m/s)	2.68	Avg. Vel. (m/s)		2.68	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.74	
Conv. Total (m3/s)	31.7	Conv. (m3/s)		31.7	
Length Wtd. (m)	29.20	Wetted Per. (m)		1.72	
Min Ch El (m)	472.77	Shear (N/m2)		84.96	
Alpha	1.00	Stream Power (N/m s)		228.00	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	0.02	0.32	0.06
C & E Loss (m)	0.10	Cum SA (1000 m2)	0.13	0.39	0.44

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 7 Profile: TR 100

			Left OB	Channel	Right OB
E.G. Elev (m)	474.10	Element			
Vel Head (m)	0.43	Wt. n-Val.		0.033	
W.S. Elev (m)	473.67	Reach Len. (m)	29.20	29.20	29.20
Crit W.S. (m)	473.67	Flow Area (m2)		1.50	
E.G. Slope (m/m)	0.011138	Area (m2)		1.72	
Q Total (m3/s)	4.37	Flow (m3/s)		4.37	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	2.91	Avg. Vel. (m/s)		2.91	
Max Chl Dpth (m)	0.90	Hydr. Depth (m)		0.87	
Conv. Total (m3/s)	41.4	Conv. (m3/s)		41.4	
Length Wtd. (m)	29.20	Wetted Per. (m)		1.72	
Min Ch El (m)	472.77	Shear (N/m2)		95.03	
Alpha	1.00	Stream Power (N/m s)		277.00	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.03	0.41	0.34
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.16	0.40	1.20

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 7 Profile: TR 200

			Left OB	Channel	Right OB
E.G. Elev (m)	474.18	Element			
Vel Head (m)	0.46	Wt. n-Val.		0.033	
W.S. Elev (m)	473.72	Reach Len. (m)	29.20	29.20	29.20
Crit W.S. (m)	473.72	Flow Area (m2)		1.59	
E.G. Slope (m/m)	0.010867	Area (m2)		1.83	
Q Total (m3/s)	4.77	Flow (m3/s)		4.77	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	3.00	Avg. Vel. (m/s)		3.00	
Max Chl Dpth (m)	0.95	Hydr. Depth (m)		0.92	
Conv. Total (m3/s)	45.8	Conv. (m3/s)		45.8	
Length Wtd. (m)	29.20	Wetted Per. (m)		1.72	
Min Ch El (m)	472.77	Shear (N/m2)		98.48	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 8 Profile: TR 20

E.G. Elev (m)	475.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.033	
W.S. Elev (m)	475.29	Reach Len. (m)	43.75	44.20	44.50
Crit W.S. (m)	474.30	Flow Area (m2)		2.98	
E.G. Slope (m/m)	0.001919	Area (m2)		3.01	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	1.79	Top Width (m)		1.79	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	1.79	Hydr. Depth (m)		1.71	
Conv. Total (m3/s)	78.3	Conv. (m3/s)		78.3	
Length Wtd. (m)	44.20	Wetted Per. (m)		3.70	
Min Ch El (m)	473.51	Shear (N/m2)		15.18	
Alpha	1.00	Stream Power (N/m s)		17.45	
Frctn Loss (m)		Cum Volume (1000 m3)	0.02	0.42	0.06
C & E Loss (m)		Cum SA (1000 m2)	0.13	0.47	0.44

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 8 Profile: TR 100

E.G. Elev (m)	475.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.033	
W.S. Elev (m)	475.41	Reach Len. (m)	43.75	44.20	44.50
Crit W.S. (m)	474.43	Flow Area (m2)		3.18	
E.G. Slope (m/m)	0.002623	Area (m2)		3.22	
Q Total (m3/s)	4.37	Flow (m3/s)		4.37	
Top Width (m)	1.79	Top Width (m)		1.79	
Vel Total (m/s)	1.38	Avg. Vel. (m/s)		1.38	
Max Chl Dpth (m)	1.90	Hydr. Depth (m)		1.83	
Conv. Total (m3/s)	85.3	Conv. (m3/s)		85.3	
Length Wtd. (m)	44.20	Wetted Per. (m)		3.81	
Min Ch El (m)	473.51	Shear (N/m2)		21.46	
Alpha	1.00	Stream Power (N/m s)		29.51	
Frctn Loss (m)		Cum Volume (1000 m3)	0.03	0.52	0.34
C & E Loss (m)		Cum SA (1000 m2)	0.16	0.49	1.20

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 8 Profile: TR 200

E.G. Elev (m)	475.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.033	
W.S. Elev (m)	475.58	Reach Len. (m)	43.75	44.20	44.50
Crit W.S. (m)	474.49	Flow Area (m2)		3.48	
E.G. Slope (m/m)	0.002451	Area (m2)		3.53	
Q Total (m3/s)	4.77	Flow (m3/s)		4.77	
Top Width (m)	1.79	Top Width (m)		1.79	
Vel Total (m/s)	1.37	Avg. Vel. (m/s)		1.37	
Max Chl Dpth (m)	2.07	Hydr. Depth (m)		2.00	
Conv. Total (m3/s)	96.4	Conv. (m3/s)		96.4	
Length Wtd. (m)	44.20	Wetted Per. (m)		3.98	
Min Ch El (m)	473.51	Shear (N/m2)		21.00	
Alpha	1.00	Stream Power (N/m s)		28.79	
Frctn Loss (m)		Cum Volume (1000 m3)	0.04	0.55	0.40
C & E Loss (m)		Cum SA (1000 m2)	0.16	0.49	1.21

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 8 Profile: TR 500

E.G. Elev (m)	475.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.033	
W.S. Elev (m)	475.79	Reach Len. (m)	43.75	44.20	44.50
Crit W.S. (m)	474.55	Flow Area (m2)		3.85	
E.G. Slope (m/m)	0.002317	Area (m2)		3.91	
Q Total (m3/s)	5.30	Flow (m3/s)		5.30	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 9 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		18572.46	
Frctn Loss (m)	0.82	Cum Volume (1000 m3)	0.02	0.44	0.06
C & E Loss (m)	0.47	Cum SA (1000 m2)	0.13	0.48	0.44

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 9 Profile: TR 100

E.G. Elev (m)	479.37	Element	Left OB	Channel	Right OB
Vel Head (m)	5.39	Wt. n-Val.		0.033	
W.S. Elev (m)	473.98	Reach Len. (m)	7.80	8.00	8.20
Crit W.S. (m)	474.85	Flow Area (m2)		0.42	
E.G. Slope (m/m)	0.797972	Area (m2)		0.42	
Q Total (m3/s)	4.37	Flow (m3/s)		4.37	
Top Width (m)	0.87	Top Width (m)		0.87	
Vel Total (m/s)	10.28	Avg. Vel. (m/s)		10.28	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	4.9	Conv. (m3/s)		4.9	
Length Wtd. (m)	8.00	Wetted Per. (m)		1.81	
Min Ch El (m)	473.45	Shear (N/m2)		1832.17	
Alpha	1.00	Stream Power (N/m s)		18840.29	
Frctn Loss (m)	0.36	Cum Volume (1000 m3)	0.03	0.54	0.34
C & E Loss (m)	0.53	Cum SA (1000 m2)	0.16	0.50	1.20

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 9 Profile: TR 200

E.G. Elev (m)	479.27	Element	Left OB	Channel	Right OB
Vel Head (m)	5.24	Wt. n-Val.		0.033	
W.S. Elev (m)	474.03	Reach Len. (m)	7.80	8.00	8.20
Crit W.S. (m)	474.93	Flow Area (m2)		0.47	
E.G. Slope (m/m)	0.730453	Area (m2)		0.47	
Q Total (m3/s)	4.77	Flow (m3/s)		4.77	
Top Width (m)	0.88	Top Width (m)		0.88	
Vel Total (m/s)	10.14	Avg. Vel. (m/s)		10.14	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.54	
Conv. Total (m3/s)	5.6	Conv. (m3/s)		5.6	
Length Wtd. (m)	8.00	Wetted Per. (m)		1.92	
Min Ch El (m)	473.45	Shear (N/m2)		1754.92	
Alpha	1.00	Stream Power (N/m s)		17795.36	
Frctn Loss (m)	0.43	Cum Volume (1000 m3)	0.04	0.57	0.40
C & E Loss (m)	0.52	Cum SA (1000 m2)	0.16	0.50	1.21

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 9 Profile: TR 500

E.G. Elev (m)	479.28	Element	Left OB	Channel	Right OB
Vel Head (m)	5.19	Wt. n-Val.		0.033	
W.S. Elev (m)	474.10	Reach Len. (m)	7.80	8.00	8.20
Crit W.S. (m)	475.03	Flow Area (m2)		0.53	
E.G. Slope (m/m)	0.679432	Area (m2)		0.53	
Q Total (m3/s)	5.30	Flow (m3/s)		5.30	
Top Width (m)	0.89	Top Width (m)		0.89	
Vel Total (m/s)	10.09	Avg. Vel. (m/s)		10.09	
Max Chl Dpth (m)	0.64	Hydr. Depth (m)		0.59	
Conv. Total (m3/s)	6.4	Conv. (m3/s)		6.4	
Length Wtd. (m)	8.00	Wetted Per. (m)		2.05	
Min Ch El (m)	473.45	Shear (N/m2)		1710.73	
Alpha	1.00	Stream Power (N/m s)		17261.84	
Frctn Loss (m)	0.52	Cum Volume (1000 m3)	0.05	0.60	0.47
C & E Loss (m)	0.50	Cum SA (1000 m2)	0.17	0.50	1.21

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 10 Profile: TR 100 (Continued)

Top Width (m)	3.68	Top Width (m)		2.64	1.04
Vel Total (m/s)	1.46	Avg. Vel. (m/s)		1.49	0.08
Max Chl Dpth (m)	1.20	Hydr. Depth (m)		0.97	0.05
Conv. Total (m3/s)	110.4	Conv. (m3/s)		110.3	0.1
Length Wtd. (m)	71.60	Wetted Per. (m)		4.13	1.05
Min Ch El (m)	478.94	Shear (N/m2)		7.38	0.63
Alpha	1.04	Stream Power (N/m s)		11.01	0.05
Frctn Loss (m)	0.25	Cum Volume (1000 m3)	0.03	0.64	0.34
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.16	0.62	1.24

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 10 Profile: TR 200

E.G. Elev (m)	480.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.017	0.060
W.S. Elev (m)	480.14	Reach Len. (m)	71.60	71.60	71.60
Crit W.S. (m)	480.14	Flow Area (m2)		2.57	0.06
E.G. Slope (m/m)	0.001446	Area (m2)		2.57	0.06
Q Total (m3/s)	4.20	Flow (m3/s)		4.19	0.00
Top Width (m)	3.68	Top Width (m)		2.64	1.04
Vel Total (m/s)	1.60	Avg. Vel. (m/s)		1.63	0.09
Max Chl Dpth (m)	1.20	Hydr. Depth (m)		0.97	0.05
Conv. Total (m3/s)	110.4	Conv. (m3/s)		110.3	0.1
Length Wtd. (m)	71.60	Wetted Per. (m)		4.13	1.05
Min Ch El (m)	478.94	Shear (N/m2)		8.83	0.75
Alpha	1.04	Stream Power (N/m s)		14.41	0.07
Frctn Loss (m)	0.29	Cum Volume (1000 m3)	0.04	0.68	0.40
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.16	0.62	1.25

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 10 Profile: TR 500

E.G. Elev (m)	480.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.017	0.060
W.S. Elev (m)	480.14	Reach Len. (m)	71.60	71.60	71.60
Crit W.S. (m)	480.14	Flow Area (m2)		2.57	0.06
E.G. Slope (m/m)	0.001781	Area (m2)		2.57	0.06
Q Total (m3/s)	4.66	Flow (m3/s)		4.66	0.01
Top Width (m)	3.68	Top Width (m)		2.64	1.04
Vel Total (m/s)	1.77	Avg. Vel. (m/s)		1.81	0.10
Max Chl Dpth (m)	1.20	Hydr. Depth (m)		0.97	0.05
Conv. Total (m3/s)	110.4	Conv. (m3/s)		110.3	0.1
Length Wtd. (m)	71.60	Wetted Per. (m)		4.13	1.05
Min Ch El (m)	478.94	Shear (N/m2)		10.88	0.92
Alpha	1.04	Stream Power (N/m s)		19.70	0.09
Frctn Loss (m)	0.34	Cum Volume (1000 m3)	0.05	0.72	0.47
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.17	0.62	1.25

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 9 Profile: TR 20

E.G. Elev (m)	479.09	Element	Left OB	Channel	Right OB
Vel Head (m)	5.21	Wt. n-Val.		0.033	
W.S. Elev (m)	473.88	Reach Len. (m)	7.80	8.00	8.20
Crit W.S. (m)	474.66	Flow Area (m2)		0.34	
E.G. Slope (m/m)	0.890390	Area (m2)		0.34	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	0.85	Top Width (m)		0.85	
Vel Total (m/s)	10.11	Avg. Vel. (m/s)		10.11	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	3.6	Conv. (m3/s)		3.6	
Length Wtd. (m)	8.00	Wetted Per. (m)		1.61	
Min Ch El (m)	473.45	Shear (N/m2)		1836.51	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 11 Profile: TR 200

			Left OB	Channel	Right OB
E.G. Elev (m)	480.78	Element		0.017	0.060
Vel Head (m)	0.24	Wt. n-Val.	37.40	37.40	37.40
W.S. Elev (m)	480.54	Reach Len. (m)		1.47	1.62
Crit W.S. (m)	480.55	Flow Area (m2)		1.47	1.62
E.G. Slope (m/m)	0.004749	Area (m2)		3.48	0.72
Q Total (m3/s)	4.20	Flow (m3/s)		1.29	6.46
Top Width (m)	7.74	Top Width (m)		2.37	0.44
Vel Total (m/s)	1.36	Avg. Vel. (m/s)		1.14	0.25
Max Chl Dpth (m)	1.25	Hydr. Depth (m)		50.5	10.4
Conv. Total (m3/s)	60.9	Conv. (m3/s)		3.27	6.70
Length Wtd. (m)	37.40	Wetted Per. (m)		20.88	11.23
Min Ch El (m)	479.29	Shear (N/m2)		49.59	4.99
Alpha	2.54	Stream Power (N/m s)	0.04	0.75	0.43
Frctn Loss (m)	0.55	Cum Volume (1000 m3)	0.16	0.70	1.39
C & E Loss (m)	0.28	Cum SA (1000 m2)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 11 Profile: TR 500

			Left OB	Channel	Right OB
E.G. Elev (m)	480.83	Element		0.017	0.060
Vel Head (m)	0.27	Wt. n-Val.	37.40	37.40	37.40
W.S. Elev (m)	480.56	Reach Len. (m)		1.49	1.74
Crit W.S. (m)	480.60	Flow Area (m2)		1.49	1.74
E.G. Slope (m/m)	0.005391	Area (m2)		3.80	0.86
Q Total (m3/s)	4.66	Flow (m3/s)		1.29	6.46
Top Width (m)	7.74	Top Width (m)		2.55	0.50
Vel Total (m/s)	1.44	Avg. Vel. (m/s)		1.16	0.27
Max Chl Dpth (m)	1.27	Hydr. Depth (m)		51.7	11.8
Conv. Total (m3/s)	63.5	Conv. (m3/s)		3.29	6.72
Length Wtd. (m)	37.40	Wetted Per. (m)		23.96	13.67
Min Ch El (m)	479.29	Shear (N/m2)		61.07	6.79
Alpha	2.56	Stream Power (N/m s)	0.05	0.79	0.51
Frctn Loss (m)	0.60	Cum Volume (1000 m3)	0.17	0.70	1.39
C & E Loss (m)	0.29	Cum SA (1000 m2)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 10 Profile: TR 20

			Left OB	Channel	Right OB
E.G. Elev (m)	480.41	Element		0.017	
Vel Head (m)	0.48	Wt. n-Val.	71.60	71.60	71.60
W.S. Elev (m)	479.92	Reach Len. (m)		0.97	
Crit W.S. (m)	479.92	Flow Area (m2)		2.02	
E.G. Slope (m/m)	0.002837	Area (m2)		3.00	
Q Total (m3/s)	3.00	Flow (m3/s)		2.50	
Top Width (m)	2.50	Top Width (m)		3.08	
Vel Total (m/s)	3.08	Avg. Vel. (m/s)		0.97	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)		56.3	
Conv. Total (m3/s)	56.3	Conv. (m3/s)		1.00	
Length Wtd. (m)	71.60	Wetted Per. (m)		27.10	
Min Ch El (m)	478.94	Shear (N/m2)		83.44	
Alpha	1.00	Stream Power (N/m s)	0.02	0.52	0.06
Frctn Loss (m)	0.44	Cum Volume (1000 m3)	0.13	0.60	0.44
C & E Loss (m)	0.08	Cum SA (1000 m2)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 10 Profile: TR 100

			Left OB	Channel	Right OB
E.G. Elev (m)	480.25	Element		0.017	0.060
Vel Head (m)	0.11	Wt. n-Val.	71.60	71.60	71.60
W.S. Elev (m)	480.14	Reach Len. (m)		2.57	0.06
Crit W.S. (m)	480.14	Flow Area (m2)		2.57	0.06
E.G. Slope (m/m)	0.001209	Area (m2)		3.84	0.00
Q Total (m3/s)	3.84	Flow (m3/s)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 12 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		456.83	
Frctn Loss (m)	0.55	Cum Volume (1000 m3)	0.04	0.82	0.48
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.16	0.77	1.58

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 12 Profile: TR 500

E.G. Elev (m)	481.72	Element	Left OB	Channel	Right OB
Vel Head (m)	1.23	Wt. n-Val.		0.017	
W.S. Elev (m)	480.49	Reach Len. (m)	57.80	57.80	57.80
Crit W.S. (m)	480.98	Flow Area (m2)		0.95	
E.G. Slope (m/m)	0.027738	Area (m2)		0.95	
Q Total (m3/s)	4.66	Flow (m3/s)		4.66	
Top Width (m)	1.34	Top Width (m)		1.34	
Vel Total (m/s)	4.91	Avg. Vel. (m/s)		4.91	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	28.0	Conv. (m3/s)		28.0	
Length Wtd. (m)	57.80	Wetted Per. (m)		2.67	
Min Ch El (m)	479.71	Shear (N/m2)		96.53	
Alpha	1.00	Stream Power (N/m s)		474.02	
Frctn Loss (m)	0.52	Cum Volume (1000 m3)	0.05	0.86	0.56
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.17	0.77	1.58

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 11 Profile: TR 20

E.G. Elev (m)	480.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.51	Wt. n-Val.		0.017	
W.S. Elev (m)	480.23	Reach Len. (m)	37.40	37.40	37.40
Crit W.S. (m)	480.41	Flow Area (m2)		0.95	
E.G. Slope (m/m)	0.004084	Area (m2)		1.07	
Q Total (m3/s)	3.00	Flow (m3/s)		3.00	
Top Width (m)	1.27	Top Width (m)		1.27	
Vel Total (m/s)	3.16	Avg. Vel. (m/s)		3.16	
Max Chl Dpth (m)	0.94	Hydr. Depth (m)		0.94	
Conv. Total (m3/s)	46.9	Conv. (m3/s)		46.9	
Length Wtd. (m)	37.40	Wetted Per. (m)		1.23	
Min Ch El (m)	479.29	Shear (N/m2)		30.89	
Alpha	1.00	Stream Power (N/m s)		97.64	
Frctn Loss (m)	0.89	Cum Volume (1000 m3)	0.02	0.58	0.06
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.13	0.67	0.44

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 11 Profile: TR 100

E.G. Elev (m)	480.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.017	0.060
W.S. Elev (m)	480.51	Reach Len. (m)	37.40	37.40	37.40
Crit W.S. (m)	480.52	Flow Area (m2)		1.42	1.38
E.G. Slope (m/m)	0.004648	Area (m2)		1.42	1.38
Q Total (m3/s)	3.84	Flow (m3/s)		3.29	0.55
Top Width (m)	7.74	Top Width (m)		1.29	6.46
Vel Total (m/s)	1.37	Avg. Vel. (m/s)		2.32	0.40
Max Chl Dpth (m)	1.22	Hydr. Depth (m)		1.10	0.21
Conv. Total (m3/s)	56.3	Conv. (m3/s)		48.2	8.1
Length Wtd. (m)	37.40	Wetted Per. (m)		3.23	6.67
Min Ch El (m)	479.29	Shear (N/m2)		20.01	9.46
Alpha	2.46	Stream Power (N/m s)		46.37	3.77
Frctn Loss (m)	0.87	Cum Volume (1000 m3)	0.03	0.72	0.37
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.16	0.70	1.38

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 13 Profile: TR 500 (Continued)

Top Width (m)	1.18	Top Width (m)		1.18	
Vel Total (m/s)	5.26	Avg. Vel. (m/s)		5.26	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.75	
Conv. Total (m3/s)	25.1	Conv. (m3/s)		25.1	
Length Wtd. (m)	16.90	Wetted Per. (m)		2.65	
Min Ch El (m)	480.10	Shear (N/m2)		112.77	
Alpha	1.00	Stream Power (N/m s)		592.61	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	0.05	0.88	0.56
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.17	0.80	1.58

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 12 Profile: TR 20

E.G. Elev (m)	481.29	Element	Left OB	Channel	Right OB
Vel Head (m)	1.01	Wt. n-Val.		0.017	
W.S. Elev (m)	480.28	Reach Len. (m)	57.80	57.80	57.80
Crit W.S. (m)	480.58	Flow Area (m2)		0.67	
E.G. Slope (m/m)	0.028685	Area (m2)		0.67	
Q Total (m3/s)	3.00	Flow (m3/s)		3.00	
Top Width (m)	1.27	Top Width (m)		1.27	
Vel Total (m/s)	4.46	Avg. Vel. (m/s)		4.46	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	17.7	Conv. (m3/s)		17.7	
Length Wtd. (m)	57.80	Wetted Per. (m)		2.25	
Min Ch El (m)	479.71	Shear (N/m2)		84.25	
Alpha	1.00	Stream Power (N/m s)		375.74	
Frctn Loss (m)	0.59	Cum Volume (1000 m3)	0.02	0.63	0.06
C & E Loss (m)	0.11	Cum SA (1000 m2)	0.13	0.75	0.44

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 12 Profile: TR 100

E.G. Elev (m)	481.54	Element	Left OB	Channel	Right OB
Vel Head (m)	1.15	Wt. n-Val.		0.017	
W.S. Elev (m)	480.38	Reach Len. (m)	57.80	57.80	57.80
Crit W.S. (m)	480.91	Flow Area (m2)		0.81	
E.G. Slope (m/m)	0.028859	Area (m2)		0.81	
Q Total (m3/s)	3.84	Flow (m3/s)		3.84	
Top Width (m)	1.30	Top Width (m)		1.30	
Vel Total (m/s)	4.76	Avg. Vel. (m/s)		4.76	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)		0.62	
Conv. Total (m3/s)	22.6	Conv. (m3/s)		22.6	
Length Wtd. (m)	57.80	Wetted Per. (m)		2.46	
Min Ch El (m)	479.71	Shear (N/m2)		92.97	
Alpha	1.00	Stream Power (N/m s)		442.30	
Frctn Loss (m)	0.57	Cum Volume (1000 m3)	0.03	0.78	0.41
C & E Loss (m)	0.09	Cum SA (1000 m2)	0.16	0.77	1.57

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 12 Profile: TR 200

E.G. Elev (m)	481.62	Element	Left OB	Channel	Right OB
Vel Head (m)	1.19	Wt. n-Val.		0.017	
W.S. Elev (m)	480.43	Reach Len. (m)	57.80	57.80	57.80
Crit W.S. (m)	480.95	Flow Area (m2)		0.87	
E.G. Slope (m/m)	0.028327	Area (m2)		0.87	
Q Total (m3/s)	4.20	Flow (m3/s)		4.20	
Top Width (m)	1.32	Top Width (m)		1.32	
Vel Total (m/s)	4.83	Avg. Vel. (m/s)		4.83	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	25.0	Conv. (m3/s)		25.0	
Length Wtd. (m)	57.80	Wetted Per. (m)		2.55	
Min Ch El (m)	479.71	Shear (N/m2)		94.61	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 13 Profile: TR 20

			Left OB	Channel	Right OB
E.G. Elev (m)	481.99	Element		0.017	
Vel Head (m)	1.37	Wt. n-Val.	16.90	16.90	16.90
W.S. Elev (m)	480.62	Reach Len. (m)		0.58	
Crit W.S. (m)	481.00	Flow Area (m2)		0.58	
E.G. Slope (m/m)	0.044135	Area (m2)		3.00	
Q Total (m3/s)	3.00	Flow (m3/s)		1.15	
Top Width (m)	1.15	Top Width (m)		5.19	
Vel Total (m/s)	5.19	Avg. Vel. (m/s)		0.50	
Max Chl Dpth (m)	0.52	Hydr. Depth (m)		14.3	
Conv. Total (m3/s)	14.3	Conv. (m3/s)		2.12	
Length Wtd. (m)	16.90	Wetted Per. (m)		117.91	
Min Ch El (m)	480.10	Shear (N/m2)		612.37	
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)	0.25	Cum Volume (1000 m3)	0.02	0.64	0.06
C & E Loss (m)	0.10	Cum SA (1000 m2)	0.13	0.77	0.44

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 13 Profile: TR 100

			Left OB	Channel	Right OB
E.G. Elev (m)	482.20	Element		0.017	
Vel Head (m)	1.46	Wt. n-Val.	16.90	16.90	16.90
W.S. Elev (m)	480.74	Reach Len. (m)		0.72	
Crit W.S. (m)	481.31	Flow Area (m2)		0.72	
E.G. Slope (m/m)	0.040519	Area (m2)		3.84	
Q Total (m3/s)	3.84	Flow (m3/s)		1.16	
Top Width (m)	1.16	Top Width (m)		5.35	
Vel Total (m/s)	5.35	Avg. Vel. (m/s)		0.62	
Max Chl Dpth (m)	0.64	Hydr. Depth (m)		19.1	
Conv. Total (m3/s)	19.1	Conv. (m3/s)		2.36	
Length Wtd. (m)	16.90	Wetted Per. (m)		120.68	
Min Ch El (m)	480.10	Shear (N/m2)		645.60	
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	0.03	0.80	0.41
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.16	0.79	1.57

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 13 Profile: TR 200

			Left OB	Channel	Right OB
E.G. Elev (m)	482.24	Element		0.017	
Vel Head (m)	1.43	Wt. n-Val.	16.90	16.90	16.90
W.S. Elev (m)	480.80	Reach Len. (m)		0.79	
Crit W.S. (m)	481.33	Flow Area (m2)		0.79	
E.G. Slope (m/m)	0.037448	Area (m2)		4.20	
Q Total (m3/s)	4.20	Flow (m3/s)		1.17	
Top Width (m)	1.17	Top Width (m)		5.30	
Vel Total (m/s)	5.30	Avg. Vel. (m/s)		0.68	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		21.7	
Conv. Total (m3/s)	21.7	Conv. (m3/s)		2.49	
Length Wtd. (m)	16.90	Wetted Per. (m)		116.76	
Min Ch El (m)	480.10	Shear (N/m2)		619.12	
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	0.04	0.83	0.48
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.16	0.79	1.58

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 13 Profile: TR 500

			Left OB	Channel	Right OB
E.G. Elev (m)	482.29	Element		0.017	
Vel Head (m)	1.41	Wt. n-Val.	16.90	16.90	16.90
W.S. Elev (m)	480.89	Reach Len. (m)		0.89	
Crit W.S. (m)	481.37	Flow Area (m2)		0.89	
E.G. Slope (m/m)	0.034397	Area (m2)		4.66	
Q Total (m3/s)	4.66	Flow (m3/s)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 14 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		85.95	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)	0.02	0.65	0.06
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.13	0.79	0.44

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 14 Profile: TR 100

E.G. Elev (m)	482.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.017	0.060
W.S. Elev (m)	482.25	Reach Len. (m)	15.60	15.60	15.60
Crit W.S. (m)	482.25	Flow Area (m2)		1.49	1.43
E.G. Slope (m/m)	0.004109	Area (m2)		1.49	1.43
Q Total (m3/s)	3.84	Flow (m3/s)		3.33	0.51
Top Width (m)	8.58	Top Width (m)		1.39	7.19
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		2.23	0.36
Max Chl Dpth (m)	1.19	Hydr. Depth (m)		1.07	0.20
Conv. Total (m3/s)	59.9	Conv. (m3/s)		51.9	8.0
Length Wtd. (m)	15.60	Wetted Per. (m)		3.28	7.40
Min Ch El (m)	481.06	Shear (N/m2)		18.33	7.81
Alpha	2.51	Stream Power (N/m s)		40.88	2.79
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	0.03	0.81	0.42
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.16	0.81	1.62

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 14 Profile: TR 200

E.G. Elev (m)	482.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.017	0.060
W.S. Elev (m)	482.29	Reach Len. (m)	15.60	15.60	15.60
Crit W.S. (m)	482.29	Flow Area (m2)		1.54	1.71
E.G. Slope (m/m)	0.004138	Area (m2)		1.54	1.71
Q Total (m3/s)	4.20	Flow (m3/s)		3.51	0.69
Top Width (m)	8.58	Top Width (m)		1.39	7.19
Vel Total (m/s)	1.29	Avg. Vel. (m/s)		2.27	0.40
Max Chl Dpth (m)	1.23	Hydr. Depth (m)		1.11	0.24
Conv. Total (m3/s)	65.3	Conv. (m3/s)		54.6	10.7
Length Wtd. (m)	15.60	Wetted Per. (m)		3.32	7.44
Min Ch El (m)	481.06	Shear (N/m2)		18.90	9.32
Alpha	2.61	Stream Power (N/m s)		42.96	3.75
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	0.04	0.85	0.49
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.16	0.81	1.63

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 14 Profile: TR 500

E.G. Elev (m)	482.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.017	0.060
W.S. Elev (m)	482.33	Reach Len. (m)	15.60	15.60	15.60
Crit W.S. (m)	482.33	Flow Area (m2)		1.60	1.99
E.G. Slope (m/m)	0.004299	Area (m2)		1.60	1.99
Q Total (m3/s)	4.66	Flow (m3/s)		3.76	0.90
Top Width (m)	8.58	Top Width (m)		1.39	7.19
Vel Total (m/s)	1.30	Avg. Vel. (m/s)		2.35	0.45
Max Chl Dpth (m)	1.27	Hydr. Depth (m)		1.15	0.28
Conv. Total (m3/s)	71.1	Conv. (m3/s)		57.4	13.7
Length Wtd. (m)	15.60	Wetted Per. (m)		3.36	7.48
Min Ch El (m)	481.06	Shear (N/m2)		20.08	11.21
Alpha	2.67	Stream Power (N/m s)		47.25	5.07
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	0.05	0.90	0.57
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.17	0.82	1.63

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 15 Profile: TR 100 (Continued)

Top Width (m)	34.20	Top Width (m)		1.56	32.65
Vel Total (m/s)	0.09	Avg. Vel. (m/s)		0.09	0.09
Max Chl Dpth (m)	1.76	Hydr. Depth (m)		1.01	1.30
Conv. Total (m3/s)	842.0	Conv. (m3/s)		30.8	811.2
Length Wtd. (m)	7.47	Wetted Per. (m)		3.01	34.44
Min Ch El (m)	481.24	Shear (N/m2)		0.11	0.25
Alpha	1.00	Stream Power (N/m s)		0.01	0.02
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.03	0.83	0.57
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.16	0.82	1.76

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 15 Profile: TR 200

			Left OB	Channel	Right OB
E.G. Elev (m)	482.53	Element		0.033	0.060
Vel Head (m)	0.00	Wt. n-Val.	9.11	8.05	7.00
W.S. Elev (m)	482.53	Reach Len. (m)		1.63	43.67
Crit W.S. (m)	482.04	Flow Area (m2)		1.63	43.67
E.G. Slope (m/m)	0.000023	Area (m2)		0.15	4.04
Q Total (m3/s)	4.20	Flow (m3/s)		1.57	32.65
Top Width (m)	34.22	Top Width (m)		0.09	0.09
Vel Total (m/s)	0.09	Avg. Vel. (m/s)		1.04	1.34
Max Chl Dpth (m)	1.80	Hydr. Depth (m)		32.6	852.1
Conv. Total (m3/s)	884.7	Conv. (m3/s)		3.05	34.48
Length Wtd. (m)	7.46	Wetted Per. (m)		0.12	0.28
Min Ch El (m)	481.24	Shear (N/m2)		0.01	0.03
Alpha	1.00	Stream Power (N/m s)		0.86	0.65
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.04	0.83	1.77
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.16		

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 15 Profile: TR 500

			Left OB	Channel	Right OB
E.G. Elev (m)	482.58	Element		0.033	0.060
Vel Head (m)	0.00	Wt. n-Val.	9.11	8.05	7.00
W.S. Elev (m)	482.58	Reach Len. (m)		1.71	45.23
Crit W.S. (m)	482.04	Flow Area (m2)		1.71	45.23
E.G. Slope (m/m)	0.000025	Area (m2)		0.17	4.49
Q Total (m3/s)	4.66	Flow (m3/s)		1.58	32.65
Top Width (m)	34.23	Top Width (m)		0.10	0.10
Vel Total (m/s)	0.10	Avg. Vel. (m/s)		1.08	1.39
Max Chl Dpth (m)	1.84	Hydr. Depth (m)		34.7	902.6
Conv. Total (m3/s)	937.3	Conv. (m3/s)		3.10	34.53
Length Wtd. (m)	7.44	Wetted Per. (m)		0.13	0.32
Min Ch El (m)	481.24	Shear (N/m2)		0.01	0.03
Alpha	1.00	Stream Power (N/m s)		0.91	0.74
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.05	0.83	1.77
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.17		

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 14 Profile: TR 20

			Left OB	Channel	Right OB
E.G. Elev (m)	482.35	Element		0.017	
Vel Head (m)	0.40	Wt. n-Val.	15.60	15.60	15.60
W.S. Elev (m)	481.95	Reach Len. (m)		1.07	
Crit W.S. (m)	481.95	Flow Area (m2)		1.07	
E.G. Slope (m/m)	0.008363	Area (m2)		3.00	
Q Total (m3/s)	3.00	Flow (m3/s)		1.36	
Top Width (m)	1.36	Top Width (m)		2.80	
Vel Total (m/s)	2.80	Avg. Vel. (m/s)		0.79	
Max Chl Dpth (m)	0.89	Hydr. Depth (m)		32.8	
Conv. Total (m3/s)	32.8	Conv. (m3/s)		2.86	
Length Wtd. (m)	15.60	Wetted Per. (m)		30.74	
Min Ch El (m)	481.06	Shear (N/m2)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 16 Profile: TR 200

			Left OB	Channel	Right OB
E.G. Elev (m)	483.56	Element		0.033	
Vel Head (m)	0.43	Wt. n-Val.	30.10	30.10	30.10
W.S. Elev (m)	483.14	Reach Len. (m)		1.45	
Crit W.S. (m)	483.14	Flow Area (m2)		1.45	
E.G. Slope (m/m)	0.026130	Area (m2)		4.20	
Q Total (m3/s)	4.20	Flow (m3/s)		1.68	
Top Width (m)	1.68	Top Width (m)		2.90	
Vel Total (m/s)	2.90	Avg. Vel. (m/s)		0.86	
Max Chl Dpth (m)	1.17	Hydr. Depth (m)		26.0	
Conv. Total (m3/s)	26.0	Conv. (m3/s)		3.18	
Length Wtd. (m)	30.10	Wetted Per. (m)		116.78	
Min Ch El (m)	481.97	Shear (N/m2)		338.77	
Alpha	1.00	Stream Power (N/m s)	0.04	0.91	1.31
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.16	0.87	2.26
C & E Loss (m)	0.13	Cum SA (1000 m2)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 16 Profile: TR 500

			Left OB	Channel	Right OB
E.G. Elev (m)	483.66	Element		0.033	
Vel Head (m)	0.46	Wt. n-Val.	30.10	30.10	30.10
W.S. Elev (m)	483.20	Reach Len. (m)		1.55	
Crit W.S. (m)	483.20	Flow Area (m2)		1.55	
E.G. Slope (m/m)	0.026946	Area (m2)		4.66	
Q Total (m3/s)	4.66	Flow (m3/s)		1.70	
Top Width (m)	1.70	Top Width (m)		3.01	
Vel Total (m/s)	3.01	Avg. Vel. (m/s)		0.91	
Max Chl Dpth (m)	1.23	Hydr. Depth (m)		28.4	
Conv. Total (m3/s)	28.4	Conv. (m3/s)		3.30	
Length Wtd. (m)	30.10	Wetted Per. (m)		124.08	
Min Ch El (m)	481.97	Shear (N/m2)		372.86	
Alpha	1.00	Stream Power (N/m s)	0.05	0.96	1.42
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.17	0.88	2.26
C & E Loss (m)	0.14	Cum SA (1000 m2)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 15 Profile: TR 20

			Left OB	Channel	Right OB
E.G. Elev (m)	482.39	Element		0.033	0.060
Vel Head (m)	0.00	Wt. n-Val.	9.11	8.05	7.00
W.S. Elev (m)	482.39	Reach Len. (m)		1.40	38.90
Crit W.S. (m)	482.04	Flow Area (m2)		1.40	38.90
E.G. Slope (m/m)	0.000017	Area (m2)		0.11	2.89
Q Total (m3/s)	3.00	Flow (m3/s)		1.52	32.65
Top Width (m)	34.17	Top Width (m)		0.08	0.07
Vel Total (m/s)	0.07	Avg. Vel. (m/s)		0.92	1.19
Max Chl Dpth (m)	1.65	Hydr. Depth (m)		26.3	704.7
Conv. Total (m3/s)	730.9	Conv. (m3/s)		2.90	34.33
Length Wtd. (m)	7.54	Wetted Per. (m)		0.08	0.19
Min Ch El (m)	481.24	Shear (N/m2)		0.01	0.01
Alpha	1.00	Stream Power (N/m s)	0.02	0.66	0.20
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.13	0.80	0.56
C & E Loss (m)	0.04	Cum SA (1000 m2)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 15 Profile: TR 100

			Left OB	Channel	Right OB
E.G. Elev (m)	482.49	Element		0.033	0.060
Vel Head (m)	0.00	Wt. n-Val.	9.11	8.05	7.00
W.S. Elev (m)	482.49	Reach Len. (m)		1.57	42.38
Crit W.S. (m)	482.04	Flow Area (m2)		1.57	42.38
E.G. Slope (m/m)	0.000021	Area (m2)		0.14	3.70
Q Total (m3/s)	3.84	Flow (m3/s)			

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 17 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		295.45	
Frctn Loss (m)	1.08	Cum Volume (1000 m3)	0.04	0.97	1.31
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.16	0.95	2.26

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 17 Profile: TR 500

			Left OB	Channel	Right OB
E.G. Elev (m)	484.74	Element		0.033	
Vel Head (m)	0.40	Wt. n-Val.	43.90	43.90	43.90
W.S. Elev (m)	484.33	Reach Len. (m)		1.66	
Crit W.S. (m)	484.30	Flow Area (m2)		1.66	
E.G. Slope (m/m)	0.022299	Area (m2)		4.66	
Q Total (m3/s)	4.66	Flow (m3/s)		1.80	
Top Width (m)	1.80	Top Width (m)		2.81	
Vel Total (m/s)	2.81	Avg. Vel. (m/s)		0.92	
Max Chl Dpth (m)	1.08	Hydr. Depth (m)		31.2	
Conv. Total (m3/s)	31.2	Conv. (m3/s)		3.39	
Length Wtd. (m)	43.90	Wetted Per. (m)		107.05	
Min Ch El (m)	483.26	Shear (N/m2)		300.89	
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)	1.07	Cum Volume (1000 m3)	0.05	1.03	1.42
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.17	0.95	2.26

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 16 Profile: TR 20

			Left OB	Channel	Right OB
E.G. Elev (m)	483.30	Element		0.033	
Vel Head (m)	0.35	Wt. n-Val.	30.10	30.10	30.10
W.S. Elev (m)	482.95	Reach Len. (m)		1.14	
Crit W.S. (m)	482.95	Flow Area (m2)		1.14	
E.G. Slope (m/m)	0.024988	Area (m2)		3.00	
Q Total (m3/s)	3.00	Flow (m3/s)		1.60	
Top Width (m)	1.60	Top Width (m)		2.64	
Vel Total (m/s)	2.64	Avg. Vel. (m/s)		0.71	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)		19.0	
Conv. Total (m3/s)	19.0	Conv. (m3/s)		2.78	
Length Wtd. (m)	30.10	Wetted Per. (m)		100.08	
Min Ch El (m)	481.97	Shear (N/m2)		263.91	
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.02	0.70	0.78
C & E Loss (m)	0.11	Cum SA (1000 m2)	0.13	0.84	1.05

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 16 Profile: TR 100

			Left OB	Channel	Right OB
E.G. Elev (m)	483.49	Element		0.033	
Vel Head (m)	0.41	Wt. n-Val.	30.10	30.10	30.10
W.S. Elev (m)	483.08	Reach Len. (m)		1.36	
Crit W.S. (m)	483.08	Flow Area (m2)		1.36	
E.G. Slope (m/m)	0.025871	Area (m2)		3.84	
Q Total (m3/s)	3.84	Flow (m3/s)		1.66	
Top Width (m)	1.66	Top Width (m)		2.83	
Vel Total (m/s)	2.83	Avg. Vel. (m/s)		0.82	
Max Chl Dpth (m)	1.11	Hydr. Depth (m)		23.9	
Conv. Total (m3/s)	23.9	Conv. (m3/s)		3.06	
Length Wtd. (m)	30.10	Wetted Per. (m)		112.34	
Min Ch El (m)	481.97	Shear (N/m2)		318.08	
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.03	0.87	1.21
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.16	0.87	2.25

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 18 Profile: TR 500 (Continued)

Top Width (m)	2.04	Top Width (m)		2.04	
Vel Total (m/s)	4.36	Avg. Vel. (m/s)		4.36	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	16.7	Conv. (m3/s)		16.7	
Length Wtd. (m)	20.20	Wetted Per. (m)		2.88	
Min Ch El (m)	483.89	Shear (N/m2)		282.57	
Alpha	1.00	Stream Power (N/m s)		1231.96	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	1.06	1.42
C & E Loss (m)		Cum SA (1000 m2)	0.17	0.99	2.26

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 17 Profile: TR 20

E.G. Elev (m)	484.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.47	Wt. n-Val.		0.033	
W.S. Elev (m)	483.96	Reach Len. (m)	43.90	43.90	43.90
Crit W.S. (m)	484.07	Flow Area (m2)		0.99	
E.G. Slope (m/m)	0.037105	Area (m2)		0.99	
Q Total (m3/s)	3.00	Flow (m3/s)		3.00	
Top Width (m)	1.76	Top Width (m)		1.76	
Vel Total (m/s)	3.04	Avg. Vel. (m/s)		3.04	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	15.6	Conv. (m3/s)		15.6	
Length Wtd. (m)	43.90	Wetted Per. (m)		2.63	
Min Ch El (m)	483.26	Shear (N/m2)		136.57	
Alpha	1.00	Stream Power (N/m s)		414.77	
Frctn Loss (m)	0.80	Cum Volume (1000 m3)	0.02	0.75	0.78
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.13	0.92	1.05

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 17 Profile: TR 100

E.G. Elev (m)	484.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.38	Wt. n-Val.		0.033	
W.S. Elev (m)	484.19	Reach Len. (m)	43.90	43.90	43.90
Crit W.S. (m)	484.18	Flow Area (m2)		1.40	
E.G. Slope (m/m)	0.023484	Area (m2)		1.40	
Q Total (m3/s)	3.84	Flow (m3/s)		3.84	
Top Width (m)	1.79	Top Width (m)		1.79	
Vel Total (m/s)	2.74	Avg. Vel. (m/s)		2.74	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	25.1	Conv. (m3/s)		25.1	
Length Wtd. (m)	43.90	Wetted Per. (m)		3.10	
Min Ch El (m)	483.26	Shear (N/m2)		104.18	
Alpha	1.00	Stream Power (N/m s)		285.07	
Frctn Loss (m)	1.08	Cum Volume (1000 m3)	0.03	0.93	1.21
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.16	0.95	2.25

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 17 Profile: TR 200

E.G. Elev (m)	484.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.		0.033	
W.S. Elev (m)	484.25	Reach Len. (m)	43.90	43.90	43.90
Crit W.S. (m)	484.23	Flow Area (m2)		1.51	
E.G. Slope (m/m)	0.023118	Area (m2)		1.51	
Q Total (m3/s)	4.20	Flow (m3/s)		4.20	
Top Width (m)	1.79	Top Width (m)		1.79	
Vel Total (m/s)	2.78	Avg. Vel. (m/s)		2.78	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	27.6	Conv. (m3/s)		27.6	
Length Wtd. (m)	43.90	Wetted Per. (m)		3.22	
Min Ch El (m)	483.26	Shear (N/m2)		106.27	

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 18 Profile: TR 20

			Left OB	Channel	Right OB
E.G. Elev (m)	485.22	Element			
Vel Head (m)	0.74	Wt. n-Val.		0.033	
W.S. Elev (m)	484.48	Reach Len. (m)	20.20	20.20	20.20
Crit W.S. (m)	484.69	Flow Area (m2)		0.79	
E.G. Slope (m/m)	0.077781	Area (m2)		0.79	
Q Total (m3/s)	3.00	Flow (m3/s)		3.00	
Top Width (m)	2.00	Top Width (m)		2.00	
Vel Total (m/s)	3.82	Avg. Vel. (m/s)		3.82	
Max Chl Dpth (m)	0.59	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	10.8	Conv. (m3/s)		10.8	
Length Wtd. (m)	20.20	Wetted Per. (m)		2.59	
Min Ch El (m)	483.89	Shear (N/m2)		231.34	
Alpha	1.00	Stream Power (N/m s)		882.58	
Frctn Loss (m)		Cum Volume (1000 m3)	0.02	0.76	0.78
C & E Loss (m)		Cum SA (1000 m2)	0.13	0.96	1.05

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 18 Profile: TR 100

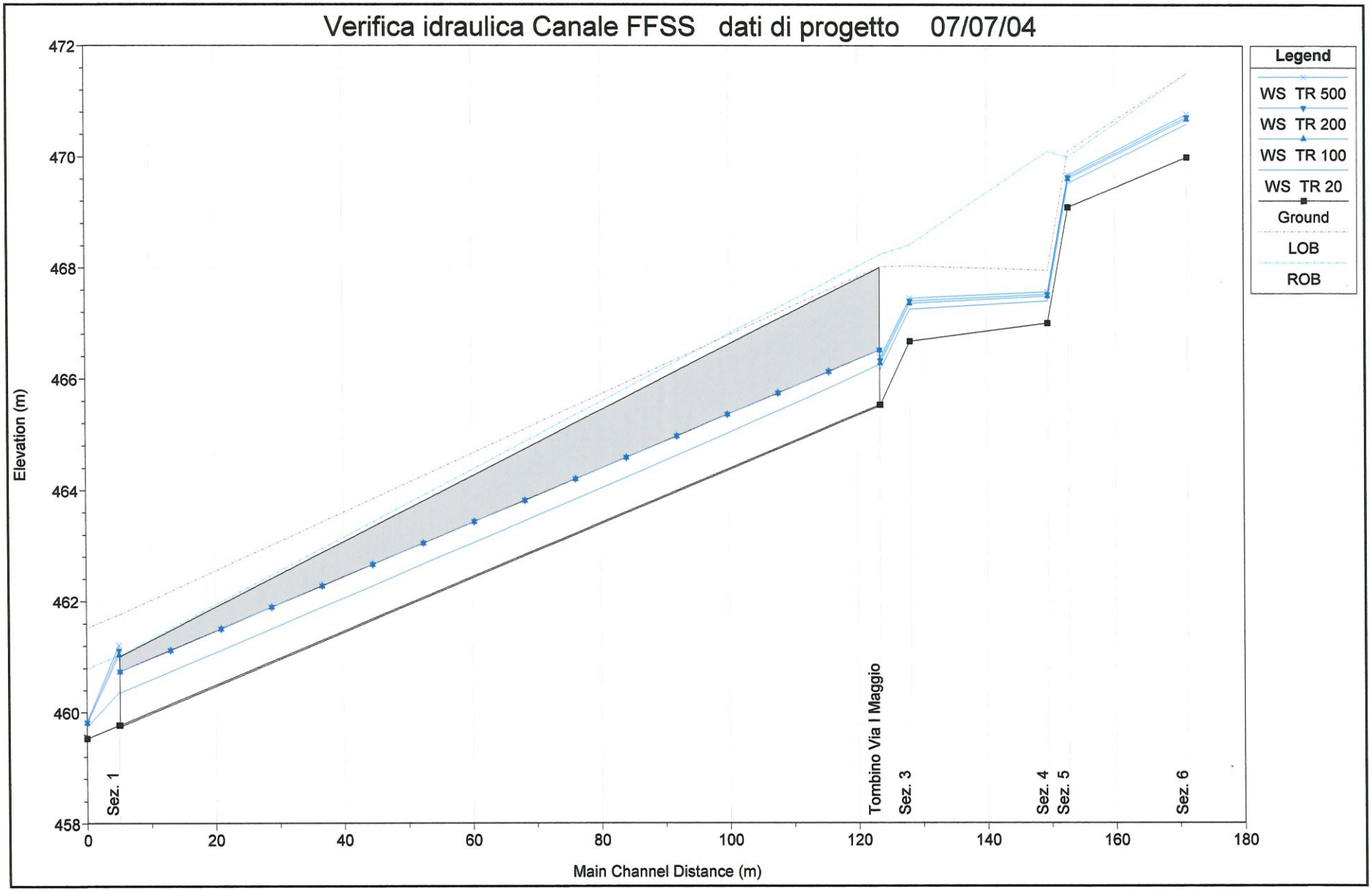
			Left OB	Channel	Right OB
E.G. Elev (m)	485.41	Element			
Vel Head (m)	0.86	Wt. n-Val.		0.033	
W.S. Elev (m)	484.55	Reach Len. (m)	20.20	20.20	20.20
Crit W.S. (m)	484.81	Flow Area (m2)		0.93	
E.G. Slope (m/m)	0.077721	Area (m2)		0.93	
Q Total (m3/s)	3.84	Flow (m3/s)		3.84	
Top Width (m)	2.03	Top Width (m)		2.03	
Vel Total (m/s)	4.11	Avg. Vel. (m/s)		4.11	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.46	
Conv. Total (m3/s)	13.8	Conv. (m3/s)		13.8	
Length Wtd. (m)	20.20	Wetted Per. (m)		2.75	
Min Ch El (m)	483.89	Shear (N/m2)		258.79	
Alpha	1.00	Stream Power (N/m s)		1064.06	
Frctn Loss (m)		Cum Volume (1000 m3)	0.03	0.95	1.21
C & E Loss (m)		Cum SA (1000 m2)	0.16	0.99	2.25

Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 18 Profile: TR 200

			Left OB	Channel	Right OB
E.G. Elev (m)	485.49	Element			
Vel Head (m)	0.91	Wt. n-Val.		0.033	
W.S. Elev (m)	484.58	Reach Len. (m)	20.20	20.20	20.20
Crit W.S. (m)	484.85	Flow Area (m2)		0.99	
E.G. Slope (m/m)	0.077730	Area (m2)		0.99	
Q Total (m3/s)	4.20	Flow (m3/s)		4.20	
Top Width (m)	2.03	Top Width (m)		2.03	
Vel Total (m/s)	4.23	Avg. Vel. (m/s)		4.23	
Max Chl Dpth (m)	0.69	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	15.1	Conv. (m3/s)		15.1	
Length Wtd. (m)	20.20	Wetted Per. (m)		2.81	
Min Ch El (m)	483.89	Shear (N/m2)		269.62	
Alpha	1.00	Stream Power (N/m s)		1139.32	
Frctn Loss (m)		Cum Volume (1000 m3)	0.04	1.00	1.31
C & E Loss (m)		Cum SA (1000 m2)	0.16	0.99	2.26

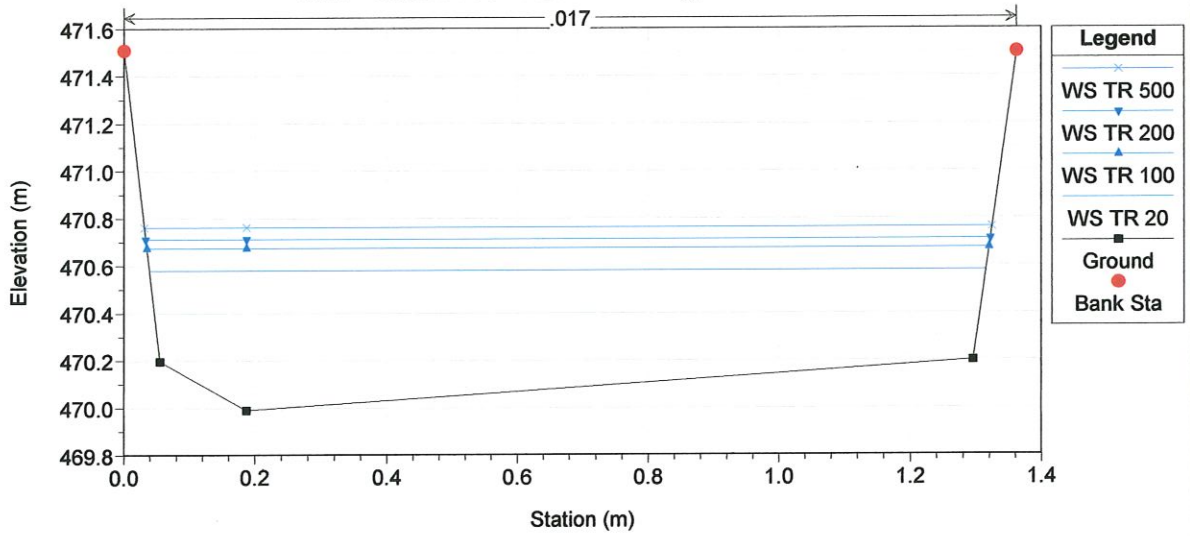
Plan: ffss River: Canale FFSS Reach:stazione FFSS Riv Sta: 18 Profile: TR 500

			Left OB	Channel	Right OB
E.G. Elev (m)	485.58	Element			
Vel Head (m)	0.97	Wt. n-Val.		0.033	
W.S. Elev (m)	484.62	Reach Len. (m)	20.20	20.20	20.20
Crit W.S. (m)	484.90	Flow Area (m2)		1.07	
E.G. Slope (m/m)	0.077727	Area (m2)		1.07	
Q Total (m3/s)	4.66	Flow (m3/s)		4.66	


Verifica idraulica Canale FFSS dati di progetto 07/07/04
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
LOB
ROB
Elevation (m)
472
470
468
466
464
462
460
458
0
20
40
60
80
100
120
140
160
180
Main Channel Distance (m)
Sez. 1
Tombino Via I Maggio
Sez. 3
Sez. 4
Sez. 5
Sez. 6

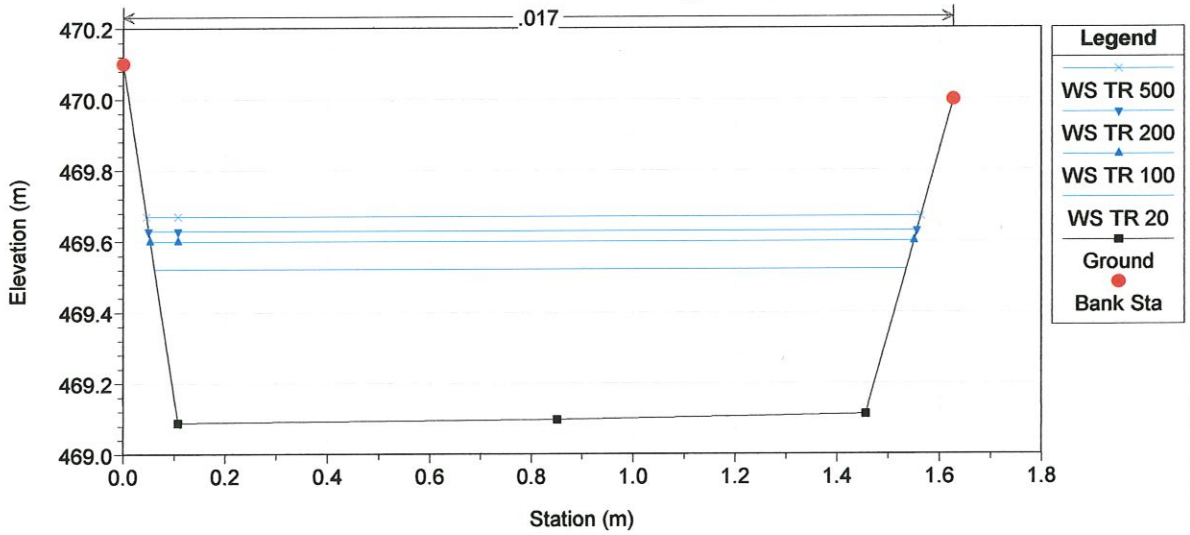
Verifica idraulica Canale FFSS dati di progetto 07/07/04

River = Canale FFSS Reach = Via I Maggio Sez. 6 RS = 6



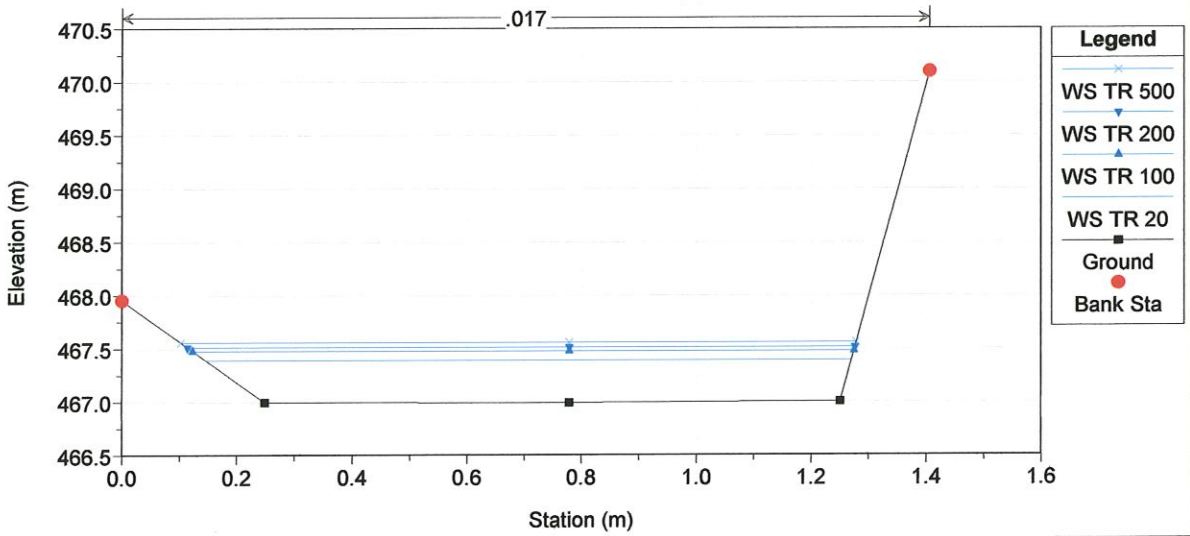
Verifica idraulica Canale FFSS dati di progetto 07/07/04

River = Canale FFSS Reach = Via I Maggio Sez. 5 RS = 5



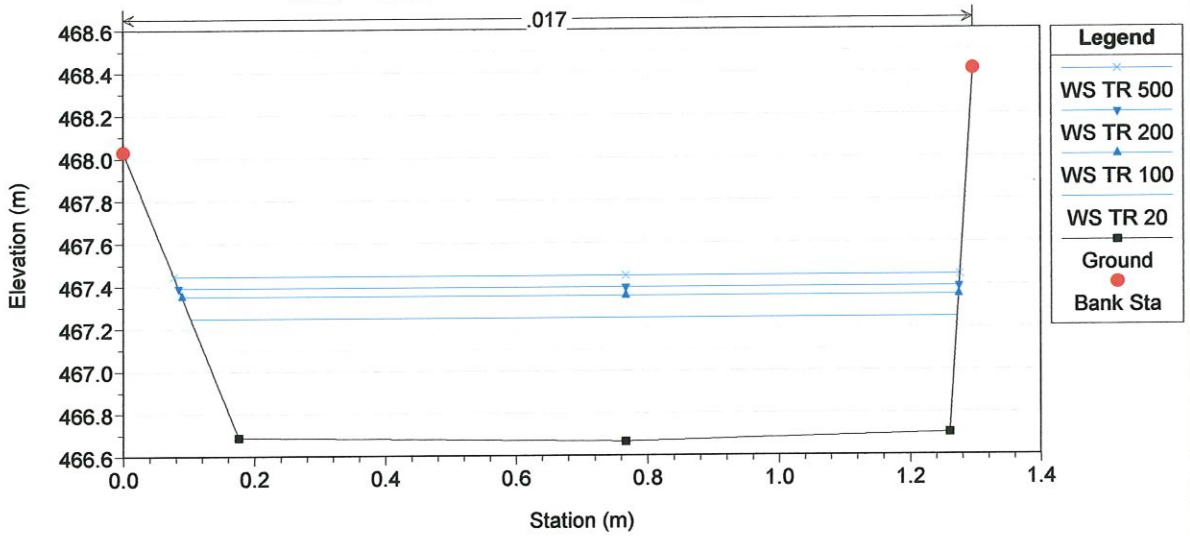
Verifica idraulica Canale FFSS dati di progetto 07/07/04

River = Canale FFSS Reach = Via I Maggio Sez. 4 RS = 4



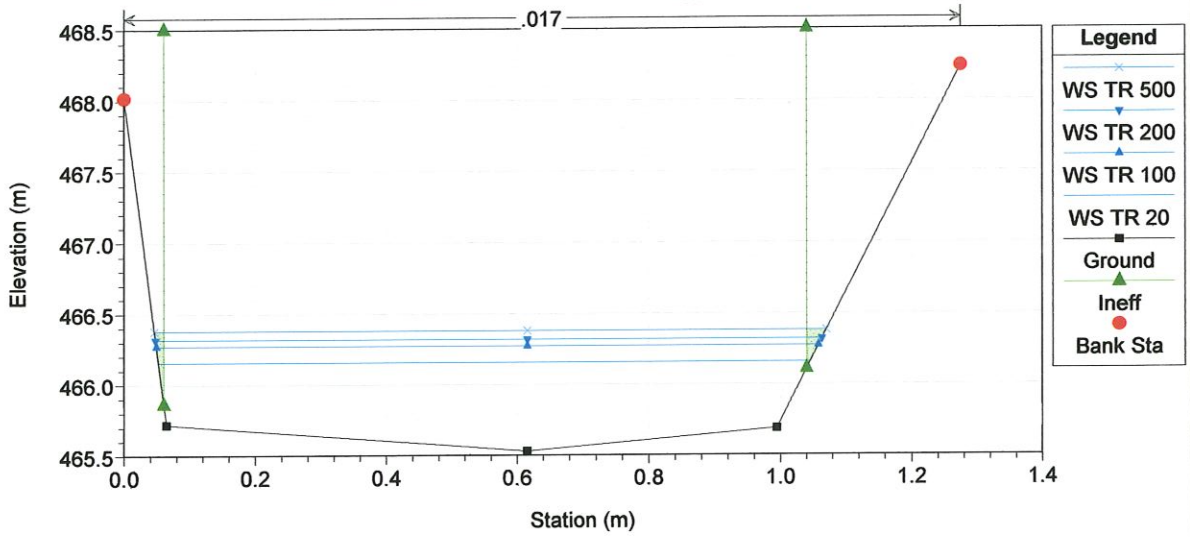
Verifica idraulica Canale FFSS dati di progetto 07/07/04

River = Canale FFSS Reach = Via I Maggio Sez. 3 RS = 3



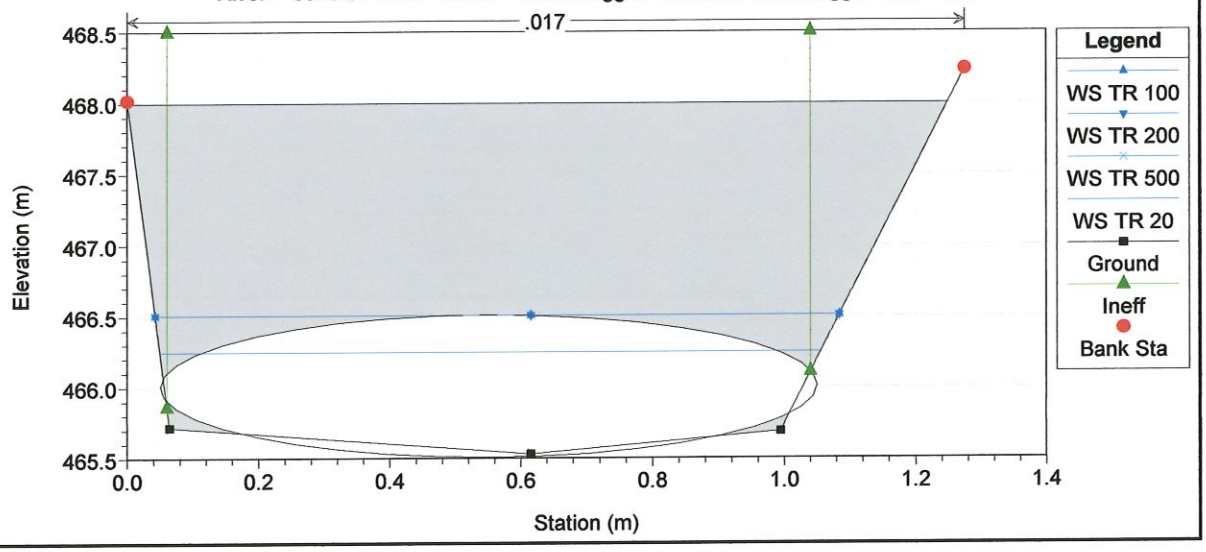
Verifica idraulica Canale FFSS dati di progetto 07/07/04

River = Canale FFSS Reach = Via I Maggio Sez. 2 RS = 2



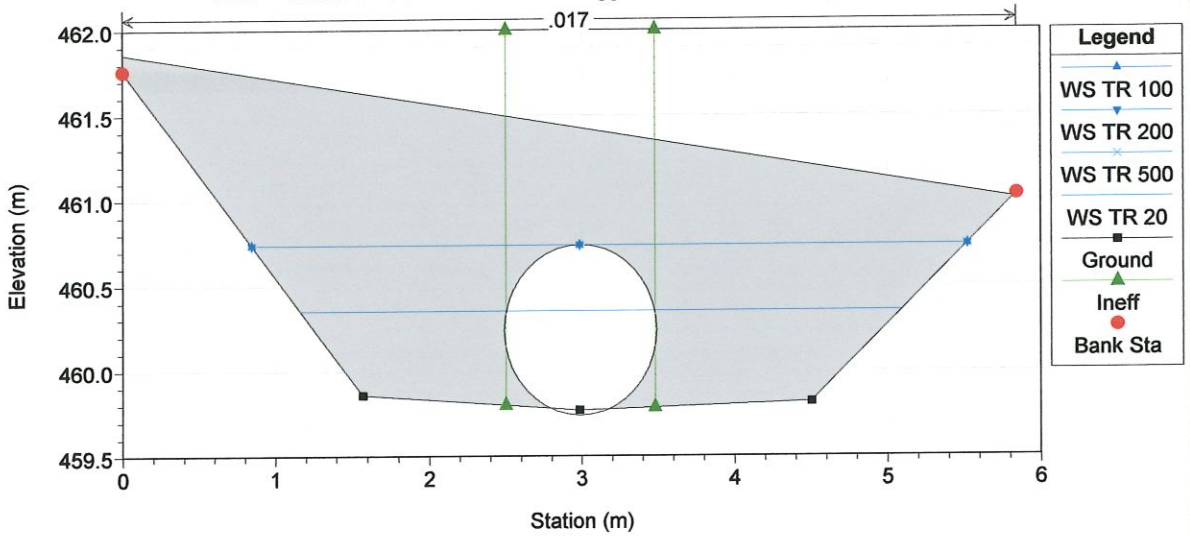
Verifica idraulica Canale FFSS dati di progetto 07/07/04

River = Canale FFSS Reach = Via I Maggio Tombino Via I Maggio RS = 1.5



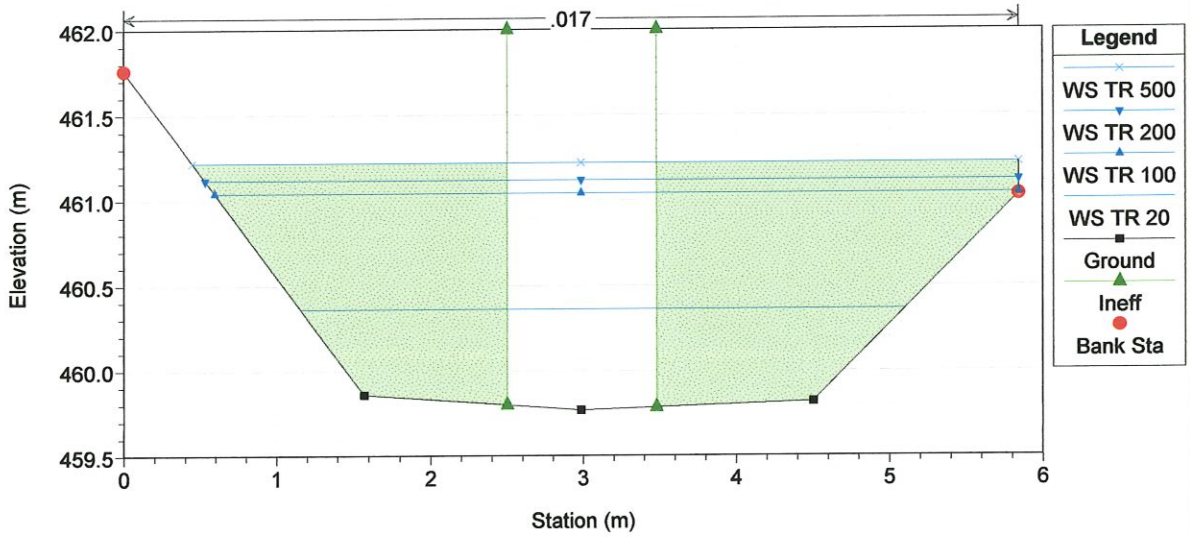
Verifica idraulica Canale FFSS dati di progetto 07/07/04

River = Canale FFSS Reach = Via I Maggio Tombino Via I Maggio RS = 1.5



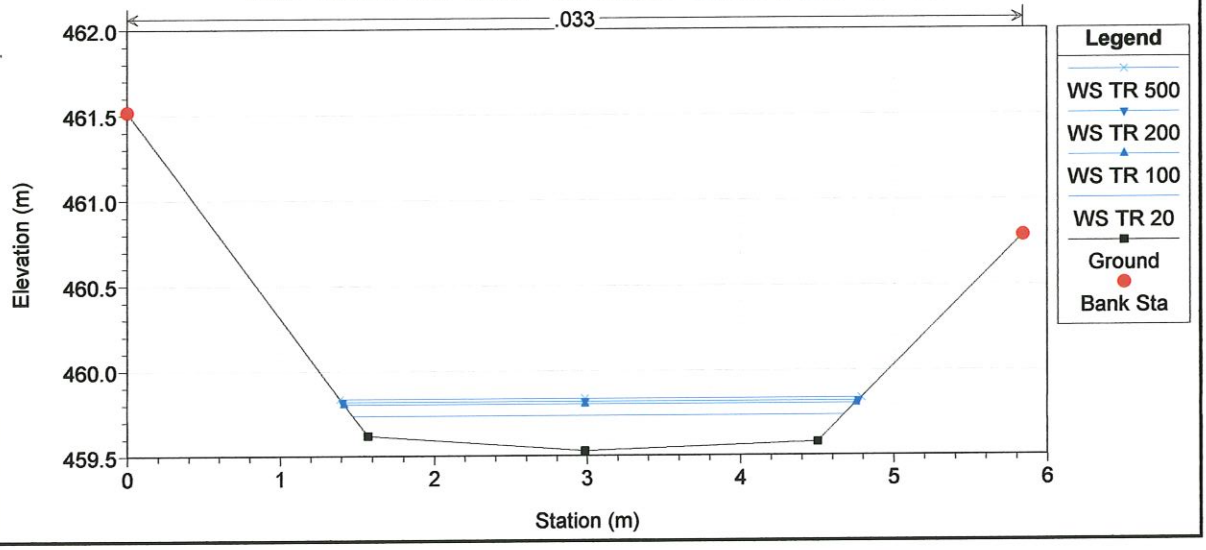
Verifica idraulica Canale FFSS dati di progetto 07/07/04

River = Canale FFSS Reach = Via I Maggio Sez. 1 RS = 1



Verifica idraulica Canale FFSS dati di progetto 07/07/04

River = Canale FFSS Reach = Via I Maggio Sez. 0.5 di valle RS = 0.5



Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 6 Profile: TR 20

E.G. Elev (m)	472.19	Element	Left OB	Channel	Right OB
Vel Head (m)	1.61	Wt. n-Val.		0.017	
W.S. Elev (m)	470.58	Reach Len. (m)	18.50	18.50	18.50
Crit W.S. (m)	471.00	Flow Area (m2)		0.61	
E.G. Slope (m/m)	0.048715	Area (m2)		0.61	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	1.28	Top Width (m)		1.28	
Vel Total (m/s)	5.62	Avg. Vel. (m/s)		5.62	
Max Chl Dpth (m)	0.59	Hydr. Depth (m)		0.48	
Conv. Total (m3/s)	15.5	Conv. (m3/s)		15.5	
Length Wtd. (m)	18.50	Wetted Per. (m)		2.14	
Min Ch El (m)	469.99	Shear (N/m2)		136.10	
Alpha	1.00	Stream Power (N/m s)		765.10	
Frctn Loss (m)		Cum Volume (1000 m3)		0.18	
C & E Loss (m)		Cum SA (1000 m2)		0.37	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 6 Profile: TR 100

E.G. Elev (m)	472.50	Element	Left OB	Channel	Right OB
Vel Head (m)	1.83	Wt. n-Val.		0.017	
W.S. Elev (m)	470.67	Reach Len. (m)	18.50	18.50	18.50
Crit W.S. (m)	471.16	Flow Area (m2)		0.73	
E.G. Slope (m/m)	0.048718	Area (m2)		0.73	
Q Total (m3/s)	4.37	Flow (m3/s)		4.37	
Top Width (m)	1.28	Top Width (m)		1.28	
Vel Total (m/s)	5.99	Avg. Vel. (m/s)		5.99	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.57	
Conv. Total (m3/s)	19.8	Conv. (m3/s)		19.8	
Length Wtd. (m)	18.50	Wetted Per. (m)		2.33	
Min Ch El (m)	469.99	Shear (N/m2)		149.75	
Alpha	1.00	Stream Power (N/m s)		897.17	
Frctn Loss (m)		Cum Volume (1000 m3)		0.38	
C & E Loss (m)		Cum SA (1000 m2)		0.45	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 6 Profile: TR 200

E.G. Elev (m)	472.62	Element	Left OB	Channel	Right OB
Vel Head (m)	1.91	Wt. n-Val.		0.017	
W.S. Elev (m)	470.71	Reach Len. (m)	18.50	18.50	18.50
Crit W.S. (m)	471.23	Flow Area (m2)		0.78	
E.G. Slope (m/m)	0.048708	Area (m2)		0.78	
Q Total (m3/s)	4.77	Flow (m3/s)		4.77	
Top Width (m)	1.29	Top Width (m)		1.29	
Vel Total (m/s)	6.13	Avg. Vel. (m/s)		6.13	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	21.6	Conv. (m3/s)		21.6	
Length Wtd. (m)	18.50	Wetted Per. (m)		2.40	
Min Ch El (m)	469.99	Shear (N/m2)		154.82	
Alpha	1.00	Stream Power (N/m s)		948.37	
Frctn Loss (m)		Cum Volume (1000 m3)		0.41	
C & E Loss (m)		Cum SA (1000 m2)		0.46	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 6 Profile: TR 500

E.G. Elev (m)	472.77	Element	Left OB	Channel	Right OB
Vel Head (m)	2.01	Wt. n-Val.		0.017	
W.S. Elev (m)	470.76	Reach Len. (m)	18.50	18.50	18.50
Crit W.S. (m)	471.31	Flow Area (m2)		0.84	
E.G. Slope (m/m)	0.048713	Area (m2)		0.84	
Q Total (m3/s)	5.30	Flow (m3/s)		5.30	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 6 Profile: TR 500 (Continued)

Top Width (m)	1.29	Top Width (m)		1.29	
Vel Total (m/s)	6.29	Avg. Vel. (m/s)		6.29	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	24.0	Conv. (m3/s)		24.0	
Length Wtd. (m)	18.50	Wetted Per. (m)		2.50	
Min Ch El (m)	469.99	Shear (N/m2)		160.91	
Alpha	1.00	Stream Power (N/m s)		1011.33	
Frctn Loss (m)		Cum Volume (1000 m3)		0.45	
C & E Loss (m)		Cum SA (1000 m2)		0.46	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 5 Profile: TR 20

E.G. Elev (m)	471.21	Element	Left OB	Channel	Right OB
Vel Head (m)	1.69	Wt. n-Val.		0.017	
W.S. Elev (m)	469.52	Reach Len. (m)	3.20	3.20	3.20
Crit W.S. (m)	469.94	Flow Area (m2)		0.60	
E.G. Slope (m/m)	0.054666	Area (m2)		0.60	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	1.47	Top Width (m)		1.47	
Vel Total (m/s)	5.75	Avg. Vel. (m/s)		5.75	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	14.7	Conv. (m3/s)		14.7	
Length Wtd. (m)	3.20	Wetted Per. (m)		2.20	
Min Ch El (m)	469.09	Shear (N/m2)		145.03	
Alpha	1.00	Stream Power (N/m s)		834.36	
Frctn Loss (m)	0.96	Cum Volume (1000 m3)		0.16	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.34	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 5 Profile: TR 100

E.G. Elev (m)	471.52	Element	Left OB	Channel	Right OB
Vel Head (m)	1.92	Wt. n-Val.		0.017	
W.S. Elev (m)	469.60	Reach Len. (m)	3.20	3.20	3.20
Crit W.S. (m)	470.08	Flow Area (m2)		0.71	
E.G. Slope (m/m)	0.053681	Area (m2)		0.71	
Q Total (m3/s)	4.37	Flow (m3/s)		4.37	
Top Width (m)	1.50	Top Width (m)		1.50	
Vel Total (m/s)	6.13	Avg. Vel. (m/s)		6.13	
Max Chl Dpth (m)	0.51	Hydr. Depth (m)		0.48	
Conv. Total (m3/s)	18.9	Conv. (m3/s)		18.9	
Length Wtd. (m)	3.20	Wetted Per. (m)		2.36	
Min Ch El (m)	469.09	Shear (N/m2)		158.89	
Alpha	1.00	Stream Power (N/m s)		974.36	
Frctn Loss (m)	0.95	Cum Volume (1000 m3)		0.37	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.43	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 5 Profile: TR 200

E.G. Elev (m)	471.66	Element	Left OB	Channel	Right OB
Vel Head (m)	2.03	Wt. n-Val.		0.017	
W.S. Elev (m)	469.63	Reach Len. (m)	3.20	3.20	3.20
Crit W.S. (m)	470.14	Flow Area (m2)		0.76	
E.G. Slope (m/m)	0.054152	Area (m2)		0.76	
Q Total (m3/s)	4.77	Flow (m3/s)		4.77	
Top Width (m)	1.51	Top Width (m)		1.51	
Vel Total (m/s)	6.31	Avg. Vel. (m/s)		6.31	
Max Chl Dpth (m)	0.54	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	20.5	Conv. (m3/s)		20.5	
Length Wtd. (m)	3.20	Wetted Per. (m)		2.42	
Min Ch El (m)	469.09	Shear (N/m2)		166.08	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 5 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		1047.41	
Frctn Loss (m)	0.95	Cum Volume (1000 m3)		0.40	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.43	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 5 Profile: TR 500

E.G. Elev (m)	471.81	Element	Left OB	Channel	Right OB
Vel Head (m)	2.14	Wt. n-Val.		0.017	
W.S. Elev (m)	469.67	Reach Len. (m)	3.20	3.20	3.20
Crit W.S. (m)	470.21	Flow Area (m2)		0.82	
E.G. Slope (m/m)	0.053990	Area (m2)		0.82	
Q Total (m3/s)	5.30	Flow (m3/s)		5.30	
Top Width (m)	1.52	Top Width (m)		1.52	
Vel Total (m/s)	6.48	Avg. Vel. (m/s)		6.48	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.54	
Conv. Total (m3/s)	22.8	Conv. (m3/s)		22.8	
Length Wtd. (m)	3.20	Wetted Per. (m)		2.50	
Min Ch El (m)	469.09	Shear (N/m2)		173.02	
Alpha	1.00	Stream Power (N/m s)		1121.98	
Frctn Loss (m)	0.95	Cum Volume (1000 m3)		0.44	
C & E Loss (m)	0.01	Cum SA (1000 m2)		0.44	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 4 Profile: TR 20

E.G. Elev (m)	470.81	Element	Left OB	Channel	Right OB
Vel Head (m)	3.42	Wt. n-Val.		0.017	
W.S. Elev (m)	467.39	Reach Len. (m)	21.40	21.40	21.40
Crit W.S. (m)	468.00	Flow Area (m2)		0.42	
E.G. Slope (m/m)	0.134957	Area (m2)		0.42	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	1.12	Top Width (m)		1.12	
Vel Total (m/s)	8.19	Avg. Vel. (m/s)		8.19	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	9.3	Conv. (m3/s)		9.3	
Length Wtd. (m)	21.40	Wetted Per. (m)		1.79	
Min Ch El (m)	466.99	Shear (N/m2)		308.81	
Alpha	1.00	Stream Power (N/m s)		2529.26	
Frctn Loss (m)	0.26	Cum Volume (1000 m3)		0.16	
C & E Loss (m)	0.17	Cum SA (1000 m2)		0.34	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 4 Profile: TR 100

E.G. Elev (m)	471.09	Element	Left OB	Channel	Right OB
Vel Head (m)	3.61	Wt. n-Val.		0.017	
W.S. Elev (m)	467.48	Reach Len. (m)	21.40	21.40	21.40
Crit W.S. (m)	468.16	Flow Area (m2)		0.52	
E.G. Slope (m/m)	0.121701	Area (m2)		0.52	
Q Total (m3/s)	4.37	Flow (m3/s)		4.37	
Top Width (m)	1.15	Top Width (m)		1.15	
Vel Total (m/s)	8.42	Avg. Vel. (m/s)		8.42	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	12.5	Conv. (m3/s)		12.5	
Length Wtd. (m)	21.40	Wetted Per. (m)		1.97	
Min Ch El (m)	466.99	Shear (N/m2)		313.83	
Alpha	1.00	Stream Power (N/m s)		2643.32	
Frctn Loss (m)	0.25	Cum Volume (1000 m3)		0.37	
C & E Loss (m)	0.17	Cum SA (1000 m2)		0.42	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 4 Profile: TR 200

E.G. Elev (m)	471.24	Element	Left OB	Channel	Right OB
Vel Head (m)	3.73	Wt. n-Val.		0.017	
W.S. Elev (m)	467.51	Reach Len. (m)	21.40	21.40	21.40
Crit W.S. (m)	468.22	Flow Area (m2)		0.56	
E.G. Slope (m/m)	0.119238	Area (m2)		0.56	
Q Total (m3/s)	4.77	Flow (m3/s)		4.77	
Top Width (m)	1.16	Top Width (m)		1.16	
Vel Total (m/s)	8.55	Avg. Vel. (m/s)		8.55	
Max Chl Dpth (m)	0.52	Hydr. Depth (m)		0.48	
Conv. Total (m3/s)	13.8	Conv. (m3/s)		13.8	
Length Wtd. (m)	21.40	Wetted Per. (m)		2.04	
Min Ch El (m)	466.99	Shear (N/m2)		319.57	
Alpha	1.00	Stream Power (N/m s)		2733.74	
Frctn Loss (m)	0.25	Cum Volume (1000 m3)		0.40	
C & E Loss (m)	0.17	Cum SA (1000 m2)		0.43	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 4 Profile: TR 500

E.G. Elev (m)	471.39	Element	Left OB	Channel	Right OB
Vel Head (m)	3.83	Wt. n-Val.		0.017	
W.S. Elev (m)	467.56	Reach Len. (m)	21.40	21.40	21.40
Crit W.S. (m)	468.30	Flow Area (m2)		0.61	
E.G. Slope (m/m)	0.115095	Area (m2)		0.61	
Q Total (m3/s)	5.30	Flow (m3/s)		5.30	
Top Width (m)	1.17	Top Width (m)		1.17	
Vel Total (m/s)	8.67	Avg. Vel. (m/s)		8.67	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	15.6	Conv. (m3/s)		15.6	
Length Wtd. (m)	21.40	Wetted Per. (m)		2.13	
Min Ch El (m)	466.99	Shear (N/m2)		323.22	
Alpha	1.00	Stream Power (N/m s)		2802.40	
Frctn Loss (m)	0.24	Cum Volume (1000 m3)		0.43	
C & E Loss (m)	0.17	Cum SA (1000 m2)		0.43	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 3 Profile: TR 20

E.G. Elev (m)	468.72	Element	Left OB	Channel	Right OB
Vel Head (m)	1.47	Wt. n-Val.		0.017	
W.S. Elev (m)	467.25	Reach Len. (m)	4.60	4.60	4.60
Crit W.S. (m)	467.66	Flow Area (m2)		0.64	
E.G. Slope (m/m)	0.043480	Area (m2)		0.64	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	1.17	Top Width (m)		1.17	
Vel Total (m/s)	5.38	Avg. Vel. (m/s)		5.38	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	16.4	Conv. (m3/s)		16.4	
Length Wtd. (m)	4.60	Wetted Per. (m)		2.19	
Min Ch El (m)	466.67	Shear (N/m2)		123.87	
Alpha	1.00	Stream Power (N/m s)		666.42	
Frctn Loss (m)	1.51	Cum Volume (1000 m3)		0.15	
C & E Loss (m)	0.58	Cum SA (1000 m2)		0.32	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 3 Profile: TR 100

E.G. Elev (m)	469.04	Element	Left OB	Channel	Right OB
Vel Head (m)	1.69	Wt. n-Val.		0.017	
W.S. Elev (m)	467.35	Reach Len. (m)	4.60	4.60	4.60
Crit W.S. (m)	467.83	Flow Area (m2)		0.76	
E.G. Slope (m/m)	0.044529	Area (m2)		0.76	
Q Total (m3/s)	4.37	Flow (m3/s)		4.37	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 3 Profile: TR 100 (Continued)

Top Width (m)	1.18	Top Width (m)		1.18	
Vel Total (m/s)	5.76	Avg. Vel. (m/s)		5.76	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	20.7	Conv. (m3/s)		20.7	
Length Wtd. (m)	4.60	Wetted Per. (m)		2.40	
Min Ch El (m)	466.67	Shear (N/m2)		138.01	
Alpha	1.00	Stream Power (N/m s)		794.85	
Frctn Loss (m)	1.48	Cum Volume (1000 m3)		0.35	
C & E Loss (m)	0.58	Cum SA (1000 m2)		0.40	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 3 Profile: TR 200

E.G. Elev (m)	469.18	Element	Left OB	Channel	Right OB
Vel Head (m)	1.79	Wt. n-Val.		0.017	
W.S. Elev (m)	467.39	Reach Len. (m)	4.60	4.60	4.60
Crit W.S. (m)	467.90	Flow Area (m2)		0.81	
E.G. Slope (m/m)	0.045347	Area (m2)		0.81	
Q Total (m3/s)	4.77	Flow (m3/s)		4.77	
Top Width (m)	1.19	Top Width (m)		1.19	
Vel Total (m/s)	5.92	Avg. Vel. (m/s)		5.92	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	22.4	Conv. (m3/s)		22.4	
Length Wtd. (m)	4.60	Wetted Per. (m)		2.48	
Min Ch El (m)	466.67	Shear (N/m2)		144.52	
Alpha	1.00	Stream Power (N/m s)		855.69	
Frctn Loss (m)	1.48	Cum Volume (1000 m3)		0.38	
C & E Loss (m)	0.58	Cum SA (1000 m2)		0.40	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 3 Profile: TR 500

E.G. Elev (m)	469.33	Element	Left OB	Channel	Right OB
Vel Head (m)	1.89	Wt. n-Val.		0.017	
W.S. Elev (m)	467.45	Reach Len. (m)	4.60	4.60	4.60
Crit W.S. (m)	467.98	Flow Area (m2)		0.87	
E.G. Slope (m/m)	0.045854	Area (m2)		0.87	
Q Total (m3/s)	5.30	Flow (m3/s)		5.30	
Top Width (m)	1.20	Top Width (m)		1.20	
Vel Total (m/s)	6.09	Avg. Vel. (m/s)		6.09	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.73	
Conv. Total (m3/s)	24.8	Conv. (m3/s)		24.8	
Length Wtd. (m)	4.60	Wetted Per. (m)		2.59	
Min Ch El (m)	466.67	Shear (N/m2)		151.17	
Alpha	1.00	Stream Power (N/m s)		920.69	
Frctn Loss (m)	1.47	Cum Volume (1000 m3)		0.42	
C & E Loss (m)	0.58	Cum SA (1000 m2)		0.41	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 2 Profile: TR 20

E.G. Elev (m)	468.43	Element	Left OB	Channel	Right OB
Vel Head (m)	2.27	Wt. n-Val.		0.017	
W.S. Elev (m)	466.16	Reach Len. (m)	118.50	118.50	118.50
Crit W.S. (m)	466.71	Flow Area (m2)		0.51	
E.G. Slope (m/m)	0.054748	Area (m2)		0.52	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	0.99	Top Width (m)		0.99	
Vel Total (m/s)	6.67	Avg. Vel. (m/s)		6.67	
Max Chl Dpth (m)	0.63	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	14.6	Conv. (m3/s)		14.6	
Length Wtd. (m)	118.50	Wetted Per. (m)		1.52	
Min Ch El (m)	465.53	Shear (N/m2)		181.26	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 2 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		1209.61	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)		0.15	
C & E Loss (m)	0.08	Cum SA (1000 m2)		0.31	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 2 Profile: TR 100

E.G. Elev (m)	468.75	Element	Left OB	Channel	Right OB
Vel Head (m)	2.48	Wt. n-Val.		0.017	
W.S. Elev (m)	466.27	Reach Len. (m)	118.50	118.50	118.50
Crit W.S. (m)	466.89	Flow Area (m2)		0.63	
E.G. Slope (m/m)	0.045998	Area (m2)		0.63	
Q Total (m3/s)	4.37	Flow (m3/s)		4.37	
Top Width (m)	1.01	Top Width (m)		1.01	
Vel Total (m/s)	6.98	Avg. Vel. (m/s)		6.98	
Max Chl Dpth (m)	0.74	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	20.4	Conv. (m3/s)		20.4	
Length Wtd. (m)	118.50	Wetted Per. (m)		1.52	
Min Ch El (m)	465.53	Shear (N/m2)		185.66	
Alpha	1.00	Stream Power (N/m s)		1295.99	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		0.35	
C & E Loss (m)	0.08	Cum SA (1000 m2)		0.39	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 2 Profile: TR 200

E.G. Elev (m)	468.90	Element	Left OB	Channel	Right OB
Vel Head (m)	2.58	Wt. n-Val.		0.017	
W.S. Elev (m)	466.32	Reach Len. (m)	118.50	118.50	118.50
Crit W.S. (m)	466.97	Flow Area (m2)		0.67	
E.G. Slope (m/m)	0.043495	Area (m2)		0.68	
Q Total (m3/s)	4.77	Flow (m3/s)		4.77	
Top Width (m)	1.02	Top Width (m)		1.02	
Vel Total (m/s)	7.11	Avg. Vel. (m/s)		7.11	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.69	
Conv. Total (m3/s)	22.9	Conv. (m3/s)		22.9	
Length Wtd. (m)	118.50	Wetted Per. (m)		1.52	
Min Ch El (m)	465.53	Shear (N/m2)		188.28	
Alpha	1.00	Stream Power (N/m s)		1339.05	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		0.38	
C & E Loss (m)	0.08	Cum SA (1000 m2)		0.40	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 2 Profile: TR 500

E.G. Elev (m)	469.06	Element	Left OB	Channel	Right OB
Vel Head (m)	2.68	Wt. n-Val.		0.017	
W.S. Elev (m)	466.38	Reach Len. (m)	118.50	118.50	118.50
Crit W.S. (m)	467.07	Flow Area (m2)		0.73	
E.G. Slope (m/m)	0.040358	Area (m2)		0.74	
Q Total (m3/s)	5.30	Flow (m3/s)		5.30	
Top Width (m)	1.02	Top Width (m)		1.02	
Vel Total (m/s)	7.25	Avg. Vel. (m/s)		7.25	
Max Chl Dpth (m)	0.85	Hydr. Depth (m)		0.75	
Conv. Total (m3/s)	26.4	Conv. (m3/s)		26.4	
Length Wtd. (m)	118.50	Wetted Per. (m)		1.52	
Min Ch El (m)	465.53	Shear (N/m2)		190.24	
Alpha	1.00	Stream Power (N/m s)		1379.51	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		0.41	
C & E Loss (m)	0.08	Cum SA (1000 m2)		0.40	

Plan: ffssImaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 1 Profile: TR 20

E.G. Elev (m)	462.20	Element	Left OB	Channel	Right OB
Vel Head (m)	1.84	Wt. n-Val.		0.017	
W.S. Elev (m)	460.36	Reach Len. (m)	5.00	5.00	5.00
Crit W.S. (m)	460.85	Flow Area (m2)		0.57	
E.G. Slope (m/m)	0.021550	Area (m2)		1.90	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	3.95	Top Width (m)		3.95	
Vel Total (m/s)	6.01	Avg. Vel. (m/s)		6.01	
Max Chl Dpth (m)	0.59	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	23.3	Conv. (m3/s)		23.3	
Length Wtd. (m)	5.00	Wetted Per. (m)		0.98	
Min Ch El (m)	459.77	Shear (N/m2)		122.64	
Alpha	1.00	Stream Power (N/m s)		736.78	
Frctn Loss (m)		Cum Volume (1000 m3)		0.01	
C & E Loss (m)		Cum SA (1000 m2)		0.02	

Plan: ffssImaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 1 Profile: TR 100

E.G. Elev (m)	461.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.64	Wt. n-Val.		0.017	
W.S. Elev (m)	461.04	Reach Len. (m)	5.00	5.00	5.00
Crit W.S. (m)	461.04	Flow Area (m2)		1.24	
E.G. Slope (m/m)	0.002655	Area (m2)		5.03	
Q Total (m3/s)	4.37	Flow (m3/s)		4.37	
Top Width (m)	5.25	Top Width (m)		5.25	
Vel Total (m/s)	3.53	Avg. Vel. (m/s)		3.53	
Max Chl Dpth (m)	1.27	Hydr. Depth (m)		1.26	
Conv. Total (m3/s)	84.8	Conv. (m3/s)		84.8	
Length Wtd. (m)	5.00	Wetted Per. (m)		0.98	
Min Ch El (m)	459.77	Shear (N/m2)		32.76	
Alpha	1.00	Stream Power (N/m s)		115.74	
Frctn Loss (m)		Cum Volume (1000 m3)		0.01	
C & E Loss (m)		Cum SA (1000 m2)		0.02	

Plan: ffssImaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 1 Profile: TR 200

E.G. Elev (m)	461.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.67	Wt. n-Val.		0.017	
W.S. Elev (m)	461.12	Reach Len. (m)	5.00	5.00	5.00
Crit W.S. (m)	461.12	Flow Area (m2)		1.31	
E.G. Slope (m/m)	0.002605	Area (m2)		5.43	
Q Total (m3/s)	4.77	Flow (m3/s)		4.77	
Top Width (m)	5.31	Top Width (m)		5.31	
Vel Total (m/s)	3.64	Avg. Vel. (m/s)		3.64	
Max Chl Dpth (m)	1.35	Hydr. Depth (m)		1.34	
Conv. Total (m3/s)	93.5	Conv. (m3/s)		93.5	
Length Wtd. (m)	5.00	Wetted Per. (m)		0.98	
Min Ch El (m)	459.77	Shear (N/m2)		34.09	
Alpha	1.00	Stream Power (N/m s)		124.08	
Frctn Loss (m)		Cum Volume (1000 m3)		0.02	
C & E Loss (m)		Cum SA (1000 m2)		0.02	

Plan: ffssImaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 1 Profile: TR 500

E.G. Elev (m)	461.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.72	Wt. n-Val.		0.017	
W.S. Elev (m)	461.22	Reach Len. (m)	5.00	5.00	5.00
Crit W.S. (m)	461.22	Flow Area (m2)		1.41	
E.G. Slope (m/m)	0.002519	Area (m2)		5.97	
Q Total (m3/s)	5.30	Flow (m3/s)		5.30	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 1 Profile: TR 500 (Continued)

Top Width (m)	5.40	Top Width (m)		5.40	
Vel Total (m/s)	3.76	Avg. Vel. (m/s)		3.76	
Max Chl Dpth (m)	1.45	Hydr. Depth (m)		1.44	
Conv. Total (m3/s)	105.6	Conv. (m3/s)		105.6	
Length Wtd. (m)	5.00	Wetted Per. (m)		0.98	
Min Ch El (m)	459.77	Shear (N/m2)		35.46	
Alpha	1.00	Stream Power (N/m s)		133.23	
Frctn Loss (m)		Cum Volume (1000 m3)		0.02	
C & E Loss (m)		Cum SA (1000 m2)		0.02	

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 0.5 Profile: TR 20

E.G. Elev (m)	461.88	Element	Left OB	Channel	Right OB
Vel Head (m)	2.15	Wt. n-Val.		0.033	
W.S. Elev (m)	459.74	Reach Len. (m)			
Crit W.S. (m)	460.06	Flow Area (m2)		0.53	
E.G. Slope (m/m)	0.532910	Area (m2)		0.53	
Q Total (m3/s)	3.43	Flow (m3/s)		3.43	
Top Width (m)	3.20	Top Width (m)		3.20	
Vel Total (m/s)	6.49	Avg. Vel. (m/s)		6.49	
Max Chl Dpth (m)	0.21	Hydr. Depth (m)		0.16	
Conv. Total (m3/s)	4.7	Conv. (m3/s)		4.7	
Length Wtd. (m)		Wetted Per. (m)		3.32	
Min Ch El (m)	459.53	Shear (N/m2)		830.35	
Alpha	1.00	Stream Power (N/m s)		5388.56	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)			
C & E Loss (m)	0.03	Cum SA (1000 m2)			

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 0.5 Profile: TR 100

E.G. Elev (m)	461.54	Element	Left OB	Channel	Right OB
Vel Head (m)	1.73	Wt. n-Val.		0.033	
W.S. Elev (m)	459.81	Reach Len. (m)			
Crit W.S. (m)	460.14	Flow Area (m2)		0.75	
E.G. Slope (m/m)	0.289786	Area (m2)		0.75	
Q Total (m3/s)	4.37	Flow (m3/s)		4.37	
Top Width (m)	3.33	Top Width (m)		3.33	
Vel Total (m/s)	5.83	Avg. Vel. (m/s)		5.83	
Max Chl Dpth (m)	0.28	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	8.1	Conv. (m3/s)		8.1	
Length Wtd. (m)		Wetted Per. (m)		3.51	
Min Ch El (m)	459.53	Shear (N/m2)		606.69	
Alpha	1.00	Stream Power (N/m s)		3535.15	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)			
C & E Loss (m)	0.11	Cum SA (1000 m2)			

Plan: ffsslmaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 0.5 Profile: TR 200

E.G. Elev (m)	461.65	Element	Left OB	Channel	Right OB
Vel Head (m)	1.83	Wt. n-Val.		0.033	
W.S. Elev (m)	459.82	Reach Len. (m)			
Crit W.S. (m)	460.17	Flow Area (m2)		0.80	
E.G. Slope (m/m)	0.286213	Area (m2)		0.80	
Q Total (m3/s)	4.77	Flow (m3/s)		4.77	
Top Width (m)	3.36	Top Width (m)		3.36	
Vel Total (m/s)	5.99	Avg. Vel. (m/s)		5.99	
Max Chl Dpth (m)	0.29	Hydr. Depth (m)		0.24	
Conv. Total (m3/s)	8.9	Conv. (m3/s)		8.9	
Length Wtd. (m)		Wetted Per. (m)		3.55	
Min Ch El (m)	459.53	Shear (N/m2)		630.04	

Plan: ffssImaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 0.5 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		3772.66	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)			
C & E Loss (m)	0.11	Cum SA (1000 m2)			

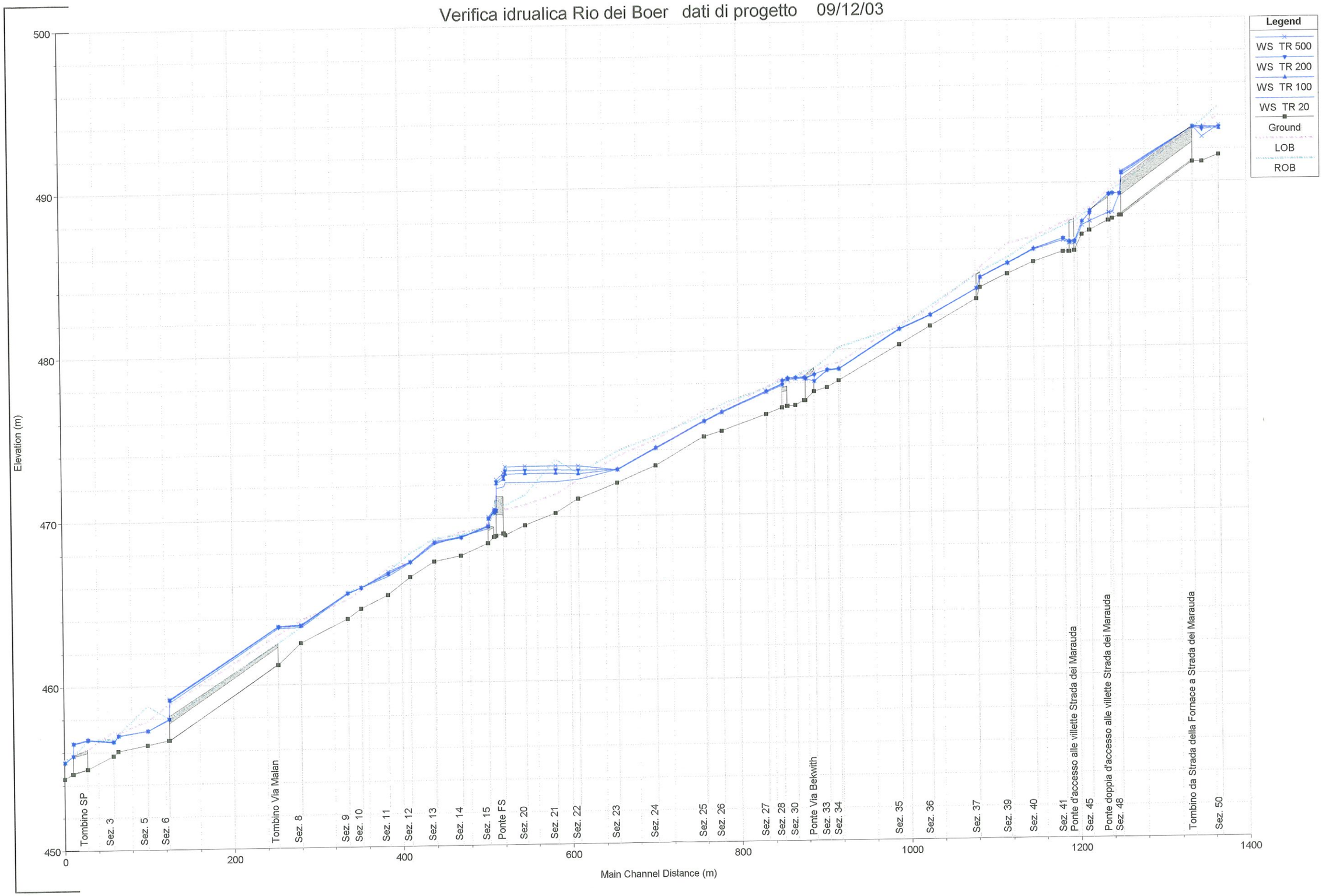
Plan: ffssImaggio River: Canale FFSS Reach:Via I Maggio Riv Sta: 0.5 Profile: TR 500

E.G. Elev (m)	461.78	Element	Left OB	Channel	Right OB
Vel Head (m)	1.95	Wt. n-Val.		0.033	
W.S. Elev (m)	459.84	Reach Len. (m)			
Crit W.S. (m)	460.21	Flow Area (m2)		0.86	
E.G. Slope (m/m)	0.281978	Area (m2)		0.86	
Q Total (m3/s)	5.30	Flow (m3/s)		5.30	
Top Width (m)	3.40	Top Width (m)		3.40	
Vel Total (m/s)	6.18	Avg. Vel. (m/s)		6.18	
Max Chl Dpth (m)	0.31	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	10.0	Conv. (m3/s)		10.0	
Length Wtd. (m)		Wetted Per. (m)		3.60	
Min Ch El (m)	459.53	Shear (N/m2)		658.39	
Alpha	1.00	Stream Power (N/m s)		4069.90	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)			
C & E Loss (m)	0.12	Cum SA (1000 m2)			

10 – ALLEGATI GRAFICI E NUMERICI RIO DEI BOER

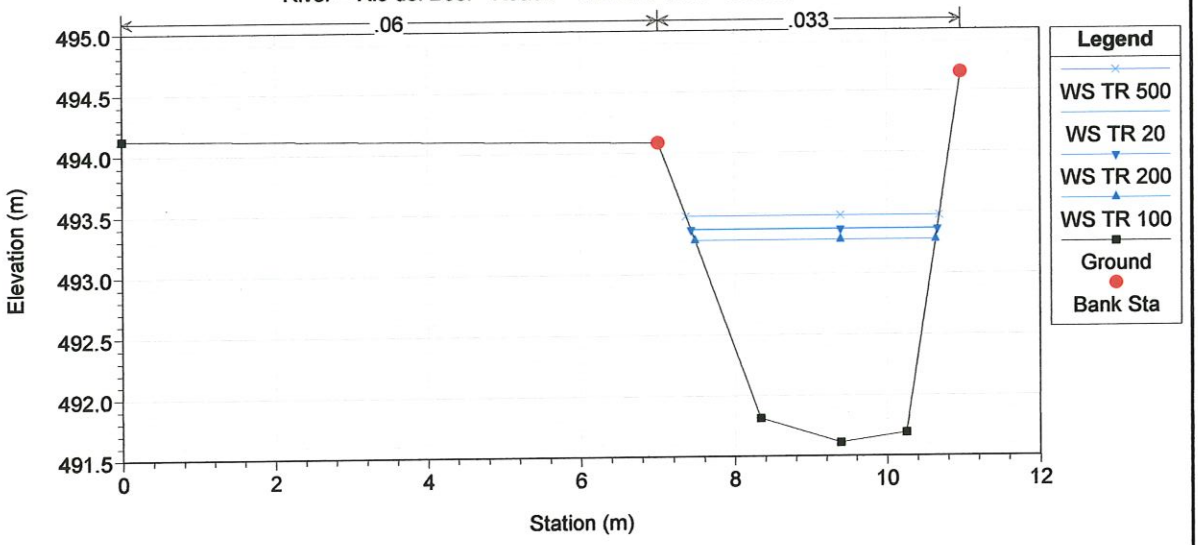
Studio Tecnico ing. Paolo Vaschetto - loc. Sereisie, 172 – 10060 Angrogna (TO)
tel. 0121/944267 - fax 0121/944800 - e-mail: vasco@dag.it - rif. 03v02

Verifica idrualica Rio dei Boer dati di progetto 09/12/03



Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 50 RS = 50



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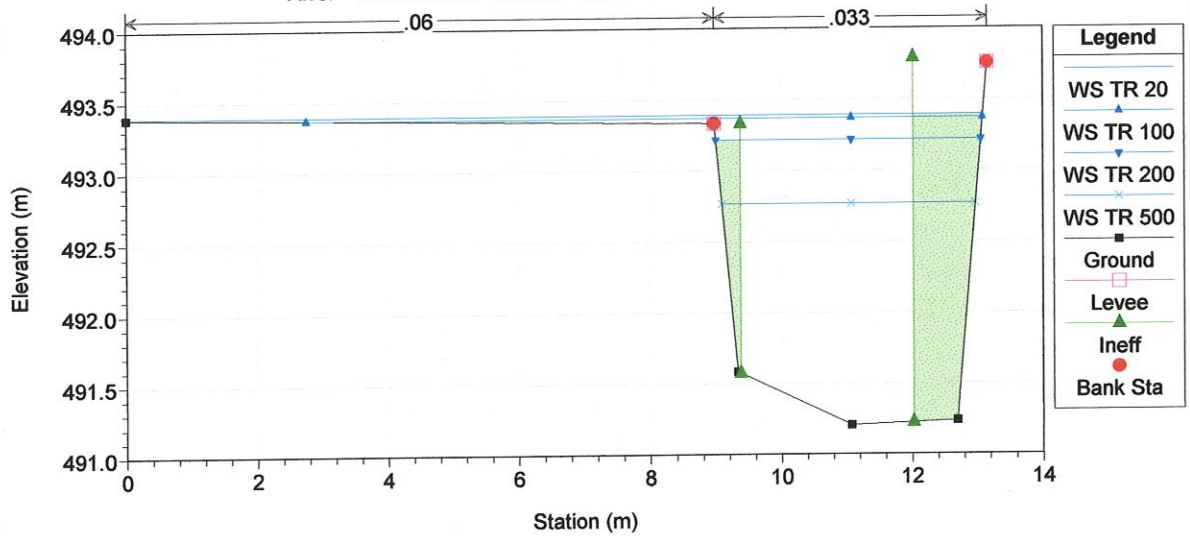
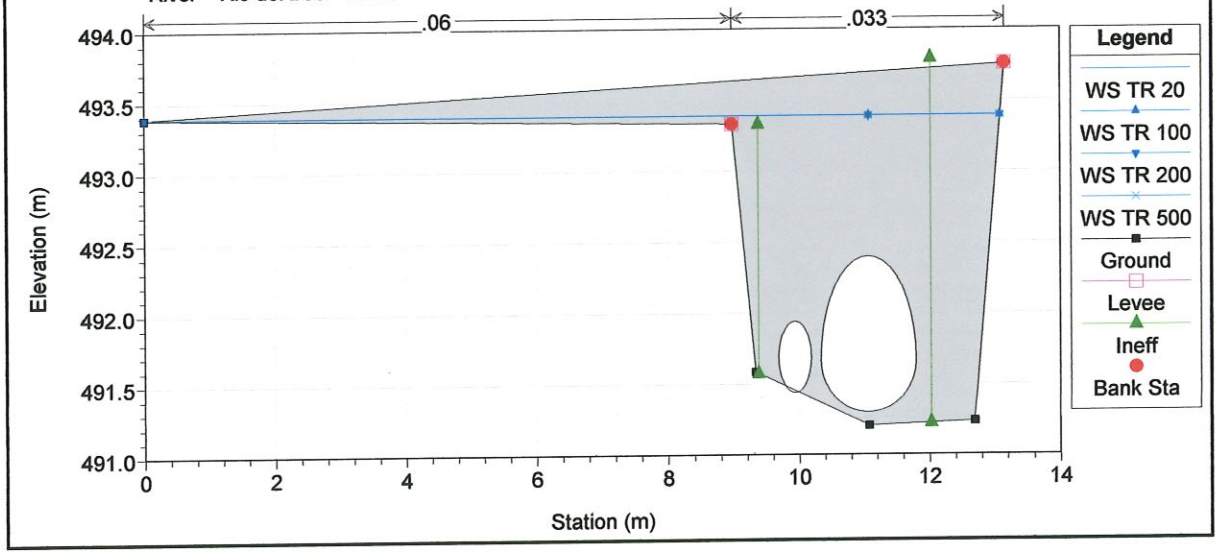


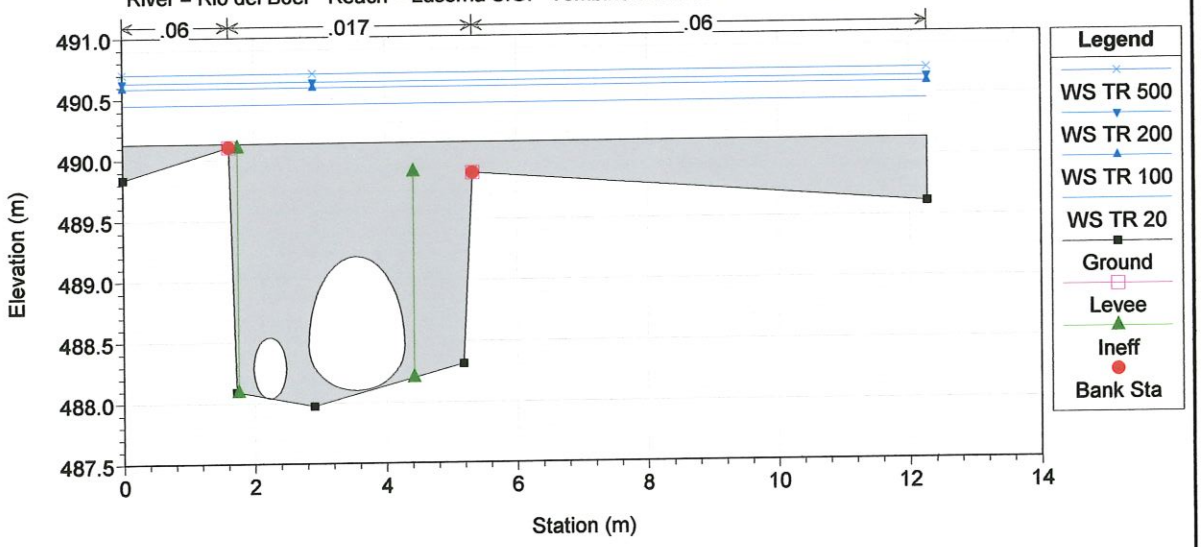
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Tombino da Strada della Fornace a Strada RS = 48.5



Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Tombino da Strada della Fornace a Strada RS = 48.5



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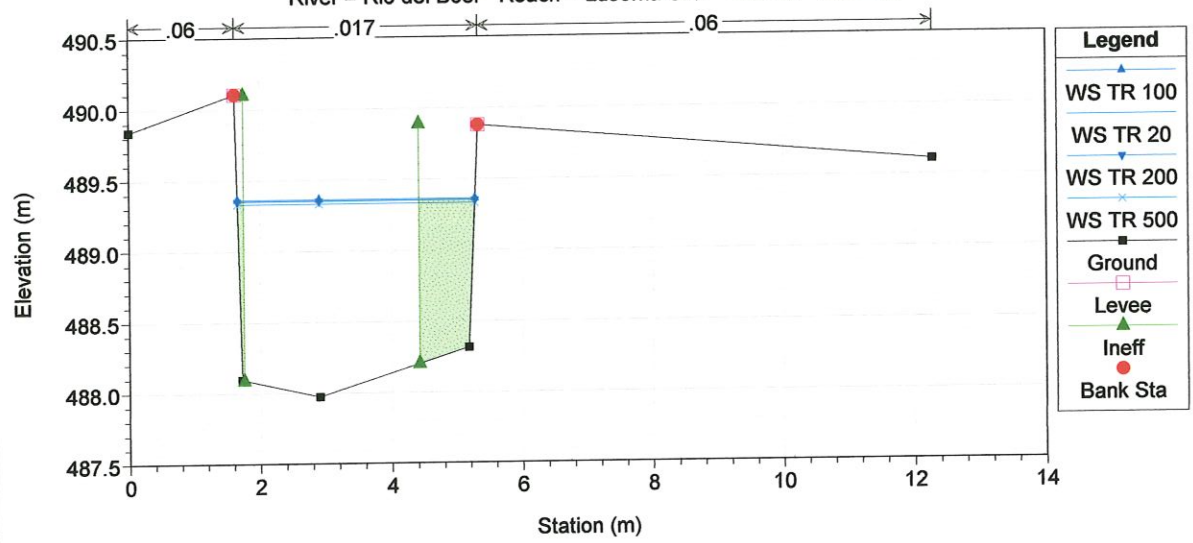

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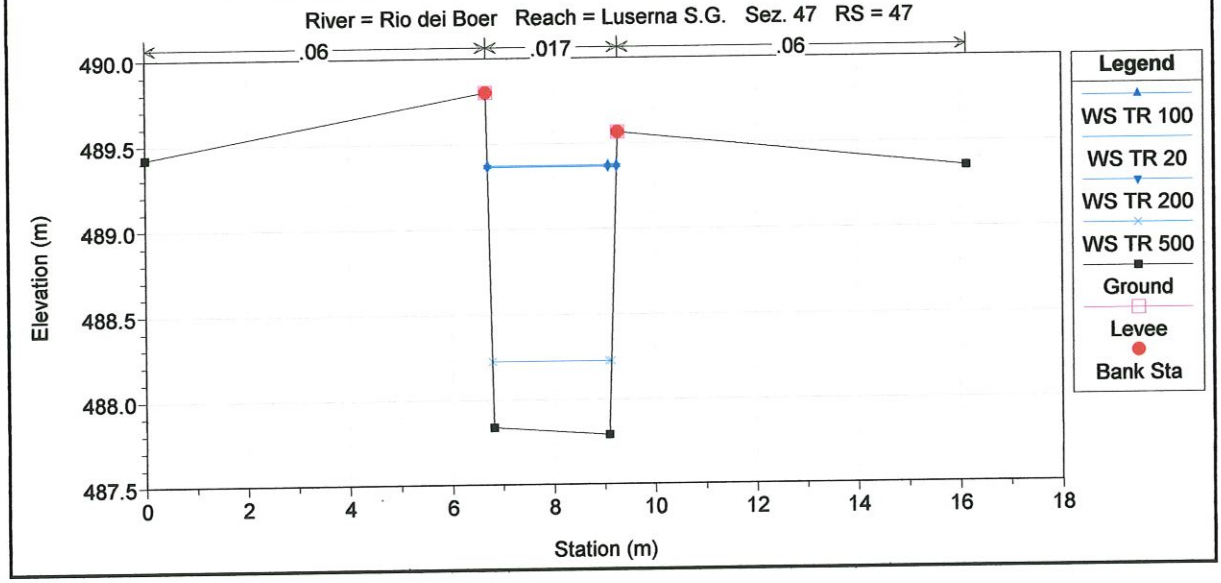
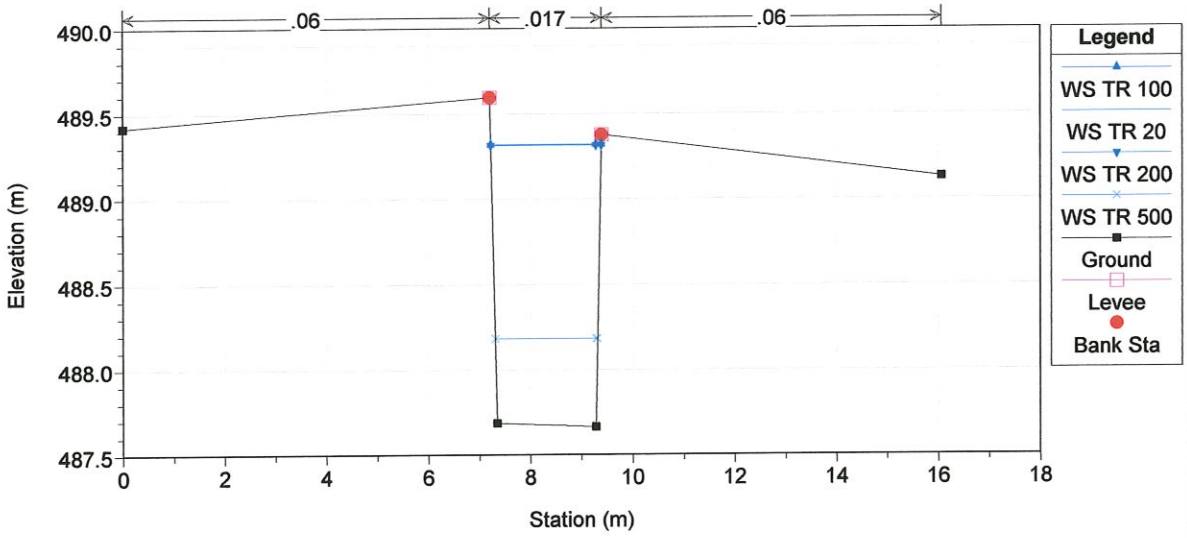


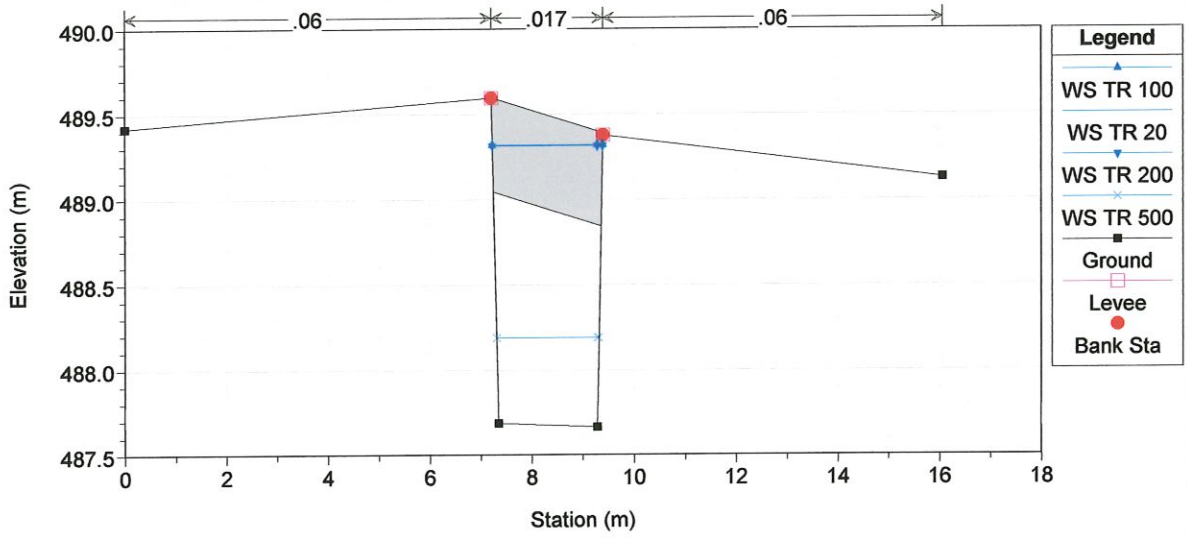
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 46 RS = 46



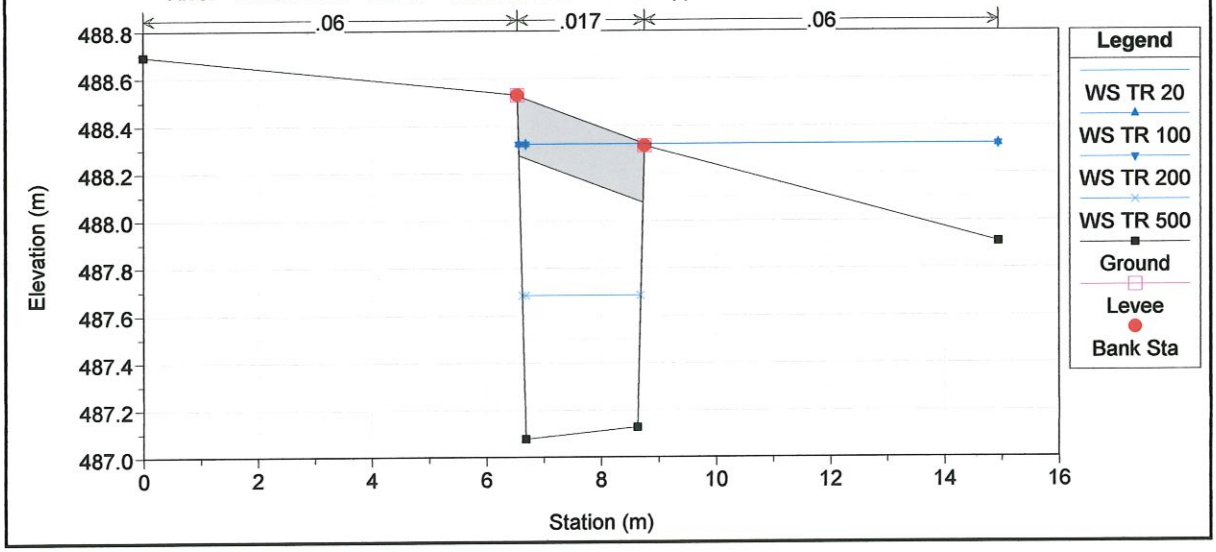
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte doppia d'accesso alle villette Str RS = 45.5



Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte doppia d'accesso alle villette Str RS = 45.5



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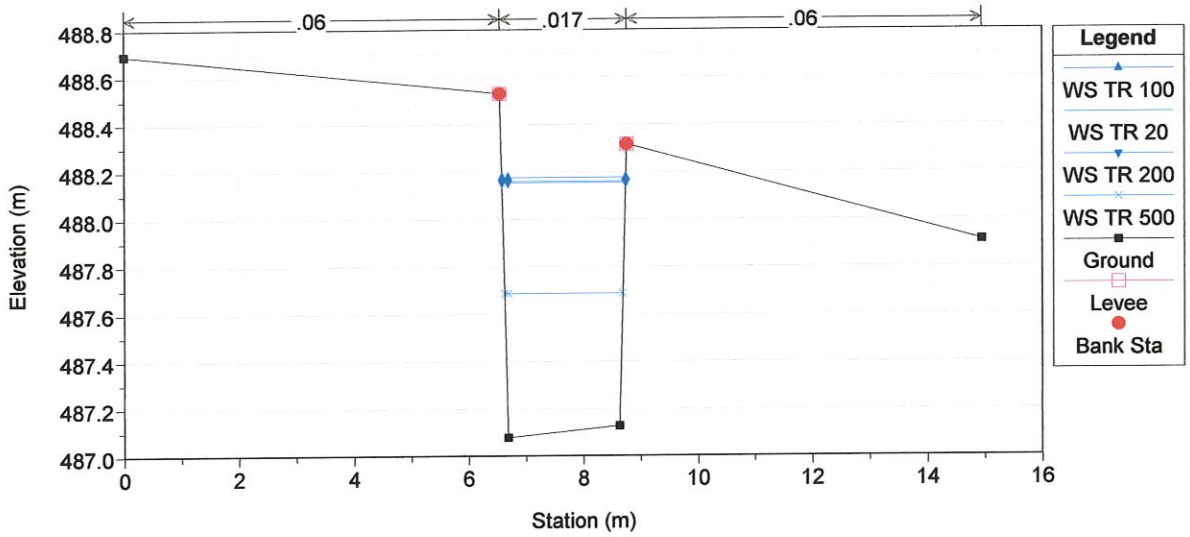

Verifica idrualica Rio dei Boer dati di progetto 09/12/03

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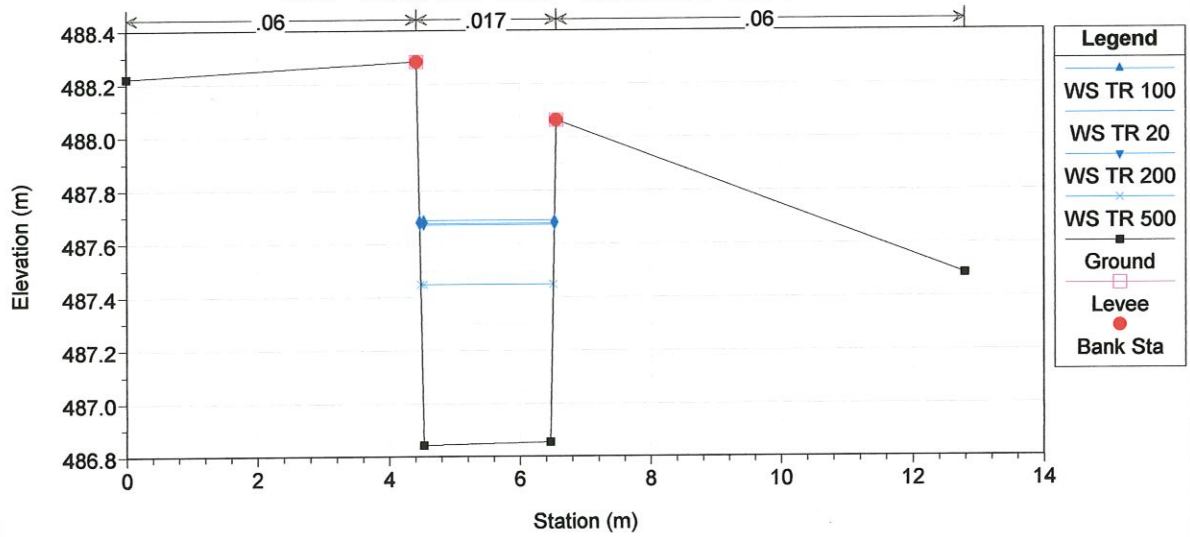
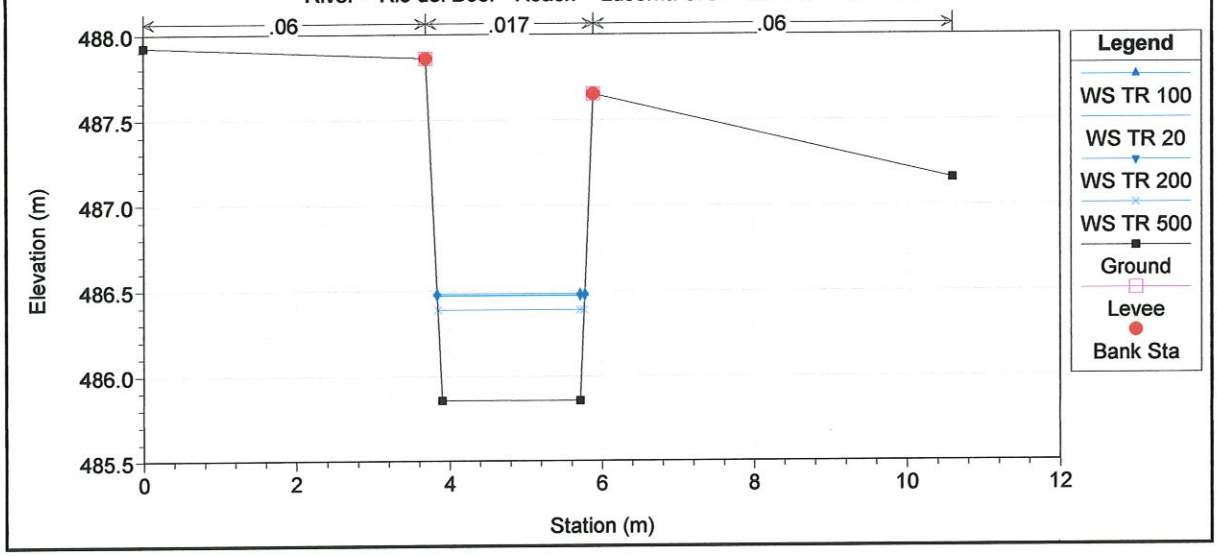


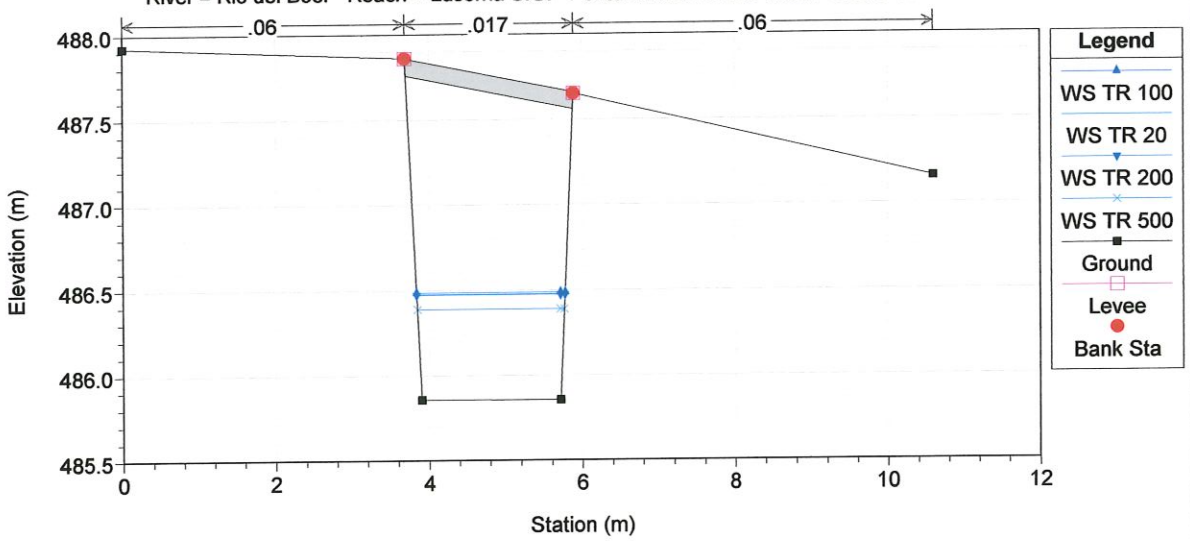
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 43 RS = 43



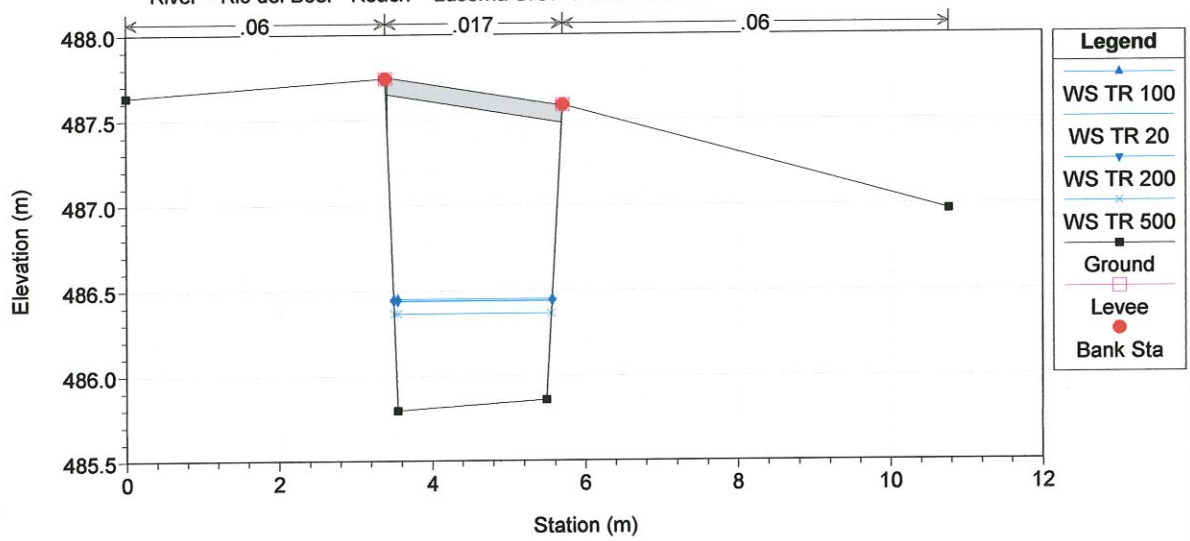
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte d'accesso alle villette Strada dei RS = 42.5



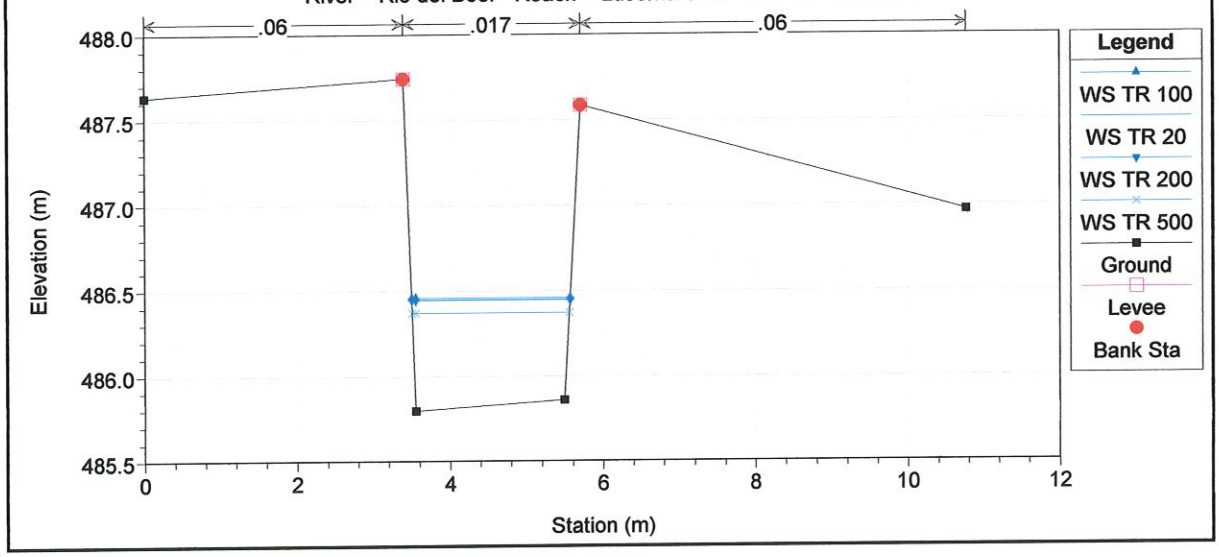
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte d'accesso alle villette Strada dei RS = 42.5



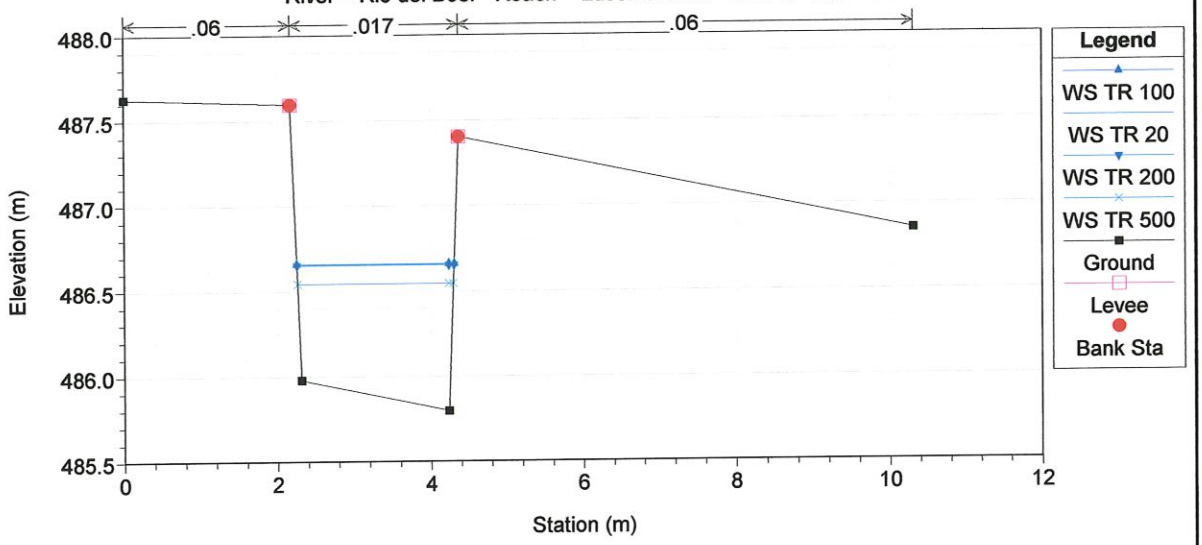
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 42 RS = 42



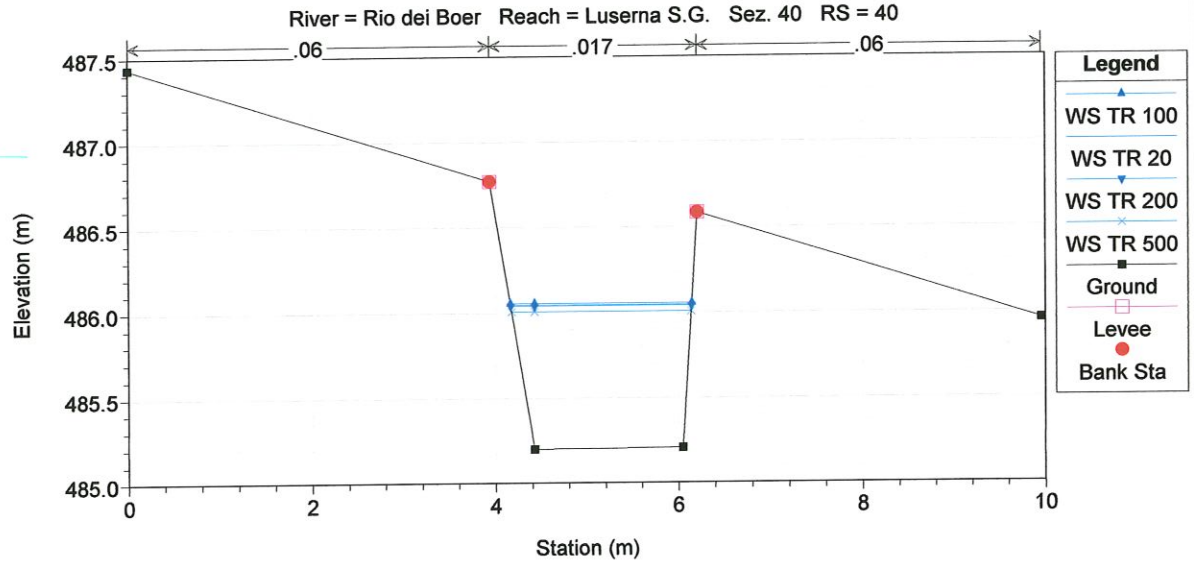
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 41 RS = 41



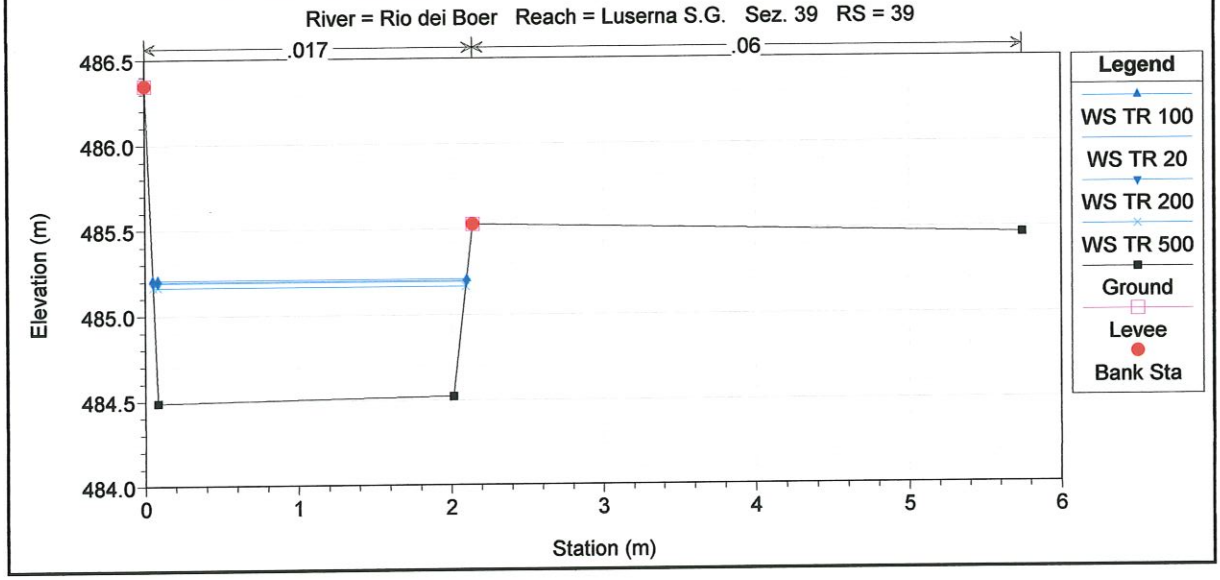
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 40 RS = 40



Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 39 RS = 39



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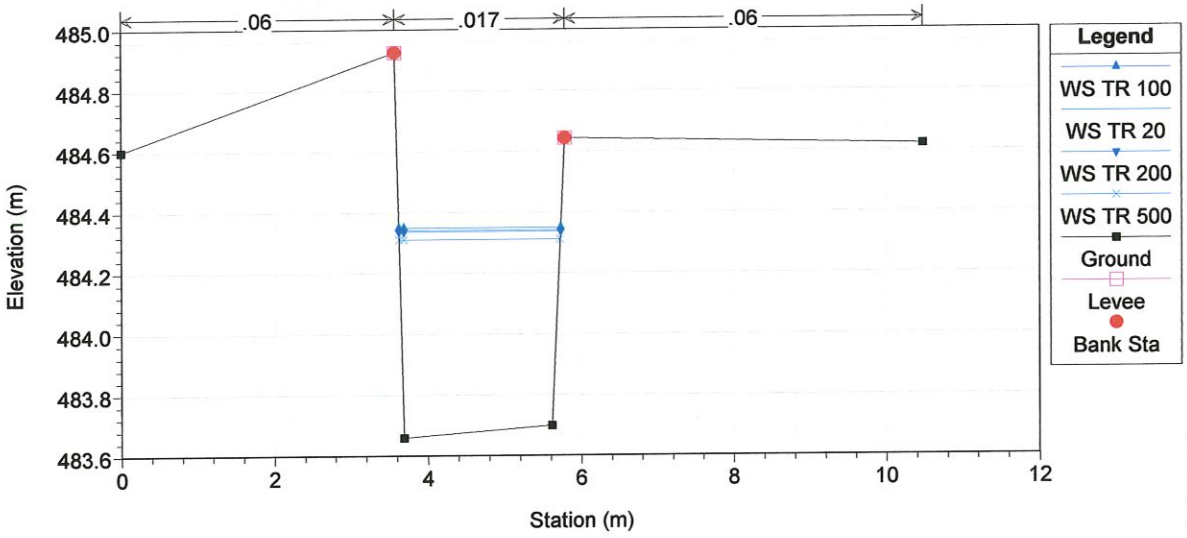
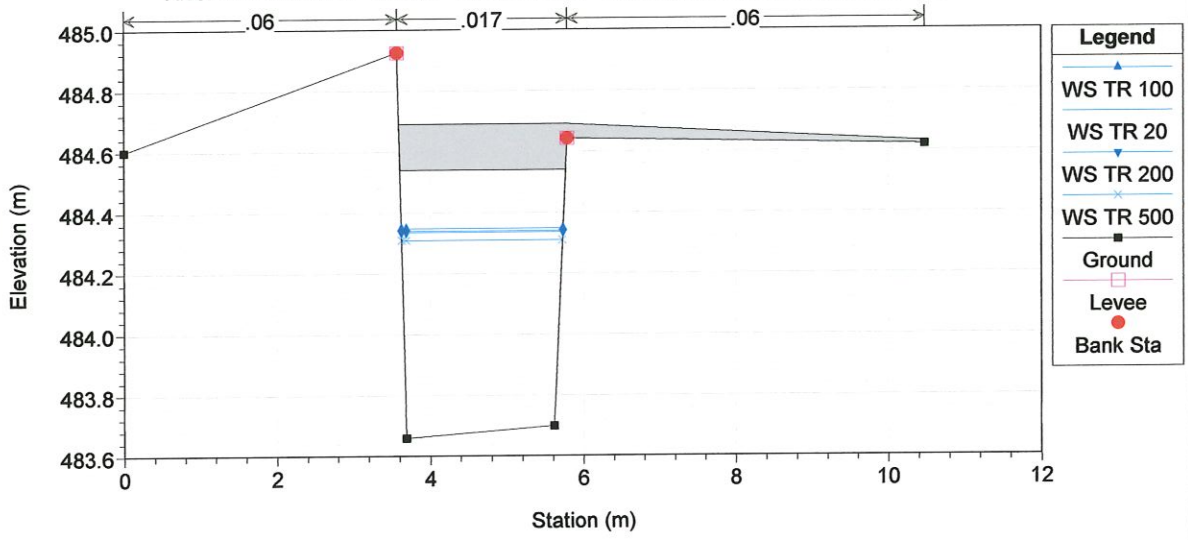
River = Rio dei Boer Reach = Luserna S.G. Sez. 38 RS = 38



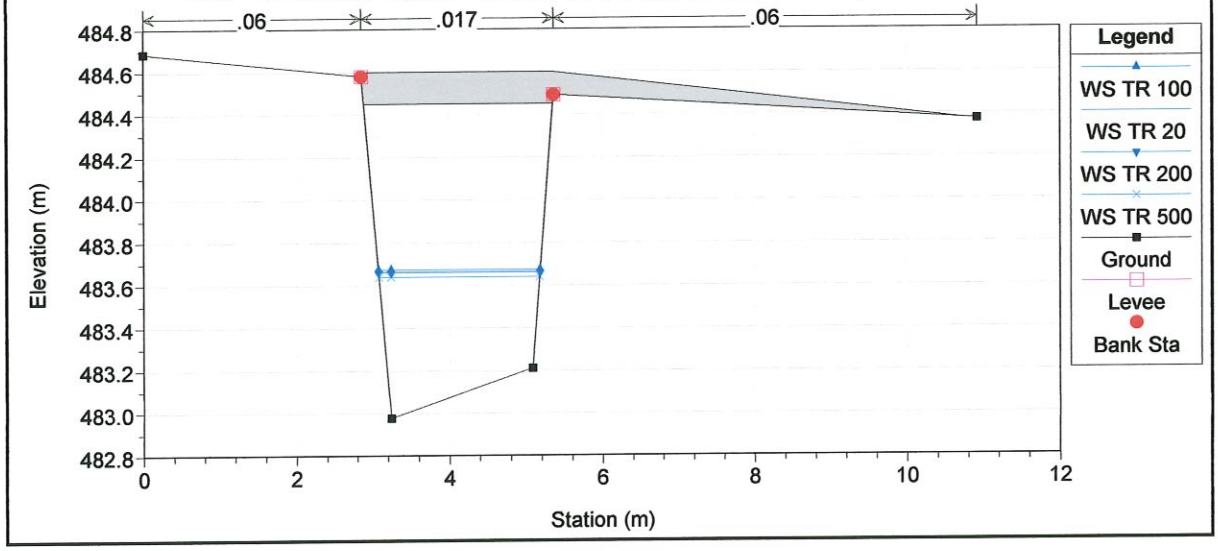
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte d'accesso a zona prativa RS = 37.5



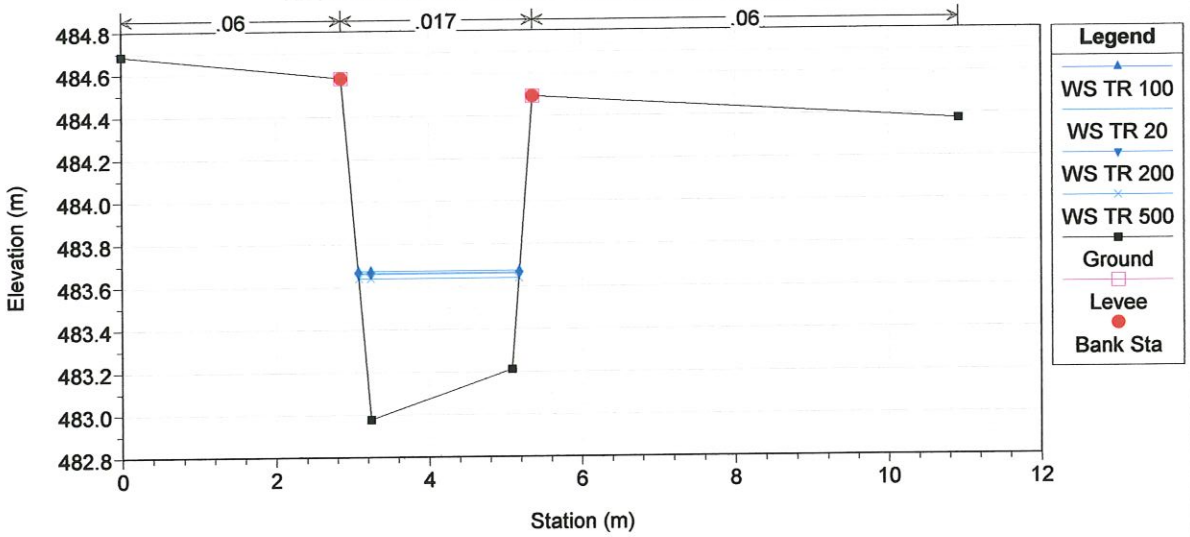
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte d'accesso a zona prativa RS = 37.5



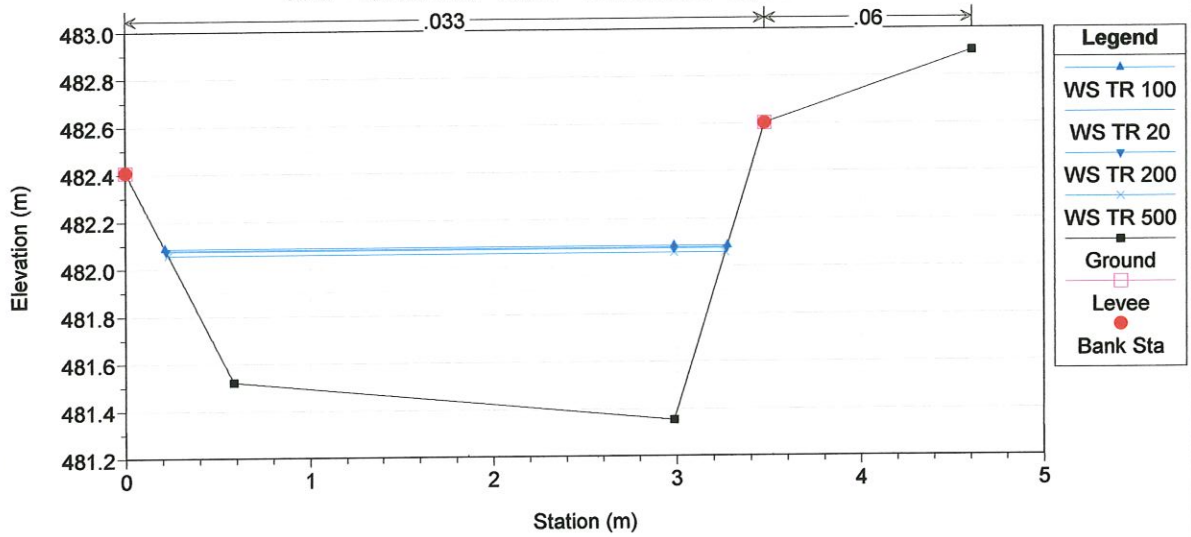
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 37 RS = 37



Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 36 RS = 36



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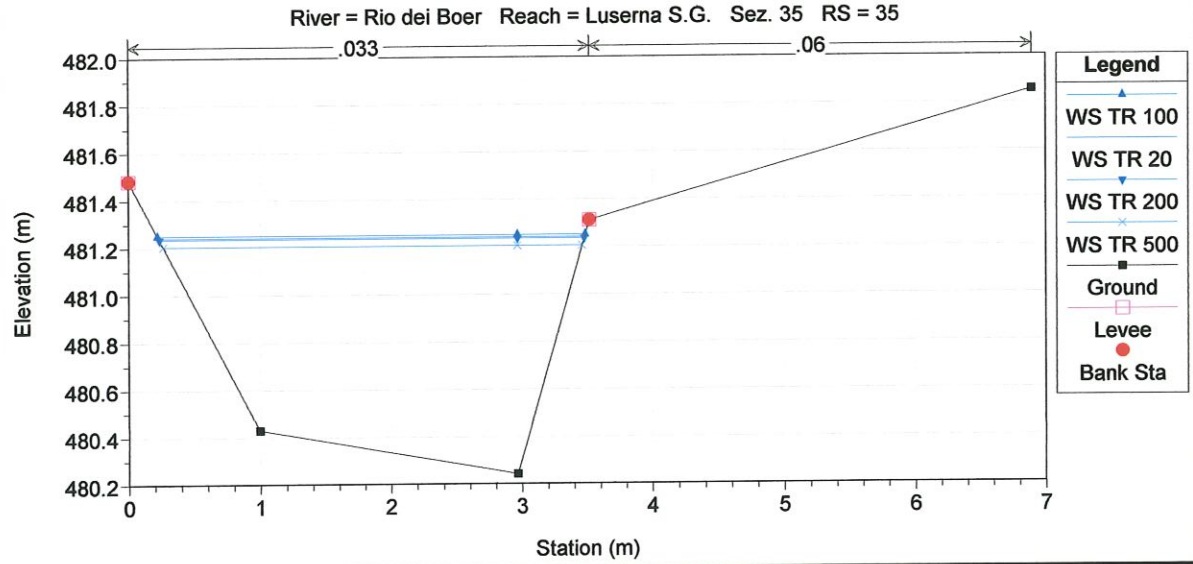

Verifica idrualica Rio dei Boer dati di progetto 09/12/03

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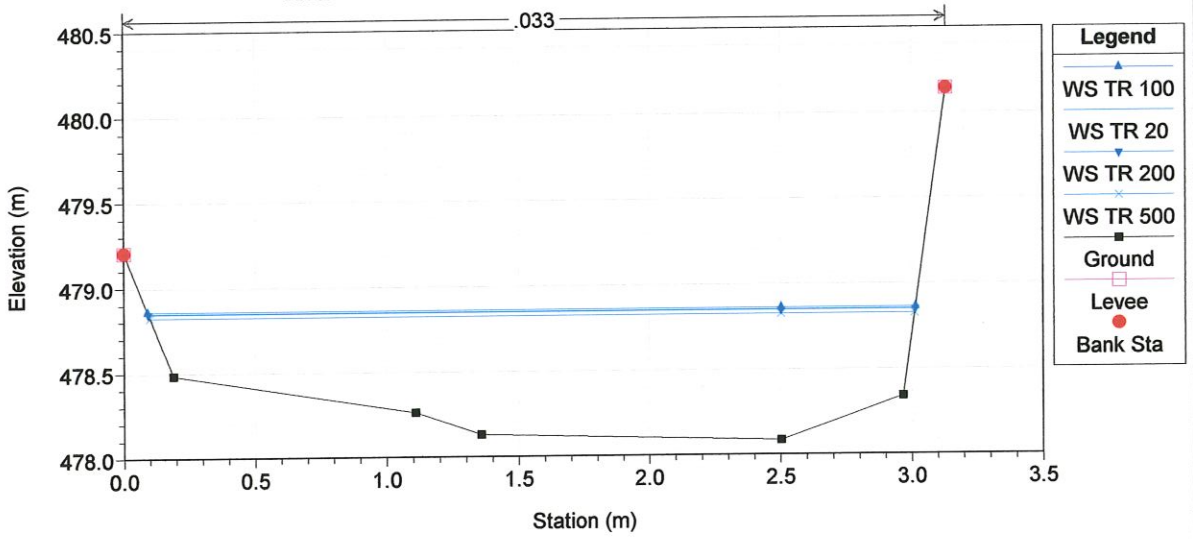

Verifica idrualica Rio dei Boer dati di progetto 09/12/03

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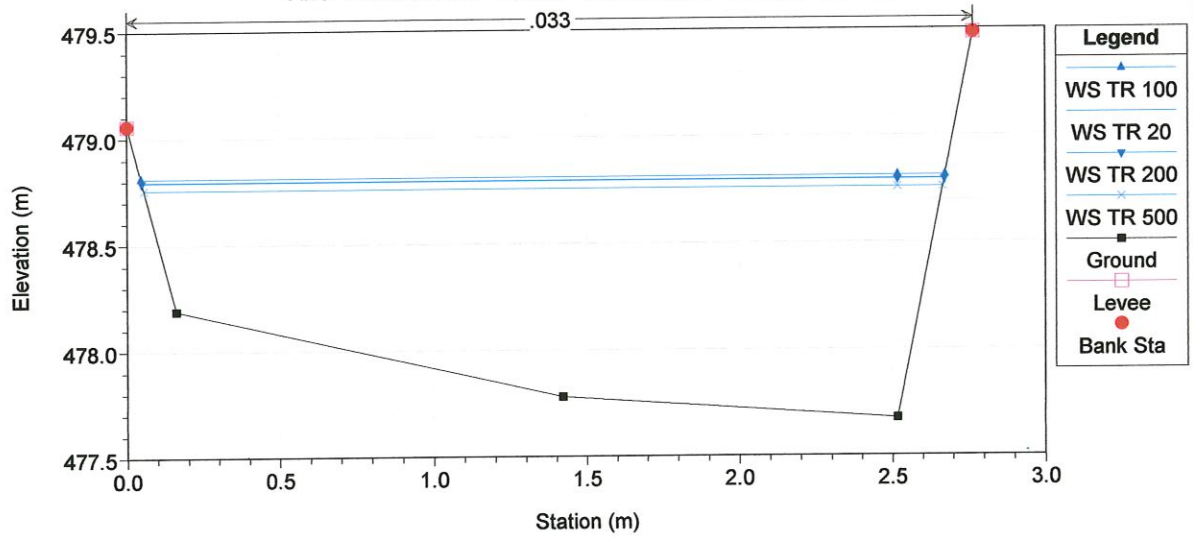
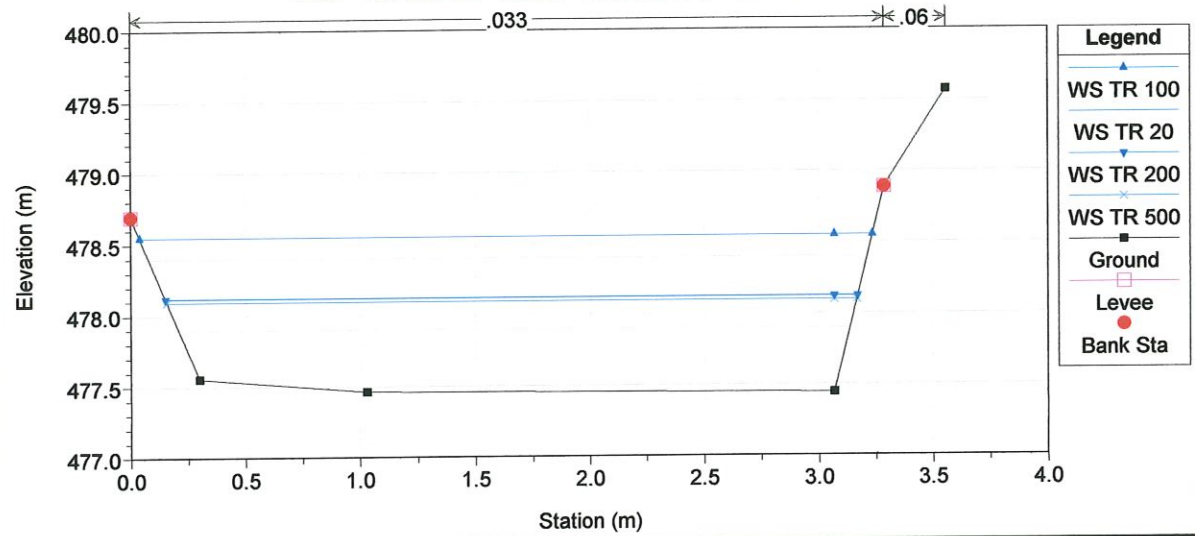


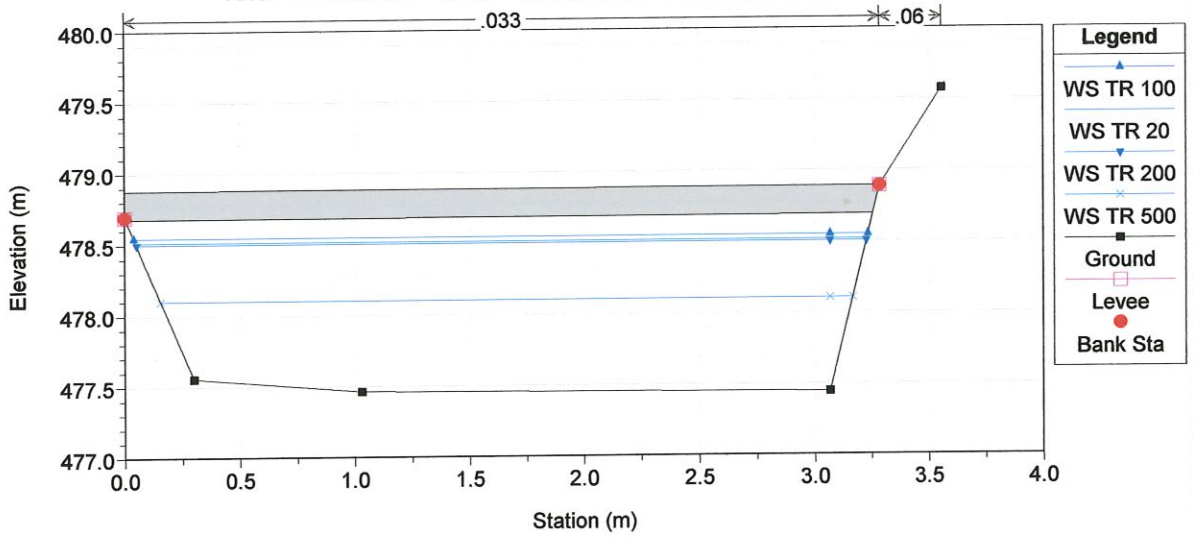
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 32 RS = 32



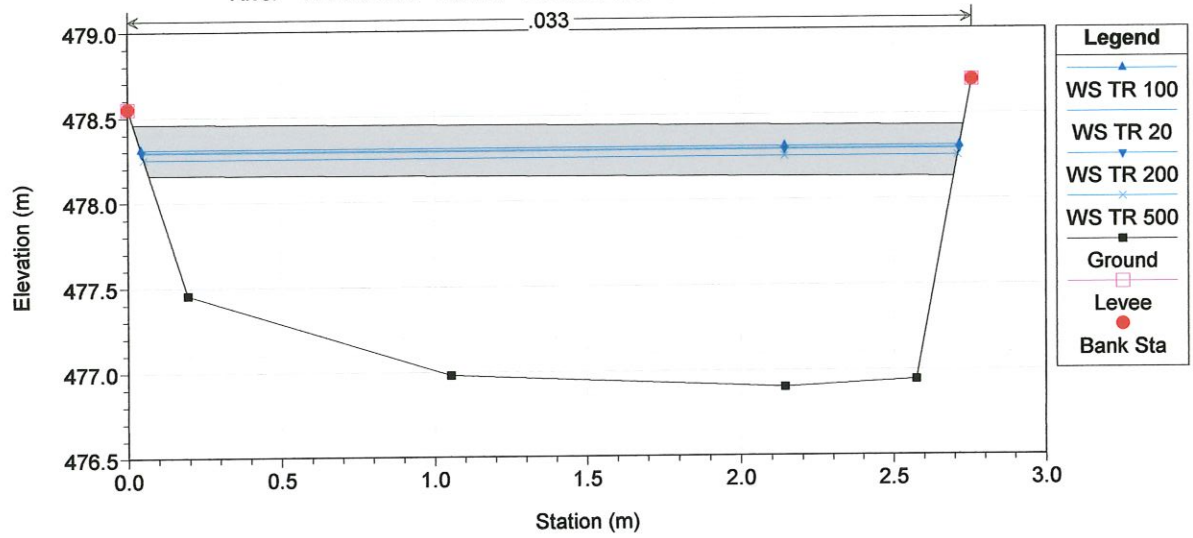
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte Via Bekwith RS = 31.5



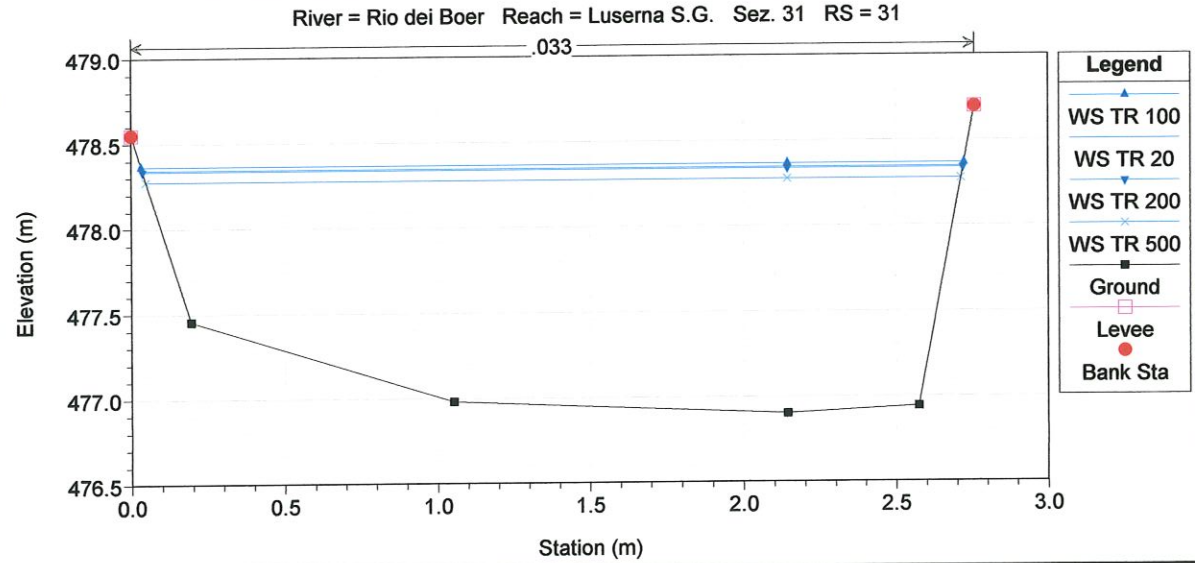
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte Via Bekwith RS = 31.5



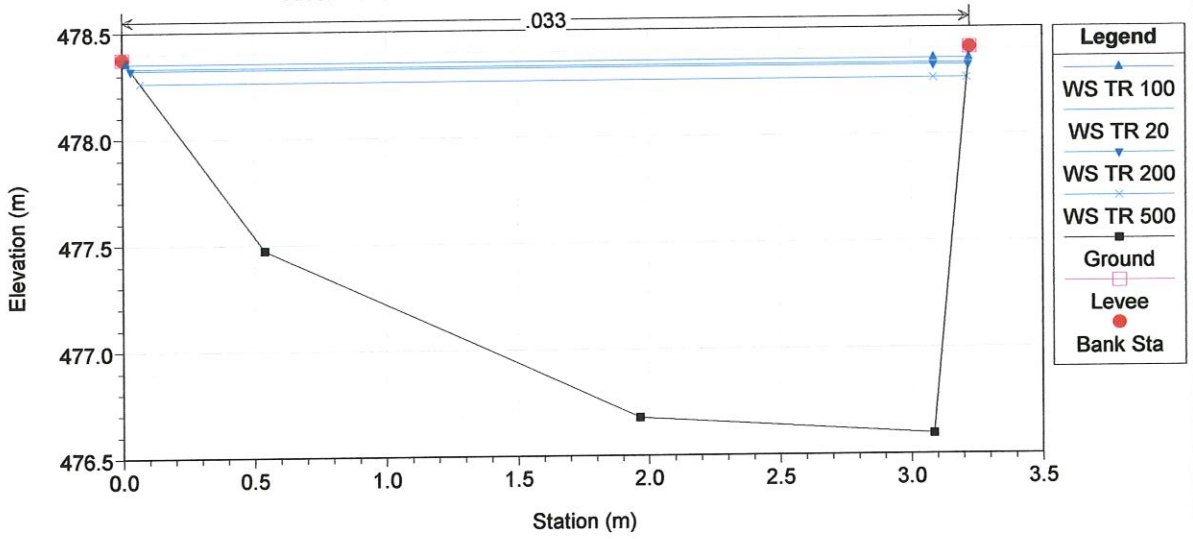
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 31 RS = 31



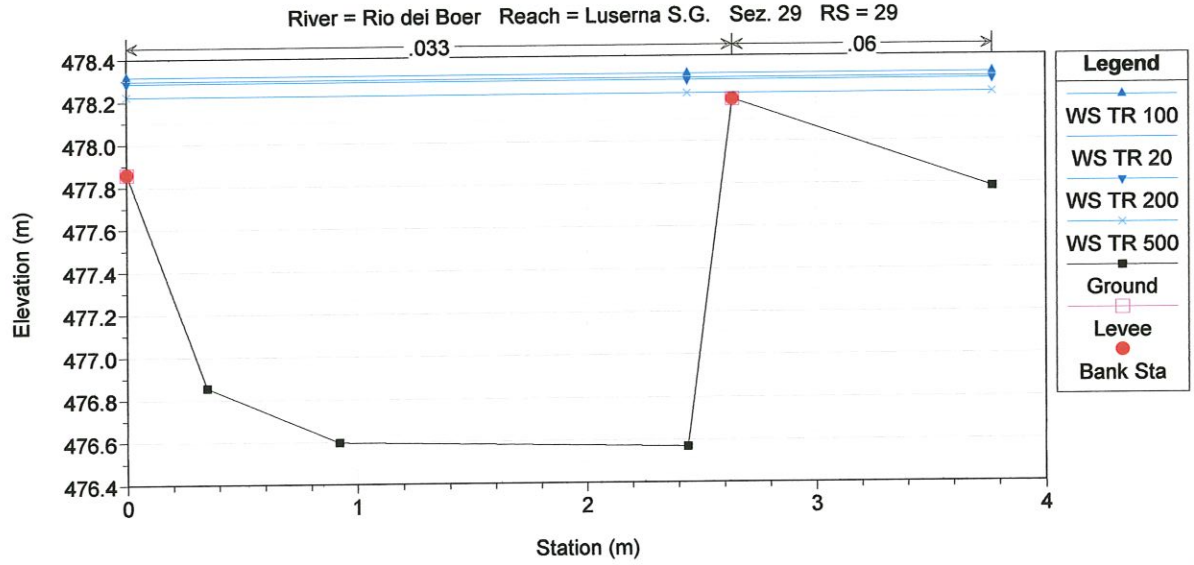
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 30 RS = 30



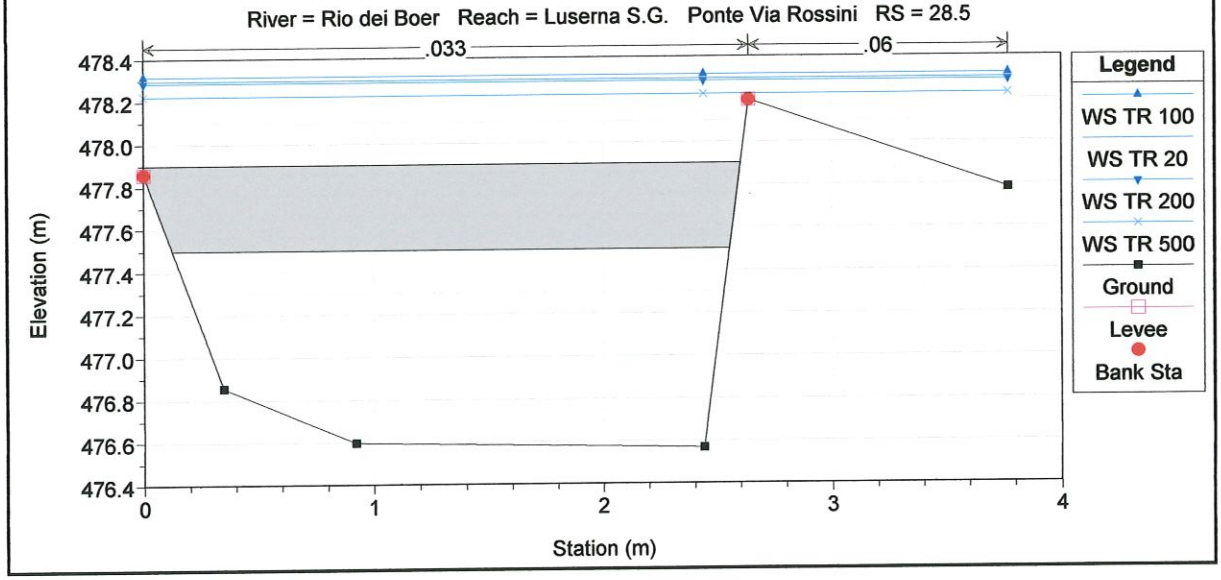
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 29 RS = 29



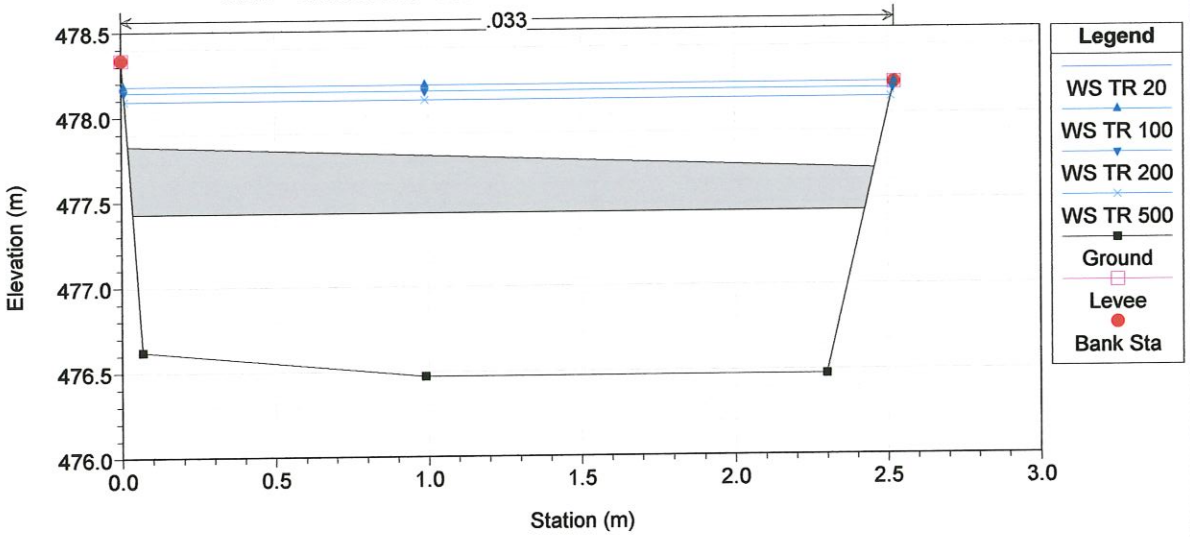
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte Via Rossini RS = 28.5



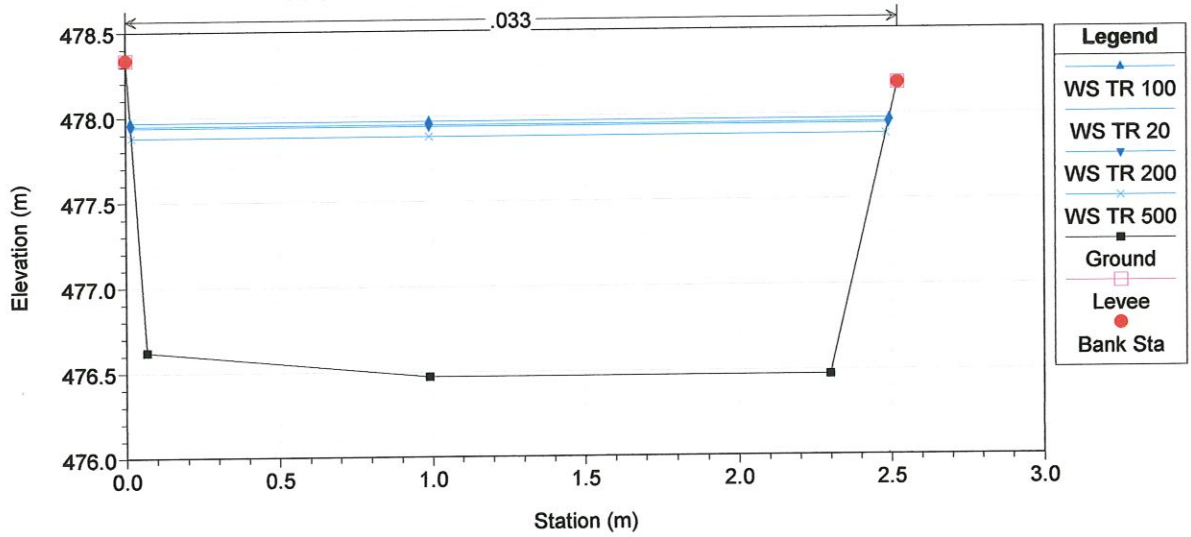
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte Via Rossini RS = 28.5



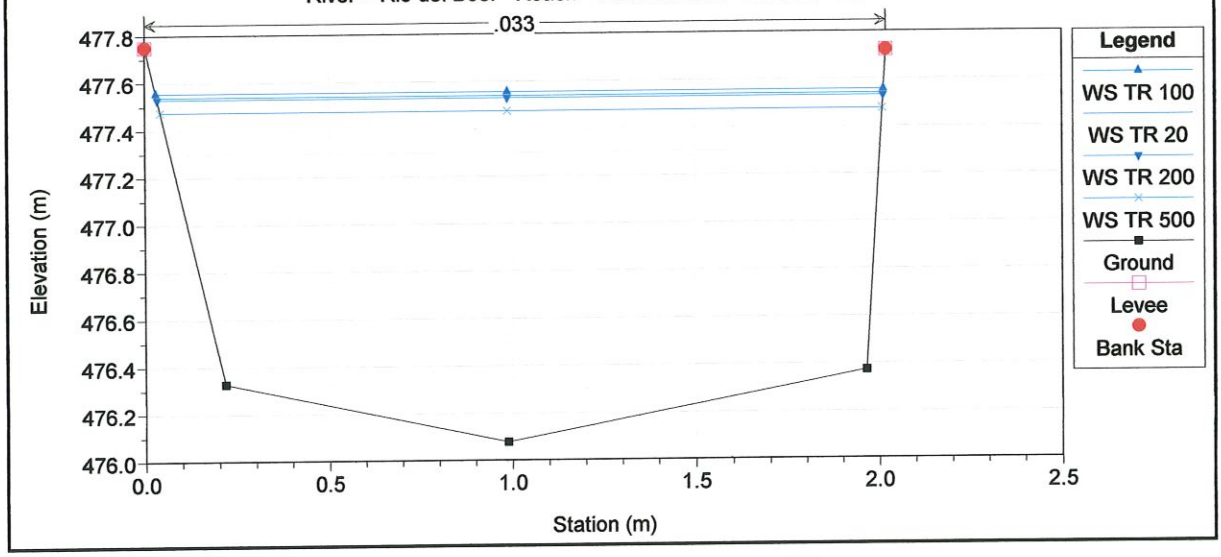
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 28 RS = 28



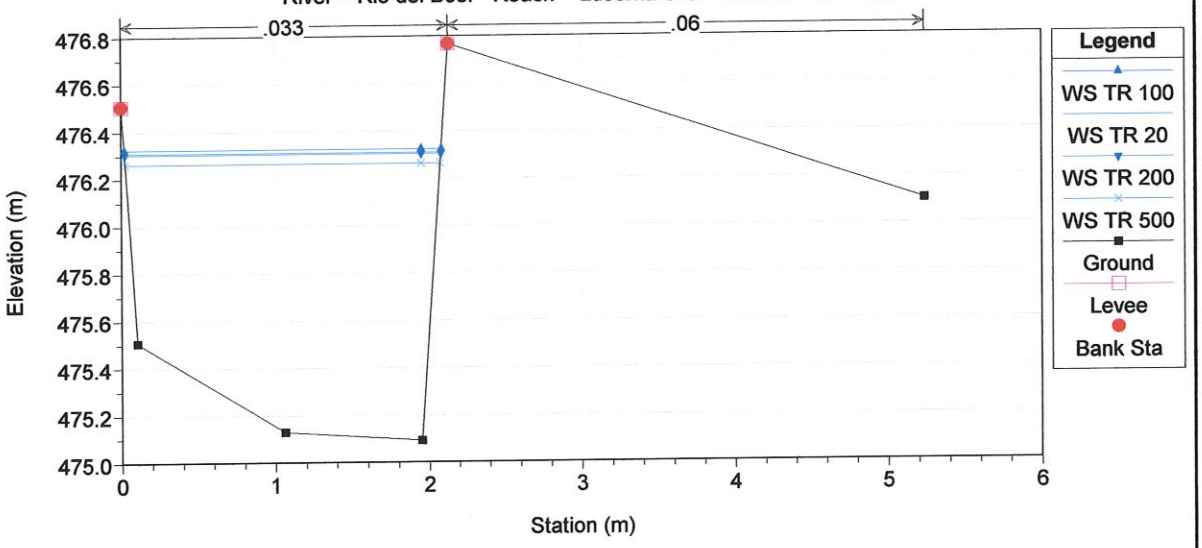
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 27 RS = 27



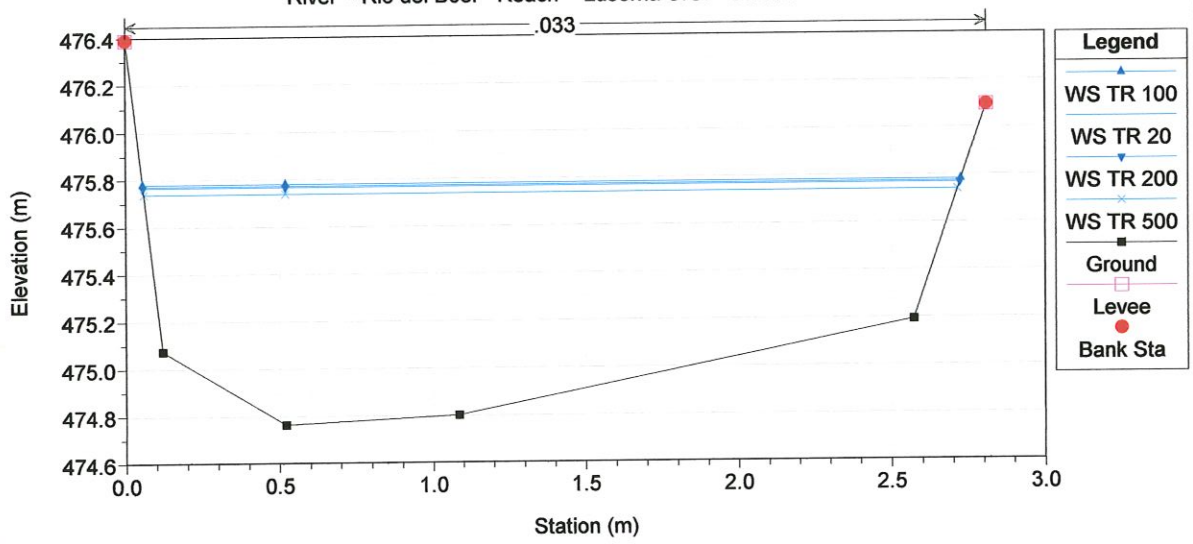
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 26 RS = 26



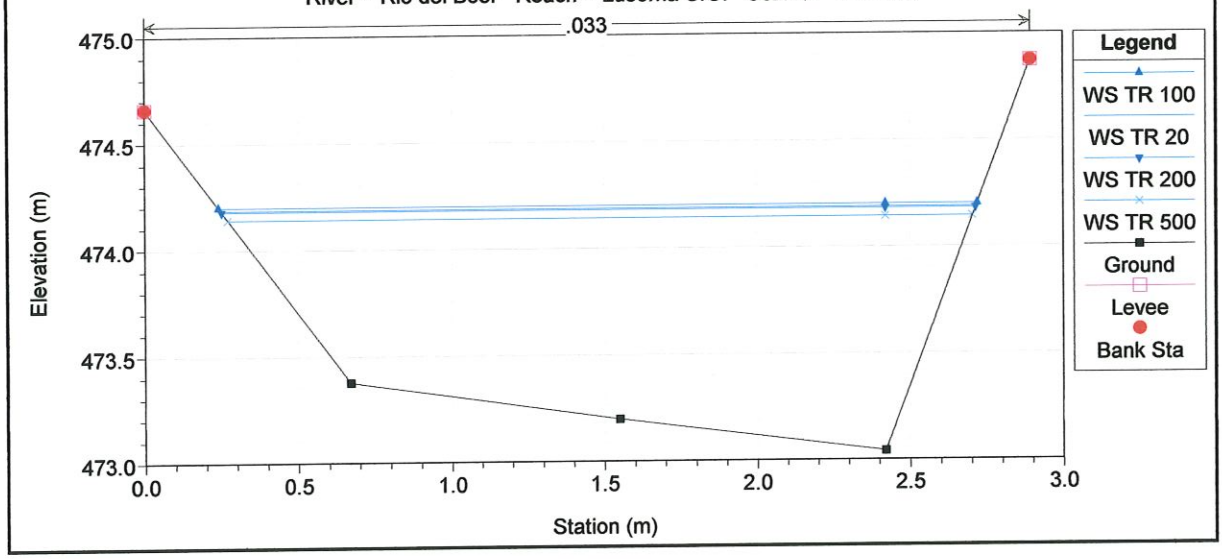
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 25 RS = 25



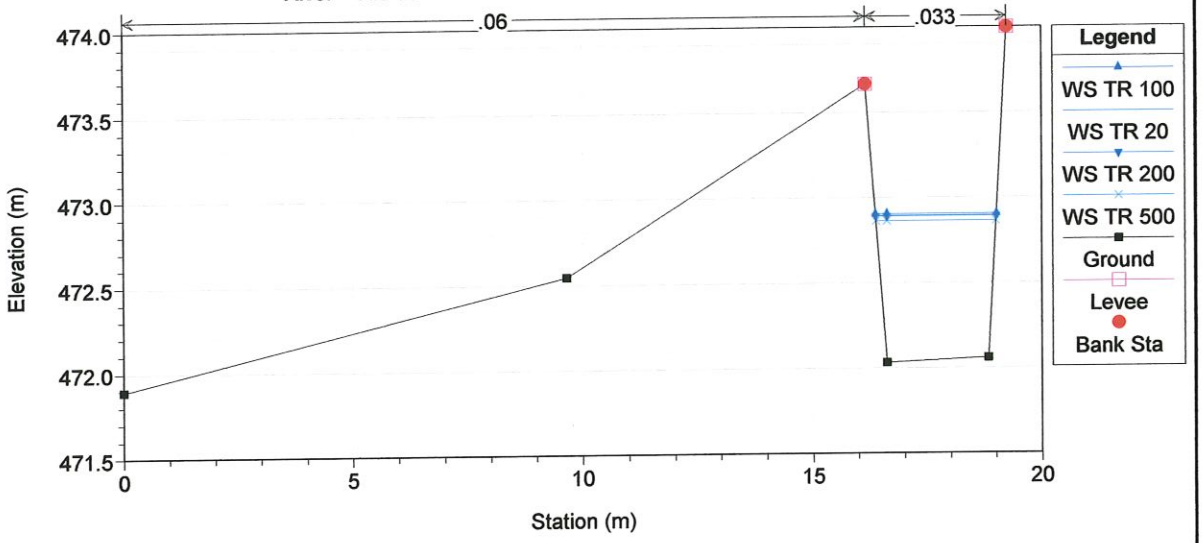
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 24 RS = 24



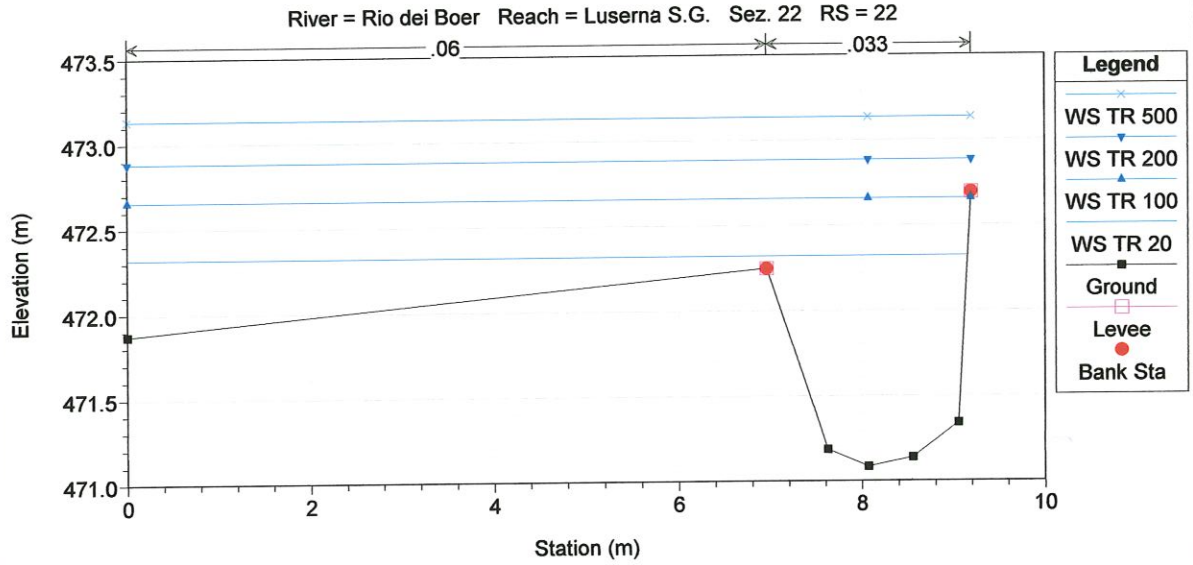
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 23 RS = 23



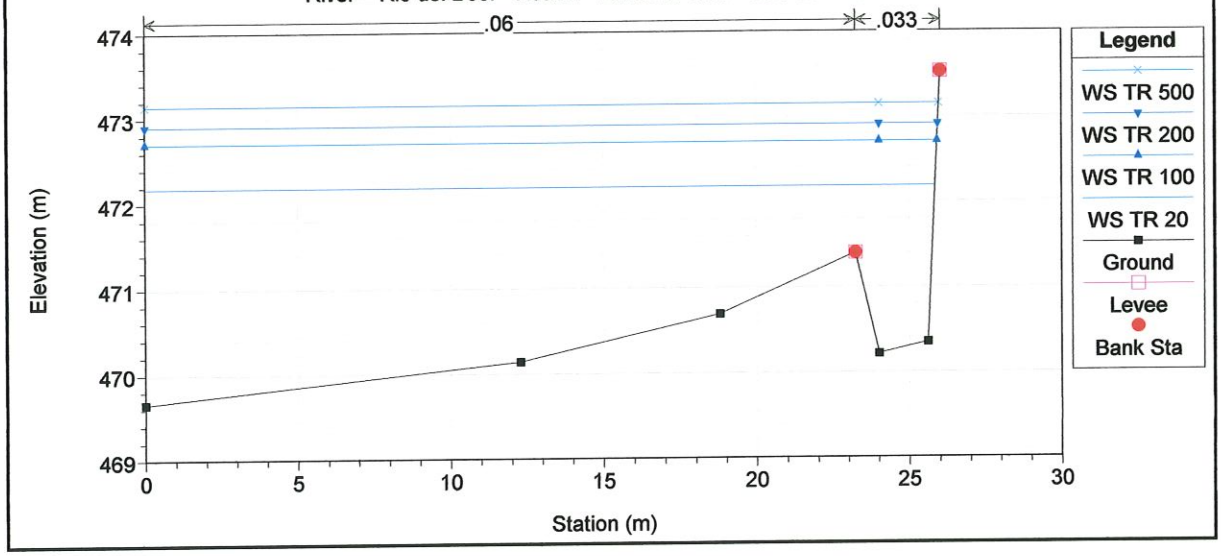
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 22 RS = 22



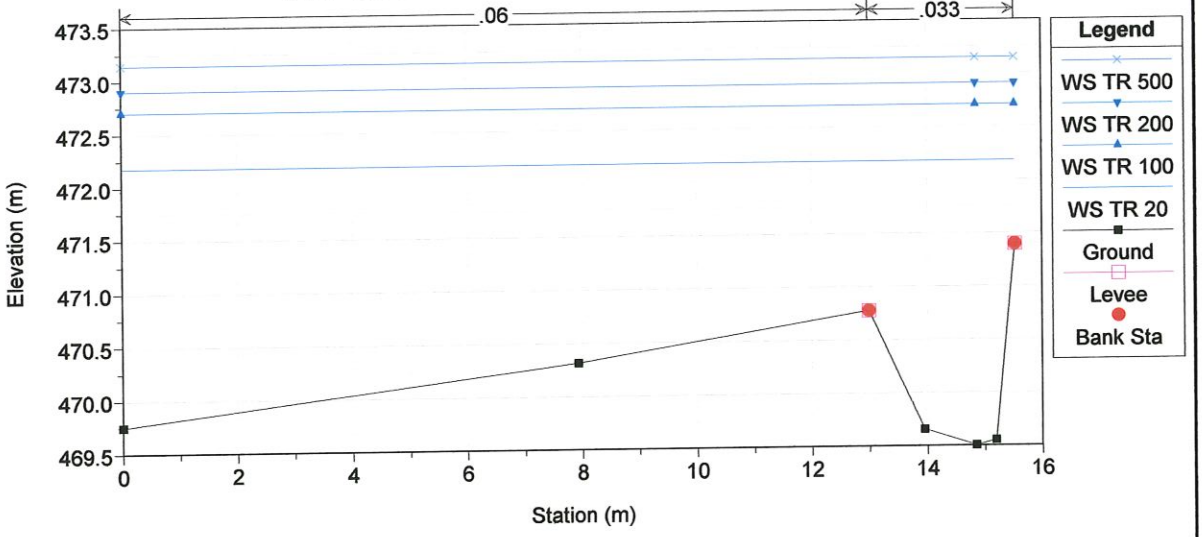
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 21 RS = 21



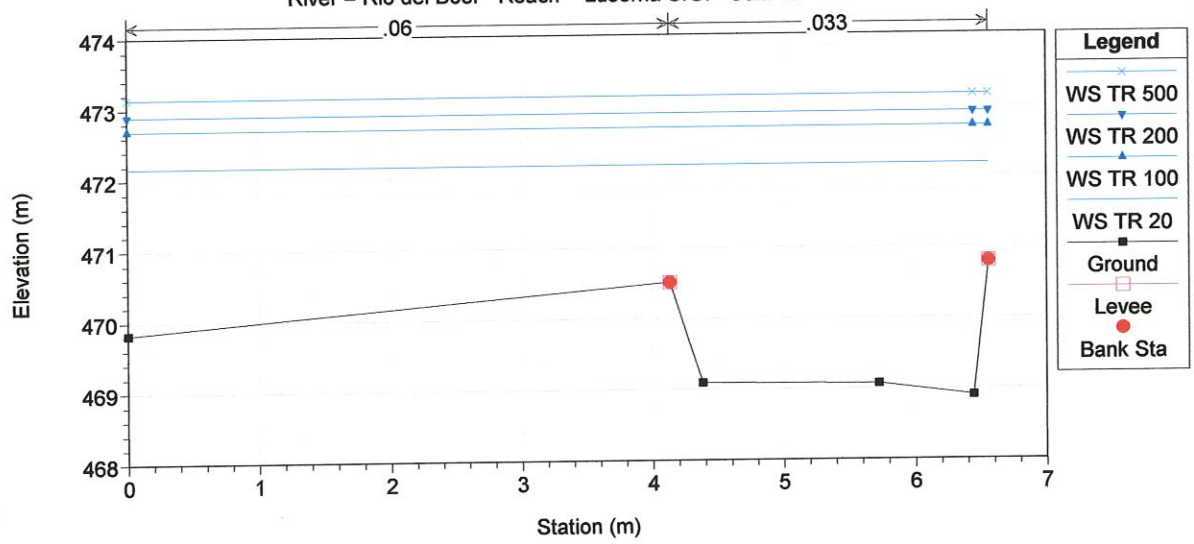
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 20 RS = 20



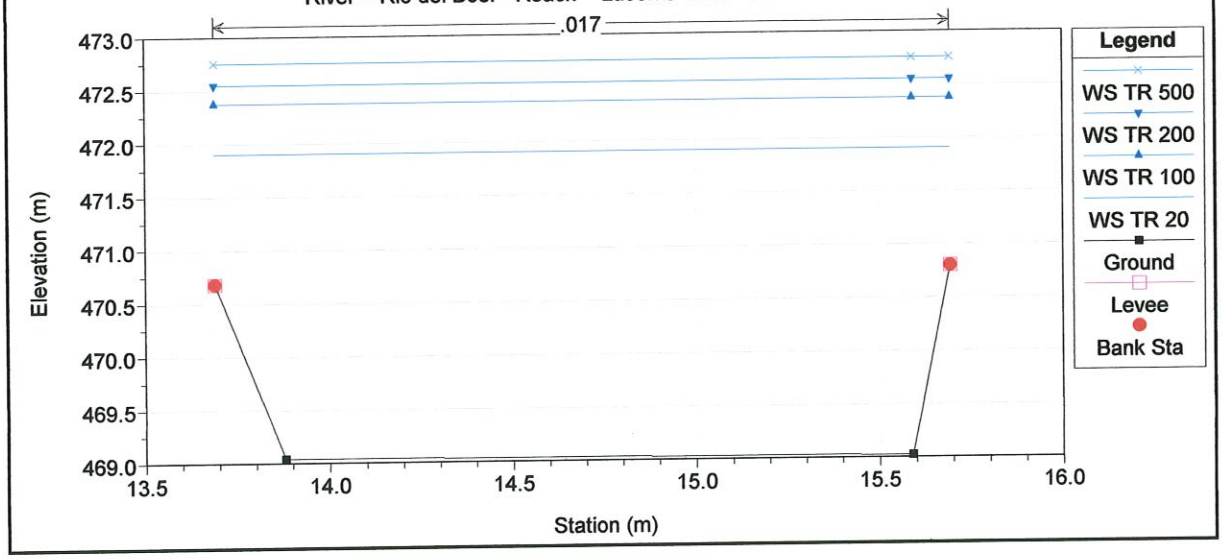
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 19 RS = 19



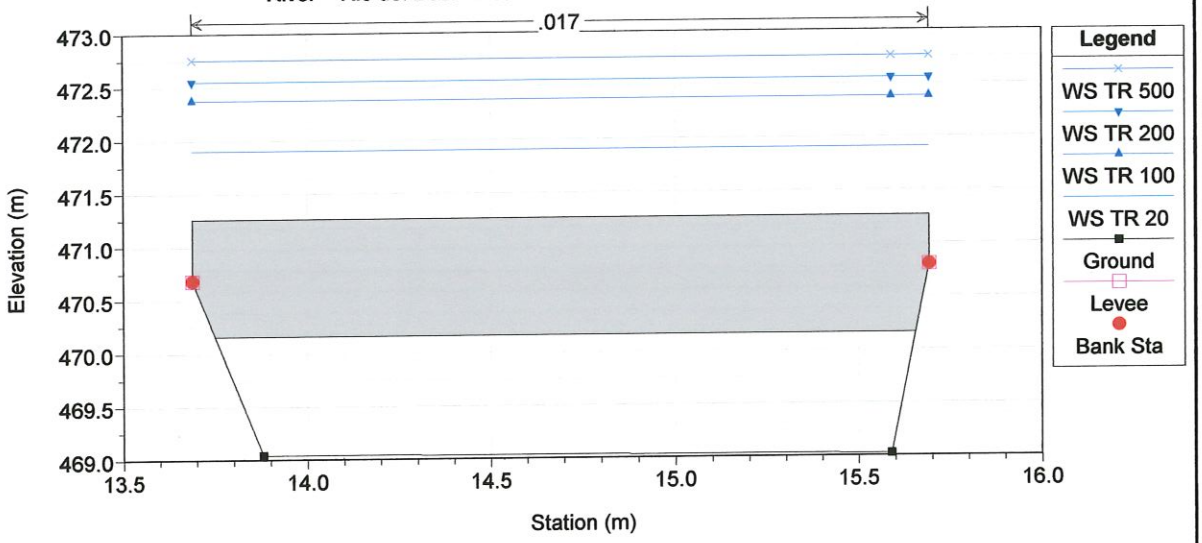
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 18 RS = 18



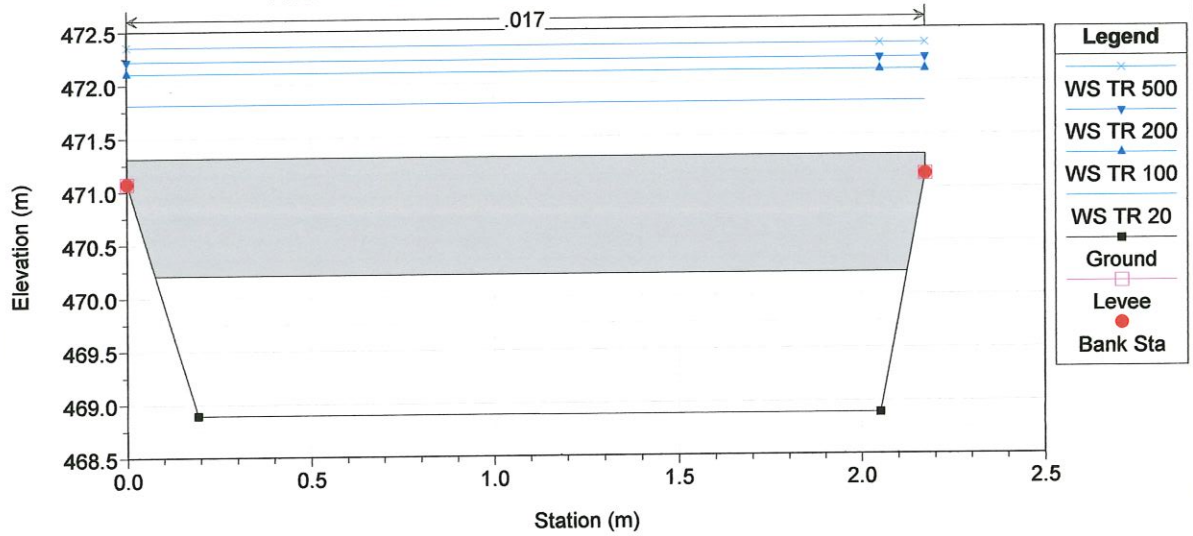
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte FS RS = 17.5



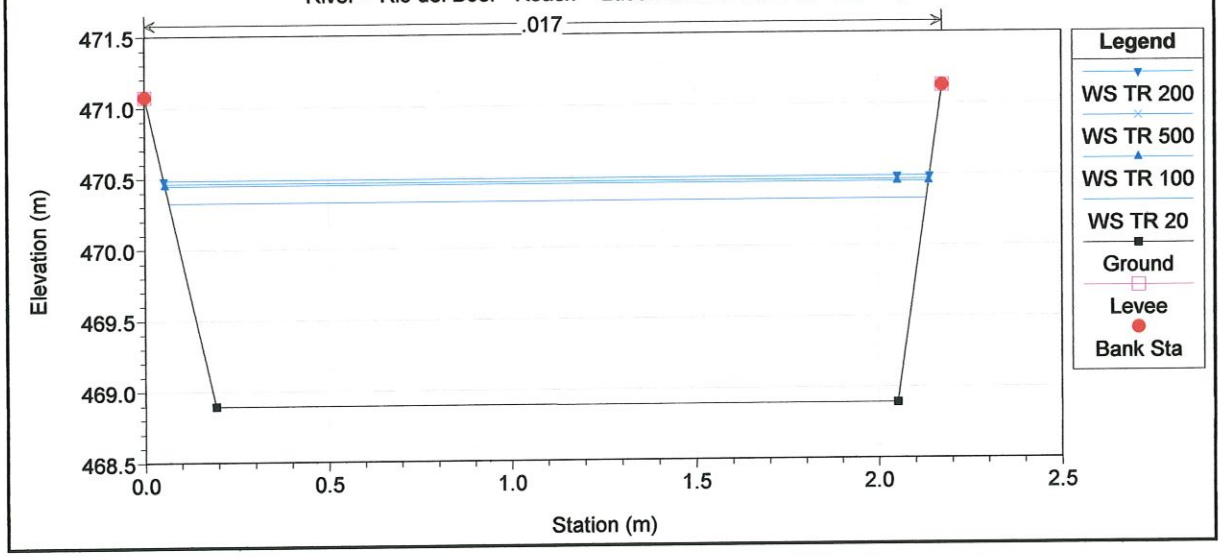
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte FS RS = 17.5



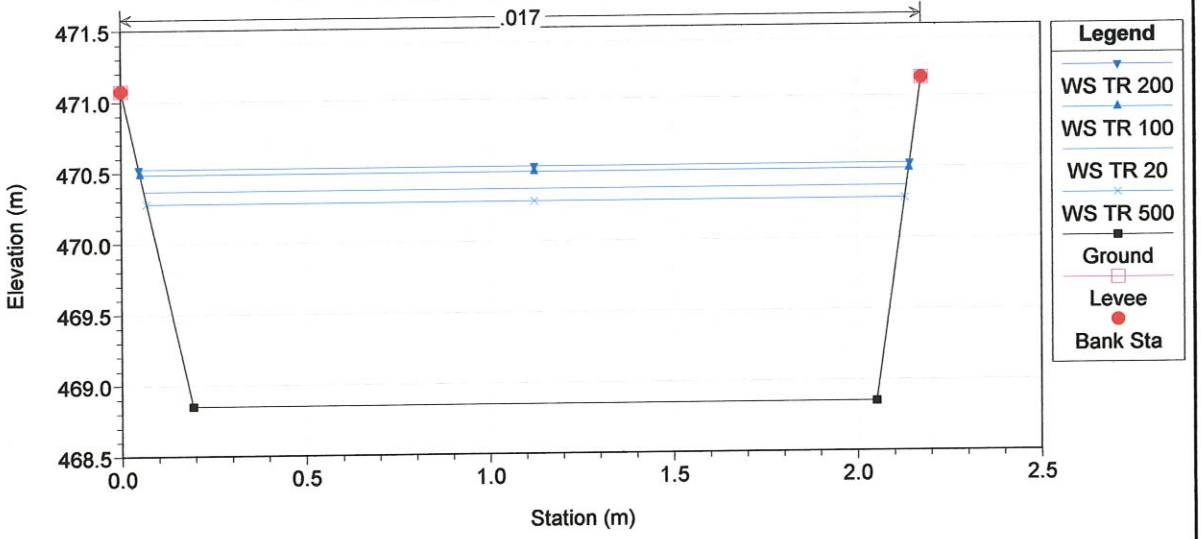
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 17 RS = 17



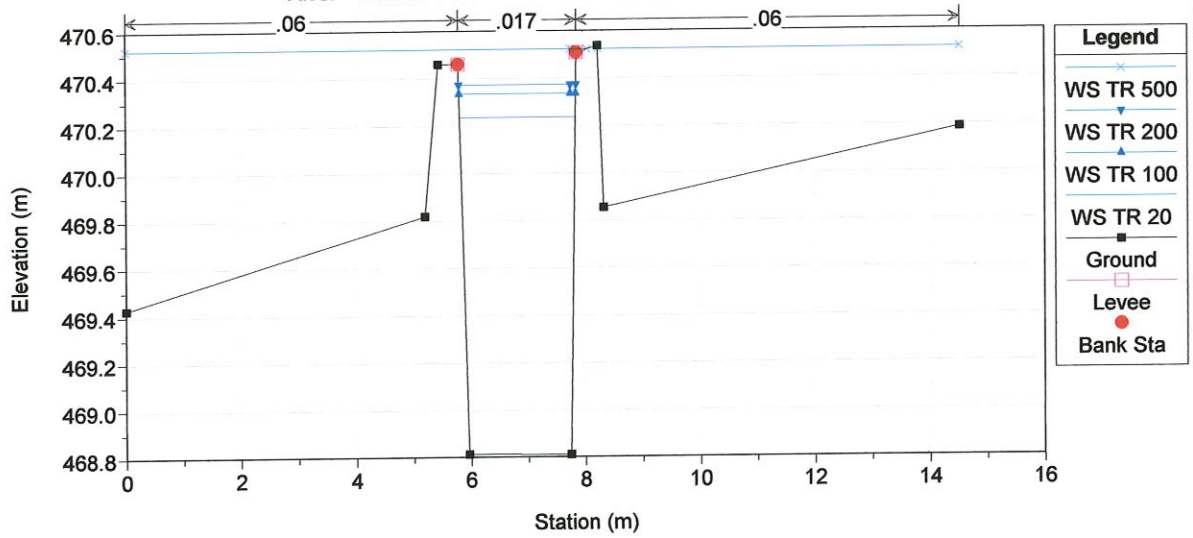
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 17 RS = 16.5



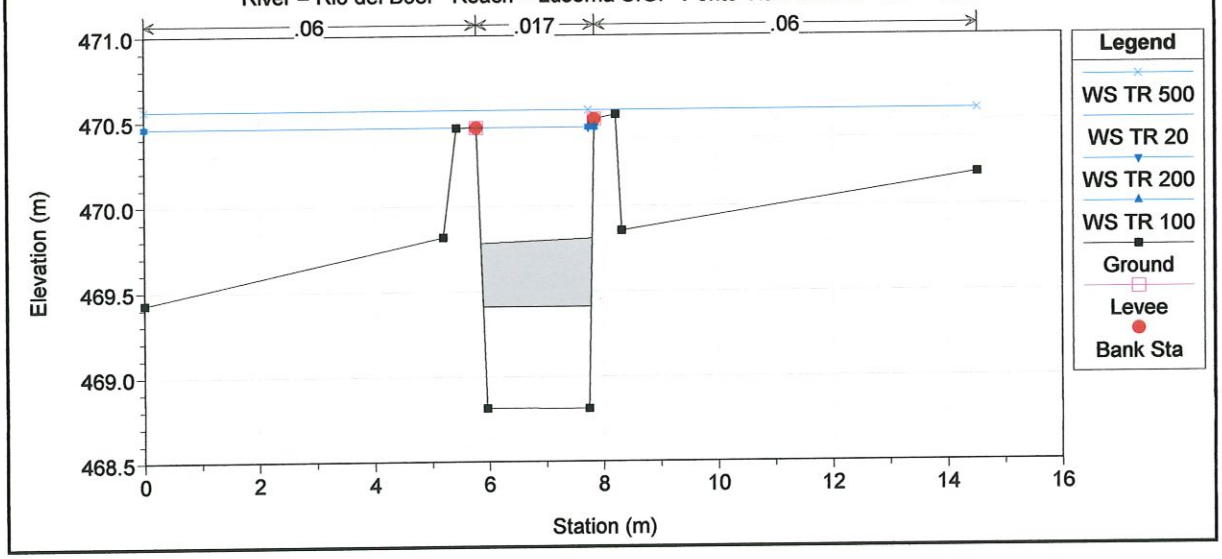
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 16 RS = 16



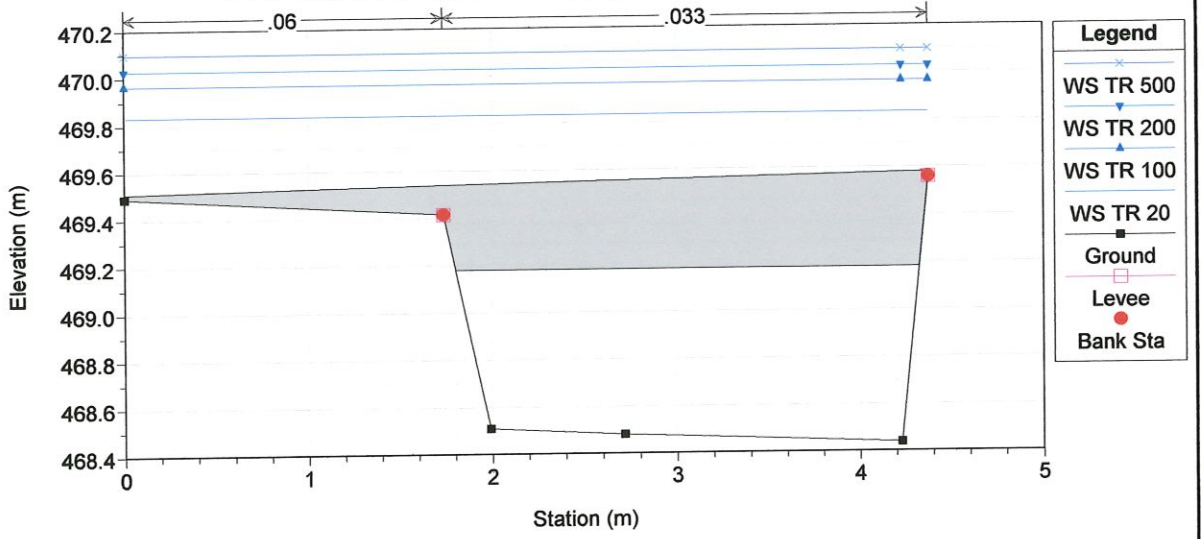
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte Via Bellonati RS = 15.5



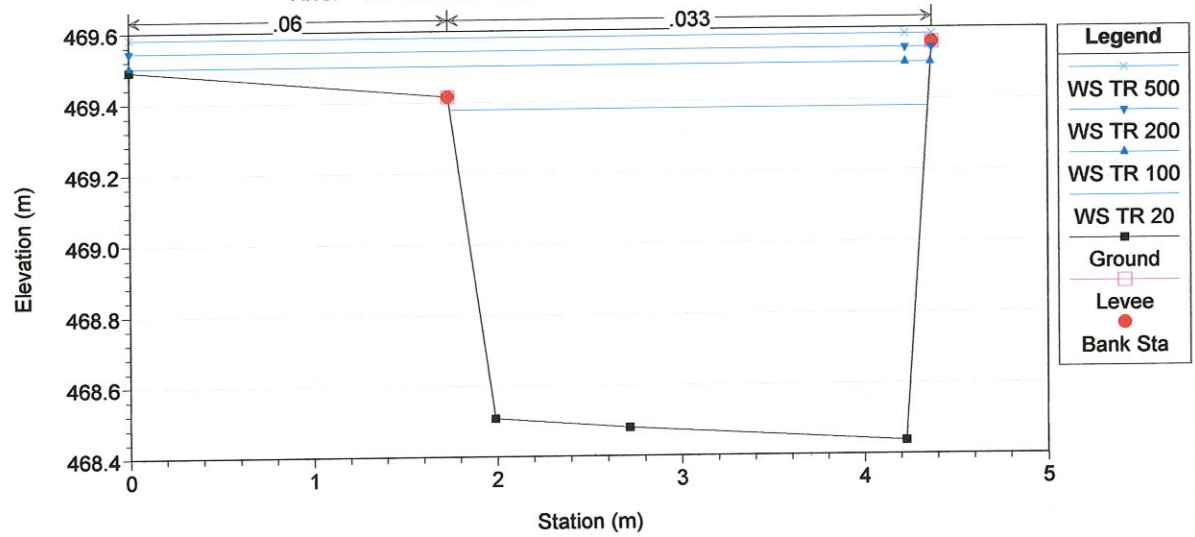
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Ponte Via Bellonati RS = 15.5



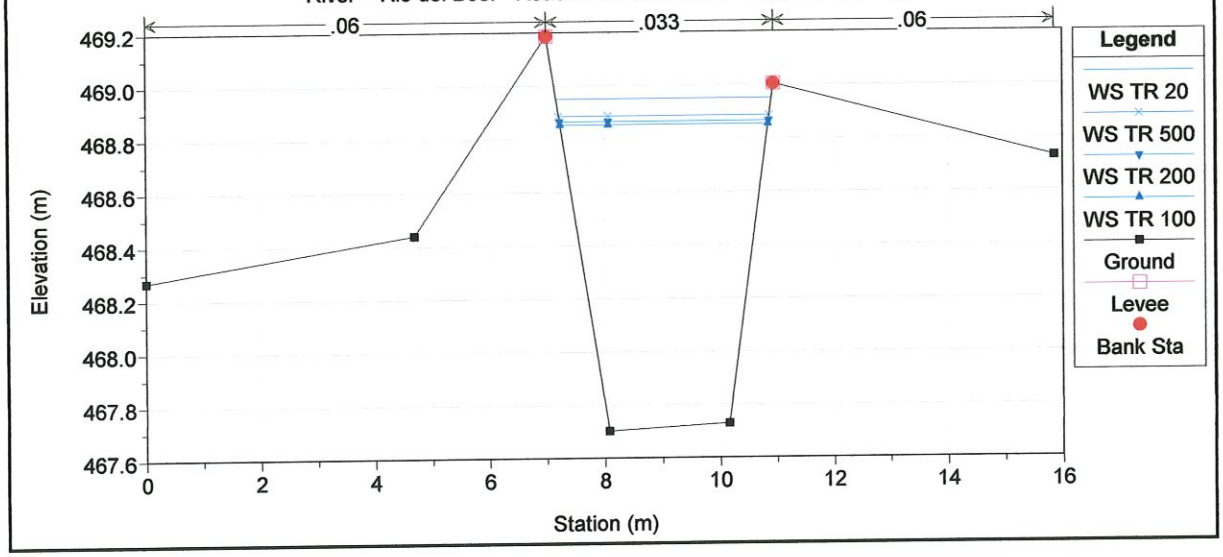
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 15 RS = 15



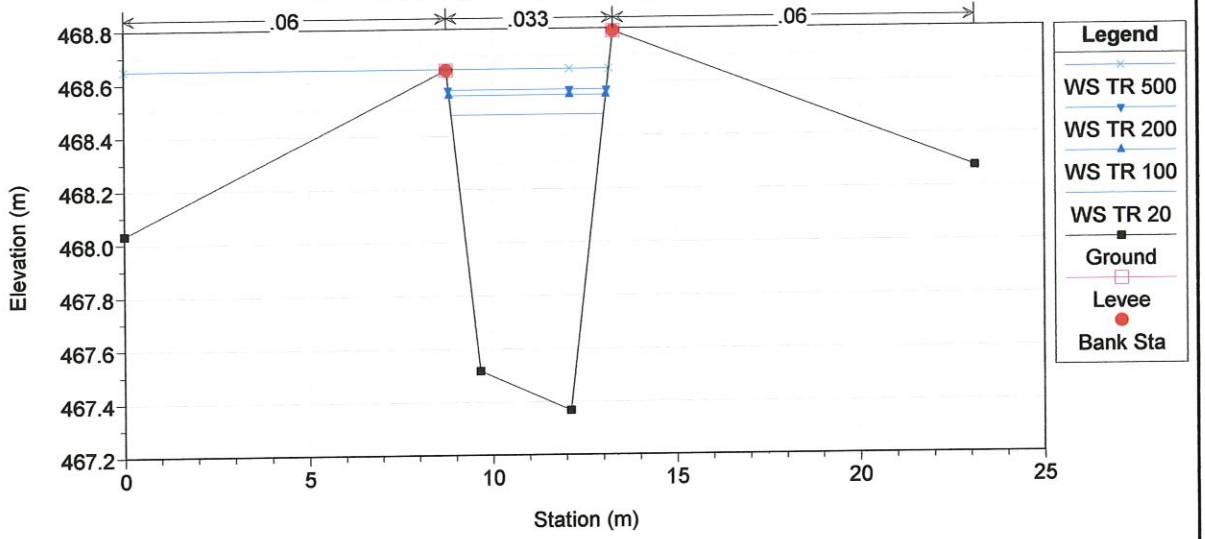
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 14 RS = 14



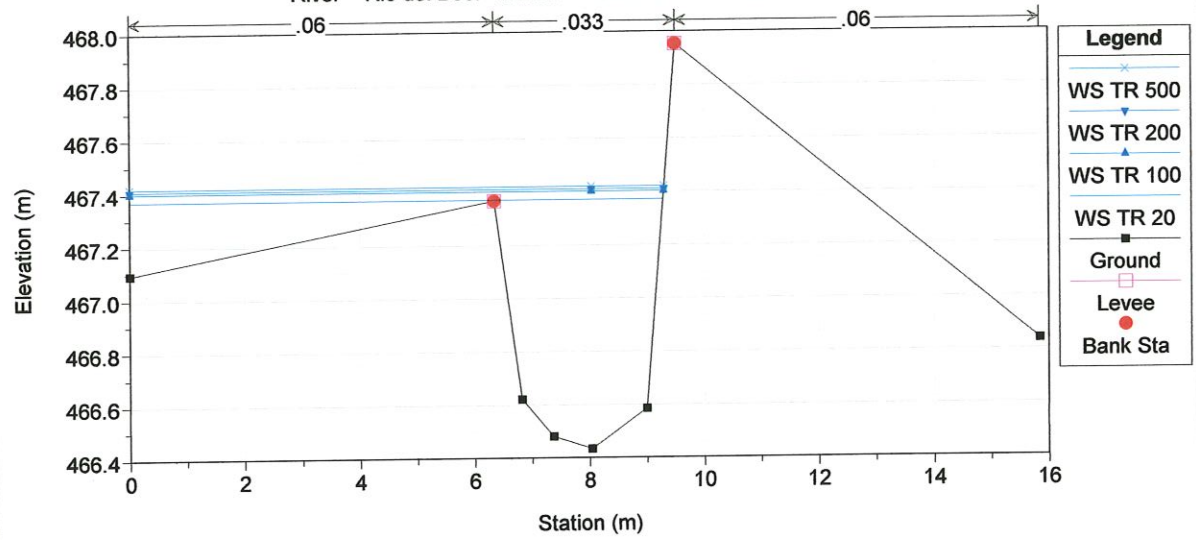
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 13 RS = 13



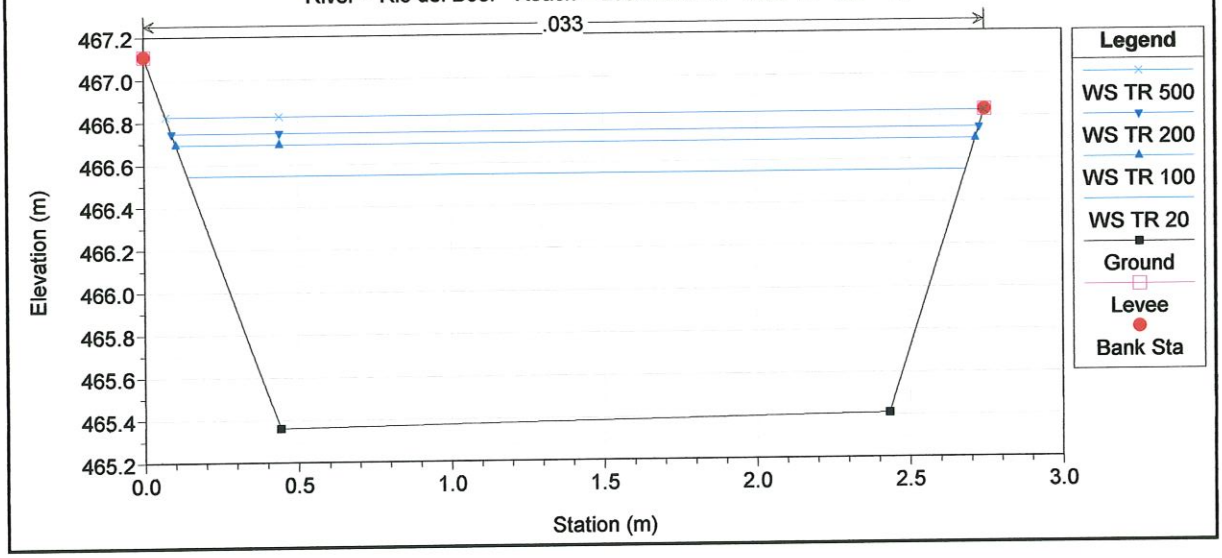
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 12 RS = 12



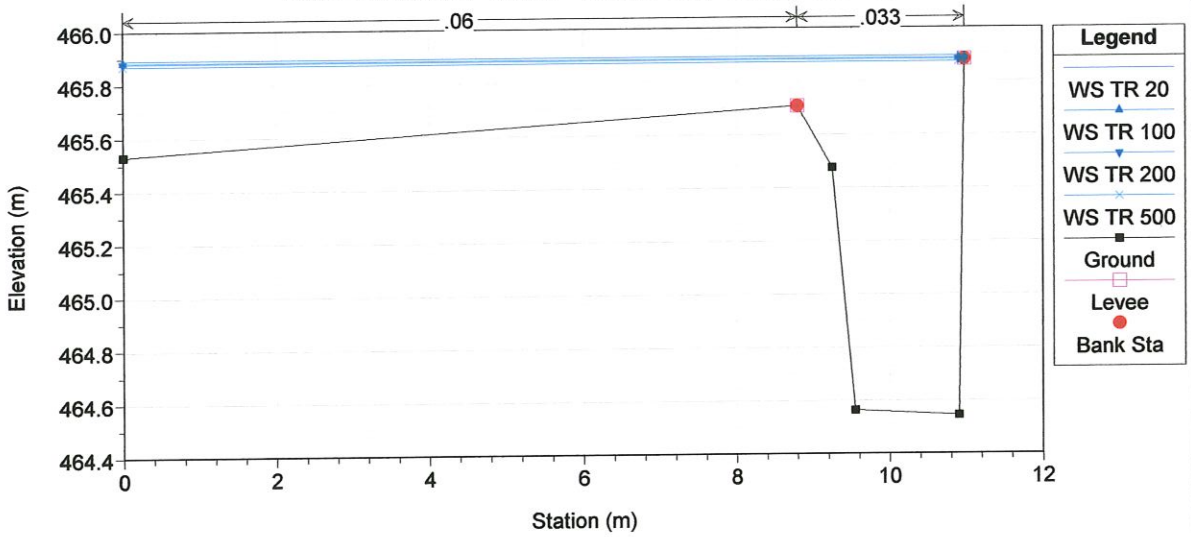
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 11 RS = 11



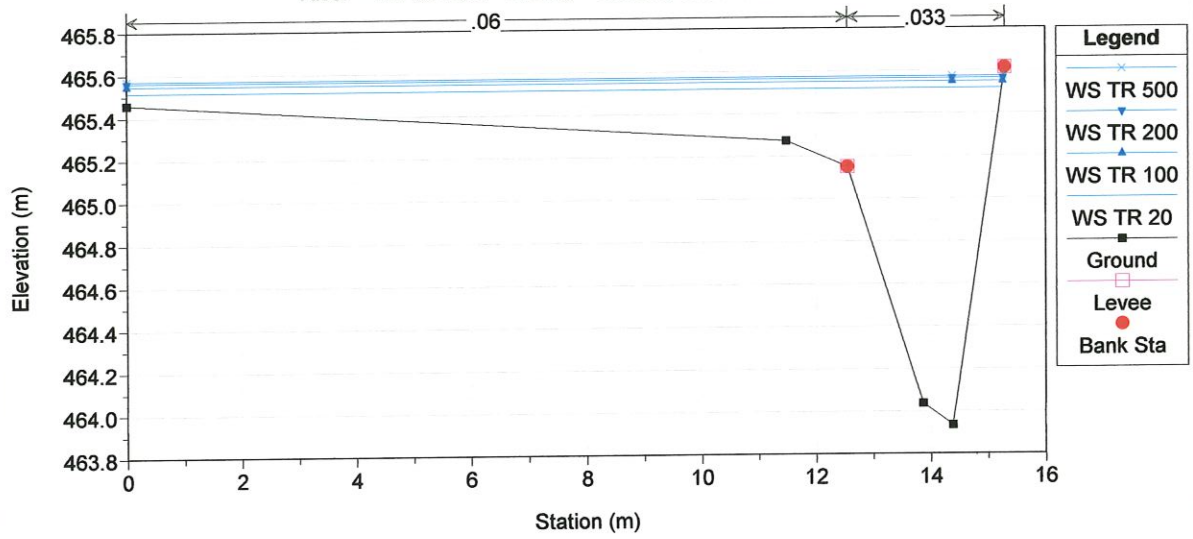
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 10 RS = 10



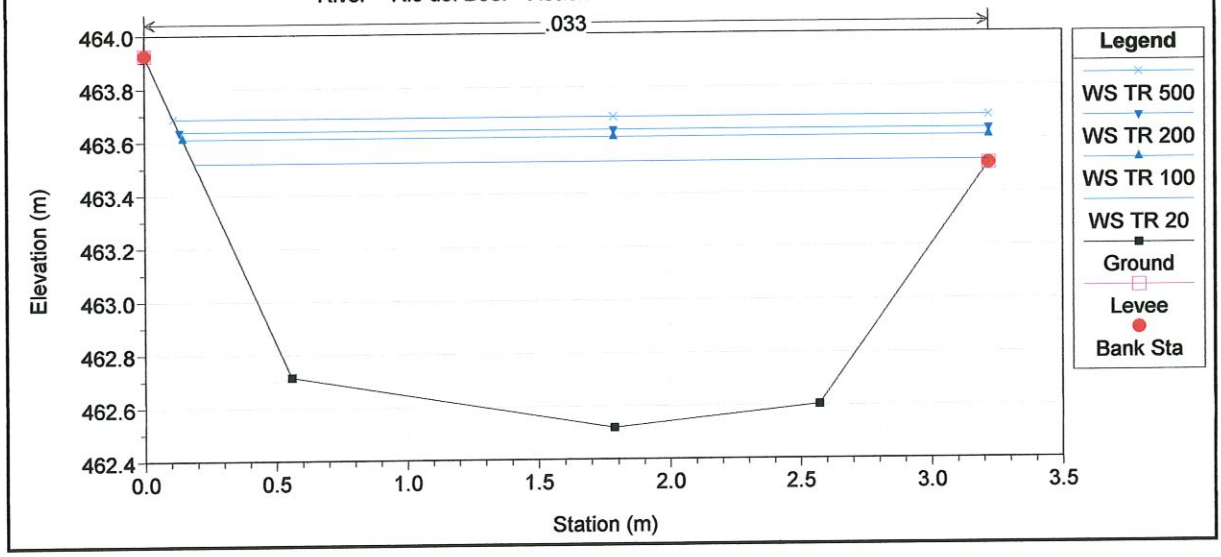
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 9 RS = 9



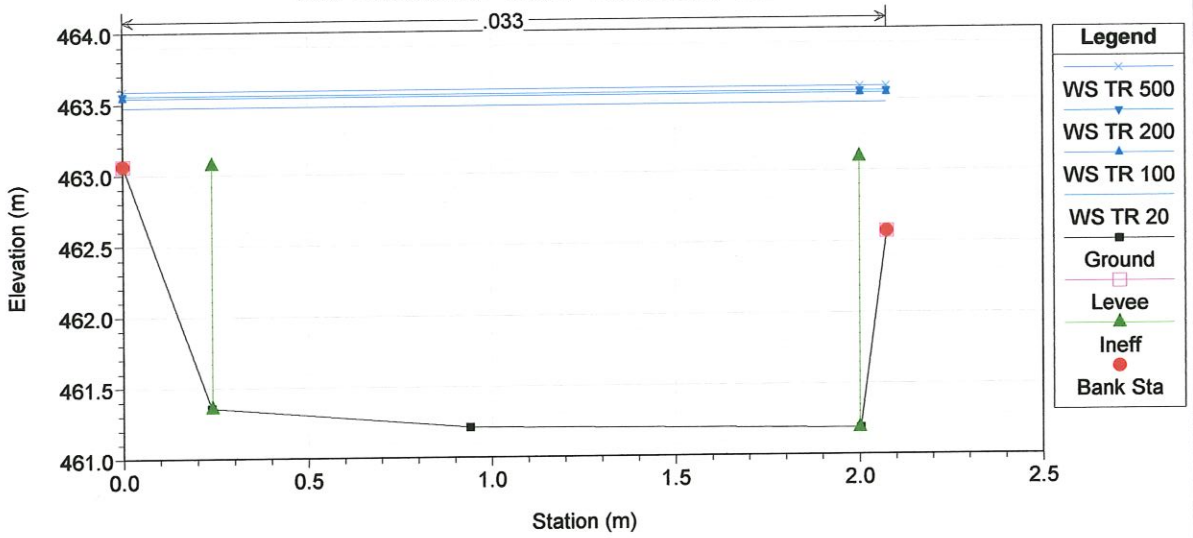
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 8 RS = 8



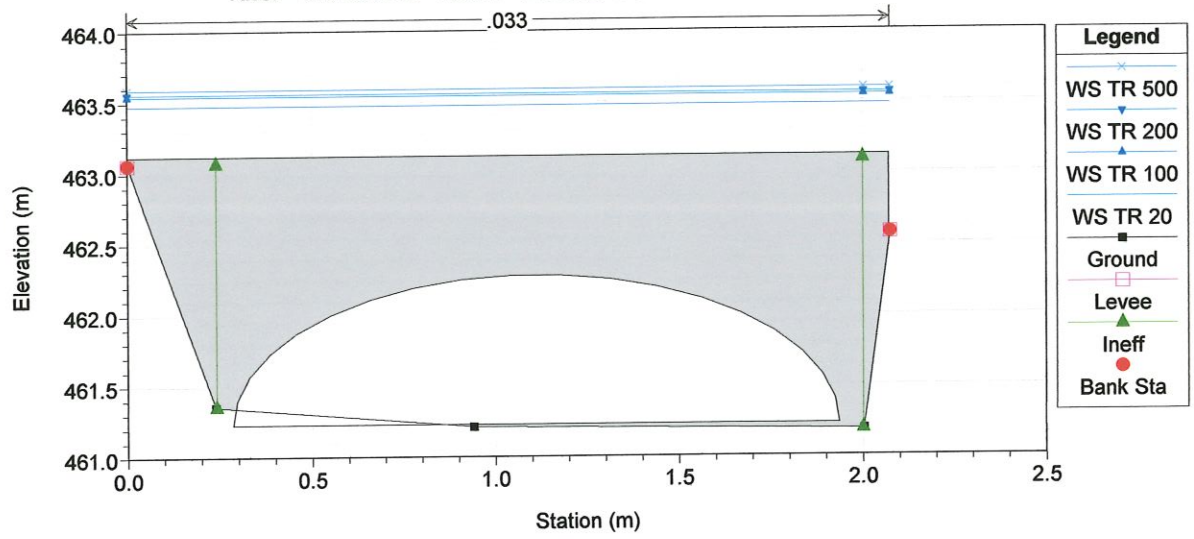
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 7 RS = 7



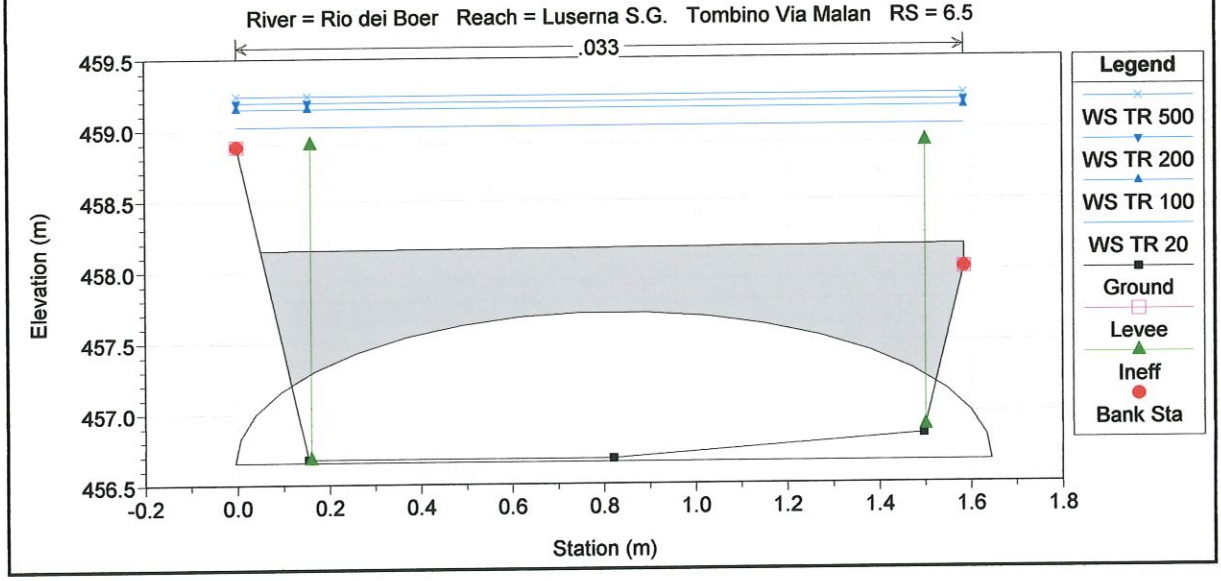
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Tombino Via Malan RS = 6.5



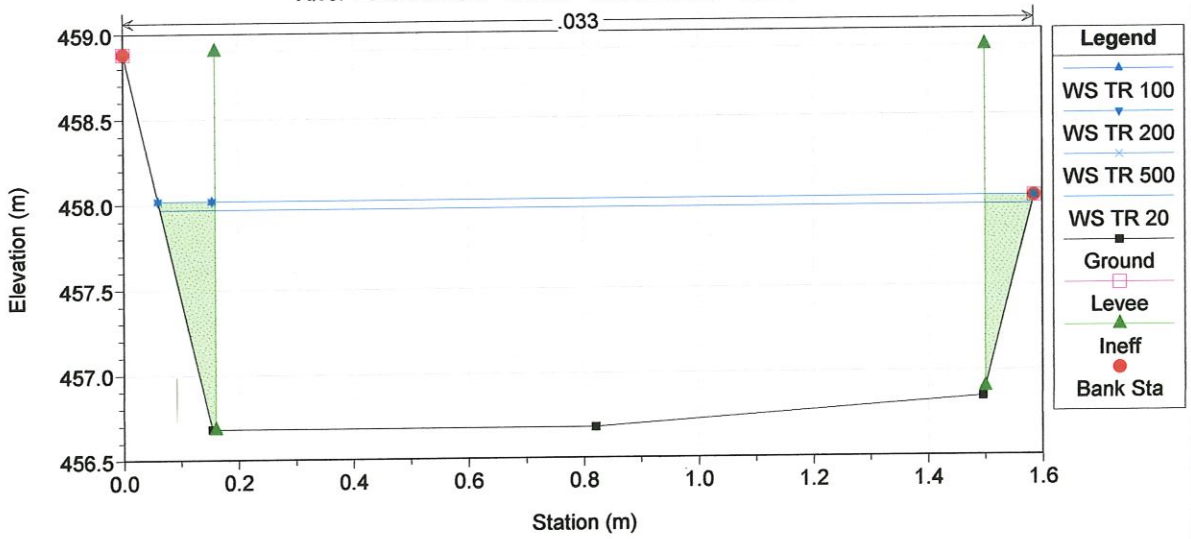
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Tombino Via Malan RS = 6.5



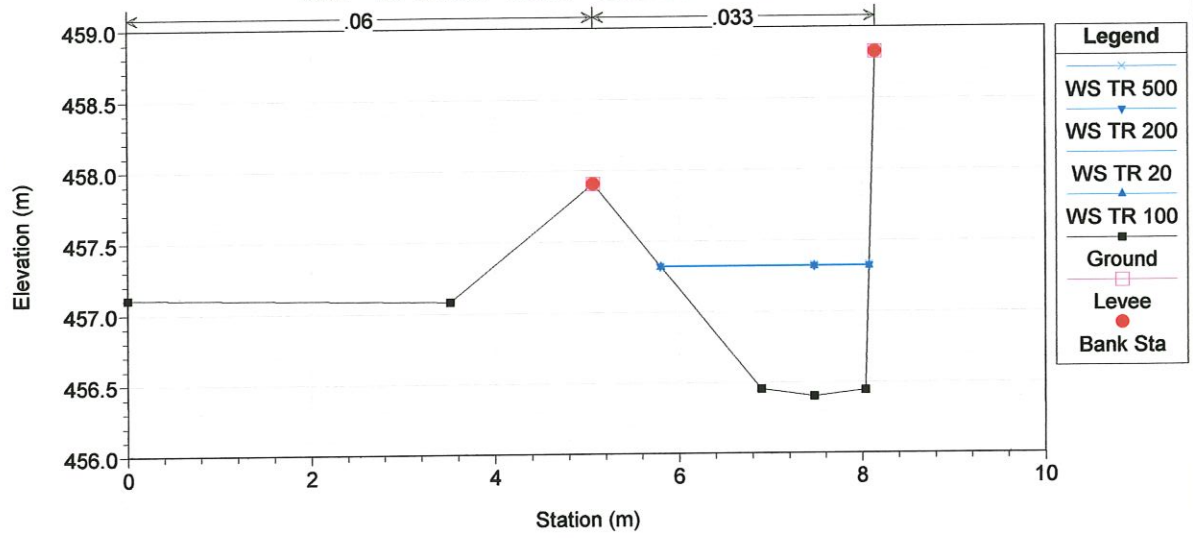
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 6 RS = 6



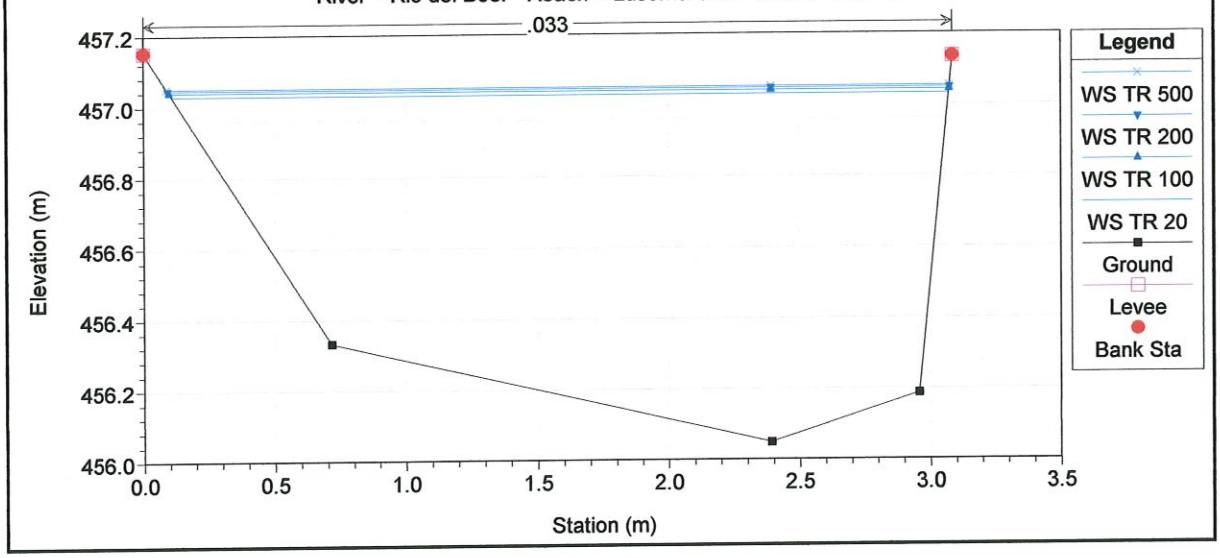
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 5 RS = 5



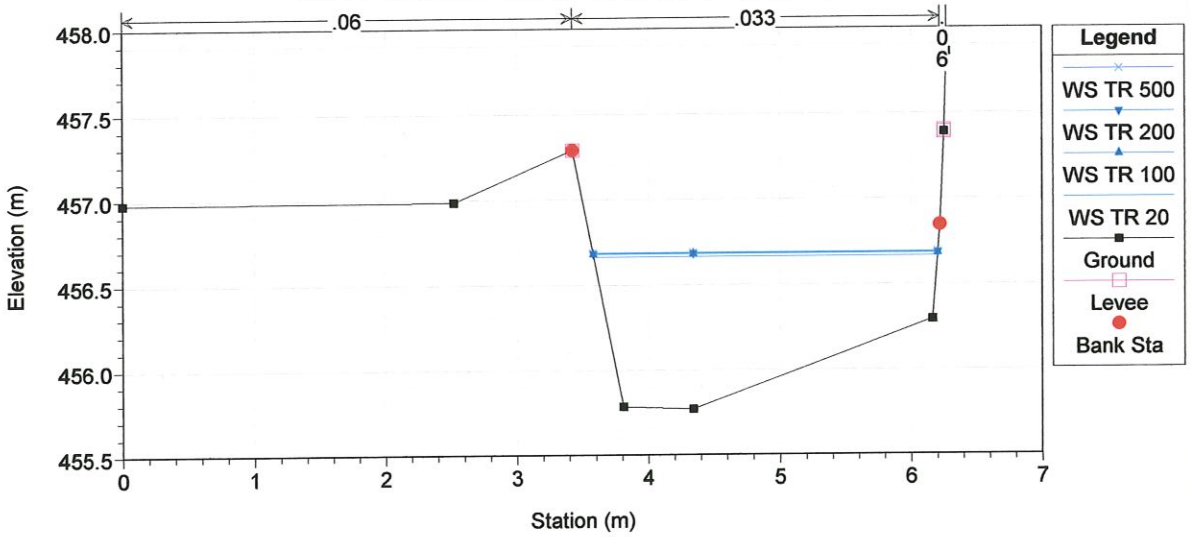
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 4 RS = 4



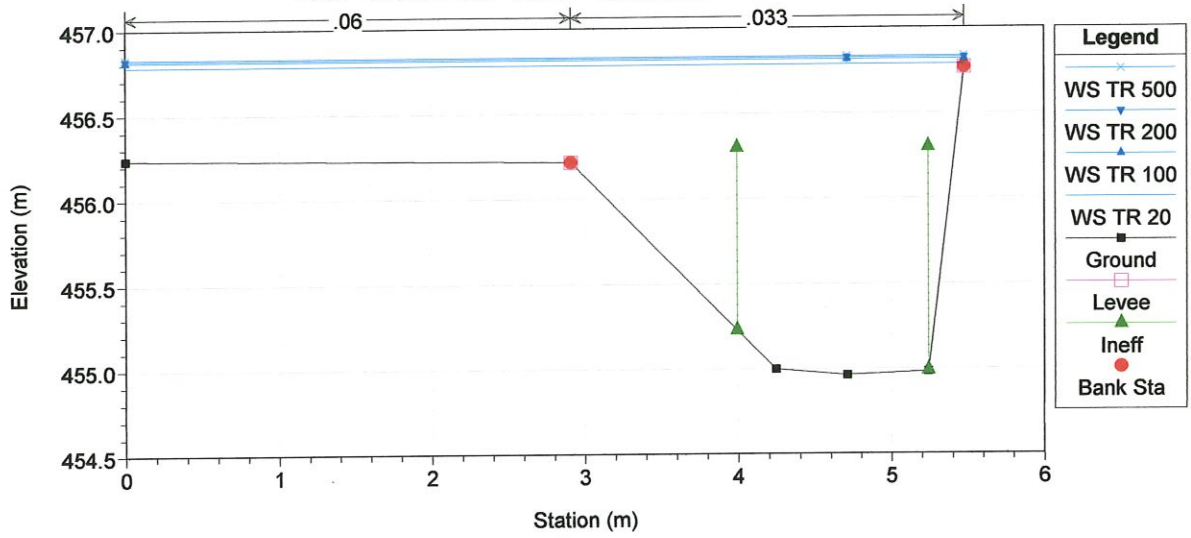
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 3 RS = 3



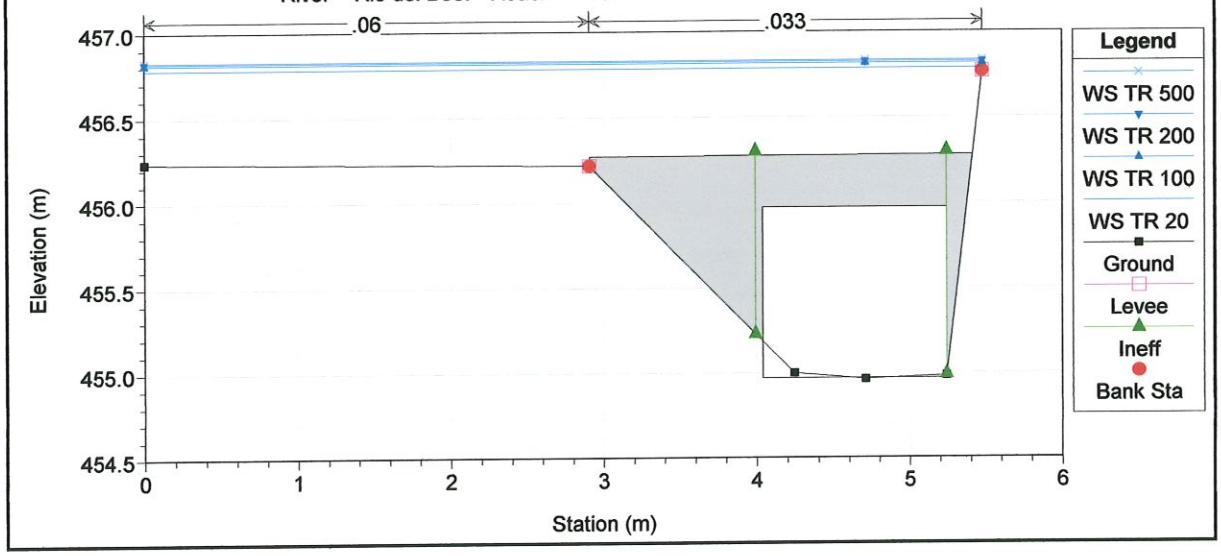
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 2 RS = 2



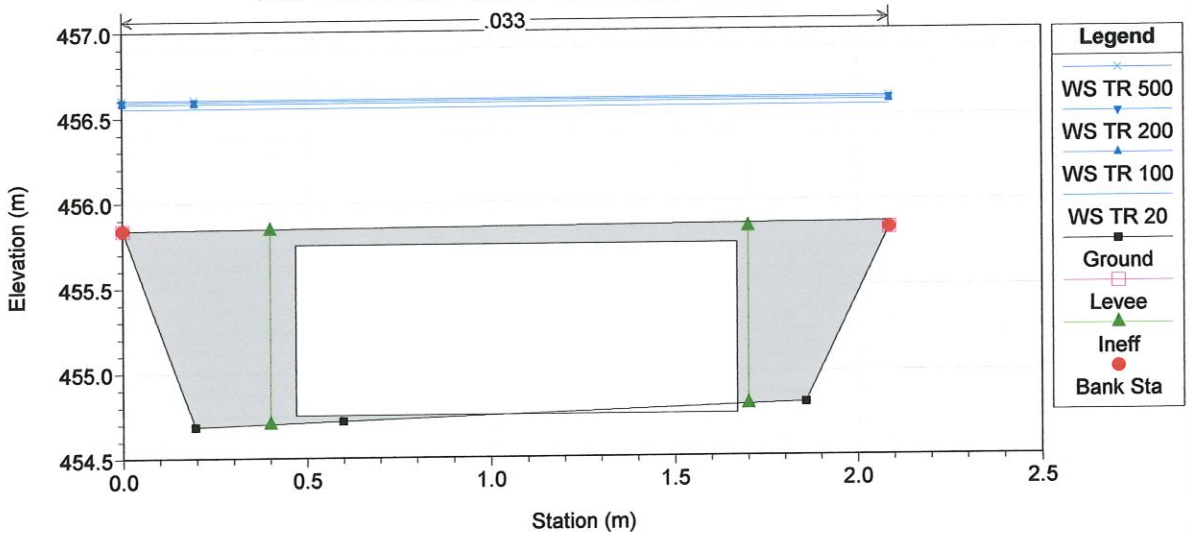
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Tombino SP RS = 1.5



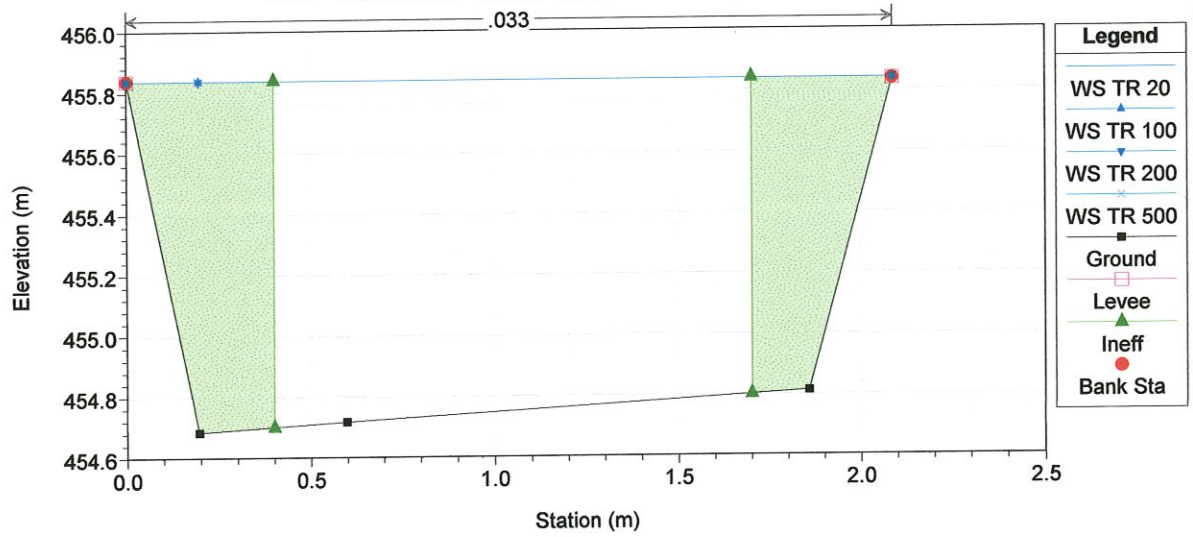
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Tombino SP RS = 1.5



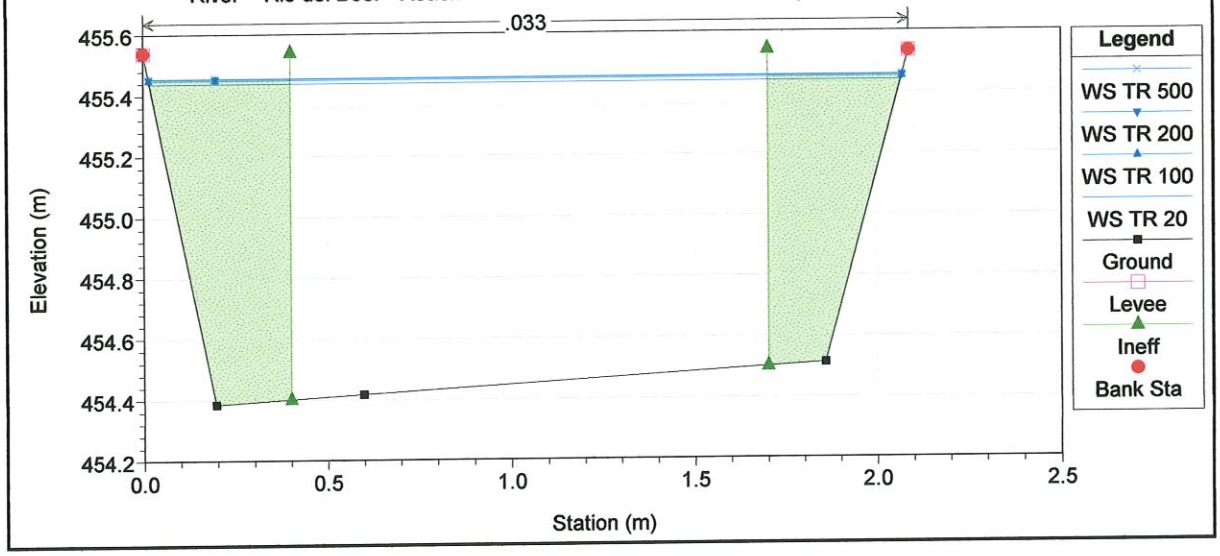
Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez.1 di valle RS = 1



Verifica idrualica Rio dei Boer dati di progetto 09/12/03

River = Rio dei Boer Reach = Luserna S.G. Sez. 0.5 di valle (canale in cls) RS = 0.5



Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 50 Profile: TR 20

E.G. Elev (m)	493.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.		0.033	
W.S. Elev (m)	493.37	Reach Len. (m)	19.05	19.69	20.45
Crit W.S. (m)	493.07	Flow Area (m2)		4.27	
E.G. Slope (m/m)	0.010383	Area (m2)		4.27	
Q Total (m3/s)	11.20	Flow (m3/s)		11.20	
Top Width (m)	3.23	Top Width (m)		3.23	
Vel Total (m/s)	2.62	Avg. Vel. (m/s)		2.62	
Max Chl Dpth (m)	1.76	Hydr. Depth (m)		1.32	
Conv. Total (m3/s)	109.9	Conv. (m3/s)		109.9	
Length Wtd. (m)	19.69	Wetted Per. (m)		5.46	
Min Ch El (m)	491.61	Shear (N/m2)		79.62	
Alpha	1.00	Stream Power (N/m s)		208.66	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)	2.54	3.88	0.02
C & E Loss (m)	0.05	Cum SA (1000 m2)	2.83	3.52	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 50 Profile: TR 100

E.G. Elev (m)	493.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.66	Wt. n-Val.		0.033	
W.S. Elev (m)	493.28	Reach Len. (m)	19.05	19.69	20.45
Crit W.S. (m)	493.30	Flow Area (m2)		3.98	
E.G. Slope (m/m)	0.020600	Area (m2)		3.98	
Q Total (m3/s)	14.36	Flow (m3/s)		14.36	
Top Width (m)	3.15	Top Width (m)		3.15	
Vel Total (m/s)	3.61	Avg. Vel. (m/s)		3.61	
Max Chl Dpth (m)	1.67	Hydr. Depth (m)		1.26	
Conv. Total (m3/s)	100.0	Conv. (m3/s)		100.0	
Length Wtd. (m)	19.69	Wetted Per. (m)		5.26	
Min Ch El (m)	491.61	Shear (N/m2)		152.71	
Alpha	1.00	Stream Power (N/m s)		551.17	
Frctn Loss (m)		Cum Volume (1000 m3)	3.25	4.09	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.72	3.53	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 50 Profile: TR 200

E.G. Elev (m)	494.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.69	Wt. n-Val.		0.033	
W.S. Elev (m)	493.37	Reach Len. (m)	19.05	19.69	20.45
Crit W.S. (m)	493.39	Flow Area (m2)		4.26	
E.G. Slope (m/m)	0.020601	Area (m2)		4.26	
Q Total (m3/s)	15.71	Flow (m3/s)		15.71	
Top Width (m)	3.23	Top Width (m)		3.23	
Vel Total (m/s)	3.69	Avg. Vel. (m/s)		3.69	
Max Chl Dpth (m)	1.75	Hydr. Depth (m)		1.32	
Conv. Total (m3/s)	109.5	Conv. (m3/s)		109.5	
Length Wtd. (m)	19.69	Wetted Per. (m)		5.46	
Min Ch El (m)	491.61	Shear (N/m2)		157.74	
Alpha	1.00	Stream Power (N/m s)		581.75	
Frctn Loss (m)		Cum Volume (1000 m3)	3.54	4.10	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.35	3.52	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 50 Profile: TR 500

E.G. Elev (m)	494.21	Element	Left OB	Channel	Right OB
Vel Head (m)	0.73	Wt. n-Val.		0.033	
W.S. Elev (m)	493.48	Reach Len. (m)	19.05	19.69	20.45
Crit W.S. (m)	493.50	Flow Area (m2)		4.62	
E.G. Slope (m/m)	0.020601	Area (m2)		4.62	
Q Total (m3/s)	17.49	Flow (m3/s)		17.49	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 50 Profile: TR 500 (Continued)

Top Width (m)	3.32	Top Width (m)		3.32	
Vel Total (m/s)	3.78	Avg. Vel. (m/s)		3.78	
Max Chl Dpth (m)	1.86	Hydr. Depth (m)		1.39	
Conv. Total (m3/s)	121.9	Conv. (m3/s)		121.9	
Length Wtd. (m)	19.69	Wetted Per. (m)		5.70	
Min Ch El (m)	491.61	Shear (N/m2)		163.90	
Alpha	1.00	Stream Power (N/m s)		620.12	
Frctn Loss (m)		Cum Volume (1000 m3)	3.99	3.98	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.62	3.55	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 49 Profile: TR 20

E.G. Elev (m)	493.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	493.39	Reach Len. (m)	96.60	97.67	98.74
Crit W.S. (m)	492.54	Flow Area (m2)	0.30	5.88	
E.G. Slope (m/m)	0.002768	Area (m2)	0.30	7.75	
Q Total (m3/s)	11.20	Flow (m3/s)	0.03	11.17	
Top Width (m)	13.09	Top Width (m)	8.97	4.11	
Vel Total (m/s)	1.81	Avg. Vel. (m/s)	0.09	1.90	
Max Chl Dpth (m)	2.18	Hydr. Depth (m)	0.03	1.93	
Conv. Total (m3/s)	212.9	Conv. (m3/s)	0.5	212.4	
Length Wtd. (m)	97.67	Wetted Per. (m)	8.98	4.52	
Min Ch El (m)	491.21	Shear (N/m2)	0.89	35.33	
Alpha	1.10	Stream Power (N/m s)	0.08	67.13	
Frctn Loss (m)		Cum Volume (1000 m3)	2.53	3.76	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.75	3.44	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 49 Profile: TR 100

E.G. Elev (m)	493.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	493.37	Reach Len. (m)	96.60	97.67	98.74
Crit W.S. (m)	492.77	Flow Area (m2)	0.13	5.81	
E.G. Slope (m/m)	0.004737	Area (m2)	0.13	7.66	
Q Total (m3/s)	14.36	Flow (m3/s)	0.01	14.35	
Top Width (m)	10.51	Top Width (m)	6.40	4.11	
Vel Total (m/s)	2.42	Avg. Vel. (m/s)	0.08	2.47	
Max Chl Dpth (m)	2.16	Hydr. Depth (m)	0.02	1.91	
Conv. Total (m3/s)	208.6	Conv. (m3/s)	0.2	208.5	
Length Wtd. (m)	97.67	Wetted Per. (m)	6.40	4.52	
Min Ch El (m)	491.21	Shear (N/m2)	0.91	59.80	
Alpha	1.04	Stream Power (N/m s)	0.08	147.57	
Frctn Loss (m)		Cum Volume (1000 m3)	3.25	3.97	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.66	3.46	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 49 Profile: TR 200

E.G. Elev (m)	493.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.50	Wt. n-Val.		0.033	
W.S. Elev (m)	493.22	Reach Len. (m)	96.60	97.67	98.74
Crit W.S. (m)	492.86	Flow Area (m2)		5.01	
E.G. Slope (m/m)	0.004685	Area (m2)		7.03	
Q Total (m3/s)	15.71	Flow (m3/s)		15.71	
Top Width (m)	4.06	Top Width (m)		4.06	
Vel Total (m/s)	3.14	Avg. Vel. (m/s)		3.14	
Max Chl Dpth (m)	2.01	Hydr. Depth (m)		1.89	
Conv. Total (m3/s)	229.5	Conv. (m3/s)		229.5	
Length Wtd. (m)	97.67	Wetted Per. (m)		2.69	
Min Ch El (m)	491.21	Shear (N/m2)		85.47	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 49 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		268.16	
Frctn Loss (m)		Cum Volume (1000 m3)	3.54	3.99	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.35	3.45	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 49 Profile: TR 500

E.G. Elev (m)	493.84	Element	Left OB	Channel	Right OB
Vel Head (m)	1.07	Wt. n-Val.		0.033	
W.S. Elev (m)	492.77	Reach Len. (m)	96.60	97.67	98.74
Crit W.S. (m)	493.33	Flow Area (m2)		3.82	
E.G. Slope (m/m)	0.014330	Area (m2)		5.25	
Q Total (m3/s)	17.49	Flow (m3/s)		17.49	
Top Width (m)	3.88	Top Width (m)		3.88	
Vel Total (m/s)	4.58	Avg. Vel. (m/s)		4.58	
Max Chl Dpth (m)	1.56	Hydr. Depth (m)		1.44	
Conv. Total (m3/s)	146.1	Conv. (m3/s)		146.1	
Length Wtd. (m)	97.67	Wetted Per. (m)		2.69	
Min Ch El (m)	491.21	Shear (N/m2)		199.39	
Alpha	1.00	Stream Power (N/m s)		913.29	
Frctn Loss (m)	0.34	Cum Volume (1000 m3)	3.99	3.88	0.02
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.62	3.48	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 48 Profile: TR 20

E.G. Elev (m)	489.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.017	
W.S. Elev (m)	489.36	Reach Len. (m)	8.44	8.53	8.28
Crit W.S. (m)	488.93	Flow Area (m2)		3.45	
E.G. Slope (m/m)	0.000810	Area (m2)		4.41	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	3.62	Top Width (m)		3.62	
Vel Total (m/s)	1.98	Avg. Vel. (m/s)		1.98	
Max Chl Dpth (m)	1.38	Hydr. Depth (m)		1.29	
Conv. Total (m3/s)	239.6	Conv. (m3/s)		239.6	
Length Wtd. (m)	8.53	Wetted Per. (m)		2.69	
Min Ch El (m)	487.97	Shear (N/m2)		10.18	
Alpha	1.00	Stream Power (N/m s)		20.10	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	2.52	3.17	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.31	3.07	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 48 Profile: TR 100

E.G. Elev (m)	489.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.017	
W.S. Elev (m)	489.36	Reach Len. (m)	8.44	8.53	8.28
Crit W.S. (m)	488.94	Flow Area (m2)		3.47	
E.G. Slope (m/m)	0.000828	Area (m2)		4.43	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	3.62	Top Width (m)		3.62	
Vel Total (m/s)	2.00	Avg. Vel. (m/s)		2.00	
Max Chl Dpth (m)	1.39	Hydr. Depth (m)		1.30	
Conv. Total (m3/s)	241.5	Conv. (m3/s)		241.5	
Length Wtd. (m)	8.53	Wetted Per. (m)		2.69	
Min Ch El (m)	487.97	Shear (N/m2)		10.46	
Alpha	1.00	Stream Power (N/m s)		20.95	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.24	3.38	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.35	3.08	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 48 Profile: TR 200

E.G. Elev (m)	489.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.017	
W.S. Elev (m)	489.35	Reach Len. (m)	8.44	8.53	8.28
Crit W.S. (m)	488.93	Flow Area (m2)		3.44	
E.G. Slope (m/m)	0.000802	Area (m2)		4.40	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	3.62	Top Width (m)		3.62	
Vel Total (m/s)	1.96	Avg. Vel. (m/s)		1.96	
Max Chl Dpth (m)	1.38	Hydr. Depth (m)		1.29	
Conv. Total (m3/s)	238.7	Conv. (m3/s)		238.7	
Length Wtd. (m)	8.53	Wetted Per. (m)		2.69	
Min Ch El (m)	487.97	Shear (N/m2)		10.06	
Alpha	1.00	Stream Power (N/m s)		19.74	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.54	3.43	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.35	3.08	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 48 Profile: TR 500

E.G. Elev (m)	490.69	Element	Left OB	Channel	Right OB
Vel Head (m)	1.36	Wt. n-Val.		0.017	
W.S. Elev (m)	489.33	Reach Len. (m)	8.44	8.53	8.28
Crit W.S. (m)	489.69	Flow Area (m2)		3.39	
E.G. Slope (m/m)	0.000754	Area (m2)		4.32	
Q Total (m3/s)	6.38	Flow (m3/s)		17.49	
Top Width (m)	3.61	Top Width (m)		3.61	
Vel Total (m/s)	5.16	Avg. Vel. (m/s)		5.16	
Max Chl Dpth (m)	1.36	Hydr. Depth (m)		1.27	
Conv. Total (m3/s)	232.3	Conv. (m3/s)		232.3	
Length Wtd. (m)	8.53	Wetted Per. (m)		2.69	
Min Ch El (m)	487.97	Shear (N/m2)		9.31	
Alpha	1.00	Stream Power (N/m s)		48.04	
Frctn Loss (m)		Cum Volume (1000 m3)	3.99	3.42	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.62	3.12	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 47 Profile: TR 20

E.G. Elev (m)	489.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.017	
W.S. Elev (m)	489.37	Reach Len. (m)	3.84	3.84	3.84
Crit W.S. (m)	488.77	Flow Area (m2)		3.74	
E.G. Slope (m/m)	0.001569	Area (m2)		3.74	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.54	Top Width (m)		2.54	
Vel Total (m/s)	1.83	Avg. Vel. (m/s)		1.83	
Max Chl Dpth (m)	1.58	Hydr. Depth (m)		1.47	
Conv. Total (m3/s)	172.1	Conv. (m3/s)		172.1	
Length Wtd. (m)	3.84	Wetted Per. (m)		5.39	
Min Ch El (m)	487.79	Shear (N/m2)		10.67	
Alpha	1.00	Stream Power (N/m s)		19.48	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	2.52	3.13	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.31	3.04	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 47 Profile: TR 100

E.G. Elev (m)	489.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.017	
W.S. Elev (m)	489.37	Reach Len. (m)	3.84	3.84	3.84
Crit W.S. (m)	488.78	Flow Area (m2)		3.75	
E.G. Slope (m/m)	0.001612	Area (m2)		3.75	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 47 Profile: TR 100 (Continued)

Top Width (m)	2.54	Top Width (m)		2.54	
Vel Total (m/s)	1.85	Avg. Vel. (m/s)		1.85	
Max Chl Dpth (m)	1.58	Hydr. Depth (m)		1.48	
Conv. Total (m3/s)	173.1	Conv. (m3/s)		173.1	
Length Wtd. (m)	3.84	Wetted Per. (m)		5.40	
Min Ch El (m)	487.79	Shear (N/m2)		10.98	
Alpha	1.00	Stream Power (N/m s)		20.34	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.24	3.35	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	3.05	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 47 Profile: TR 200

E.G. Elev (m)	489.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.017	
W.S. Elev (m)	489.36	Reach Len. (m)	3.84	3.84	3.84
Crit W.S. (m)	488.77	Flow Area (m2)		3.73	
E.G. Slope (m/m)	0.001551	Area (m2)		3.73	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.54	Top Width (m)		2.54	
Vel Total (m/s)	1.81	Avg. Vel. (m/s)		1.81	
Max Chl Dpth (m)	1.57	Hydr. Depth (m)		1.47	
Conv. Total (m3/s)	171.6	Conv. (m3/s)		171.6	
Length Wtd. (m)	3.84	Wetted Per. (m)		5.38	
Min Ch El (m)	487.79	Shear (N/m2)		10.53	
Alpha	1.00	Stream Power (N/m s)		19.10	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.54	3.39	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	3.05	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 47 Profile: TR 500

E.G. Elev (m)	490.53	Element	Left OB	Channel	Right OB
Vel Head (m)	2.31	Wt. n-Val.		0.017	
W.S. Elev (m)	488.23	Reach Len. (m)	3.84	3.84	3.84
Crit W.S. (m)	488.74	Flow Area (m2)		0.95	
E.G. Slope (m/m)	0.063355	Area (m2)		0.95	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.34	Top Width (m)		2.34	
Vel Total (m/s)	6.73	Avg. Vel. (m/s)		6.73	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)		0.41	
Conv. Total (m3/s)	25.3	Conv. (m3/s)		25.3	
Length Wtd. (m)	3.84	Wetted Per. (m)		3.09	
Min Ch El (m)	487.79	Shear (N/m2)		190.36	
Alpha	1.00	Stream Power (N/m s)		1280.95	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	3.99	3.39	0.02
C & E Loss (m)	0.09	Cum SA (1000 m2)	2.62	3.09	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 46 Profile: TR 20

E.G. Elev (m)	489.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.017	
W.S. Elev (m)	489.32	Reach Len. (m)	0.78	0.78	0.78
Crit W.S. (m)	488.74	Flow Area (m2)		3.37	
E.G. Slope (m/m)	0.002129	Area (m2)		3.37	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.17	Top Width (m)		2.17	
Vel Total (m/s)	2.03	Avg. Vel. (m/s)		2.03	
Max Chl Dpth (m)	1.65	Hydr. Depth (m)		1.55	
Conv. Total (m3/s)	147.8	Conv. (m3/s)		147.8	
Length Wtd. (m)	0.78	Wetted Per. (m)		5.22	
Min Ch El (m)	487.66	Shear (N/m2)		13.45	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 46 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		27.25	
Frctn Loss (m)		Cum Volume (1000 m3)	2.52	3.12	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.31	3.03	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 46 Profile: TR 100

E.G. Elev (m)	489.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.017	
W.S. Elev (m)	489.32	Reach Len. (m)	0.78	0.78	0.78
Crit W.S. (m)	488.76	Flow Area (m2)		3.38	
E.G. Slope (m/m)	0.002197	Area (m2)		3.38	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.17	Top Width (m)		2.17	
Vel Total (m/s)	2.06	Avg. Vel. (m/s)		2.06	
Max Chl Dpth (m)	1.66	Hydr. Depth (m)		1.56	
Conv. Total (m3/s)	148.3	Conv. (m3/s)		148.3	
Length Wtd. (m)	0.78	Wetted Per. (m)		5.23	
Min Ch El (m)	487.66	Shear (N/m2)		13.90	
Alpha	1.00	Stream Power (N/m s)		28.60	
Frctn Loss (m)		Cum Volume (1000 m3)	3.24	3.33	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.35	3.04	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 46 Profile: TR 200

E.G. Elev (m)	489.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.017	
W.S. Elev (m)	489.32	Reach Len. (m)	0.78	0.78	0.78
Crit W.S. (m)	488.74	Flow Area (m2)		3.36	
E.G. Slope (m/m)	0.002099	Area (m2)		3.36	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.17	Top Width (m)		2.17	
Vel Total (m/s)	2.01	Avg. Vel. (m/s)		2.01	
Max Chl Dpth (m)	1.65	Hydr. Depth (m)		1.55	
Conv. Total (m3/s)	147.5	Conv. (m3/s)		147.5	
Length Wtd. (m)	0.78	Wetted Per. (m)		5.22	
Min Ch El (m)	487.66	Shear (N/m2)		13.26	
Alpha	1.00	Stream Power (N/m s)		26.66	
Frctn Loss (m)		Cum Volume (1000 m3)	3.54	3.38	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.35	3.04	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 46 Profile: TR 500

E.G. Elev (m)	490.26	Element	Left OB	Channel	Right OB
Vel Head (m)	2.08	Wt. n-Val.		0.017	
W.S. Elev (m)	488.18	Reach Len. (m)	0.78	0.78	0.78
Crit W.S. (m)	488.70	Flow Area (m2)		1.00	
E.G. Slope (m/m)	0.050002	Area (m2)		1.00	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.01	Top Width (m)		2.01	
Vel Total (m/s)	6.39	Avg. Vel. (m/s)		6.39	
Max Chl Dpth (m)	0.52	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	28.5	Conv. (m3/s)		28.5	
Length Wtd. (m)	0.78	Wetted Per. (m)		2.95	
Min Ch El (m)	487.66	Shear (N/m2)		166.00	
Alpha	1.00	Stream Power (N/m s)		1060.63	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)	3.99	3.39	0.02
C & E Loss (m)	0.07	Cum SA (1000 m2)	2.62	3.08	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45.5 BR U Profile: TR 20

E.G. Elev (m)	489.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.36	Wt. n-Val.			
W.S. Elev (m)	489.32	Reach Len. (m)	22.08	22.08	22.08
Crit W.S. (m)	488.74	Flow Area (m2)		2.57	
E.G. Slope (m/m)		Area (m2)		2.57	
Q Total (m3/s)	6.82	Flow (m3/s)		5.45	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.65	Avg. Vel. (m/s)	0.30	2.12	0.30
Max Chl Dpth (m)	1.65	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	22.08	Wetted Per. (m)		6.60	
Min Ch El (m)	487.66	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	2.52	3.12	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.31	3.03	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45.5 BR U Profile: TR 100

E.G. Elev (m)	489.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.			
W.S. Elev (m)	489.32	Reach Len. (m)	22.08	22.08	22.08
Crit W.S. (m)	488.76	Flow Area (m2)		2.57	
E.G. Slope (m/m)		Area (m2)		2.57	
Q Total (m3/s)	6.95	Flow (m3/s)		5.50	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.71	Avg. Vel. (m/s)	0.30	2.14	0.30
Max Chl Dpth (m)	1.66	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	22.08	Wetted Per. (m)		6.60	
Min Ch El (m)	487.66	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	3.24	3.33	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.35	3.04	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45.5 BR U Profile: TR 200

E.G. Elev (m)	489.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.			
W.S. Elev (m)	489.32	Reach Len. (m)	22.08	22.08	22.08
Crit W.S. (m)	488.73	Flow Area (m2)		2.57	
E.G. Slope (m/m)		Area (m2)		2.57	
Q Total (m3/s)	6.76	Flow (m3/s)		5.43	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.63	Avg. Vel. (m/s)	0.30	2.11	0.30
Max Chl Dpth (m)	1.65	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	22.08	Wetted Per. (m)		6.60	
Min Ch El (m)	487.66	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	3.54	3.38	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.35	3.04	0.08

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45.5 BR U Profile: TR 500

E.G. Elev (m)	490.21	Element	Left OB	Channel	Right OB
Vel Head (m)	2.01	Wt. n-Val.		0.017	
W.S. Elev (m)	488.19	Reach Len. (m)	22.08	22.08	22.08
Crit W.S. (m)	488.69	Flow Area (m2)		1.01	
E.G. Slope (m/m)	0.047768	Area (m2)		1.01	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45.5 BR U Profile: TR 500 (Continued)

Top Width (m)	2.01	Top Width (m)		2.01	
Vel Total (m/s)	6.29	Avg. Vel. (m/s)		6.29	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	29.2	Conv. (m3/s)		29.2	
Length Wtd. (m)	22.08	Wetted Per. (m)		2.97	
Min Ch El (m)	487.66	Shear (N/m2)		160.26	
Alpha	1.00	Stream Power (N/m s)		1007.80	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	3.99	3.39	0.02
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.62	3.08	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45.5 BR D Profile: TR 20

E.G. Elev (m)	488.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.36	Wt. n-Val.			
W.S. Elev (m)	488.32	Reach Len. (m)	0.43	0.43	0.43
Crit W.S. (m)	488.10	Flow Area (m2)		2.20	1.30
E.G. Slope (m/m)		Area (m2)		2.20	1.30
Q Total (m3/s)	6.82	Flow (m3/s)		4.90	1.93
Top Width (m)	6.19	Top Width (m)		0.01	6.18
Vel Total (m/s)	1.95	Avg. Vel. (m/s)	0.30	2.23	1.48
Max Chl Dpth (m)	1.25	Hydr. Depth (m)		361.19	0.21
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.43	Wetted Per. (m)		6.27	6.61
Min Ch El (m)	487.08	Shear (N/m2)			
Alpha	1.84	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	2.52	3.06	0.00
C & E Loss (m)		Cum SA (1000 m2)	2.31	3.03	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45.5 BR D Profile: TR 100

E.G. Elev (m)	488.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.			
W.S. Elev (m)	488.32	Reach Len. (m)	0.43	0.43	0.43
Crit W.S. (m)	488.11	Flow Area (m2)		2.20	1.29
E.G. Slope (m/m)		Area (m2)		2.20	1.29
Q Total (m3/s)	6.95	Flow (m3/s)		4.95	2.01
Top Width (m)	6.17	Top Width (m)			6.17
Vel Total (m/s)	1.99	Avg. Vel. (m/s)	0.30	2.25	1.56
Max Chl Dpth (m)	1.25	Hydr. Depth (m)			0.21
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.43	Wetted Per. (m)		6.27	6.60
Min Ch El (m)	487.08	Shear (N/m2)			
Alpha	1.83	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	3.24	3.28	0.00
C & E Loss (m)		Cum SA (1000 m2)	2.35	3.04	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45.5 BR D Profile: TR 200

E.G. Elev (m)	488.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.			
W.S. Elev (m)	488.32	Reach Len. (m)	0.43	0.43	0.43
Crit W.S. (m)	488.10	Flow Area (m2)		2.20	1.29
E.G. Slope (m/m)		Area (m2)		2.20	1.29
Q Total (m3/s)	6.76	Flow (m3/s)		4.88	1.88
Top Width (m)	6.17	Top Width (m)			6.17
Vel Total (m/s)	1.94	Avg. Vel. (m/s)	0.30	2.22	1.46
Max Chl Dpth (m)	1.25	Hydr. Depth (m)			0.21
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.43	Wetted Per. (m)		6.27	6.60
Min Ch El (m)	487.08	Shear (N/m2)			

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45.5 BR D Profile: TR 200 (Continued)

Alpha	1.83	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	3.54	3.33	0.00
C & E Loss (m)		Cum SA (1000 m2)	2.35	3.04	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45.5 BR D Profile: TR 500

E.G. Elev (m)	489.21	Element	Left OB	Channel	Right OB
Vel Head (m)	1.52	Wt. n-Val.		0.017	
W.S. Elev (m)	487.69	Reach Len. (m)	0.43	0.43	0.43
Crit W.S. (m)	488.09	Flow Area (m2)		1.17	
E.G. Slope (m/m)	0.031960	Area (m2)		1.17	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	5.47	Avg. Vel. (m/s)		5.47	
Max Chl Dpth (m)	0.61	Hydr. Depth (m)		0.57	
Conv. Total (m3/s)	35.7	Conv. (m3/s)		35.7	
Length Wtd. (m)	0.43	Wetted Per. (m)		3.11	
Min Ch El (m)	487.08	Shear (N/m2)		117.49	
Alpha	1.00	Stream Power (N/m s)		642.33	
Frctn Loss (m)	0.85	Cum Volume (1000 m3)	3.99	3.36	0.02
C & E Loss (m)	0.15	Cum SA (1000 m2)	2.62	3.04	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45 Profile: TR 20

E.G. Elev (m)	488.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.50	Wt. n-Val.		0.017	
W.S. Elev (m)	488.16	Reach Len. (m)	8.74	8.74	8.74
Crit W.S. (m)	488.16	Flow Area (m2)		2.17	
E.G. Slope (m/m)	0.006631	Area (m2)		2.17	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.16	Top Width (m)		2.16	
Vel Total (m/s)	3.15	Avg. Vel. (m/s)		3.15	
Max Chl Dpth (m)	1.08	Hydr. Depth (m)		1.00	
Conv. Total (m3/s)	83.7	Conv. (m3/s)		83.7	
Length Wtd. (m)	8.74	Wetted Per. (m)		4.07	
Min Ch El (m)	487.08	Shear (N/m2)		34.64	
Alpha	1.00	Stream Power (N/m s)		109.06	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	2.52	3.06	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.31	3.03	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45 Profile: TR 100

E.G. Elev (m)	488.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.51	Wt. n-Val.		0.017	
W.S. Elev (m)	488.18	Reach Len. (m)	8.74	8.74	8.74
Crit W.S. (m)	488.18	Flow Area (m2)		2.20	
E.G. Slope (m/m)	0.006585	Area (m2)		2.20	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.16	Top Width (m)		2.16	
Vel Total (m/s)	3.15	Avg. Vel. (m/s)		3.15	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		1.02	
Conv. Total (m3/s)	85.6	Conv. (m3/s)		85.6	
Length Wtd. (m)	8.74	Wetted Per. (m)		4.10	
Min Ch El (m)	487.08	Shear (N/m2)		34.70	
Alpha	1.00	Stream Power (N/m s)		109.47	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	3.24	3.28	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	3.04	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45 Profile: TR 200

E.G. Elev (m)	488.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.50	Wt. n-Val.		0.017	
W.S. Elev (m)	488.16	Reach Len. (m)	8.74	8.74	8.74
Crit W.S. (m)	488.16	Flow Area (m2)		2.16	
E.G. Slope (m/m)	0.006592	Area (m2)		2.16	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.16	Top Width (m)		2.16	
Vel Total (m/s)	3.13	Avg. Vel. (m/s)		3.13	
Max Chl Dpth (m)	1.08	Hydr. Depth (m)		1.00	
Conv. Total (m3/s)	83.2	Conv. (m3/s)		83.2	
Length Wtd. (m)	8.74	Wetted Per. (m)		4.06	
Min Ch El (m)	487.08	Shear (N/m2)		34.37	
Alpha	1.00	Stream Power (N/m s)		107.72	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	3.54	3.32	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	3.04	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 45 Profile: TR 500

E.G. Elev (m)	489.20	Element	Left OB	Channel	Right OB
Vel Head (m)	1.51	Wt. n-Val.		0.017	
W.S. Elev (m)	487.69	Reach Len. (m)	8.74	8.74	8.74
Crit W.S. (m)	488.12	Flow Area (m2)		1.17	
E.G. Slope (m/m)	0.031716	Area (m2)		1.17	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	5.45	Avg. Vel. (m/s)		5.45	
Max Chl Dpth (m)	0.61	Hydr. Depth (m)		0.57	
Conv. Total (m3/s)	35.8	Conv. (m3/s)		35.8	
Length Wtd. (m)	8.74	Wetted Per. (m)		3.12	
Min Ch El (m)	487.08	Shear (N/m2)		116.79	
Alpha	1.00	Stream Power (N/m s)		636.81	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.99	3.36	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.62	3.04	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 44 Profile: TR 20

E.G. Elev (m)	488.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.87	Wt. n-Val.		0.017	
W.S. Elev (m)	487.68	Reach Len. (m)	8.84	9.04	9.43
Crit W.S. (m)	487.92	Flow Area (m2)		1.65	
E.G. Slope (m/m)	0.013839	Area (m2)		1.65	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	4.12	Avg. Vel. (m/s)		4.12	
Max Chl Dpth (m)	0.83	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	58.0	Conv. (m3/s)		58.0	
Length Wtd. (m)	9.04	Wetted Per. (m)		3.59	
Min Ch El (m)	486.84	Shear (N/m2)		62.43	
Alpha	1.00	Stream Power (N/m s)		257.42	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	2.52	3.05	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	2.31	3.01	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 44 Profile: TR 100

E.G. Elev (m)	488.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.87	Wt. n-Val.		0.017	
W.S. Elev (m)	487.69	Reach Len. (m)	8.84	9.04	9.43
Crit W.S. (m)	487.93	Flow Area (m2)		1.68	
E.G. Slope (m/m)	0.013787	Area (m2)		1.68	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 44 Profile: TR 100 (Continued)

Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	4.14	Avg. Vel. (m/s)		4.14	
Max Chl Dpth (m)	0.85	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	59.2	Conv. (m3/s)		59.2	
Length Wtd. (m)	9.04	Wetted Per. (m)		3.62	
Min Ch El (m)	486.84	Shear (N/m2)		62.72	
Alpha	1.00	Stream Power (N/m s)		259.57	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	3.24	3.26	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	2.35	3.02	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 44 Profile: TR 200

E.G. Elev (m)	488.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.86	Wt. n-Val.		0.017	
W.S. Elev (m)	487.67	Reach Len. (m)	8.84	9.04	9.43
Crit W.S. (m)	487.91	Flow Area (m2)		1.64	
E.G. Slope (m/m)	0.013825	Area (m2)		1.64	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	4.11	Avg. Vel. (m/s)		4.11	
Max Chl Dpth (m)	0.83	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	57.5	Conv. (m3/s)		57.5	
Length Wtd. (m)	9.04	Wetted Per. (m)		3.59	
Min Ch El (m)	486.84	Shear (N/m2)		62.16	
Alpha	1.00	Stream Power (N/m s)		255.61	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	3.54	3.31	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	2.35	3.02	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 44 Profile: TR 500

E.G. Elev (m)	488.92	Element	Left OB	Channel	Right OB
Vel Head (m)	1.47	Wt. n-Val.		0.017	
W.S. Elev (m)	487.45	Reach Len. (m)	8.84	9.04	9.43
Crit W.S. (m)	487.87	Flow Area (m2)		1.19	
E.G. Slope (m/m)	0.030505	Area (m2)		1.19	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.02	Top Width (m)		2.02	
Vel Total (m/s)	5.38	Avg. Vel. (m/s)		5.38	
Max Chl Dpth (m)	0.61	Hydr. Depth (m)		0.59	
Conv. Total (m3/s)	36.5	Conv. (m3/s)		36.5	
Length Wtd. (m)	9.04	Wetted Per. (m)		3.14	
Min Ch El (m)	486.84	Shear (N/m2)		113.21	
Alpha	1.00	Stream Power (N/m s)		608.57	
Frctn Loss (m)	0.27	Cum Volume (1000 m3)	3.99	3.35	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.62	3.02	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 43 Profile: TR 20

E.G. Elev (m)	488.25	Element	Left OB	Channel	Right OB
Vel Head (m)	1.77	Wt. n-Val.		0.017	
W.S. Elev (m)	486.48	Reach Len. (m)	0.29	0.29	0.29
Crit W.S. (m)	486.97	Flow Area (m2)		1.16	
E.G. Slope (m/m)	0.036630	Area (m2)		1.16	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	1.93	Top Width (m)		1.93	
Vel Total (m/s)	5.90	Avg. Vel. (m/s)		5.90	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	35.6	Conv. (m3/s)		35.6	
Length Wtd. (m)	0.29	Wetted Per. (m)		3.05	
Min Ch El (m)	485.86	Shear (N/m2)		136.16	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 43 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		802.92	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)	2.52	3.03	0.00
C & E Loss (m)	0.09	Cum SA (1000 m2)	2.31	2.99	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 43 Profile: TR 100

E.G. Elev (m)	488.27	Element	Left OB	Channel	Right OB
Vel Head (m)	1.78	Wt. n-Val.		0.017	
W.S. Elev (m)	486.49	Reach Len. (m)	0.29	0.29	0.29
Crit W.S. (m)	486.98	Flow Area (m2)		1.17	
E.G. Slope (m/m)	0.036400	Area (m2)		1.17	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	1.93	Top Width (m)		1.93	
Vel Total (m/s)	5.92	Avg. Vel. (m/s)		5.92	
Max Chl Dpth (m)	0.63	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	36.4	Conv. (m3/s)		36.4	
Length Wtd. (m)	0.29	Wetted Per. (m)		3.07	
Min Ch El (m)	485.86	Shear (N/m2)		136.60	
Alpha	1.00	Stream Power (N/m s)		808.06	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)	3.24	3.25	0.00
C & E Loss (m)	0.09	Cum SA (1000 m2)	2.35	3.01	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 43 Profile: TR 200

E.G. Elev (m)	488.24	Element	Left OB	Channel	Right OB
Vel Head (m)	1.76	Wt. n-Val.		0.017	
W.S. Elev (m)	486.47	Reach Len. (m)	0.29	0.29	0.29
Crit W.S. (m)	486.96	Flow Area (m2)		1.15	
E.G. Slope (m/m)	0.036675	Area (m2)		1.15	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	1.93	Top Width (m)		1.93	
Vel Total (m/s)	5.88	Avg. Vel. (m/s)		5.88	
Max Chl Dpth (m)	0.61	Hydr. Depth (m)		0.59	
Conv. Total (m3/s)	35.3	Conv. (m3/s)		35.3	
Length Wtd. (m)	0.29	Wetted Per. (m)		3.04	
Min Ch El (m)	485.86	Shear (N/m2)		135.78	
Alpha	1.00	Stream Power (N/m s)		798.99	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)	3.54	3.30	0.00
C & E Loss (m)	0.09	Cum SA (1000 m2)	2.35	3.00	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 43 Profile: TR 500

E.G. Elev (m)	488.51	Element	Left OB	Channel	Right OB
Vel Head (m)	2.12	Wt. n-Val.		0.017	
W.S. Elev (m)	486.39	Reach Len. (m)	0.29	0.29	0.29
Crit W.S. (m)	486.92	Flow Area (m2)		0.99	
E.G. Slope (m/m)	0.049802	Area (m2)		0.99	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	1.91	Top Width (m)		1.91	
Vel Total (m/s)	6.45	Avg. Vel. (m/s)		6.45	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	28.6	Conv. (m3/s)		28.6	
Length Wtd. (m)	0.29	Wetted Per. (m)		2.88	
Min Ch El (m)	485.86	Shear (N/m2)		168.04	
Alpha	1.00	Stream Power (N/m s)		1083.19	
Frctn Loss (m)	0.35	Cum Volume (1000 m3)	3.99	3.34	0.02
C & E Loss (m)	0.06	Cum SA (1000 m2)	2.62	3.00	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42.5 BR U Profile: TR 20

E.G. Elev (m)	488.24	Element	Left OB	Channel	Right OB
Vel Head (m)	1.77	Wt. n-Val.		0.017	
W.S. Elev (m)	486.48	Reach Len. (m)	5.35	5.35	5.35
Crit W.S. (m)	486.96	Flow Area (m2)		1.16	
E.G. Slope (m/m)	0.036465	Area (m2)		1.16	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	1.93	Top Width (m)		1.93	
Vel Total (m/s)	5.89	Avg. Vel. (m/s)		5.89	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	35.7	Conv. (m3/s)		35.7	
Length Wtd. (m)	5.35	Wetted Per. (m)		3.05	
Min Ch El (m)	485.86	Shear (N/m2)		135.68	
Alpha	1.00	Stream Power (N/m s)		798.78	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	2.52	3.03	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.31	2.99	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42.5 BR U Profile: TR 100

E.G. Elev (m)	488.26	Element	Left OB	Channel	Right OB
Vel Head (m)	1.78	Wt. n-Val.		0.017	
W.S. Elev (m)	486.49	Reach Len. (m)	5.35	5.35	5.35
Crit W.S. (m)	486.98	Flow Area (m2)		1.18	
E.G. Slope (m/m)	0.036251	Area (m2)		1.18	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	1.93	Top Width (m)		1.93	
Vel Total (m/s)	5.91	Avg. Vel. (m/s)		5.91	
Max Chl Dpth (m)	0.63	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	36.5	Conv. (m3/s)		36.5	
Length Wtd. (m)	5.35	Wetted Per. (m)		3.07	
Min Ch El (m)	485.86	Shear (N/m2)		136.16	
Alpha	1.00	Stream Power (N/m s)		804.27	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.24	3.25	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	3.01	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42.5 BR U Profile: TR 200

E.G. Elev (m)	488.23	Element	Left OB	Channel	Right OB
Vel Head (m)	1.76	Wt. n-Val.		0.017	
W.S. Elev (m)	486.47	Reach Len. (m)	5.35	5.35	5.35
Crit W.S. (m)	486.96	Flow Area (m2)		1.15	
E.G. Slope (m/m)	0.036508	Area (m2)		1.15	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	1.93	Top Width (m)		1.93	
Vel Total (m/s)	5.87	Avg. Vel. (m/s)		5.87	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	35.4	Conv. (m3/s)		35.4	
Length Wtd. (m)	5.35	Wetted Per. (m)		3.04	
Min Ch El (m)	485.86	Shear (N/m2)		135.29	
Alpha	1.00	Stream Power (N/m s)		794.84	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.54	3.29	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	3.00	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42.5 BR U Profile: TR 500

E.G. Elev (m)	488.51	Element	Left OB	Channel	Right OB
Vel Head (m)	2.12	Wt. n-Val.		0.017	
W.S. Elev (m)	486.39	Reach Len. (m)	5.35	5.35	5.35
Crit W.S. (m)	486.92	Flow Area (m2)		0.99	
E.G. Slope (m/m)	0.049782	Area (m2)		0.99	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42.5 BR U Profile: TR 500 (Continued)

Top Width (m)	1.91	Top Width (m)		1.91	
Vel Total (m/s)	6.44	Avg. Vel. (m/s)		6.44	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	28.6	Conv. (m3/s)		28.6	
Length Wtd. (m)	5.35	Wetted Per. (m)		2.88	
Min Ch El (m)	485.86	Shear (N/m2)		167.99	
Alpha	1.00	Stream Power (N/m s)		1082.69	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.99	3.34	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.62	3.00	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42.5 BR D Profile: TR 20

E.G. Elev (m)	488.01	Element	Left OB	Channel	Right OB
Vel Head (m)	1.56	Wt. n-Val.		0.017	
W.S. Elev (m)	486.44	Reach Len. (m)	0.52	0.52	0.52
Crit W.S. (m)	486.89	Flow Area (m2)		1.23	
E.G. Slope (m/m)	0.031361	Area (m2)		1.23	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	5.54	Avg. Vel. (m/s)		5.54	
Max Chl Dpth (m)	0.65	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	38.5	Conv. (m3/s)		38.5	
Length Wtd. (m)	0.52	Wetted Per. (m)		3.18	
Min Ch El (m)	485.80	Shear (N/m2)		119.19	
Alpha	1.00	Stream Power (N/m s)		660.00	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)	2.52	3.03	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	2.31	2.98	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42.5 BR D Profile: TR 100

E.G. Elev (m)	488.03	Element	Left OB	Channel	Right OB
Vel Head (m)	1.58	Wt. n-Val.		0.017	
W.S. Elev (m)	486.45	Reach Len. (m)	0.52	0.52	0.52
Crit W.S. (m)	486.90	Flow Area (m2)		1.25	
E.G. Slope (m/m)	0.031236	Area (m2)		1.25	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.07	Top Width (m)		2.07	
Vel Total (m/s)	5.56	Avg. Vel. (m/s)		5.56	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	39.3	Conv. (m3/s)		39.3	
Length Wtd. (m)	0.52	Wetted Per. (m)		3.20	
Min Ch El (m)	485.80	Shear (N/m2)		119.81	
Alpha	1.00	Stream Power (N/m s)		666.18	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)	3.24	3.24	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	2.35	2.99	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42.5 BR D Profile: TR 200

E.G. Elev (m)	487.99	Element	Left OB	Channel	Right OB
Vel Head (m)	1.55	Wt. n-Val.		0.017	
W.S. Elev (m)	486.44	Reach Len. (m)	0.52	0.52	0.52
Crit W.S. (m)	486.88	Flow Area (m2)		1.22	
E.G. Slope (m/m)	0.031378	Area (m2)		1.22	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	5.52	Avg. Vel. (m/s)		5.52	
Max Chl Dpth (m)	0.64	Hydr. Depth (m)		0.59	
Conv. Total (m3/s)	38.2	Conv. (m3/s)		38.2	
Length Wtd. (m)	0.52	Wetted Per. (m)		3.17	
Min Ch El (m)	485.80	Shear (N/m2)		118.78	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42.5 BR D Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		656.17	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)	3.54	3.29	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	2.35	2.99	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42.5 BR D Profile: TR 500

E.G. Elev (m)	488.17	Element	Left OB	Channel	Right OB
Vel Head (m)	1.81	Wt. n-Val.		0.017	
W.S. Elev (m)	486.37	Reach Len. (m)	0.52	0.52	0.52
Crit W.S. (m)	486.84	Flow Area (m2)		1.07	
E.G. Slope (m/m)	0.040857	Area (m2)		1.07	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	5.96	Avg. Vel. (m/s)		5.96	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	31.6	Conv. (m3/s)		31.6	
Length Wtd. (m)	0.52	Wetted Per. (m)		3.02	
Min Ch El (m)	485.80	Shear (N/m2)		142.07	
Alpha	1.00	Stream Power (N/m s)		846.29	
Frctn Loss (m)	0.24	Cum Volume (1000 m3)	3.99	3.34	0.02
C & E Loss (m)	0.09	Cum SA (1000 m2)	2.62	2.99	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42 Profile: TR 20

E.G. Elev (m)	487.98	Element	Left OB	Channel	Right OB
Vel Head (m)	1.53	Wt. n-Val.		0.017	
W.S. Elev (m)	486.45	Reach Len. (m)	6.57	6.90	7.24
Crit W.S. (m)	486.88	Flow Area (m2)		1.24	
E.G. Slope (m/m)	0.030461	Area (m2)		1.24	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	5.48	Avg. Vel. (m/s)		5.48	
Max Chl Dpth (m)	0.65	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	39.1	Conv. (m3/s)		39.1	
Length Wtd. (m)	6.90	Wetted Per. (m)		3.19	
Min Ch El (m)	485.80	Shear (N/m2)		116.51	
Alpha	1.00	Stream Power (N/m s)		638.55	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	2.52	3.03	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.31	2.98	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42 Profile: TR 100

E.G. Elev (m)	488.00	Element	Left OB	Channel	Right OB
Vel Head (m)	1.54	Wt. n-Val.		0.017	
W.S. Elev (m)	486.46	Reach Len. (m)	6.57	6.90	7.24
Crit W.S. (m)	486.90	Flow Area (m2)		1.26	
E.G. Slope (m/m)	0.030343	Area (m2)		1.26	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.07	Top Width (m)		2.07	
Vel Total (m/s)	5.50	Avg. Vel. (m/s)		5.50	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	39.9	Conv. (m3/s)		39.9	
Length Wtd. (m)	6.90	Wetted Per. (m)		3.21	
Min Ch El (m)	485.80	Shear (N/m2)		117.12	
Alpha	1.00	Stream Power (N/m s)		644.58	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	3.24	3.24	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.35	2.99	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42 Profile: TR 200

E.G. Elev (m)	487.97	Element	Left OB	Channel	Right OB
Vel Head (m)	1.52	Wt. n-Val.		0.017	
W.S. Elev (m)	486.45	Reach Len. (m)	6.57	6.90	7.24
Crit W.S. (m)	486.88	Flow Area (m2)		1.24	
E.G. Slope (m/m)	0.030466	Area (m2)		1.24	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	5.47	Avg. Vel. (m/s)		5.47	
Max Chl Dpth (m)	0.65	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	38.7	Conv. (m3/s)		38.7	
Length Wtd. (m)	6.90	Wetted Per. (m)		3.18	
Min Ch El (m)	485.80	Shear (N/m2)		116.08	
Alpha	1.00	Stream Power (N/m s)		634.59	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	3.54	3.29	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.35	2.99	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 42 Profile: TR 500

E.G. Elev (m)	488.14	Element	Left OB	Channel	Right OB
Vel Head (m)	1.77	Wt. n-Val.		0.017	
W.S. Elev (m)	486.37	Reach Len. (m)	6.57	6.90	7.24
Crit W.S. (m)	486.84	Flow Area (m2)		1.08	
E.G. Slope (m/m)	0.039664	Area (m2)		1.08	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	5.90	Avg. Vel. (m/s)		5.90	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	32.0	Conv. (m3/s)		32.0	
Length Wtd. (m)	6.90	Wetted Per. (m)		3.03	
Min Ch El (m)	485.80	Shear (N/m2)		138.86	
Alpha	1.00	Stream Power (N/m s)		818.62	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	3.99	3.34	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.62	2.99	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 41 Profile: TR 20

E.G. Elev (m)	487.67	Element	Left OB	Channel	Right OB
Vel Head (m)	1.02	Wt. n-Val.		0.017	
W.S. Elev (m)	486.66	Reach Len. (m)	35.27	35.25	35.11
Crit W.S. (m)	486.96	Flow Area (m2)		1.53	
E.G. Slope (m/m)	0.017248	Area (m2)		1.53	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	4.46	Avg. Vel. (m/s)		4.46	
Max Chl Dpth (m)	0.86	Hydr. Depth (m)		0.74	
Conv. Total (m3/s)	51.9	Conv. (m3/s)		51.9	
Length Wtd. (m)	35.25	Wetted Per. (m)		3.48	
Min Ch El (m)	485.80	Shear (N/m2)		74.32	
Alpha	1.00	Stream Power (N/m s)		331.82	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	2.52	3.02	0.00
C & E Loss (m)	0.15	Cum SA (1000 m2)	2.31	2.97	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 41 Profile: TR 100

E.G. Elev (m)	487.70	Element	Left OB	Channel	Right OB
Vel Head (m)	1.04	Wt. n-Val.		0.017	
W.S. Elev (m)	486.66	Reach Len. (m)	35.27	35.25	35.11
Crit W.S. (m)	486.97	Flow Area (m2)		1.54	
E.G. Slope (m/m)	0.017576	Area (m2)		1.54	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 41 Profile: TR 100 (Continued)

Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	4.52	Avg. Vel. (m/s)		4.52	
Max Chl Dpth (m)	0.86	Hydr. Depth (m)		0.75	
Conv. Total (m3/s)	52.4	Conv. (m3/s)		52.4	
Length Wtd. (m)	35.25	Wetted Per. (m)		3.49	
Min Ch El (m)	485.80	Shear (N/m2)		76.03	
Alpha	1.00	Stream Power (N/m s)		343.57	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	3.24	3.23	0.00
C & E Loss (m)	0.15	Cum SA (1000 m2)	2.35	2.98	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 41 Profile: TR 200

E.G. Elev (m)	487.66	Element	Left OB	Channel	Right OB
Vel Head (m)	1.01	Wt. n-Val.		0.017	
W.S. Elev (m)	486.65	Reach Len. (m)	35.27	35.25	35.11
Crit W.S. (m)	486.95	Flow Area (m2)		1.52	
E.G. Slope (m/m)	0.017202	Area (m2)		1.52	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	4.45	Avg. Vel. (m/s)		4.45	
Max Chl Dpth (m)	0.85	Hydr. Depth (m)		0.74	
Conv. Total (m3/s)	51.5	Conv. (m3/s)		51.5	
Length Wtd. (m)	35.25	Wetted Per. (m)		3.47	
Min Ch El (m)	485.80	Shear (N/m2)		73.89	
Alpha	1.00	Stream Power (N/m s)		328.80	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	3.54	3.28	0.00
C & E Loss (m)	0.15	Cum SA (1000 m2)	2.35	2.98	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 41 Profile: TR 500

E.G. Elev (m)	487.77	Element	Left OB	Channel	Right OB
Vel Head (m)	1.23	Wt. n-Val.		0.017	
W.S. Elev (m)	486.54	Reach Len. (m)	35.27	35.25	35.11
Crit W.S. (m)	486.91	Flow Area (m2)		1.30	
E.G. Slope (m/m)	0.023735	Area (m2)		1.30	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.04	Top Width (m)		2.04	
Vel Total (m/s)	4.91	Avg. Vel. (m/s)		4.91	
Max Chl Dpth (m)	0.74	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	41.4	Conv. (m3/s)		41.4	
Length Wtd. (m)	35.25	Wetted Per. (m)		3.25	
Min Ch El (m)	485.80	Shear (N/m2)		92.94	
Alpha	1.00	Stream Power (N/m s)		456.74	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)	3.99	3.33	0.02
C & E Loss (m)	0.16	Cum SA (1000 m2)	2.62	2.97	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 40 Profile: TR 20

E.G. Elev (m)	487.07	Element	Left OB	Channel	Right OB
Vel Head (m)	1.03	Wt. n-Val.		0.017	
W.S. Elev (m)	486.05	Reach Len. (m)	31.08	31.07	30.69
Crit W.S. (m)	486.36	Flow Area (m2)		1.52	
E.G. Slope (m/m)	0.016720	Area (m2)		1.52	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	1.98	Top Width (m)		1.98	
Vel Total (m/s)	4.49	Avg. Vel. (m/s)		4.49	
Max Chl Dpth (m)	0.85	Hydr. Depth (m)		0.77	
Conv. Total (m3/s)	52.7	Conv. (m3/s)		52.7	
Length Wtd. (m)	31.07	Wetted Per. (m)		3.35	
Min Ch El (m)	485.20	Shear (N/m2)		74.28	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 40 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		333.25	
Frctn Loss (m)	0.60	Cum Volume (1000 m3)	2.52	2.96	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.31	2.89	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 40 Profile: TR 100

E.G. Elev (m)	487.10	Element	Left OB	Channel	Right OB
Vel Head (m)	1.04	Wt. n-Val.		0.017	
W.S. Elev (m)	486.05	Reach Len. (m)	31.08	31.07	30.69
Crit W.S. (m)	486.37	Flow Area (m2)		1.54	
E.G. Slope (m/m)	0.016835	Area (m2)		1.54	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	1.99	Top Width (m)		1.99	
Vel Total (m/s)	4.52	Avg. Vel. (m/s)		4.52	
Max Chl Dpth (m)	0.86	Hydr. Depth (m)		0.77	
Conv. Total (m3/s)	53.6	Conv. (m3/s)		53.6	
Length Wtd. (m)	31.07	Wetted Per. (m)		3.37	
Min Ch El (m)	485.20	Shear (N/m2)		75.24	
Alpha	1.00	Stream Power (N/m s)		340.12	
Frctn Loss (m)	0.61	Cum Volume (1000 m3)	3.24	3.18	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	2.91	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 40 Profile: TR 200

E.G. Elev (m)	487.06	Element	Left OB	Channel	Right OB
Vel Head (m)	1.02	Wt. n-Val.		0.017	
W.S. Elev (m)	486.04	Reach Len. (m)	31.08	31.07	30.69
Crit W.S. (m)	486.35	Flow Area (m2)		1.51	
E.G. Slope (m/m)	0.016716	Area (m2)		1.51	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	1.98	Top Width (m)		1.98	
Vel Total (m/s)	4.48	Avg. Vel. (m/s)		4.48	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.76	
Conv. Total (m3/s)	52.3	Conv. (m3/s)		52.3	
Length Wtd. (m)	31.07	Wetted Per. (m)		3.34	
Min Ch El (m)	485.20	Shear (N/m2)		74.01	
Alpha	1.00	Stream Power (N/m s)		331.25	
Frctn Loss (m)	0.60	Cum Volume (1000 m3)	3.54	3.22	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	2.91	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 40 Profile: TR 500

E.G. Elev (m)	487.00	Element	Left OB	Channel	Right OB
Vel Head (m)	1.00	Wt. n-Val.		0.017	
W.S. Elev (m)	486.01	Reach Len. (m)	31.08	31.07	30.69
Crit W.S. (m)	486.31	Flow Area (m2)		1.44	
E.G. Slope (m/m)	0.016891	Area (m2)		1.44	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	1.97	Top Width (m)		1.97	
Vel Total (m/s)	4.43	Avg. Vel. (m/s)		4.43	
Max Chl Dpth (m)	0.81	Hydr. Depth (m)		0.73	
Conv. Total (m3/s)	49.1	Conv. (m3/s)		49.1	
Length Wtd. (m)	31.07	Wetted Per. (m)		3.27	
Min Ch El (m)	485.20	Shear (N/m2)		72.95	
Alpha	1.00	Stream Power (N/m s)		322.81	
Frctn Loss (m)	0.70	Cum Volume (1000 m3)	3.99	3.28	0.02
C & E Loss (m)	0.07	Cum SA (1000 m2)	2.62	2.90	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 39 Profile: TR 20

E.G. Elev (m)	486.44	Element	Left OB	Channel	Right OB
Vel Head (m)	1.24	Wt. n-Val.		0.017	
W.S. Elev (m)	485.20	Reach Len. (m)	31.03	31.59	32.24
Crit W.S. (m)	485.66	Flow Area (m2)		1.38	
E.G. Slope (m/m)	0.022800	Area (m2)		1.38	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	4.94	Avg. Vel. (m/s)		4.94	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	45.2	Conv. (m3/s)		45.2	
Length Wtd. (m)	31.59	Wetted Per. (m)		3.33	
Min Ch El (m)	484.49	Shear (N/m2)		92.78	
Alpha	1.00	Stream Power (N/m s)		458.48	
Frctn Loss (m)	0.60	Cum Volume (1000 m3)	2.52	2.92	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.31	2.83	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 39 Profile: TR 100

E.G. Elev (m)	486.46	Element	Left OB	Channel	Right OB
Vel Head (m)	1.26	Wt. n-Val.		0.017	
W.S. Elev (m)	485.21	Reach Len. (m)	31.03	31.59	32.24
Crit W.S. (m)	485.68	Flow Area (m2)		1.40	
E.G. Slope (m/m)	0.022762	Area (m2)		1.40	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	4.97	Avg. Vel. (m/s)		4.97	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	46.1	Conv. (m3/s)		46.1	
Length Wtd. (m)	31.59	Wetted Per. (m)		3.34	
Min Ch El (m)	484.49	Shear (N/m2)		93.41	
Alpha	1.00	Stream Power (N/m s)		463.77	
Frctn Loss (m)	0.61	Cum Volume (1000 m3)	3.24	3.13	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.35	2.85	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 39 Profile: TR 200

E.G. Elev (m)	486.43	Element	Left OB	Channel	Right OB
Vel Head (m)	1.24	Wt. n-Val.		0.017	
W.S. Elev (m)	485.19	Reach Len. (m)	31.03	31.59	32.24
Crit W.S. (m)	485.66	Flow Area (m2)		1.37	
E.G. Slope (m/m)	0.022814	Area (m2)		1.37	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	4.93	Avg. Vel. (m/s)		4.93	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	44.8	Conv. (m3/s)		44.8	
Length Wtd. (m)	31.59	Wetted Per. (m)		3.32	
Min Ch El (m)	484.49	Shear (N/m2)		92.48	
Alpha	1.00	Stream Power (N/m s)		455.95	
Frctn Loss (m)	0.60	Cum Volume (1000 m3)	3.54	3.18	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.35	2.84	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 39 Profile: TR 500

E.G. Elev (m)	486.37	Element	Left OB	Channel	Right OB
Vel Head (m)	1.20	Wt. n-Val.		0.017	
W.S. Elev (m)	485.17	Reach Len. (m)	31.03	31.59	32.24
Crit W.S. (m)	485.61	Flow Area (m2)		1.31	
E.G. Slope (m/m)	0.022981	Area (m2)		1.31	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 39 Profile: TR 500 (Continued)

Top Width (m)	2.04	Top Width (m)		2.04	
Vel Total (m/s)	4.86	Avg. Vel. (m/s)		4.86	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	42.1	Conv. (m3/s)		42.1	
Length Wtd. (m)	31.59	Wetted Per. (m)		3.26	
Min Ch El (m)	484.49	Shear (N/m2)		90.74	
Alpha	1.00	Stream Power (N/m s)		441.20	
Frctn Loss (m)	0.61	Cum Volume (1000 m3)	3.99	3.24	0.02
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.62	2.84	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 38 Profile: TR 20

E.G. Elev (m)	485.68	Element	Left OB	Channel	Right OB
Vel Head (m)	1.34	Wt. n-Val.		0.017	
W.S. Elev (m)	484.34	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	484.84	Flow Area (m2)		1.33	
E.G. Slope (m/m)	0.025088	Area (m2)		1.33	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.10	Top Width (m)		2.10	
Vel Total (m/s)	5.13	Avg. Vel. (m/s)		5.13	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	43.0	Conv. (m3/s)		43.0	
Length Wtd. (m)	0.16	Wetted Per. (m)		3.26	
Min Ch El (m)	483.66	Shear (N/m2)		100.41	
Alpha	1.00	Stream Power (N/m s)		514.76	
Frctn Loss (m)	0.75	Cum Volume (1000 m3)	2.52	2.87	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.31	2.77	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 38 Profile: TR 100

E.G. Elev (m)	485.70	Element	Left OB	Channel	Right OB
Vel Head (m)	1.35	Wt. n-Val.		0.017	
W.S. Elev (m)	484.35	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	484.85	Flow Area (m2)		1.35	
E.G. Slope (m/m)	0.025074	Area (m2)		1.35	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.11	Top Width (m)		2.11	
Vel Total (m/s)	5.15	Avg. Vel. (m/s)		5.15	
Max Chl Dpth (m)	0.69	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	43.9	Conv. (m3/s)		43.9	
Length Wtd. (m)	0.16	Wetted Per. (m)		3.28	
Min Ch El (m)	483.66	Shear (N/m2)		101.19	
Alpha	1.00	Stream Power (N/m s)		521.47	
Frctn Loss (m)	0.75	Cum Volume (1000 m3)	3.24	3.09	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.35	2.78	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 38 Profile: TR 200

E.G. Elev (m)	485.67	Element	Left OB	Channel	Right OB
Vel Head (m)	1.33	Wt. n-Val.		0.017	
W.S. Elev (m)	484.34	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	484.83	Flow Area (m2)		1.32	
E.G. Slope (m/m)	0.025111	Area (m2)		1.32	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.10	Top Width (m)		2.10	
Vel Total (m/s)	5.12	Avg. Vel. (m/s)		5.12	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	42.7	Conv. (m3/s)		42.7	
Length Wtd. (m)	0.16	Wetted Per. (m)		3.25	
Min Ch El (m)	483.66	Shear (N/m2)		100.10	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 38 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		512.04	
Frctn Loss (m)	0.76	Cum Volume (1000 m3)	3.54	3.14	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.35	2.78	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 38 Profile: TR 500

E.G. Elev (m)	485.60	Element	Left OB	Channel	Right OB
Vel Head (m)	1.29	Wt. n-Val.		0.017	
W.S. Elev (m)	484.31	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	484.80	Flow Area (m2)		1.27	
E.G. Slope (m/m)	0.025194	Area (m2)		1.27	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.09	Top Width (m)		2.09	
Vel Total (m/s)	5.04	Avg. Vel. (m/s)		5.04	
Max Chl Dpth (m)	0.65	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	40.2	Conv. (m3/s)		40.2	
Length Wtd. (m)	0.16	Wetted Per. (m)		3.20	
Min Ch El (m)	483.66	Shear (N/m2)		97.87	
Alpha	1.00	Stream Power (N/m s)		492.86	
Frctn Loss (m)	0.76	Cum Volume (1000 m3)	3.99	3.20	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.62	2.78	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37.5 BR U Profile: TR 20

E.G. Elev (m)	485.68	Element	Left OB	Channel	Right OB
Vel Head (m)	1.34	Wt. n-Val.		0.017	
W.S. Elev (m)	484.34	Reach Len. (m)	4.06	4.06	4.06
Crit W.S. (m)	484.96	Flow Area (m2)		1.33	
E.G. Slope (m/m)	0.025175	Area (m2)		1.33	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.10	Top Width (m)		2.10	
Vel Total (m/s)	5.13	Avg. Vel. (m/s)		5.13	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	43.0	Conv. (m3/s)		43.0	
Length Wtd. (m)	4.06	Wetted Per. (m)		3.26	
Min Ch El (m)	483.66	Shear (N/m2)		100.69	
Alpha	1.00	Stream Power (N/m s)		516.80	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	2.52	2.87	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.31	2.77	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37.5 BR U Profile: TR 100

E.G. Elev (m)	485.70	Element	Left OB	Channel	Right OB
Vel Head (m)	1.36	Wt. n-Val.		0.017	
W.S. Elev (m)	484.35	Reach Len. (m)	4.06	4.06	4.06
Crit W.S. (m)	484.97	Flow Area (m2)		1.35	
E.G. Slope (m/m)	0.025160	Area (m2)		1.35	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.11	Top Width (m)		2.11	
Vel Total (m/s)	5.16	Avg. Vel. (m/s)		5.16	
Max Chl Dpth (m)	0.69	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	43.8	Conv. (m3/s)		43.8	
Length Wtd. (m)	4.06	Wetted Per. (m)		3.27	
Min Ch El (m)	483.66	Shear (N/m2)		101.46	
Alpha	1.00	Stream Power (N/m s)		523.51	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	3.24	3.09	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	2.78	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37.5 BR U Profile: TR 200

E.G. Elev (m)	485.67	Element	Left OB	Channel	Right OB
Vel Head (m)	1.34	Wt. n-Val.		0.017	
W.S. Elev (m)	484.34	Reach Len. (m)	4.06	4.06	4.06
Crit W.S. (m)	484.96	Flow Area (m2)		1.32	
E.G. Slope (m/m)	0.025198	Area (m2)		1.32	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.10	Top Width (m)		2.10	
Vel Total (m/s)	5.12	Avg. Vel. (m/s)		5.12	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	42.6	Conv. (m3/s)		42.6	
Length Wtd. (m)	4.06	Wetted Per. (m)		3.25	
Min Ch El (m)	483.66	Shear (N/m2)		100.38	
Alpha	1.00	Stream Power (N/m s)		514.08	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	3.54	3.14	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	2.78	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37.5 BR U Profile: TR 500

E.G. Elev (m)	485.60	Element	Left OB	Channel	Right OB
Vel Head (m)	1.30	Wt. n-Val.		0.017	
W.S. Elev (m)	484.31	Reach Len. (m)	4.06	4.06	4.06
Crit W.S. (m)	484.94	Flow Area (m2)		1.27	
E.G. Slope (m/m)	0.025281	Area (m2)		1.27	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.09	Top Width (m)		2.09	
Vel Total (m/s)	5.04	Avg. Vel. (m/s)		5.04	
Max Chl Dpth (m)	0.65	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	40.1	Conv. (m3/s)		40.1	
Length Wtd. (m)	4.06	Wetted Per. (m)		3.20	
Min Ch El (m)	483.66	Shear (N/m2)		98.13	
Alpha	1.00	Stream Power (N/m s)		494.81	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	3.99	3.20	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.62	2.78	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37.5 BR D Profile: TR 20

E.G. Elev (m)	485.52	Element	Left OB	Channel	Right OB
Vel Head (m)	1.86	Wt. n-Val.		0.017	
W.S. Elev (m)	483.66	Reach Len. (m)	0.23	0.23	0.23
Crit W.S. (m)	484.16	Flow Area (m2)		1.13	
E.G. Slope (m/m)	0.039280	Area (m2)		1.13	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.10	Top Width (m)		2.10	
Vel Total (m/s)	6.04	Avg. Vel. (m/s)		6.04	
Max Chl Dpth (m)	0.69	Hydr. Depth (m)		0.54	
Conv. Total (m3/s)	34.4	Conv. (m3/s)		34.4	
Length Wtd. (m)	0.23	Wetted Per. (m)		3.02	
Min Ch El (m)	482.98	Shear (N/m2)		143.72	
Alpha	1.00	Stream Power (N/m s)		868.41	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	2.52	2.87	0.00
C & E Loss (m)	0.05	Cum SA (1000 m2)	2.31	2.76	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37.5 BR D Profile: TR 100

E.G. Elev (m)	485.54	Element	Left OB	Channel	Right OB
Vel Head (m)	1.87	Wt. n-Val.		0.017	
W.S. Elev (m)	483.67	Reach Len. (m)	0.23	0.23	0.23
Crit W.S. (m)	484.17	Flow Area (m2)		1.15	
E.G. Slope (m/m)	0.038975	Area (m2)		1.15	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37.5 BR D Profile: TR 100 (Continued)

Top Width (m)	2.11	Top Width (m)		2.11	
Vel Total (m/s)	6.06	Avg. Vel. (m/s)		6.06	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.54	
Conv. Total (m3/s)	35.2	Conv. (m3/s)		35.2	
Length Wtd. (m)	0.23	Wetted Per. (m)		3.04	
Min Ch El (m)	482.98	Shear (N/m2)		144.06	
Alpha	1.00	Stream Power (N/m s)		872.97	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	3.24	3.08	0.00
C & E Loss (m)	0.05	Cum SA (1000 m2)	2.35	2.77	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37.5 BR D Profile: TR 200

E.G. Elev (m)	485.52	Element	Left OB	Channel	Right OB
Vel Head (m)	1.86	Wt. n-Val.		0.017	
W.S. Elev (m)	483.66	Reach Len. (m)	0.23	0.23	0.23
Crit W.S. (m)	484.15	Flow Area (m2)		1.12	
E.G. Slope (m/m)	0.039426	Area (m2)		1.12	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.10	Top Width (m)		2.10	
Vel Total (m/s)	6.03	Avg. Vel. (m/s)		6.03	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	34.0	Conv. (m3/s)		34.0	
Length Wtd. (m)	0.23	Wetted Per. (m)		3.02	
Min Ch El (m)	482.98	Shear (N/m2)		143.57	
Alpha	1.00	Stream Power (N/m s)		866.36	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	3.54	3.13	0.00
C & E Loss (m)	0.05	Cum SA (1000 m2)	2.35	2.77	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37.5 BR D Profile: TR 500

E.G. Elev (m)	485.43	Element	Left OB	Channel	Right OB
Vel Head (m)	1.79	Wt. n-Val.		0.017	
W.S. Elev (m)	483.64	Reach Len. (m)	0.23	0.23	0.23
Crit W.S. (m)	484.11	Flow Area (m2)		1.08	
E.G. Slope (m/m)	0.039356	Area (m2)		1.08	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.09	Top Width (m)		2.09	
Vel Total (m/s)	5.93	Avg. Vel. (m/s)		5.93	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	32.2	Conv. (m3/s)		32.2	
Length Wtd. (m)	0.23	Wetted Per. (m)		2.97	
Min Ch El (m)	482.98	Shear (N/m2)		139.70	
Alpha	1.00	Stream Power (N/m s)		828.05	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	3.99	3.19	0.02
C & E Loss (m)	0.05	Cum SA (1000 m2)	2.62	2.77	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37 Profile: TR 20

E.G. Elev (m)	485.52	Element	Left OB	Channel	Right OB
Vel Head (m)	1.86	Wt. n-Val.		0.017	
W.S. Elev (m)	483.67	Reach Len. (m)	53.86	54.82	55.75
Crit W.S. (m)	484.16	Flow Area (m2)		1.13	
E.G. Slope (m/m)	0.039180	Area (m2)		1.13	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.10	Top Width (m)		2.10	
Vel Total (m/s)	6.04	Avg. Vel. (m/s)		6.04	
Max Chl Dpth (m)	0.69	Hydr. Depth (m)		0.54	
Conv. Total (m3/s)	34.4	Conv. (m3/s)		34.4	
Length Wtd. (m)	54.82	Wetted Per. (m)		3.03	
Min Ch El (m)	482.98	Shear (N/m2)		143.44	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		865.90	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	2.52	2.87	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.31	2.76	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37 Profile: TR 100

E.G. Elev (m)	485.54	Element	Left OB	Channel	Right OB
Vel Head (m)	1.87	Wt. n-Val.		0.017	
W.S. Elev (m)	483.67	Reach Len. (m)	53.86	54.82	55.75
Crit W.S. (m)	484.17	Flow Area (m2)		1.15	
E.G. Slope (m/m)	0.038876	Area (m2)		1.15	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.11	Top Width (m)		2.11	
Vel Total (m/s)	6.05	Avg. Vel. (m/s)		6.05	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.54	
Conv. Total (m3/s)	35.2	Conv. (m3/s)		35.2	
Length Wtd. (m)	54.82	Wetted Per. (m)		3.04	
Min Ch El (m)	482.98	Shear (N/m2)		143.78	
Alpha	1.00	Stream Power (N/m s)		870.48	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.24	3.08	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	2.77	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37 Profile: TR 200

E.G. Elev (m)	485.51	Element	Left OB	Channel	Right OB
Vel Head (m)	1.85	Wt. n-Val.		0.017	
W.S. Elev (m)	483.66	Reach Len. (m)	53.86	54.82	55.75
Crit W.S. (m)	484.16	Flow Area (m2)		1.12	
E.G. Slope (m/m)	0.039324	Area (m2)		1.12	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.10	Top Width (m)		2.10	
Vel Total (m/s)	6.03	Avg. Vel. (m/s)		6.03	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	34.1	Conv. (m3/s)		34.1	
Length Wtd. (m)	54.82	Wetted Per. (m)		3.02	
Min Ch El (m)	482.98	Shear (N/m2)		143.28	
Alpha	1.00	Stream Power (N/m s)		863.84	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.54	3.13	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	2.77	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 37 Profile: TR 500

E.G. Elev (m)	485.43	Element	Left OB	Channel	Right OB
Vel Head (m)	1.79	Wt. n-Val.		0.017	
W.S. Elev (m)	483.64	Reach Len. (m)	53.86	54.82	55.75
Crit W.S. (m)	484.12	Flow Area (m2)		1.08	
E.G. Slope (m/m)	0.039251	Area (m2)		1.08	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.09	Top Width (m)		2.09	
Vel Total (m/s)	5.92	Avg. Vel. (m/s)		5.92	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	32.2	Conv. (m3/s)		32.2	
Length Wtd. (m)	54.82	Wetted Per. (m)		2.97	
Min Ch El (m)	482.98	Shear (N/m2)		139.41	
Alpha	1.00	Stream Power (N/m s)		825.55	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.99	3.19	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.62	2.77	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 36 Profile: TR 20

E.G. Elev (m)	482.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.77	Wt. n-Val.		0.033	
W.S. Elev (m)	482.08	Reach Len. (m)	36.83	36.71	37.05
Crit W.S. (m)	482.32	Flow Area (m2)		1.75	
E.G. Slope (m/m)	0.047323	Area (m2)		1.75	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	3.06	Top Width (m)		3.06	
Vel Total (m/s)	3.89	Avg. Vel. (m/s)		3.89	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.57	
Conv. Total (m3/s)	31.3	Conv. (m3/s)		31.3	
Length Wtd. (m)	36.71	Wetted Per. (m)		3.86	
Min Ch El (m)	481.35	Shear (N/m2)		210.66	
Alpha	1.00	Stream Power (N/m s)		820.20	
Frctn Loss (m)	2.35	Cum Volume (1000 m3)	2.52	2.79	0.00
C & E Loss (m)	0.33	Cum SA (1000 m2)	2.31	2.62	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 36 Profile: TR 100

E.G. Elev (m)	482.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.78	Wt. n-Val.		0.033	
W.S. Elev (m)	482.09	Reach Len. (m)	36.83	36.71	37.05
Crit W.S. (m)	482.33	Flow Area (m2)		1.77	
E.G. Slope (m/m)	0.047555	Area (m2)		1.77	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	3.06	Top Width (m)		3.06	
Vel Total (m/s)	3.92	Avg. Vel. (m/s)		3.92	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	31.9	Conv. (m3/s)		31.9	
Length Wtd. (m)	36.71	Wetted Per. (m)		3.87	
Min Ch El (m)	481.35	Shear (N/m2)		213.30	
Alpha	1.00	Stream Power (N/m s)		836.72	
Frctn Loss (m)	2.35	Cum Volume (1000 m3)	3.24	3.00	0.00
C & E Loss (m)	0.33	Cum SA (1000 m2)	2.35	2.63	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 36 Profile: TR 200

E.G. Elev (m)	482.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.77	Wt. n-Val.		0.033	
W.S. Elev (m)	482.08	Reach Len. (m)	36.83	36.71	37.05
Crit W.S. (m)	482.31	Flow Area (m2)		1.74	
E.G. Slope (m/m)	0.047204	Area (m2)		1.74	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	3.05	Top Width (m)		3.05	
Vel Total (m/s)	3.88	Avg. Vel. (m/s)		3.88	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.57	
Conv. Total (m3/s)	31.1	Conv. (m3/s)		31.1	
Length Wtd. (m)	36.71	Wetted Per. (m)		3.85	
Min Ch El (m)	481.35	Shear (N/m2)		209.40	
Alpha	1.00	Stream Power (N/m s)		812.43	
Frctn Loss (m)	2.35	Cum Volume (1000 m3)	3.54	3.05	0.00
C & E Loss (m)	0.33	Cum SA (1000 m2)	2.35	2.63	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 36 Profile: TR 500

E.G. Elev (m)	482.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.73	Wt. n-Val.		0.033	
W.S. Elev (m)	482.06	Reach Len. (m)	36.83	36.71	37.05
Crit W.S. (m)	482.28	Flow Area (m2)		1.69	
E.G. Slope (m/m)	0.046083	Area (m2)		1.69	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 36 Profile: TR 500 (Continued)

Top Width (m)	3.03	Top Width (m)		3.03	
Vel Total (m/s)	3.78	Avg. Vel. (m/s)		3.78	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	29.7	Conv. (m3/s)		29.7	
Length Wtd. (m)	36.71	Wetted Per. (m)		3.81	
Min Ch El (m)	481.35	Shear (N/m2)		200.16	
Alpha	1.00	Stream Power (N/m s)		756.57	
Frctn Loss (m)	2.32	Cum Volume (1000 m3)	3.99	3.12	0.02
C & E Loss (m)	0.32	Cum SA (1000 m2)	2.62	2.63	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 35 Profile: TR 20

E.G. Elev (m)	481.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.		0.033	
W.S. Elev (m)	481.24	Reach Len. (m)	72.64	71.60	69.97
Crit W.S. (m)	481.31	Flow Area (m2)		2.35	
E.G. Slope (m/m)	0.020076	Area (m2)		2.35	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	3.25	Top Width (m)		3.25	
Vel Total (m/s)	2.91	Avg. Vel. (m/s)		2.91	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	48.1	Conv. (m3/s)		48.1	
Length Wtd. (m)	71.60	Wetted Per. (m)		4.22	
Min Ch El (m)	480.24	Shear (N/m2)		109.59	
Alpha	1.00	Stream Power (N/m s)		318.40	
Frctn Loss (m)	1.08	Cum Volume (1000 m3)	2.52	2.71	0.00
C & E Loss (m)	0.10	Cum SA (1000 m2)	2.31	2.50	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 35 Profile: TR 100

E.G. Elev (m)	481.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.		0.033	
W.S. Elev (m)	481.25	Reach Len. (m)	72.64	71.60	69.97
Crit W.S. (m)	481.31	Flow Area (m2)		2.38	
E.G. Slope (m/m)	0.020069	Area (m2)		2.38	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	3.26	Top Width (m)		3.26	
Vel Total (m/s)	2.92	Avg. Vel. (m/s)		2.92	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		0.73	
Conv. Total (m3/s)	49.1	Conv. (m3/s)		49.1	
Length Wtd. (m)	71.60	Wetted Per. (m)		4.24	
Min Ch El (m)	480.24	Shear (N/m2)		110.42	
Alpha	1.00	Stream Power (N/m s)		322.44	
Frctn Loss (m)	1.08	Cum Volume (1000 m3)	3.24	2.93	0.00
C & E Loss (m)	0.11	Cum SA (1000 m2)	2.35	2.51	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 35 Profile: TR 200

E.G. Elev (m)	481.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.		0.033	
W.S. Elev (m)	481.24	Reach Len. (m)	72.64	71.60	69.97
Crit W.S. (m)	481.28	Flow Area (m2)		2.33	
E.G. Slope (m/m)	0.020085	Area (m2)		2.33	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	3.24	Top Width (m)		3.24	
Vel Total (m/s)	2.90	Avg. Vel. (m/s)		2.90	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	47.7	Conv. (m3/s)		47.7	
Length Wtd. (m)	71.60	Wetted Per. (m)		4.20	
Min Ch El (m)	480.24	Shear (N/m2)		109.23	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 35 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		316.65	
Frctn Loss (m)	1.08	Cum Volume (1000 m3)	3.54	2.98	0.00
C & E Loss (m)	0.10	Cum SA (1000 m2)	2.35	2.51	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 35 Profile: TR 500

E.G. Elev (m)	481.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.42	Wt. n-Val.		0.033	
W.S. Elev (m)	481.21	Reach Len. (m)	72.64	71.60	69.97
Crit W.S. (m)	481.26	Flow Area (m2)		2.23	
E.G. Slope (m/m)	0.020205	Area (m2)		2.23	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	3.20	Top Width (m)		3.20	
Vel Total (m/s)	2.86	Avg. Vel. (m/s)		2.86	
Max Chl Dpth (m)	0.96	Hydr. Depth (m)		0.70	
Conv. Total (m3/s)	44.9	Conv. (m3/s)		44.9	
Length Wtd. (m)	71.60	Wetted Per. (m)		4.13	
Min Ch El (m)	480.24	Shear (N/m2)		107.14	
Alpha	1.00	Stream Power (N/m s)		306.31	
Frctn Loss (m)	1.07	Cum Volume (1000 m3)	3.99	3.04	0.02
C & E Loss (m)	0.09	Cum SA (1000 m2)	2.62	2.51	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 34 Profile: TR 20

E.G. Elev (m)	479.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.75	Wt. n-Val.		0.033	
W.S. Elev (m)	478.85	Reach Len. (m)	12.51	13.72	15.09
Crit W.S. (m)	479.07	Flow Area (m2)		1.78	
E.G. Slope (m/m)	0.043924	Area (m2)		1.78	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.92	Top Width (m)		2.92	
Vel Total (m/s)	3.83	Avg. Vel. (m/s)		3.83	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	32.5	Conv. (m3/s)		32.5	
Length Wtd. (m)	13.72	Wetted Per. (m)		3.79	
Min Ch El (m)	478.09	Shear (N/m2)		201.98	
Alpha	1.00	Stream Power (N/m s)		774.26	
Frctn Loss (m)	2.04	Cum Volume (1000 m3)	2.52	2.57	0.00
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.31	2.28	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 34 Profile: TR 100

E.G. Elev (m)	479.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.76	Wt. n-Val.		0.033	
W.S. Elev (m)	478.86	Reach Len. (m)	12.51	13.72	15.09
Crit W.S. (m)	479.08	Flow Area (m2)		1.80	
E.G. Slope (m/m)	0.043789	Area (m2)		1.80	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.92	Top Width (m)		2.92	
Vel Total (m/s)	3.85	Avg. Vel. (m/s)		3.85	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.62	
Conv. Total (m3/s)	33.2	Conv. (m3/s)		33.2	
Length Wtd. (m)	13.72	Wetted Per. (m)		3.81	
Min Ch El (m)	478.09	Shear (N/m2)		203.28	
Alpha	1.00	Stream Power (N/m s)		782.98	
Frctn Loss (m)	2.04	Cum Volume (1000 m3)	3.24	2.78	0.00
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.35	2.29	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 34 Profile: TR 200

E.G. Elev (m)	479.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.74	Wt. n-Val.		0.033	
W.S. Elev (m)	478.85	Reach Len. (m)	12.51	13.72	15.09
Crit W.S. (m)	479.07	Flow Area (m2)		1.77	
E.G. Slope (m/m)	0.043926	Area (m2)		1.77	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.92	Top Width (m)		2.92	
Vel Total (m/s)	3.82	Avg. Vel. (m/s)		3.82	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	32.3	Conv. (m3/s)		32.3	
Length Wtd. (m)	13.72	Wetted Per. (m)		3.79	
Min Ch El (m)	478.09	Shear (N/m2)		201.17	
Alpha	1.00	Stream Power (N/m s)		769.07	
Frctn Loss (m)	2.04	Cum Volume (1000 m3)	3.54	2.83	0.00
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.35	2.29	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 34 Profile: TR 500

E.G. Elev (m)	479.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.72	Wt. n-Val.		0.033	
W.S. Elev (m)	478.82	Reach Len. (m)	12.51	13.72	15.09
Crit W.S. (m)	479.03	Flow Area (m2)		1.70	
E.G. Slope (m/m)	0.043949	Area (m2)		1.70	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.91	Top Width (m)		2.91	
Vel Total (m/s)	3.76	Avg. Vel. (m/s)		3.76	
Max Chl Dpth (m)	0.74	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	30.4	Conv. (m3/s)		30.4	
Length Wtd. (m)	13.72	Wetted Per. (m)		3.74	
Min Ch El (m)	478.09	Shear (N/m2)		195.90	
Alpha	1.00	Stream Power (N/m s)		735.69	
Frctn Loss (m)	2.05	Cum Volume (1000 m3)	3.99	2.90	0.02
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.62	2.29	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 33 Profile: TR 20

E.G. Elev (m)	479.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.44	Wt. n-Val.		0.033	
W.S. Elev (m)	478.80	Reach Len. (m)	16.22	15.38	14.10
Crit W.S. (m)	478.80	Flow Area (m2)		2.31	
E.G. Slope (m/m)	0.020763	Area (m2)		2.31	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.62	Top Width (m)		2.62	
Vel Total (m/s)	2.95	Avg. Vel. (m/s)		2.95	
Max Chl Dpth (m)	1.12	Hydr. Depth (m)		0.88	
Conv. Total (m3/s)	47.3	Conv. (m3/s)		47.3	
Length Wtd. (m)	15.38	Wetted Per. (m)		4.17	
Min Ch El (m)	477.68	Shear (N/m2)		112.88	
Alpha	1.00	Stream Power (N/m s)		332.63	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)	2.52	2.54	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	2.31	2.24	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 33 Profile: TR 100

E.G. Elev (m)	479.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.44	Wt. n-Val.		0.033	
W.S. Elev (m)	478.81	Reach Len. (m)	16.22	15.38	14.10
Crit W.S. (m)	478.81	Flow Area (m2)		2.35	
E.G. Slope (m/m)	0.020616	Area (m2)		2.35	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 33 Profile: TR 100 (Continued)

Top Width (m)	2.63	Top Width (m)		2.63	
Vel Total (m/s)	2.95	Avg. Vel. (m/s)		2.95	
Max Chl Dpth (m)	1.13	Hydr. Depth (m)		0.90	
Conv. Total (m3/s)	48.4	Conv. (m3/s)		48.4	
Length Wtd. (m)	15.38	Wetted Per. (m)		4.20	
Min Ch El (m)	477.68	Shear (N/m2)		113.13	
Alpha	1.00	Stream Power (N/m s)		334.24	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)	3.24	2.75	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	2.35	2.25	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 33 Profile: TR 200

E.G. Elev (m)	479.23	Element	Left OB	Channel	Right OB
Vel Head (m)	0.44	Wt. n-Val.		0.033	
W.S. Elev (m)	478.79	Reach Len. (m)	16.22	15.38	14.10
Crit W.S. (m)	478.79	Flow Area (m2)		2.31	
E.G. Slope (m/m)	0.020596	Area (m2)		2.31	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.62	Top Width (m)		2.62	
Vel Total (m/s)	2.93	Avg. Vel. (m/s)		2.93	
Max Chl Dpth (m)	1.12	Hydr. Depth (m)		0.88	
Conv. Total (m3/s)	47.1	Conv. (m3/s)		47.1	
Length Wtd. (m)	15.38	Wetted Per. (m)		4.17	
Min Ch El (m)	477.68	Shear (N/m2)		111.75	
Alpha	1.00	Stream Power (N/m s)		327.56	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)	3.54	2.80	0.00
C & E Loss (m)	0.06	Cum SA (1000 m2)	2.35	2.25	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 33 Profile: TR 500

E.G. Elev (m)	479.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.42	Wt. n-Val.		0.033	
W.S. Elev (m)	478.76	Reach Len. (m)	16.22	15.38	14.10
Crit W.S. (m)	478.76	Flow Area (m2)		2.21	
E.G. Slope (m/m)	0.020614	Area (m2)		2.21	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.61	Top Width (m)		2.61	
Vel Total (m/s)	2.89	Avg. Vel. (m/s)		2.89	
Max Chl Dpth (m)	1.08	Hydr. Depth (m)		0.85	
Conv. Total (m3/s)	44.4	Conv. (m3/s)		44.4	
Length Wtd. (m)	15.38	Wetted Per. (m)		4.09	
Min Ch El (m)	477.68	Shear (N/m2)		109.17	
Alpha	1.00	Stream Power (N/m s)		315.00	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)	3.99	2.88	0.02
C & E Loss (m)	0.05	Cum SA (1000 m2)	2.62	2.26	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 32 Profile: TR 20

E.G. Elev (m)	478.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.66	Wt. n-Val.		0.033	
W.S. Elev (m)	478.12	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	478.30	Flow Area (m2)		1.89	
E.G. Slope (m/m)	0.039205	Area (m2)		1.89	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	3.02	Top Width (m)		3.02	
Vel Total (m/s)	3.61	Avg. Vel. (m/s)		3.61	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	34.4	Conv. (m3/s)		34.4	
Length Wtd. (m)	0.16	Wetted Per. (m)		4.05	
Min Ch El (m)	477.44	Shear (N/m2)		179.43	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 32 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		647.76	
Frctn Loss (m)	0.43	Cum Volume (1000 m3)	2.52	2.51	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.31	2.20	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 32 Profile: TR 100

E.G. Elev (m)	478.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.033	
W.S. Elev (m)	478.55	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	478.32	Flow Area (m2)		3.21	
E.G. Slope (m/m)	0.009018	Area (m2)		3.21	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	3.19	Top Width (m)		3.19	
Vel Total (m/s)	2.17	Avg. Vel. (m/s)		2.17	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		1.01	
Conv. Total (m3/s)	73.2	Conv. (m3/s)		73.2	
Length Wtd. (m)	0.16	Wetted Per. (m)		4.92	
Min Ch El (m)	477.44	Shear (N/m2)		57.72	
Alpha	1.00	Stream Power (N/m s)		124.99	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	3.24	2.70	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	2.21	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 32 Profile: TR 200

E.G. Elev (m)	478.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.66	Wt. n-Val.		0.033	
W.S. Elev (m)	478.12	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	478.30	Flow Area (m2)		1.88	
E.G. Slope (m/m)	0.038981	Area (m2)		1.88	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	3.02	Top Width (m)		3.02	
Vel Total (m/s)	3.59	Avg. Vel. (m/s)		3.59	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.62	
Conv. Total (m3/s)	34.2	Conv. (m3/s)		34.2	
Length Wtd. (m)	0.16	Wetted Per. (m)		4.04	
Min Ch El (m)	477.44	Shear (N/m2)		177.91	
Alpha	1.00	Stream Power (N/m s)		639.26	
Frctn Loss (m)	0.43	Cum Volume (1000 m3)	3.54	2.77	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.35	2.21	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 32 Profile: TR 500

E.G. Elev (m)	478.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.63	Wt. n-Val.		0.033	
W.S. Elev (m)	478.10	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	478.27	Flow Area (m2)		1.81	
E.G. Slope (m/m)	0.038940	Area (m2)		1.81	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	3.01	Top Width (m)		3.01	
Vel Total (m/s)	3.53	Avg. Vel. (m/s)		3.53	
Max Chl Dpth (m)	0.65	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	32.3	Conv. (m3/s)		32.3	
Length Wtd. (m)	0.16	Wetted Per. (m)		3.99	
Min Ch El (m)	477.44	Shear (N/m2)		172.99	
Alpha	1.00	Stream Power (N/m s)		610.16	
Frctn Loss (m)	0.43	Cum Volume (1000 m3)	3.99	2.85	0.02
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.62	2.21	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31.5 BR U Profile: TR 20

E.G. Elev (m)	478.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.		0.033	
W.S. Elev (m)	478.52	Reach Len. (m)	10.20	10.20	10.20
Crit W.S. (m)	478.30	Flow Area (m2)		3.11	
E.G. Slope (m/m)	0.009508	Area (m2)		3.11	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	3.18	Top Width (m)		3.18	
Vel Total (m/s)	2.20	Avg. Vel. (m/s)		2.20	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.98	
Conv. Total (m3/s)	69.9	Conv. (m3/s)		69.9	
Length Wtd. (m)	10.20	Wetted Per. (m)		4.85	
Min Ch El (m)	477.44	Shear (N/m2)		59.71	
Alpha	1.00	Stream Power (N/m s)		131.07	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	2.52	2.51	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.31	2.20	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31.5 BR U Profile: TR 100

E.G. Elev (m)	478.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.033	
W.S. Elev (m)	478.55	Reach Len. (m)	10.20	10.20	10.20
Crit W.S. (m)	478.31	Flow Area (m2)		3.20	
E.G. Slope (m/m)	0.009054	Area (m2)		3.20	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	3.19	Top Width (m)		3.19	
Vel Total (m/s)	2.17	Avg. Vel. (m/s)		2.17	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		1.00	
Conv. Total (m3/s)	73.0	Conv. (m3/s)		73.0	
Length Wtd. (m)	10.20	Wetted Per. (m)		4.91	
Min Ch El (m)	477.44	Shear (N/m2)		57.91	
Alpha	1.00	Stream Power (N/m s)		125.57	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)	3.24	2.70	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.35	2.21	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31.5 BR U Profile: TR 200

E.G. Elev (m)	478.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.		0.033	
W.S. Elev (m)	478.50	Reach Len. (m)	10.20	10.20	10.20
Crit W.S. (m)	478.30	Flow Area (m2)		3.06	
E.G. Slope (m/m)	0.009720	Area (m2)		3.06	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	3.17	Top Width (m)		3.17	
Vel Total (m/s)	2.21	Avg. Vel. (m/s)		2.21	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.96	
Conv. Total (m3/s)	68.6	Conv. (m3/s)		68.6	
Length Wtd. (m)	10.20	Wetted Per. (m)		4.82	
Min Ch El (m)	477.44	Shear (N/m2)		60.53	
Alpha	1.00	Stream Power (N/m s)		133.61	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.54	2.77	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.35	2.21	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31.5 BR U Profile: TR 500

E.G. Elev (m)	478.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.62	Wt. n-Val.		0.033	
W.S. Elev (m)	478.10	Reach Len. (m)	10.20	10.20	10.20
Crit W.S. (m)	478.27	Flow Area (m2)		1.83	
E.G. Slope (m/m)	0.037646	Area (m2)		1.83	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31.5 BR U Profile: TR 500 (Continued)

Top Width (m)	3.01	Top Width (m)		3.01	
Vel Total (m/s)	3.49	Avg. Vel. (m/s)		3.49	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	32.9	Conv. (m3/s)		32.9	
Length Wtd. (m)	10.20	Wetted Per. (m)		4.01	
Min Ch El (m)	477.44	Shear (N/m2)		168.58	
Alpha	1.00	Stream Power (N/m s)		587.78	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	3.99	2.85	0.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.62	2.21	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31.5 BR D Profile: TR 20

E.G. Elev (m)	478.61	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.		0.033	
W.S. Elev (m)	478.30	Reach Len. (m)	1.40	1.40	1.40
Crit W.S. (m)	477.97	Flow Area (m2)		2.75	
E.G. Slope (m/m)	0.023376	Area (m2)		2.75	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.48	Avg. Vel. (m/s)		2.48	
Max Chl Dpth (m)	1.40	Hydr. Depth (m)			
Conv. Total (m3/s)	44.6	Conv. (m3/s)		44.6	
Length Wtd. (m)	1.40	Wetted Per. (m)		7.05	
Min Ch El (m)	476.90	Shear (N/m2)		89.58	
Alpha	1.00	Stream Power (N/m s)		221.83	
Frctn Loss (m)	0.31	Cum Volume (1000 m3)	2.52	2.48	0.00
C & E Loss (m)	0.04	Cum SA (1000 m2)	2.31	2.18	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31.5 BR D Profile: TR 100

E.G. Elev (m)	478.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.		0.033	
W.S. Elev (m)	478.31	Reach Len. (m)	1.40	1.40	1.40
Crit W.S. (m)	477.98	Flow Area (m2)		2.75	
E.G. Slope (m/m)	0.024277	Area (m2)		2.75	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.52	Avg. Vel. (m/s)		2.52	
Max Chl Dpth (m)	1.41	Hydr. Depth (m)			
Conv. Total (m3/s)	44.6	Conv. (m3/s)		44.6	
Length Wtd. (m)	1.40	Wetted Per. (m)		7.05	
Min Ch El (m)	476.90	Shear (N/m2)		93.03	
Alpha	1.00	Stream Power (N/m s)		234.79	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	3.24	2.67	0.00
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.35	2.19	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31.5 BR D Profile: TR 200

E.G. Elev (m)	478.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.		0.033	
W.S. Elev (m)	478.29	Reach Len. (m)	1.40	1.40	1.40
Crit W.S. (m)	477.96	Flow Area (m2)		2.75	
E.G. Slope (m/m)	0.022970	Area (m2)		2.75	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.45	Avg. Vel. (m/s)		2.45	
Max Chl Dpth (m)	1.39	Hydr. Depth (m)			
Conv. Total (m3/s)	44.6	Conv. (m3/s)		44.6	
Length Wtd. (m)	1.40	Wetted Per. (m)		7.05	
Min Ch El (m)	476.90	Shear (N/m2)		88.02	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31.5 BR D Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		216.08	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)	3.54	2.74	0.00
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.35	2.19	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31.5 BR D Profile: TR 500

E.G. Elev (m)	478.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.		0.033	
W.S. Elev (m)	478.25	Reach Len. (m)	1.40	1.40	1.40
Crit W.S. (m)	477.93	Flow Area (m2)		2.75	
E.G. Slope (m/m)	0.020463	Area (m2)		2.75	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.32	Avg. Vel. (m/s)		2.32	
Max Chl Dpth (m)	1.35	Hydr. Depth (m)			
Conv. Total (m3/s)	44.6	Conv. (m3/s)		44.6	
Length Wtd. (m)	1.40	Wetted Per. (m)		7.05	
Min Ch El (m)	476.90	Shear (N/m2)		78.42	
Alpha	1.00	Stream Power (N/m s)		181.69	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)	3.99	2.82	0.02
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.62	2.20	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31 Profile: TR 20

E.G. Elev (m)	478.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.033	
W.S. Elev (m)	478.35	Reach Len. (m)	10.63	10.53	10.54
Crit W.S. (m)	477.97	Flow Area (m2)		3.28	
E.G. Slope (m/m)	0.007827	Area (m2)		3.28	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.68	Top Width (m)		2.68	
Vel Total (m/s)	2.08	Avg. Vel. (m/s)		2.08	
Max Chl Dpth (m)	1.44	Hydr. Depth (m)		1.22	
Conv. Total (m3/s)	77.1	Conv. (m3/s)		77.1	
Length Wtd. (m)	10.53	Wetted Per. (m)		4.82	
Min Ch El (m)	476.90	Shear (N/m2)		52.29	
Alpha	1.00	Stream Power (N/m s)		108.55	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	2.52	2.47	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.31	2.18	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31 Profile: TR 100

E.G. Elev (m)	478.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.033	
W.S. Elev (m)	478.37	Reach Len. (m)	10.63	10.53	10.54
Crit W.S. (m)	477.98	Flow Area (m2)		3.34	
E.G. Slope (m/m)	0.007791	Area (m2)		3.34	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.69	Top Width (m)		2.69	
Vel Total (m/s)	2.08	Avg. Vel. (m/s)		2.08	
Max Chl Dpth (m)	1.46	Hydr. Depth (m)		1.24	
Conv. Total (m3/s)	78.7	Conv. (m3/s)		78.7	
Length Wtd. (m)	10.53	Wetted Per. (m)		4.86	
Min Ch El (m)	476.90	Shear (N/m2)		52.46	
Alpha	1.00	Stream Power (N/m s)		109.22	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	3.24	2.67	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.35	2.19	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31 Profile: TR 200

E.G. Elev (m)	478.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.033	
W.S. Elev (m)	478.34	Reach Len. (m)	10.63	10.53	10.54
Crit W.S. (m)	477.97	Flow Area (m2)		3.26	
E.G. Slope (m/m)	0.007845	Area (m2)		3.26	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.68	Top Width (m)		2.68	
Vel Total (m/s)	2.07	Avg. Vel. (m/s)		2.07	
Max Chl Dpth (m)	1.43	Hydr. Depth (m)		1.22	
Conv. Total (m3/s)	76.3	Conv. (m3/s)		76.3	
Length Wtd. (m)	10.53	Wetted Per. (m)		4.80	
Min Ch El (m)	476.90	Shear (N/m2)		52.22	
Alpha	1.00	Stream Power (N/m s)		108.26	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	3.54	2.74	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.35	2.19	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 31 Profile: TR 500

E.G. Elev (m)	478.49	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.033	
W.S. Elev (m)	478.28	Reach Len. (m)	10.63	10.53	10.54
Crit W.S. (m)	477.94	Flow Area (m2)		3.10	
E.G. Slope (m/m)	0.007992	Area (m2)		3.10	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.67	Top Width (m)		2.67	
Vel Total (m/s)	2.06	Avg. Vel. (m/s)		2.06	
Max Chl Dpth (m)	1.37	Hydr. Depth (m)		1.16	
Conv. Total (m3/s)	71.4	Conv. (m3/s)		71.4	
Length Wtd. (m)	10.53	Wetted Per. (m)		4.68	
Min Ch El (m)	476.90	Shear (N/m2)		51.90	
Alpha	1.00	Stream Power (N/m s)		106.81	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	3.99	2.82	0.02
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.62	2.19	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 30 Profile: TR 20

E.G. Elev (m)	478.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.033	
W.S. Elev (m)	478.33	Reach Len. (m)	9.04	9.18	9.39
Crit W.S. (m)	477.78	Flow Area (m2)		4.03	
E.G. Slope (m/m)	0.004719	Area (m2)		4.03	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	3.19	Top Width (m)		3.19	
Vel Total (m/s)	1.69	Avg. Vel. (m/s)		1.69	
Max Chl Dpth (m)	1.74	Hydr. Depth (m)		1.26	
Conv. Total (m3/s)	99.3	Conv. (m3/s)		99.3	
Length Wtd. (m)	9.18	Wetted Per. (m)		5.50	
Min Ch El (m)	476.60	Shear (N/m2)		33.91	
Alpha	1.00	Stream Power (N/m s)		57.38	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	2.52	2.43	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.31	2.15	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 30 Profile: TR 100

E.G. Elev (m)	478.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.033	
W.S. Elev (m)	478.35	Reach Len. (m)	9.04	9.18	9.39
Crit W.S. (m)	477.79	Flow Area (m2)		4.09	
E.G. Slope (m/m)	0.004696	Area (m2)		4.09	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 30 Profile: TR 100 (Continued)

Top Width (m)	3.21	Top Width (m)		3.21	
Vel Total (m/s)	1.70	Avg. Vel. (m/s)		1.70	
Max Chl Dpth (m)	1.76	Hydr. Depth (m)		1.28	
Conv. Total (m3/s)	101.4	Conv. (m3/s)		101.4	
Length Wtd. (m)	9.18	Wetted Per. (m)		5.54	
Min Ch El (m)	476.60	Shear (N/m2)		34.02	
Alpha	1.00	Stream Power (N/m s)		57.73	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	3.24	2.63	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	2.16	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 30 Profile: TR 200

E.G. Elev (m)	478.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.033	
W.S. Elev (m)	478.32	Reach Len. (m)	9.04	9.18	9.39
Crit W.S. (m)	477.77	Flow Area (m2)		4.00	
E.G. Slope (m/m)	0.004730	Area (m2)		4.00	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	3.19	Top Width (m)		3.19	
Vel Total (m/s)	1.69	Avg. Vel. (m/s)		1.69	
Max Chl Dpth (m)	1.73	Hydr. Depth (m)		1.26	
Conv. Total (m3/s)	98.3	Conv. (m3/s)		98.3	
Length Wtd. (m)	9.18	Wetted Per. (m)		5.48	
Min Ch El (m)	476.60	Shear (N/m2)		33.86	
Alpha	1.00	Stream Power (N/m s)		57.22	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	3.54	2.70	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	2.16	0.01

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 30 Profile: TR 500

E.G. Elev (m)	478.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.033	
W.S. Elev (m)	478.26	Reach Len. (m)	9.04	9.18	9.39
Crit W.S. (m)	477.74	Flow Area (m2)		3.80	
E.G. Slope (m/m)	0.004820	Area (m2)		3.80	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	3.15	Top Width (m)		3.15	
Vel Total (m/s)	1.68	Avg. Vel. (m/s)		1.68	
Max Chl Dpth (m)	1.67	Hydr. Depth (m)		1.21	
Conv. Total (m3/s)	91.9	Conv. (m3/s)		91.9	
Length Wtd. (m)	9.18	Wetted Per. (m)		5.34	
Min Ch El (m)	476.60	Shear (N/m2)		33.64	
Alpha	1.00	Stream Power (N/m s)		56.43	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	3.99	2.78	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.62	2.16	0.04

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 29 Profile: TR 20

E.G. Elev (m)	478.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	478.30	Reach Len. (m)	0.78	0.78	0.78
Crit W.S. (m)	477.62	Flow Area (m2)		4.01	0.35
E.G. Slope (m/m)	0.004371	Area (m2)		4.01	0.35
Q Total (m3/s)	6.82	Flow (m3/s)		6.68	0.13
Top Width (m)	3.77	Top Width (m)		2.64	1.13
Vel Total (m/s)	1.56	Avg. Vel. (m/s)		1.67	0.38
Max Chl Dpth (m)	1.73	Hydr. Depth (m)		1.52	0.31
Conv. Total (m3/s)	103.1	Conv. (m3/s)		101.1	2.0
Length Wtd. (m)	0.78	Wetted Per. (m)		5.28	1.72
Min Ch El (m)	476.57	Shear (N/m2)		32.53	8.74

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 29 Profile: TR 20 (Continued)

Alpha	1.12	Stream Power (N/m s)		54.22	3.34
Frctn Loss (m)		Cum Volume (1000 m3)	2.52	2.40	0.00
C & E Loss (m)		Cum SA (1000 m2)	2.31	2.12	0.00

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 29 Profile: TR 100

E.G. Elev (m)	478.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	478.32	Reach Len. (m)	0.78	0.78	0.78
Crit W.S. (m)	477.64	Flow Area (m2)		4.06	0.37
E.G. Slope (m/m)	0.004350	Area (m2)		4.06	0.37
Q Total (m3/s)	6.95	Flow (m3/s)		6.80	0.15
Top Width (m)	3.77	Top Width (m)		2.64	1.13
Vel Total (m/s)	1.57	Avg. Vel. (m/s)		1.67	0.39
Max Chl Dpth (m)	1.75	Hydr. Depth (m)		1.54	0.33
Conv. Total (m3/s)	105.4	Conv. (m3/s)		103.1	2.2
Length Wtd. (m)	0.78	Wetted Per. (m)		5.31	1.75
Min Ch El (m)	476.57	Shear (N/m2)		32.68	9.16
Alpha	1.12	Stream Power (N/m s)		54.69	3.61
Frctn Loss (m)		Cum Volume (1000 m3)	3.24	2.59	0.00
C & E Loss (m)		Cum SA (1000 m2)	2.35	2.13	0.00

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 29 Profile: TR 200

E.G. Elev (m)	478.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	478.29	Reach Len. (m)	0.78	0.78	0.78
Crit W.S. (m)	477.62	Flow Area (m2)		3.99	0.34
E.G. Slope (m/m)	0.004382	Area (m2)		3.99	0.34
Q Total (m3/s)	6.76	Flow (m3/s)		6.63	0.13
Top Width (m)	3.77	Top Width (m)		2.64	1.13
Vel Total (m/s)	1.56	Avg. Vel. (m/s)		1.66	0.38
Max Chl Dpth (m)	1.72	Hydr. Depth (m)		1.51	0.30
Conv. Total (m3/s)	102.1	Conv. (m3/s)		100.2	1.9
Length Wtd. (m)	0.78	Wetted Per. (m)		5.28	1.72
Min Ch El (m)	476.57	Shear (N/m2)		32.46	8.54
Alpha	1.11	Stream Power (N/m s)		54.01	3.21
Frctn Loss (m)		Cum Volume (1000 m3)	3.54	2.66	0.00
C & E Loss (m)		Cum SA (1000 m2)	2.35	2.13	0.00

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 29 Profile: TR 500

E.G. Elev (m)	478.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	478.23	Reach Len. (m)	0.78	0.78	0.78
Crit W.S. (m)	477.58	Flow Area (m2)		3.82	0.27
E.G. Slope (m/m)	0.004468	Area (m2)		3.82	0.27
Q Total (m3/s)	6.38	Flow (m3/s)		6.29	0.09
Top Width (m)	3.77	Top Width (m)		2.64	1.13
Vel Total (m/s)	1.56	Avg. Vel. (m/s)		1.65	0.33
Max Chl Dpth (m)	1.66	Hydr. Depth (m)		1.45	0.24
Conv. Total (m3/s)	95.4	Conv. (m3/s)		94.1	1.3
Length Wtd. (m)	0.78	Wetted Per. (m)		5.21	1.65
Min Ch El (m)	476.57	Shear (N/m2)		32.11	7.15
Alpha	1.10	Stream Power (N/m s)		52.88	2.38
Frctn Loss (m)		Cum Volume (1000 m3)	3.99	2.75	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.62	2.14	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28.5 BR U Profile: TR 20

E.G. Elev (m)	478.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.			
W.S. Elev (m)	478.30	Reach Len. (m)	6.12	6.12	6.12
Crit W.S. (m)	478.04	Flow Area (m2)		3.00	0.35
E.G. Slope (m/m)		Area (m2)		3.00	0.35
Q Total (m3/s)	6.82	Flow (m3/s)		6.11	0.71
Top Width (m)	3.77	Top Width (m)		2.64	1.13
Vel Total (m/s)	2.03	Avg. Vel. (m/s)	0.30	2.03	2.03
Max Chl Dpth (m)	1.73	Hydr. Depth (m)		1.14	0.31
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	6.12	Wetted Per. (m)		9.49	1.72
Min Ch El (m)	476.57	Shear (N/m2)			
Alpha	1.09	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	2.52	2.39	0.00
C & E Loss (m)		Cum SA (1000 m2)	2.31	2.12	0.00

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28.5 BR U Profile: TR 100

E.G. Elev (m)	478.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.			
W.S. Elev (m)	478.32	Reach Len. (m)	6.12	6.12	6.12
Crit W.S. (m)	478.05	Flow Area (m2)		3.06	0.37
E.G. Slope (m/m)		Area (m2)		3.06	0.37
Q Total (m3/s)	6.95	Flow (m3/s)		6.19	0.76
Top Width (m)	3.77	Top Width (m)		2.64	1.13
Vel Total (m/s)	2.02	Avg. Vel. (m/s)	0.30	2.02	2.04
Max Chl Dpth (m)	1.75	Hydr. Depth (m)		1.16	0.33
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	6.12	Wetted Per. (m)		9.51	1.75
Min Ch El (m)	476.57	Shear (N/m2)			
Alpha	1.09	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	3.24	2.59	0.00
C & E Loss (m)		Cum SA (1000 m2)	2.35	2.13	0.00

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28.5 BR U Profile: TR 200

E.G. Elev (m)	478.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.			
W.S. Elev (m)	478.29	Reach Len. (m)	6.12	6.12	6.12
Crit W.S. (m)	478.03	Flow Area (m2)		2.98	0.34
E.G. Slope (m/m)		Area (m2)		2.98	0.34
Q Total (m3/s)	6.76	Flow (m3/s)		6.07	0.69
Top Width (m)	3.77	Top Width (m)		2.64	1.13
Vel Total (m/s)	2.04	Avg. Vel. (m/s)	0.30	2.04	2.02
Max Chl Dpth (m)	1.72	Hydr. Depth (m)		1.13	0.30
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	6.12	Wetted Per. (m)		9.48	1.72
Min Ch El (m)	476.57	Shear (N/m2)			
Alpha	1.09	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	3.54	2.66	0.00
C & E Loss (m)		Cum SA (1000 m2)	2.35	2.13	0.00

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28.5 BR U Profile: TR 500

E.G. Elev (m)	478.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.			
W.S. Elev (m)	478.23	Reach Len. (m)	6.12	6.12	6.12
Crit W.S. (m)	478.00	Flow Area (m2)		2.81	0.27
E.G. Slope (m/m)		Area (m2)		2.81	0.27
Q Total (m3/s)	6.38	Flow (m3/s)		5.84	0.54

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28.5 BR U Profile: TR 500 (Continued)

Top Width (m)	3.77	Top Width (m)		2.64	1.13
Vel Total (m/s)	2.07	Avg. Vel. (m/s)	0.30	2.07	1.99
Max Chl Dpth (m)	1.66	Hydr. Depth (m)		1.07	0.24
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	6.12	Wetted Per. (m)		9.42	1.65
Min Ch El (m)	476.57	Shear (N/m2)			
Alpha	1.09	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	3.99	2.74	0.02
C & E Loss (m)		Cum SA (1000 m2)	2.62	2.14	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28.5 BR D Profile: TR 20

E.G. Elev (m)	478.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.			
W.S. Elev (m)	478.18	Reach Len. (m)	0.15	0.15	0.15
Crit W.S. (m)	477.43	Flow Area (m2)		3.21	
E.G. Slope (m/m)		Area (m2)		3.21	
Q Total (m3/s)	6.82	Flow (m3/s)		6.33	
Top Width (m)	2.51	Top Width (m)		2.51	
Vel Total (m/s)	2.13	Avg. Vel. (m/s)	0.30	1.98	0.30
Max Chl Dpth (m)	1.71	Hydr. Depth (m)		1.27	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.15	Wetted Per. (m)		9.71	
Min Ch El (m)	476.47	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	2.52	2.37	
C & E Loss (m)		Cum SA (1000 m2)	2.31	2.10	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28.5 BR D Profile: TR 100

E.G. Elev (m)	478.38	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.			
W.S. Elev (m)	478.18	Reach Len. (m)	0.15	0.15	0.15
Crit W.S. (m)	477.43	Flow Area (m2)		3.21	
E.G. Slope (m/m)		Area (m2)		3.21	
Q Total (m3/s)	6.95	Flow (m3/s)		6.43	
Top Width (m)	2.51	Top Width (m)		2.51	
Vel Total (m/s)	2.17	Avg. Vel. (m/s)	0.30	2.01	0.30
Max Chl Dpth (m)	1.71	Hydr. Depth (m)		1.27	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.15	Wetted Per. (m)		9.71	
Min Ch El (m)	476.47	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	3.24	2.57	
C & E Loss (m)		Cum SA (1000 m2)	2.35	2.11	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28.5 BR D Profile: TR 200

E.G. Elev (m)	478.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.			
W.S. Elev (m)	478.15	Reach Len. (m)	0.15	0.15	0.15
Crit W.S. (m)	477.43	Flow Area (m2)		3.12	
E.G. Slope (m/m)		Area (m2)		3.12	
Q Total (m3/s)	6.76	Flow (m3/s)		6.29	
Top Width (m)	2.51	Top Width (m)		2.51	
Vel Total (m/s)	2.17	Avg. Vel. (m/s)	0.30	2.02	0.30
Max Chl Dpth (m)	1.67	Hydr. Depth (m)		1.24	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.15	Wetted Per. (m)		9.64	
Min Ch El (m)	476.47	Shear (N/m2)			

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28.5 BR D Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	3.54	2.64	
C & E Loss (m)		Cum SA (1000 m2)	2.35	2.12	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28.5 BR D Profile: TR 500

E.G. Elev (m)	478.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.			
W.S. Elev (m)	478.09	Reach Len. (m)	0.15	0.15	0.15
Crit W.S. (m)	477.43	Flow Area (m2)		2.99	
E.G. Slope (m/m)		Area (m2)		2.99	
Q Total (m3/s)	6.38	Flow (m3/s)		6.00	
Top Width (m)	2.50	Top Width (m)		2.50	
Vel Total (m/s)	2.14	Avg. Vel. (m/s)	0.30	2.01	0.30
Max Chl Dpth (m)	1.62	Hydr. Depth (m)		1.19	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.15	Wetted Per. (m)		9.53	
Min Ch El (m)	476.47	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	3.99	2.73	0.01
C & E Loss (m)		Cum SA (1000 m2)	2.62	2.12	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28 Profile: TR 20

E.G. Elev (m)	478.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.033	
W.S. Elev (m)	477.95	Reach Len. (m)	18.56	18.56	18.56
Crit W.S. (m)	477.47	Flow Area (m2)		3.40	
E.G. Slope (m/m)	0.007413	Area (m2)		3.40	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.48	Top Width (m)		2.48	
Vel Total (m/s)	2.00	Avg. Vel. (m/s)		2.00	
Max Chl Dpth (m)	1.48	Hydr. Depth (m)		1.38	
Conv. Total (m3/s)	79.2	Conv. (m3/s)		79.2	
Length Wtd. (m)	18.56	Wetted Per. (m)		5.06	
Min Ch El (m)	476.47	Shear (N/m2)		48.89	
Alpha	1.00	Stream Power (N/m s)		97.91	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)	2.52	2.37	
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.31	2.10	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28 Profile: TR 100

E.G. Elev (m)	478.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.033	
W.S. Elev (m)	477.97	Reach Len. (m)	18.56	18.56	18.56
Crit W.S. (m)	477.48	Flow Area (m2)		3.45	
E.G. Slope (m/m)	0.007416	Area (m2)		3.45	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.48	Top Width (m)		2.48	
Vel Total (m/s)	2.01	Avg. Vel. (m/s)		2.01	
Max Chl Dpth (m)	1.50	Hydr. Depth (m)		1.39	
Conv. Total (m3/s)	80.7	Conv. (m3/s)		80.7	
Length Wtd. (m)	18.56	Wetted Per. (m)		5.10	
Min Ch El (m)	476.47	Shear (N/m2)		49.23	
Alpha	1.00	Stream Power (N/m s)		99.04	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)	3.24	2.57	
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.35	2.11	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28 Profile: TR 200

E.G. Elev (m)	478.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.033	
W.S. Elev (m)	477.94	Reach Len. (m)	18.56	18.56	18.56
Crit W.S. (m)	477.47	Flow Area (m2)		3.38	
E.G. Slope (m/m)	0.007414	Area (m2)		3.38	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.47	Top Width (m)		2.47	
Vel Total (m/s)	2.00	Avg. Vel. (m/s)		2.00	
Max Chl Dpth (m)	1.47	Hydr. Depth (m)		1.37	
Conv. Total (m3/s)	78.5	Conv. (m3/s)		78.5	
Length Wtd. (m)	18.56	Wetted Per. (m)		5.04	
Min Ch El (m)	476.47	Shear (N/m2)		48.75	
Alpha	1.00	Stream Power (N/m s)		97.43	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)	3.54	2.64	
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.35	2.12	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 28 Profile: TR 500

E.G. Elev (m)	478.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.033	
W.S. Elev (m)	477.88	Reach Len. (m)	18.56	18.56	18.56
Crit W.S. (m)	477.43	Flow Area (m2)		3.23	
E.G. Slope (m/m)	0.007417	Area (m2)		3.23	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.46	Top Width (m)		2.46	
Vel Total (m/s)	1.97	Avg. Vel. (m/s)		1.97	
Max Chl Dpth (m)	1.41	Hydr. Depth (m)		1.31	
Conv. Total (m3/s)	74.1	Conv. (m3/s)		74.1	
Length Wtd. (m)	18.56	Wetted Per. (m)		4.92	
Min Ch El (m)	476.47	Shear (N/m2)		47.78	
Alpha	1.00	Stream Power (N/m s)		94.23	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)	3.99	2.73	0.01
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.62	2.12	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 27 Profile: TR 20

E.G. Elev (m)	477.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.		0.033	
W.S. Elev (m)	477.54	Reach Len. (m)	52.11	52.11	52.11
Crit W.S. (m)	477.36	Flow Area (m2)		2.45	
E.G. Slope (m/m)	0.017423	Area (m2)		2.45	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	1.98	Top Width (m)		1.98	
Vel Total (m/s)	2.78	Avg. Vel. (m/s)		2.78	
Max Chl Dpth (m)	1.46	Hydr. Depth (m)		1.24	
Conv. Total (m3/s)	51.7	Conv. (m3/s)		51.7	
Length Wtd. (m)	52.11	Wetted Per. (m)		4.22	
Min Ch El (m)	476.08	Shear (N/m2)		99.16	
Alpha	1.00	Stream Power (N/m s)		275.98	
Frctn Loss (m)	1.09	Cum Volume (1000 m3)	2.52	2.32	
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.31	2.06	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 27 Profile: TR 100

E.G. Elev (m)	477.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.40	Wt. n-Val.		0.033	
W.S. Elev (m)	477.56	Reach Len. (m)	52.11	52.11	52.11
Crit W.S. (m)	477.37	Flow Area (m2)		2.48	
E.G. Slope (m/m)	0.017465	Area (m2)		2.48	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 27 Profile: TR 100 (Continued)

Top Width (m)	1.98	Top Width (m)		1.98	
Vel Total (m/s)	2.80	Avg. Vel. (m/s)		2.80	
Max Chl Dpth (m)	1.48	Hydr. Depth (m)		1.25	
Conv. Total (m3/s)	52.6	Conv. (m3/s)		52.6	
Length Wtd. (m)	52.11	Wetted Per. (m)		4.26	
Min Ch El (m)	476.08	Shear (N/m2)		99.97	
Alpha	1.00	Stream Power (N/m s)		279.63	
Frctn Loss (m)	1.09	Cum Volume (1000 m3)	3.24	2.52	
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.35	2.07	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 27 Profile: TR 200

E.G. Elev (m)	477.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.		0.033	
W.S. Elev (m)	477.53	Reach Len. (m)	52.11	52.11	52.11
Crit W.S. (m)	477.35	Flow Area (m2)		2.43	
E.G. Slope (m/m)	0.017437	Area (m2)		2.43	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	1.98	Top Width (m)		1.98	
Vel Total (m/s)	2.78	Avg. Vel. (m/s)		2.78	
Max Chl Dpth (m)	1.45	Hydr. Depth (m)		1.23	
Conv. Total (m3/s)	51.2	Conv. (m3/s)		51.2	
Length Wtd. (m)	52.11	Wetted Per. (m)		4.20	
Min Ch El (m)	476.08	Shear (N/m2)		98.95	
Alpha	1.00	Stream Power (N/m s)		274.97	
Frctn Loss (m)	1.09	Cum Volume (1000 m3)	3.54	2.59	
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.35	2.07	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 27 Profile: TR 500

E.G. Elev (m)	477.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.38	Wt. n-Val.		0.033	
W.S. Elev (m)	477.47	Reach Len. (m)	52.11	52.11	52.11
Crit W.S. (m)	477.31	Flow Area (m2)		2.32	
E.G. Slope (m/m)	0.017470	Area (m2)		2.32	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	1.97	Top Width (m)		1.97	
Vel Total (m/s)	2.75	Avg. Vel. (m/s)		2.75	
Max Chl Dpth (m)	1.40	Hydr. Depth (m)		1.18	
Conv. Total (m3/s)	48.3	Conv. (m3/s)		48.3	
Length Wtd. (m)	52.11	Wetted Per. (m)		4.09	
Min Ch El (m)	476.08	Shear (N/m2)		97.27	
Alpha	1.00	Stream Power (N/m s)		267.12	
Frctn Loss (m)	1.08	Cum Volume (1000 m3)	3.99	2.67	0.01
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.62	2.08	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 26 Profile: TR 20

E.G. Elev (m)	476.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.52	Wt. n-Val.		0.033	
W.S. Elev (m)	476.31	Reach Len. (m)	21.67	20.91	19.95
Crit W.S. (m)	476.31	Flow Area (m2)		2.13	
E.G. Slope (m/m)	0.025508	Area (m2)		2.13	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	3.20	Avg. Vel. (m/s)		3.20	
Max Chl Dpth (m)	1.22	Hydr. Depth (m)		1.03	
Conv. Total (m3/s)	42.7	Conv. (m3/s)		42.7	
Length Wtd. (m)	20.91	Wetted Per. (m)		3.95	
Min Ch El (m)	475.09	Shear (N/m2)		134.72	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 26 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		431.62	
Frctn Loss (m)		Cum Volume (1000 m3)	2.52	2.20	
C & E Loss (m)		Cum SA (1000 m2)	2.31	1.96	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 26 Profile: TR 100

E.G. Elev (m)	476.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.		0.033	
W.S. Elev (m)	476.32	Reach Len. (m)	21.67	20.91	19.95
Crit W.S. (m)	476.32	Flow Area (m2)		2.16	
E.G. Slope (m/m)	0.025509	Area (m2)		2.16	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	3.22	Avg. Vel. (m/s)		3.22	
Max Chl Dpth (m)	1.23	Hydr. Depth (m)		1.05	
Conv. Total (m3/s)	43.5	Conv. (m3/s)		43.5	
Length Wtd. (m)	20.91	Wetted Per. (m)		3.98	
Min Ch El (m)	475.09	Shear (N/m2)		135.65	
Alpha	1.00	Stream Power (N/m s)		436.55	
Frctn Loss (m)		Cum Volume (1000 m3)	3.24	2.39	
C & E Loss (m)		Cum SA (1000 m2)	2.35	1.97	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 26 Profile: TR 200

E.G. Elev (m)	476.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.52	Wt. n-Val.		0.033	
W.S. Elev (m)	476.30	Reach Len. (m)	21.67	20.91	19.95
Crit W.S. (m)	476.30	Flow Area (m2)		2.12	
E.G. Slope (m/m)	0.025439	Area (m2)		2.12	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	3.19	Avg. Vel. (m/s)		3.19	
Max Chl Dpth (m)	1.21	Hydr. Depth (m)		1.03	
Conv. Total (m3/s)	42.4	Conv. (m3/s)		42.4	
Length Wtd. (m)	20.91	Wetted Per. (m)		3.94	
Min Ch El (m)	475.09	Shear (N/m2)		134.00	
Alpha	1.00	Stream Power (N/m s)		427.96	
Frctn Loss (m)		Cum Volume (1000 m3)	3.54	2.47	
C & E Loss (m)		Cum SA (1000 m2)	2.35	1.97	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 26 Profile: TR 500

E.G. Elev (m)	476.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.50	Wt. n-Val.		0.033	
W.S. Elev (m)	476.26	Reach Len. (m)	21.67	20.91	19.95
Crit W.S. (m)	476.26	Flow Area (m2)		2.04	
E.G. Slope (m/m)	0.025121	Area (m2)		2.04	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	3.13	Avg. Vel. (m/s)		3.13	
Max Chl Dpth (m)	1.17	Hydr. Depth (m)		0.99	
Conv. Total (m3/s)	40.3	Conv. (m3/s)		40.3	
Length Wtd. (m)	20.91	Wetted Per. (m)		3.86	
Min Ch El (m)	475.09	Shear (N/m2)		129.87	
Alpha	1.00	Stream Power (N/m s)		407.07	
Frctn Loss (m)		Cum Volume (1000 m3)	3.99	2.56	0.01
C & E Loss (m)		Cum SA (1000 m2)	2.62	1.97	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 25 Profile: TR 20

E.G. Elev (m)	476.30	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.		0.033	
W.S. Elev (m)	475.77	Reach Len. (m)	58.54	58.20	57.75
Crit W.S. (m)	475.86	Flow Area (m2)		2.12	
E.G. Slope (m/m)	0.025549	Area (m2)		2.12	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.67	Top Width (m)		2.67	
Vel Total (m/s)	3.22	Avg. Vel. (m/s)		3.22	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	42.7	Conv. (m3/s)		42.7	
Length Wtd. (m)	58.20	Wetted Per. (m)		3.91	
Min Ch El (m)	474.76	Shear (N/m2)		135.72	
Alpha	1.00	Stream Power (N/m s)		436.83	
Frctn Loss (m)	0.53	Cum Volume (1000 m3)	2.52	2.16	
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.31	1.91	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 25 Profile: TR 100

E.G. Elev (m)	476.32	Element	Left OB	Channel	Right OB
Vel Head (m)	0.54	Wt. n-Val.		0.033	
W.S. Elev (m)	475.78	Reach Len. (m)	58.54	58.20	57.75
Crit W.S. (m)	475.86	Flow Area (m2)		2.14	
E.G. Slope (m/m)	0.025795	Area (m2)		2.14	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.67	Top Width (m)		2.67	
Vel Total (m/s)	3.25	Avg. Vel. (m/s)		3.25	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	43.3	Conv. (m3/s)		43.3	
Length Wtd. (m)	58.20	Wetted Per. (m)		3.93	
Min Ch El (m)	474.76	Shear (N/m2)		137.84	
Alpha	1.00	Stream Power (N/m s)		447.57	
Frctn Loss (m)	0.54	Cum Volume (1000 m3)	3.24	2.35	
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	1.92	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 25 Profile: TR 200

E.G. Elev (m)	476.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.52	Wt. n-Val.		0.033	
W.S. Elev (m)	475.77	Reach Len. (m)	58.54	58.20	57.75
Crit W.S. (m)	475.85	Flow Area (m2)		2.11	
E.G. Slope (m/m)	0.025482	Area (m2)		2.11	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.67	Top Width (m)		2.67	
Vel Total (m/s)	3.21	Avg. Vel. (m/s)		3.21	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	42.3	Conv. (m3/s)		42.3	
Length Wtd. (m)	58.20	Wetted Per. (m)		3.90	
Min Ch El (m)	474.76	Shear (N/m2)		134.94	
Alpha	1.00	Stream Power (N/m s)		432.84	
Frctn Loss (m)	0.53	Cum Volume (1000 m3)	3.54	2.42	
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	1.92	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 25 Profile: TR 500

E.G. Elev (m)	476.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.50	Wt. n-Val.		0.033	
W.S. Elev (m)	475.74	Reach Len. (m)	58.54	58.20	57.75
Crit W.S. (m)	475.81	Flow Area (m2)		2.03	
E.G. Slope (m/m)	0.025195	Area (m2)		2.03	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 25 Profile: TR 500 (Continued)

Top Width (m)	2.66	Top Width (m)		2.66	
Vel Total (m/s)	3.14	Avg. Vel. (m/s)		3.14	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)		0.76	
Conv. Total (m3/s)	40.2	Conv. (m3/s)		40.2	
Length Wtd. (m)	58.20	Wetted Per. (m)		3.84	
Min Ch El (m)	474.76	Shear (N/m2)		130.50	
Alpha	1.00	Stream Power (N/m s)		410.17	
Frctn Loss (m)	0.53	Cum Volume (1000 m3)	3.99	2.52	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.62	1.92	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 24 Profile: TR 20

E.G. Elev (m)	474.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.56	Wt. n-Val.		0.033	
W.S. Elev (m)	474.19	Reach Len. (m)	46.98	45.53	44.17
Crit W.S. (m)	474.28	Flow Area (m2)		2.06	
E.G. Slope (m/m)	0.027821	Area (m2)		2.06	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.47	Top Width (m)		2.47	
Vel Total (m/s)	3.31	Avg. Vel. (m/s)		3.31	
Max Chl Dpth (m)	1.14	Hydr. Depth (m)		0.83	
Conv. Total (m3/s)	40.9	Conv. (m3/s)		40.9	
Length Wtd. (m)	45.53	Wetted Per. (m)		3.88	
Min Ch El (m)	473.04	Shear (N/m2)		144.84	
Alpha	1.00	Stream Power (N/m s)		479.97	
Frctn Loss (m)	1.55	Cum Volume (1000 m3)	2.52	2.03	
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.31	1.76	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 24 Profile: TR 100

E.G. Elev (m)	474.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.56	Wt. n-Val.		0.033	
W.S. Elev (m)	474.20	Reach Len. (m)	46.98	45.53	44.17
Crit W.S. (m)	474.29	Flow Area (m2)		2.09	
E.G. Slope (m/m)	0.027626	Area (m2)		2.09	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.48	Top Width (m)		2.48	
Vel Total (m/s)	3.32	Avg. Vel. (m/s)		3.32	
Max Chl Dpth (m)	1.16	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	41.8	Conv. (m3/s)		41.8	
Length Wtd. (m)	45.53	Wetted Per. (m)		3.91	
Min Ch El (m)	473.04	Shear (N/m2)		145.10	
Alpha	1.00	Stream Power (N/m s)		481.99	
Frctn Loss (m)	1.55	Cum Volume (1000 m3)	3.24	2.23	
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	1.77	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 24 Profile: TR 200

E.G. Elev (m)	474.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.56	Wt. n-Val.		0.033	
W.S. Elev (m)	474.18	Reach Len. (m)	46.98	45.53	44.17
Crit W.S. (m)	474.27	Flow Area (m2)		2.04	
E.G. Slope (m/m)	0.027881	Area (m2)		2.04	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.46	Top Width (m)		2.46	
Vel Total (m/s)	3.31	Avg. Vel. (m/s)		3.31	
Max Chl Dpth (m)	1.14	Hydr. Depth (m)		0.83	
Conv. Total (m3/s)	40.5	Conv. (m3/s)		40.5	
Length Wtd. (m)	45.53	Wetted Per. (m)		3.86	
Min Ch El (m)	473.04	Shear (N/m2)		144.59	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 24 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		478.42	
Frctn Loss (m)	1.55	Cum Volume (1000 m3)	3.54	2.30	
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	1.77	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 24 Profile: TR 500

E.G. Elev (m)	474.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.55	Wt. n-Val.		0.033	
W.S. Elev (m)	474.14	Reach Len. (m)	46.98	45.53	44.17
Crit W.S. (m)	474.24	Flow Area (m2)		1.95	
E.G. Slope (m/m)	0.028189	Area (m2)		1.95	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.43	Top Width (m)		2.43	
Vel Total (m/s)	3.27	Avg. Vel. (m/s)		3.27	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.80	
Conv. Total (m3/s)	38.0	Conv. (m3/s)		38.0	
Length Wtd. (m)	45.53	Wetted Per. (m)		3.78	
Min Ch El (m)	473.04	Shear (N/m2)		142.56	
Alpha	1.00	Stream Power (N/m s)		466.46	
Frctn Loss (m)	1.55	Cum Volume (1000 m3)	3.99	2.40	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.62	1.78	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 23 Profile: TR 20

E.G. Elev (m)	473.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.56	Wt. n-Val.		0.033	
W.S. Elev (m)	472.89	Reach Len. (m)	44.45	45.88	46.40
Crit W.S. (m)	473.00	Flow Area (m2)		2.05	
E.G. Slope (m/m)	0.028818	Area (m2)		2.05	
Q Total (m3/s)	6.82	Flow (m3/s)		6.82	
Top Width (m)	2.63	Top Width (m)		2.63	
Vel Total (m/s)	3.32	Avg. Vel. (m/s)		3.32	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.78	
Conv. Total (m3/s)	40.2	Conv. (m3/s)		40.2	
Length Wtd. (m)	45.70	Wetted Per. (m)		3.96	
Min Ch El (m)	472.03	Shear (N/m2)		146.64	
Alpha	1.00	Stream Power (N/m s)		487.09	
Frctn Loss (m)	1.29	Cum Volume (1000 m3)	2.52	1.94	
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.31	1.64	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 23 Profile: TR 100

E.G. Elev (m)	473.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.57	Wt. n-Val.		0.033	
W.S. Elev (m)	472.90	Reach Len. (m)	44.45	45.88	46.40
Crit W.S. (m)	473.01	Flow Area (m2)		2.08	
E.G. Slope (m/m)	0.029033	Area (m2)		2.08	
Q Total (m3/s)	6.95	Flow (m3/s)		6.95	
Top Width (m)	2.63	Top Width (m)		2.63	
Vel Total (m/s)	3.35	Avg. Vel. (m/s)		3.35	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	40.8	Conv. (m3/s)		40.8	
Length Wtd. (m)	45.59	Wetted Per. (m)		3.97	
Min Ch El (m)	472.03	Shear (N/m2)		148.69	
Alpha	1.00	Stream Power (N/m s)		497.87	
Frctn Loss (m)	1.29	Cum Volume (1000 m3)	3.24	2.13	
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	1.65	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 23 Profile: TR 200

E.G. Elev (m)	473.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.56	Wt. n-Val.		0.033	
W.S. Elev (m)	472.89	Reach Len. (m)	44.45	45.88	46.40
Crit W.S. (m)	473.00	Flow Area (m2)		2.04	
E.G. Slope (m/m)	0.028817	Area (m2)		2.04	
Q Total (m3/s)	6.76	Flow (m3/s)		6.76	
Top Width (m)	2.63	Top Width (m)		2.63	
Vel Total (m/s)	3.31	Avg. Vel. (m/s)		3.31	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.78	
Conv. Total (m3/s)	39.8	Conv. (m3/s)		39.8	
Length Wtd. (m)	45.54	Wetted Per. (m)		3.95	
Min Ch El (m)	472.03	Shear (N/m2)		146.09	
Alpha	1.00	Stream Power (N/m s)		484.05	
Frctn Loss (m)	1.29	Cum Volume (1000 m3)	3.54	2.21	
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.35	1.66	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 23 Profile: TR 500

E.G. Elev (m)	473.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.54	Wt. n-Val.		0.033	
W.S. Elev (m)	472.86	Reach Len. (m)	44.45	45.88	46.40
Crit W.S. (m)	472.96	Flow Area (m2)		1.97	
E.G. Slope (m/m)	0.028473	Area (m2)		1.97	
Q Total (m3/s)	6.38	Flow (m3/s)		6.38	
Top Width (m)	2.61	Top Width (m)		2.61	
Vel Total (m/s)	3.25	Avg. Vel. (m/s)		3.25	
Max Chl Dpth (m)	0.97	Hydr. Depth (m)		0.75	
Conv. Total (m3/s)	37.8	Conv. (m3/s)		37.8	
Length Wtd. (m)		Wetted Per. (m)		3.89	
Min Ch El (m)	472.03	Shear (N/m2)		141.19	
Alpha	1.00	Stream Power (N/m s)		458.21	
Frctn Loss (m)	1.29	Cum Volume (1000 m3)	3.99	2.31	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.62	1.66	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 22 Profile: TR 20

E.G. Elev (m)	472.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	472.32	Reach Len. (m)	27.17	26.65	26.44
Crit W.S. (m)	472.37	Flow Area (m2)	1.82	2.10	
E.G. Slope (m/m)	0.015133	Area (m2)	1.82	2.10	
Q Total (m3/s)	6.82	Flow (m3/s)	1.46	5.36	
Top Width (m)	9.15	Top Width (m)	6.96	2.20	
Vel Total (m/s)	1.74	Avg. Vel. (m/s)	0.80	2.55	
Max Chl Dpth (m)	1.24	Hydr. Depth (m)	0.26	0.96	
Conv. Total (m3/s)	55.4	Conv. (m3/s)	11.9	43.6	
Length Wtd. (m)	26.95	Wetted Per. (m)	7.41	3.72	
Min Ch El (m)	471.09	Shear (N/m2)	36.36	83.93	
Alpha	1.73	Stream Power (N/m s)	29.19	213.98	
Frctn Loss (m)	0.81	Cum Volume (1000 m3)	2.48	1.85	
C & E Loss (m)	0.10	Cum SA (1000 m2)	2.16	1.53	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 22 Profile: TR 100

E.G. Elev (m)	472.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	472.66	Reach Len. (m)	27.17	26.65	26.44
Crit W.S. (m)	472.37	Flow Area (m2)	4.16	2.85	
E.G. Slope (m/m)	0.003717	Area (m2)	4.16	2.85	
Q Total (m3/s)	6.95	Flow (m3/s)	2.79	4.16	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 22 Profile: TR 100 (Continued)

Top Width (m)	9.19	Top Width (m)	6.96	2.23	
Vel Total (m/s)	0.99	Avg. Vel. (m/s)	0.67	1.46	
Max Chl Dpth (m)	1.57	Hydr. Depth (m)	0.60	1.28	
Conv. Total (m3/s)	114.0	Conv. (m3/s)	45.8	68.2	
Length Wtd. (m)	26.99	Wetted Per. (m)	7.75	4.06	
Min Ch El (m)	471.09	Shear (N/m2)	19.56	25.60	
Alpha	1.48	Stream Power (N/m s)	13.12	37.36	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	3.15	2.02	
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.19	1.54	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 22 Profile: TR 200

E.G. Elev (m)	472.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	472.88	Reach Len. (m)	27.17	26.65	26.44
Crit W.S. (m)	472.36	Flow Area (m2)	5.73	3.35	
E.G. Slope (m/m)	0.001719	Area (m2)	5.73	3.35	
Q Total (m3/s)	6.76	Flow (m3/s)	3.18	3.58	
Top Width (m)	9.19	Top Width (m)	6.96	2.24	
Vel Total (m/s)	0.74	Avg. Vel. (m/s)	0.55	1.07	
Max Chl Dpth (m)	1.80	Hydr. Depth (m)	0.82	1.50	
Conv. Total (m3/s)	163.0	Conv. (m3/s)	76.7	86.4	
Length Wtd. (m)	27.01	Wetted Per. (m)	7.98	4.28	
Min Ch El (m)	471.09	Shear (N/m2)	12.11	13.20	
Alpha	1.35	Stream Power (N/m s)	6.71	14.10	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	3.41	2.09	
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.19	1.54	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 22 Profile: TR 500

E.G. Elev (m)	473.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	473.14	Reach Len. (m)	27.17	26.65	26.44
Crit W.S. (m)	472.35	Flow Area (m2)	7.48	3.92	
E.G. Slope (m/m)	0.000807	Area (m2)	7.48	3.92	
Q Total (m3/s)	6.38	Flow (m3/s)	3.32	3.06	
Top Width (m)	9.19	Top Width (m)	6.96	2.24	
Vel Total (m/s)	0.56	Avg. Vel. (m/s)	0.44	0.78	
Max Chl Dpth (m)	2.05	Hydr. Depth (m)	1.08	1.75	
Conv. Total (m3/s)	224.6	Conv. (m3/s)	117.0	107.6	
Length Wtd. (m)	27.02	Wetted Per. (m)	8.23	4.53	
Min Ch El (m)	471.09	Shear (N/m2)	7.19	6.83	
Alpha	1.26	Stream Power (N/m s)	3.19	5.34	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	3.82	2.18	0.01
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.46	1.55	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 21 Profile: TR 20

E.G. Elev (m)	472.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	472.18	Reach Len. (m)	35.38	36.34	37.22
Crit W.S. (m)	471.40	Flow Area (m2)	44.63	4.32	
E.G. Slope (m/m)	0.000033	Area (m2)	44.63	4.32	
Q Total (m3/s)	6.82	Flow (m3/s)	6.13	0.69	
Top Width (m)	25.84	Top Width (m)	23.23	2.61	
Vel Total (m/s)	0.14	Avg. Vel. (m/s)	0.14	0.16	
Max Chl Dpth (m)	2.52	Hydr. Depth (m)	1.92	1.66	
Conv. Total (m3/s)	1192.0	Conv. (m3/s)	1070.9	121.1	
Length Wtd. (m)	35.54	Wetted Per. (m)	25.84	4.87	
Min Ch El (m)	470.22	Shear (N/m2)	0.55	0.29	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 21 Profile: TR 20 (Continued)

Alpha	1.01	Stream Power (N/m s)	0.08	0.05	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.85	1.76	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.75	1.47	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 21 Profile: TR 100

E.G. Elev (m)	472.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	472.71	Reach Len. (m)	35.38	36.34	37.22
Crit W.S. (m)	471.40	Flow Area (m2)	56.80	5.71	
E.G. Slope (m/m)	0.000016	Area (m2)	56.80	5.71	
Q Total (m3/s)	6.95	Flow (m3/s)	6.24	0.71	
Top Width (m)	25.90	Top Width (m)	23.23	2.68	
Vel Total (m/s)	0.11	Avg. Vel. (m/s)	0.11	0.12	
Max Chl Dpth (m)	3.05	Hydr. Depth (m)	2.45	2.13	
Conv. Total (m3/s)	1758.6	Conv. (m3/s)	1579.0	179.6	
Length Wtd. (m)	35.54	Wetted Per. (m)	26.37	5.39	
Min Ch El (m)	470.22	Shear (N/m2)	0.33	0.16	
Alpha	1.00	Stream Power (N/m s)	0.04	0.02	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	2.32	1.90	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.78	1.47	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 21 Profile: TR 200

E.G. Elev (m)	472.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	472.91	Reach Len. (m)	35.38	36.34	37.22
Crit W.S. (m)	471.40	Flow Area (m2)	61.49	6.25	
E.G. Slope (m/m)	0.000011	Area (m2)	61.49	6.25	
Q Total (m3/s)	6.76	Flow (m3/s)	6.07	0.69	
Top Width (m)	25.93	Top Width (m)	23.23	2.70	
Vel Total (m/s)	0.10	Avg. Vel. (m/s)	0.10	0.11	
Max Chl Dpth (m)	3.25	Hydr. Depth (m)	2.65	2.31	
Conv. Total (m3/s)	1996.8	Conv. (m3/s)	1793.0	203.9	
Length Wtd. (m)	35.53	Wetted Per. (m)	26.57	5.60	
Min Ch El (m)	470.22	Shear (N/m2)	0.26	0.13	
Alpha	1.00	Stream Power (N/m s)	0.03	0.01	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	2.50	1.96	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.78	1.48	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 21 Profile: TR 500

E.G. Elev (m)	473.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	473.15	Reach Len. (m)	35.38	36.34	37.22
Crit W.S. (m)	471.35	Flow Area (m2)	67.03	6.90	
E.G. Slope (m/m)	0.000008	Area (m2)	67.03	6.90	
Q Total (m3/s)	6.38	Flow (m3/s)	5.73	0.65	
Top Width (m)	25.96	Top Width (m)	23.23	2.73	
Vel Total (m/s)	0.09	Avg. Vel. (m/s)	0.09	0.09	
Max Chl Dpth (m)	3.49	Hydr. Depth (m)	2.89	2.53	
Conv. Total (m3/s)	2292.1	Conv. (m3/s)	2058.4	233.7	
Length Wtd. (m)	35.53	Wetted Per. (m)	26.81	5.84	
Min Ch El (m)	470.22	Shear (N/m2)	0.19	0.09	
Alpha	1.00	Stream Power (N/m s)	0.02	0.01	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	2.81	2.03	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.05	1.48	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 20 Profile: TR 20

E.G. Elev (m)	472.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	472.18	Reach Len. (m)	24.20	23.78	23.64
Crit W.S. (m)	470.78	Flow Area (m2)	25.32	5.71	
E.G. Slope (m/m)	0.000079	Area (m2)	25.32	5.71	
Q Total (m3/s)	6.82	Flow (m3/s)	5.22	1.60	
Top Width (m)	15.53	Top Width (m)	12.99	2.54	
Vel Total (m/s)	0.22	Avg. Vel. (m/s)	0.21	0.28	
Max Chl Dpth (m)	2.67	Hydr. Depth (m)	1.95	2.25	
Conv. Total (m3/s)	766.1	Conv. (m3/s)	586.3	179.9	
Length Wtd. (m)	24.03	Wetted Per. (m)	15.46	5.39	
Min Ch El (m)	469.51	Shear (N/m2)	1.27	0.82	
Alpha	1.05	Stream Power (N/m s)	0.26	0.23	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.61	1.58	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.11	1.37	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 20 Profile: TR 100

E.G. Elev (m)	472.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	472.71	Reach Len. (m)	24.20	23.78	23.64
Crit W.S. (m)	470.78	Flow Area (m2)	32.14	7.05	
E.G. Slope (m/m)	0.000040	Area (m2)	32.14	7.05	
Q Total (m3/s)	6.95	Flow (m3/s)	5.42	1.52	
Top Width (m)	15.53	Top Width (m)	12.99	2.54	
Vel Total (m/s)	0.18	Avg. Vel. (m/s)	0.17	0.22	
Max Chl Dpth (m)	3.20	Hydr. Depth (m)	2.47	2.78	
Conv. Total (m3/s)	1093.1	Conv. (m3/s)	853.3	239.8	
Length Wtd. (m)	24.04	Wetted Per. (m)	15.98	5.92	
Min Ch El (m)	469.51	Shear (N/m2)	0.80	0.47	
Alpha	1.03	Stream Power (N/m s)	0.13	0.10	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.75	1.67	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.14	1.38	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 20 Profile: TR 200

E.G. Elev (m)	472.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	472.91	Reach Len. (m)	24.20	23.78	23.64
Crit W.S. (m)	470.78	Flow Area (m2)	34.76	7.56	
E.G. Slope (m/m)	0.000030	Area (m2)	34.76	7.56	
Q Total (m3/s)	6.76	Flow (m3/s)	5.31	1.45	
Top Width (m)	15.53	Top Width (m)	12.99	2.54	
Vel Total (m/s)	0.16	Avg. Vel. (m/s)	0.15	0.19	
Max Chl Dpth (m)	3.40	Hydr. Depth (m)	2.68	2.98	
Conv. Total (m3/s)	1228.2	Conv. (m3/s)	964.5	263.7	
Length Wtd. (m)	24.04	Wetted Per. (m)	16.19	6.12	
Min Ch El (m)	469.51	Shear (N/m2)	0.64	0.37	
Alpha	1.03	Stream Power (N/m s)	0.10	0.07	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.80	1.71	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.14	1.38	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 20 Profile: TR 500

E.G. Elev (m)	473.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	473.15	Reach Len. (m)	24.20	23.78	23.64
Crit W.S. (m)	470.78	Flow Area (m2)	37.87	8.17	
E.G. Slope (m/m)	0.000021	Area (m2)	37.87	8.17	
Q Total (m3/s)	6.38	Flow (m3/s)	5.04	1.34	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 20 Profile: TR 500 (Continued)

Top Width (m)	15.53	Top Width (m)	12.99	2.54	
Vel Total (m/s)	0.14	Avg. Vel. (m/s)	0.13	0.16	
Max Chl Dpth (m)	3.64	Hydr. Depth (m)	2.92	3.22	
Conv. Total (m3/s)	1394.1	Conv. (m3/s)	1101.7	292.4	
Length Wtd. (m)	24.04	Wetted Per. (m)	16.42	6.36	
Min Ch El (m)	469.51	Shear (N/m2)	0.47	0.26	
Alpha	1.02	Stream Power (N/m s)	0.06	0.04	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.95	1.76	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.41	1.39	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 19 Profile: TR 20

E.G. Elev (m)	472.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	472.17	Reach Len. (m)	2.53	1.82	1.16
Crit W.S. (m)	470.06	Flow Area (m2)	8.26	7.29	
E.G. Slope (m/m)	0.000302	Area (m2)	8.26	7.29	
Q Total (m3/s)	6.82	Flow (m3/s)	2.80	4.02	
Top Width (m)	6.56	Top Width (m)	4.13	2.43	
Vel Total (m/s)	0.44	Avg. Vel. (m/s)	0.34	0.55	
Max Chl Dpth (m)	3.27	Hydr. Depth (m)	2.00	3.00	
Conv. Total (m3/s)	392.6	Conv. (m3/s)	161.0	231.5	
Length Wtd. (m)	1.92	Wetted Per. (m)	6.53	6.79	
Min Ch El (m)	468.90	Shear (N/m2)	3.74	3.18	
Alpha	1.18	Stream Power (N/m s)	1.27	1.75	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.21	1.42	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.90	1.31	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 19 Profile: TR 100

E.G. Elev (m)	472.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	472.70	Reach Len. (m)	2.53	1.82	1.16
Crit W.S. (m)	470.07	Flow Area (m2)	10.45	8.57	
E.G. Slope (m/m)	0.000182	Area (m2)	10.45	8.57	
Q Total (m3/s)	6.95	Flow (m3/s)	3.05	3.90	
Top Width (m)	6.56	Top Width (m)	4.13	2.43	
Vel Total (m/s)	0.37	Avg. Vel. (m/s)	0.29	0.45	
Max Chl Dpth (m)	3.80	Hydr. Depth (m)	2.53	3.53	
Conv. Total (m3/s)	514.8	Conv. (m3/s)	226.2	288.7	
Length Wtd. (m)	1.92	Wetted Per. (m)	7.06	7.32	
Min Ch El (m)	468.90	Shear (N/m2)	2.64	2.09	
Alpha	1.15	Stream Power (N/m s)	0.77	0.95	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.23	1.49	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.94	1.32	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 19 Profile: TR 200

E.G. Elev (m)	472.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	472.90	Reach Len. (m)	2.53	1.82	1.16
Crit W.S. (m)	470.05	Flow Area (m2)	11.29	9.07	
E.G. Slope (m/m)	0.000144	Area (m2)	11.29	9.07	
Q Total (m3/s)	6.76	Flow (m3/s)	3.03	3.73	
Top Width (m)	6.56	Top Width (m)	4.13	2.43	
Vel Total (m/s)	0.33	Avg. Vel. (m/s)	0.27	0.41	
Max Chl Dpth (m)	4.00	Hydr. Depth (m)	2.73	3.74	
Conv. Total (m3/s)	563.7	Conv. (m3/s)	252.5	311.2	
Length Wtd. (m)	1.91	Wetted Per. (m)	7.26	7.53	
Min Ch El (m)	468.90	Shear (N/m2)	2.19	1.70	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 19 Profile: TR 200 (Continued)

Alpha	1.14	Stream Power (N/m s)	0.59	0.70	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.24	1.51	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.94	1.32	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 19 Profile: TR 500

E.G. Elev (m)	473.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	473.14	Reach Len. (m)	2.53	1.82	1.16
Crit W.S. (m)	470.02	Flow Area (m2)	12.29	9.65	
E.G. Slope (m/m)	0.000105	Area (m2)	12.29	9.65	
Q Total (m3/s)	6.38	Flow (m3/s)	2.91	3.47	
Top Width (m)	6.56	Top Width (m)	4.13	2.43	
Vel Total (m/s)	0.29	Avg. Vel. (m/s)	0.24	0.36	
Max Chl Dpth (m)	4.24	Hydr. Depth (m)	2.97	3.98	
Conv. Total (m3/s)	622.6	Conv. (m3/s)	284.4	338.2	
Length Wtd. (m)	1.90	Wetted Per. (m)	7.50	7.77	
Min Ch El (m)	468.90	Shear (N/m2)	1.69	1.28	
Alpha	1.13	Stream Power (N/m s)	0.40	0.46	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.34	1.55	0.01
C & E Loss (m)	0.03	Cum SA (1000 m2)	1.20	1.33	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 18 Profile: TR 20

E.G. Elev (m)	472.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.		0.017	
W.S. Elev (m)	471.90	Reach Len. (m)	0.27	0.27	0.27
Crit W.S. (m)	470.72	Flow Area (m2)		5.50	
E.G. Slope (m/m)	0.002132	Area (m2)		5.50	
Q Total (m3/s)	12.18	Flow (m3/s)		12.18	
Top Width (m)	2.00	Top Width (m)		2.00	
Vel Total (m/s)	2.22	Avg. Vel. (m/s)		2.22	
Max Chl Dpth (m)	2.88	Hydr. Depth (m)		2.74	
Conv. Total (m3/s)	263.7	Conv. (m3/s)		263.7	
Length Wtd. (m)	0.27	Wetted Per. (m)		7.46	
Min Ch El (m)	469.03	Shear (N/m2)		15.41	
Alpha	1.00	Stream Power (N/m s)		34.14	
Frctn Loss (m)		Cum Volume (1000 m3)	0.19	1.41	
C & E Loss (m)		Cum SA (1000 m2)	0.90	1.31	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 18 Profile: TR 100

E.G. Elev (m)	472.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.		0.017	
W.S. Elev (m)	472.38	Reach Len. (m)	0.27	0.27	0.27
Crit W.S. (m)	471.00	Flow Area (m2)		6.44	
E.G. Slope (m/m)	0.002416	Area (m2)		6.44	
Q Total (m3/s)	15.60	Flow (m3/s)		15.60	
Top Width (m)	2.00	Top Width (m)		2.00	
Vel Total (m/s)	2.42	Avg. Vel. (m/s)		2.42	
Max Chl Dpth (m)	3.35	Hydr. Depth (m)		3.22	
Conv. Total (m3/s)	317.4	Conv. (m3/s)		317.4	
Length Wtd. (m)	0.27	Wetted Per. (m)		8.41	
Min Ch El (m)	469.03	Shear (N/m2)		18.16	
Alpha	1.00	Stream Power (N/m s)		43.96	
Frctn Loss (m)		Cum Volume (1000 m3)	0.22	1.47	
C & E Loss (m)		Cum SA (1000 m2)	0.93	1.32	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 18 Profile: TR 200

E.G. Elev (m)	472.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.		0.017	
W.S. Elev (m)	472.55	Reach Len. (m)	0.27	0.27	0.27
Crit W.S. (m)	471.11	Flow Area (m2)		6.80	
E.G. Slope (m/m)	0.002552	Area (m2)		6.80	
Q Total (m3/s)	17.06	Flow (m3/s)		17.06	
Top Width (m)	2.00	Top Width (m)		2.00	
Vel Total (m/s)	2.51	Avg. Vel. (m/s)		2.51	
Max Chl Dpth (m)	3.53	Hydr. Depth (m)		3.40	
Conv. Total (m3/s)	337.8	Conv. (m3/s)		337.8	
Length Wtd. (m)	0.27	Wetted Per. (m)		8.76	
Min Ch El (m)	469.03	Shear (N/m2)		19.42	
Alpha	1.00	Stream Power (N/m s)		48.72	
Frctn Loss (m)		Cum Volume (1000 m3)	0.23	1.50	
C & E Loss (m)		Cum SA (1000 m2)	0.93	1.32	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 18 Profile: TR 500

E.G. Elev (m)	473.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.		0.017	
W.S. Elev (m)	472.76	Reach Len. (m)	0.27	0.27	0.27
Crit W.S. (m)	471.25	Flow Area (m2)		7.21	
E.G. Slope (m/m)	0.002763	Area (m2)		7.21	
Q Total (m3/s)	18.98	Flow (m3/s)		18.98	
Top Width (m)	2.00	Top Width (m)		2.00	
Vel Total (m/s)	2.63	Avg. Vel. (m/s)		2.63	
Max Chl Dpth (m)	3.73	Hydr. Depth (m)		3.60	
Conv. Total (m3/s)	361.1	Conv. (m3/s)		361.1	
Length Wtd. (m)	0.27	Wetted Per. (m)		9.17	
Min Ch El (m)	469.03	Shear (N/m2)		21.30	
Alpha	1.00	Stream Power (N/m s)		56.10	
Frctn Loss (m)		Cum Volume (1000 m3)	0.33	1.53	0.01
C & E Loss (m)		Cum SA (1000 m2)	1.20	1.32	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17.5 BR U Profile: TR 20

E.G. Elev (m)	472.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.69	Wt. n-Val.			
W.S. Elev (m)	471.90	Reach Len. (m)	8.34	8.34	8.34
Crit W.S. (m)	471.80	Flow Area (m2)		3.32	
E.G. Slope (m/m)		Area (m2)		3.32	
Q Total (m3/s)	12.18	Flow (m3/s)		12.17	
Top Width (m)	2.00	Top Width (m)		2.00	
Vel Total (m/s)	3.67	Avg. Vel. (m/s)	0.30	3.67	0.30
Max Chl Dpth (m)	2.88	Hydr. Depth (m)		1.66	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	8.34	Wetted Per. (m)		9.16	
Min Ch El (m)	469.03	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.19	1.41	
C & E Loss (m)		Cum SA (1000 m2)	0.90	1.31	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17.5 BR U Profile: TR 100

E.G. Elev (m)	472.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.68	Wt. n-Val.			
W.S. Elev (m)	472.38	Reach Len. (m)	8.34	8.34	8.34
Crit W.S. (m)	472.08	Flow Area (m2)		4.27	
E.G. Slope (m/m)		Area (m2)		4.27	
Q Total (m3/s)	15.60	Flow (m3/s)		15.60	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17.5 BR U Profile: TR 100 (Continued)

Top Width (m)	2.00	Top Width (m)		2.00	
Vel Total (m/s)	3.66	Avg. Vel. (m/s)	0.30	3.66	0.30
Max Chl Dpth (m)	3.35	Hydr. Depth (m)		2.13	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	8.34	Wetted Per. (m)		10.11	
Min Ch El (m)	469.03	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.22	1.47	
C & E Loss (m)		Cum SA (1000 m2)	0.93	1.32	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17.5 BR U Profile: TR 200

E.G. Elev (m)	472.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.69	Wt. n-Val.			
W.S. Elev (m)	472.55	Reach Len. (m)	8.34	8.34	8.34
Crit W.S. (m)	472.20	Flow Area (m2)		4.62	
E.G. Slope (m/m)		Area (m2)		4.62	
Q Total (m3/s)	17.06	Flow (m3/s)		17.06	
Top Width (m)	2.00	Top Width (m)		2.00	
Vel Total (m/s)	3.69	Avg. Vel. (m/s)	0.30	3.69	0.30
Max Chl Dpth (m)	3.53	Hydr. Depth (m)		2.31	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	8.34	Wetted Per. (m)		10.46	
Min Ch El (m)	469.03	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.23	1.49	
C & E Loss (m)		Cum SA (1000 m2)	0.93	1.32	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17.5 BR U Profile: TR 500

E.G. Elev (m)	473.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.73	Wt. n-Val.			
W.S. Elev (m)	472.76	Reach Len. (m)	8.34	8.34	8.34
Crit W.S. (m)	472.34	Flow Area (m2)		5.03	
E.G. Slope (m/m)		Area (m2)		5.03	
Q Total (m3/s)	18.98	Flow (m3/s)		18.99	
Top Width (m)	2.00	Top Width (m)		2.00	
Vel Total (m/s)	3.77	Avg. Vel. (m/s)	0.30	3.77	0.30
Max Chl Dpth (m)	3.73	Hydr. Depth (m)		2.51	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	8.34	Wetted Per. (m)		10.87	
Min Ch El (m)	469.03	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.33	1.53	0.01
C & E Loss (m)		Cum SA (1000 m2)	1.20	1.32	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17.5 BR D Profile: TR 20

E.G. Elev (m)	472.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.56	Wt. n-Val.			
W.S. Elev (m)	471.81	Reach Len. (m)	0.34	0.34	0.34
Crit W.S. (m)	471.60	Flow Area (m2)		3.67	
E.G. Slope (m/m)		Area (m2)		3.67	
Q Total (m3/s)	12.18	Flow (m3/s)		12.17	
Top Width (m)	2.17	Top Width (m)		2.17	
Vel Total (m/s)	3.32	Avg. Vel. (m/s)	0.30	3.32	0.30
Max Chl Dpth (m)	2.92	Hydr. Depth (m)		1.69	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.34	Wetted Per. (m)		9.73	
Min Ch El (m)	468.89	Shear (N/m2)			

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17.5 BR D Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.19	1.38	
C & E Loss (m)		Cum SA (1000 m2)	0.90	1.29	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17.5 BR D Profile: TR 100

E.G. Elev (m)	472.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.67	Wt. n-Val.			
W.S. Elev (m)	472.11	Reach Len. (m)	0.34	0.34	0.34
Crit W.S. (m)	471.87	Flow Area (m2)		4.31	
E.G. Slope (m/m)		Area (m2)		4.31	
Q Total (m3/s)	15.60	Flow (m3/s)		15.60	
Top Width (m)	2.17	Top Width (m)		2.17	
Vel Total (m/s)	3.62	Avg. Vel. (m/s)	0.30	3.62	0.30
Max Chl Dpth (m)	3.22	Hydr. Depth (m)		1.98	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.34	Wetted Per. (m)		10.32	
Min Ch El (m)	468.89	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.22	1.44	
C & E Loss (m)		Cum SA (1000 m2)	0.93	1.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17.5 BR D Profile: TR 200

E.G. Elev (m)	472.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.72	Wt. n-Val.			
W.S. Elev (m)	472.22	Reach Len. (m)	0.34	0.34	0.34
Crit W.S. (m)	471.98	Flow Area (m2)		4.55	
E.G. Slope (m/m)		Area (m2)		4.55	
Q Total (m3/s)	17.06	Flow (m3/s)		17.06	
Top Width (m)	2.17	Top Width (m)		2.17	
Vel Total (m/s)	3.75	Avg. Vel. (m/s)	0.30	3.75	0.30
Max Chl Dpth (m)	3.33	Hydr. Depth (m)		2.09	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.34	Wetted Per. (m)		10.54	
Min Ch El (m)	468.89	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.23	1.46	
C & E Loss (m)		Cum SA (1000 m2)	0.93	1.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17.5 BR D Profile: TR 500

E.G. Elev (m)	473.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.78	Wt. n-Val.			
W.S. Elev (m)	472.36	Reach Len. (m)	0.34	0.34	0.34
Crit W.S. (m)	472.11	Flow Area (m2)		4.84	
E.G. Slope (m/m)		Area (m2)		4.84	
Q Total (m3/s)	18.98	Flow (m3/s)		18.99	
Top Width (m)	2.17	Top Width (m)		2.17	
Vel Total (m/s)	3.92	Avg. Vel. (m/s)	0.30	3.92	0.30
Max Chl Dpth (m)	3.46	Hydr. Depth (m)		2.23	
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.34	Wetted Per. (m)		10.81	
Min Ch El (m)	468.89	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.33	1.49	0.01
C & E Loss (m)		Cum SA (1000 m2)	1.20	1.31	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17 Profile: TR 20

E.G. Elev (m)	470.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.62	Wt. n-Val.		0.017	
W.S. Elev (m)	470.33	Reach Len. (m)	0.95	0.95	0.95
Crit W.S. (m)	470.28	Flow Area (m2)		2.81	
E.G. Slope (m/m)	0.007003	Area (m2)		2.81	
Q Total (m3/s)	12.18	Flow (m3/s)		9.79	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	3.48	Avg. Vel. (m/s)		3.48	
Max Chl Dpth (m)	1.44	Hydr. Depth (m)		1.36	
Conv. Total (m3/s)	117.0	Conv. (m3/s)		117.0	
Length Wtd. (m)	0.95	Wetted Per. (m)		4.74	
Min Ch El (m)	468.89	Shear (N/m2)		40.80	
Alpha	1.00	Stream Power (N/m s)		141.95	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.19	1.38	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.90	1.29	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17 Profile: TR 100

E.G. Elev (m)	471.09	Element	Left OB	Channel	Right OB
Vel Head (m)	0.64	Wt. n-Val.		0.017	
W.S. Elev (m)	470.45	Reach Len. (m)	0.95	0.95	0.95
Crit W.S. (m)	470.38	Flow Area (m2)		3.06	
E.G. Slope (m/m)	0.006973	Area (m2)		3.06	
Q Total (m3/s)	15.60	Flow (m3/s)		10.89	
Top Width (m)	2.08	Top Width (m)		2.08	
Vel Total (m/s)	3.55	Avg. Vel. (m/s)		3.55	
Max Chl Dpth (m)	1.56	Hydr. Depth (m)		1.47	
Conv. Total (m3/s)	130.4	Conv. (m3/s)		130.4	
Length Wtd. (m)	0.95	Wetted Per. (m)		4.98	
Min Ch El (m)	468.89	Shear (N/m2)		42.09	
Alpha	1.00	Stream Power (N/m s)		149.60	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.22	1.43	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.93	1.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17 Profile: TR 200

E.G. Elev (m)	471.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.66	Wt. n-Val.		0.017	
W.S. Elev (m)	470.49	Reach Len. (m)	0.95	0.95	0.95
Crit W.S. (m)	470.41	Flow Area (m2)		3.14	
E.G. Slope (m/m)	0.007003	Area (m2)		3.14	
Q Total (m3/s)	17.06	Flow (m3/s)		11.27	
Top Width (m)	2.09	Top Width (m)		2.09	
Vel Total (m/s)	3.59	Avg. Vel. (m/s)		3.59	
Max Chl Dpth (m)	1.59	Hydr. Depth (m)		1.51	
Conv. Total (m3/s)	134.7	Conv. (m3/s)		134.7	
Length Wtd. (m)	0.95	Wetted Per. (m)		5.05	
Min Ch El (m)	468.89	Shear (N/m2)		42.70	
Alpha	1.00	Stream Power (N/m s)		153.14	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.23	1.45	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.93	1.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17 Profile: TR 500

E.G. Elev (m)	471.20	Element	Left OB	Channel	Right OB
Vel Head (m)	0.74	Wt. n-Val.		0.017	
W.S. Elev (m)	470.46	Reach Len. (m)	0.95	0.95	0.95
Crit W.S. (m)	470.46	Flow Area (m2)		3.10	
E.G. Slope (m/m)	0.007944	Area (m2)		3.10	
Q Total (m3/s)	18.98	Flow (m3/s)		11.78	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 17 Profile: TR 500 (Continued)

Top Width (m)	2.08	Top Width (m)		2.08	
Vel Total (m/s)	3.80	Avg. Vel. (m/s)		3.80	
Max Chl Dpth (m)	1.57	Hydr. Depth (m)		1.49	
Conv. Total (m3/s)	132.2	Conv. (m3/s)		132.2	
Length Wtd. (m)	0.95	Wetted Per. (m)		5.01	
Min Ch El (m)	468.89	Shear (N/m2)		48.16	
Alpha	1.00	Stream Power (N/m s)		183.21	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.33	1.49	0.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.20	1.31	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 16.5 Profile: TR 20

E.G. Elev (m)	470.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.55	Wt. n-Val.		0.017	
W.S. Elev (m)	470.37	Reach Len. (m)	0.95	0.95	0.95
Crit W.S. (m)	470.23	Flow Area (m2)		2.99	
E.G. Slope (m/m)	0.006020	Area (m2)		2.99	
Q Total (m3/s)	9.79	Flow (m3/s)		9.79	
Top Width (m)	2.07	Top Width (m)		2.07	
Vel Total (m/s)	3.28	Avg. Vel. (m/s)		3.28	
Max Chl Dpth (m)	1.52	Hydr. Depth (m)		1.44	
Conv. Total (m3/s)	126.2	Conv. (m3/s)		126.2	
Length Wtd. (m)	0.95	Wetted Per. (m)		4.91	
Min Ch El (m)	468.85	Shear (N/m2)		35.93	
Alpha	1.00	Stream Power (N/m s)		117.80	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.19	1.38	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.90	1.29	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 16.5 Profile: TR 100

E.G. Elev (m)	471.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.58	Wt. n-Val.		0.017	
W.S. Elev (m)	470.49	Reach Len. (m)	0.95	0.95	0.95
Crit W.S. (m)	470.33	Flow Area (m2)		3.23	
E.G. Slope (m/m)	0.006094	Area (m2)		3.23	
Q Total (m3/s)	10.89	Flow (m3/s)		10.89	
Top Width (m)	2.09	Top Width (m)		2.09	
Vel Total (m/s)	3.37	Avg. Vel. (m/s)		3.37	
Max Chl Dpth (m)	1.64	Hydr. Depth (m)		1.55	
Conv. Total (m3/s)	139.5	Conv. (m3/s)		139.5	
Length Wtd. (m)	0.95	Wetted Per. (m)		5.14	
Min Ch El (m)	468.85	Shear (N/m2)		37.56	
Alpha	1.00	Stream Power (N/m s)		126.54	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.22	1.43	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.93	1.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 16.5 Profile: TR 200

E.G. Elev (m)	471.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.59	Wt. n-Val.		0.017	
W.S. Elev (m)	470.52	Reach Len. (m)	0.95	0.95	0.95
Crit W.S. (m)	470.37	Flow Area (m2)		3.31	
E.G. Slope (m/m)	0.006143	Area (m2)		3.31	
Q Total (m3/s)	11.27	Flow (m3/s)		11.27	
Top Width (m)	2.09	Top Width (m)		2.09	
Vel Total (m/s)	3.40	Avg. Vel. (m/s)		3.40	
Max Chl Dpth (m)	1.68	Hydr. Depth (m)		1.58	
Conv. Total (m3/s)	143.8	Conv. (m3/s)		143.8	
Length Wtd. (m)	0.95	Wetted Per. (m)		5.22	
Min Ch El (m)	468.85	Shear (N/m2)		38.22	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 16.5 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		130.11	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.23	1.45	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.93	1.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 16.5 Profile: TR 500

E.G. Elev (m)	471.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.90	Wt. n-Val.		0.017	
W.S. Elev (m)	470.28	Reach Len. (m)	0.95	0.95	0.95
Crit W.S. (m)	470.41	Flow Area (m2)		2.80	
E.G. Slope (m/m)	0.010242	Area (m2)		2.80	
Q Total (m3/s)	11.78	Flow (m3/s)		11.78	
Top Width (m)	2.06	Top Width (m)		2.06	
Vel Total (m/s)	4.20	Avg. Vel. (m/s)		4.20	
Max Chl Dpth (m)	1.43	Hydr. Depth (m)		1.36	
Conv. Total (m3/s)	116.4	Conv. (m3/s)		116.4	
Length Wtd. (m)	0.95	Wetted Per. (m)		4.73	
Min Ch El (m)	468.85	Shear (N/m2)		59.55	
Alpha	1.00	Stream Power (N/m s)		250.23	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.33	1.49	0.01
C & E Loss (m)	0.02	Cum SA (1000 m2)	1.20	1.30	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 16 Profile: TR 20

E.G. Elev (m)	470.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.66	Wt. n-Val.		0.017	
W.S. Elev (m)	470.24	Reach Len. (m)	0.30	0.30	0.30
Crit W.S. (m)	470.24	Flow Area (m2)		2.71	
E.G. Slope (m/m)	0.007717	Area (m2)		2.71	
Q Total (m3/s)	9.79	Flow (m3/s)		9.79	
Top Width (m)	2.02	Top Width (m)		2.02	
Vel Total (m/s)	3.61	Avg. Vel. (m/s)		3.61	
Max Chl Dpth (m)	1.42	Hydr. Depth (m)		1.34	
Conv. Total (m3/s)	111.4	Conv. (m3/s)		111.4	
Length Wtd. (m)	0.30	Wetted Per. (m)		4.64	
Min Ch El (m)	468.81	Shear (N/m2)		44.19	
Alpha	1.00	Stream Power (N/m s)		159.51	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.19	1.37	
C & E Loss (m)	0.08	Cum SA (1000 m2)	0.90	1.29	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 16 Profile: TR 100

E.G. Elev (m)	471.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.71	Wt. n-Val.		0.017	
W.S. Elev (m)	470.34	Reach Len. (m)	0.30	0.30	0.30
Crit W.S. (m)	470.34	Flow Area (m2)		2.91	
E.G. Slope (m/m)	0.007953	Area (m2)		2.91	
Q Total (m3/s)	10.89	Flow (m3/s)		10.89	
Top Width (m)	2.04	Top Width (m)		2.04	
Vel Total (m/s)	3.74	Avg. Vel. (m/s)		3.74	
Max Chl Dpth (m)	1.52	Hydr. Depth (m)		1.43	
Conv. Total (m3/s)	122.1	Conv. (m3/s)		122.1	
Length Wtd. (m)	0.30	Wetted Per. (m)		4.84	
Min Ch El (m)	468.81	Shear (N/m2)		46.91	
Alpha	1.00	Stream Power (N/m s)		175.38	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.22	1.43	
C & E Loss (m)	0.08	Cum SA (1000 m2)	0.93	1.29	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 16 Profile: TR 200

E.G. Elev (m)	471.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.72	Wt. n-Val.		0.017	
W.S. Elev (m)	470.37	Reach Len. (m)	0.30	0.30	0.30
Crit W.S. (m)	470.37	Flow Area (m2)		2.99	
E.G. Slope (m/m)	0.007978	Area (m2)		2.99	
Q Total (m3/s)	11.27	Flow (m3/s)		11.27	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	3.77	Avg. Vel. (m/s)		3.77	
Max Chl Dpth (m)	1.56	Hydr. Depth (m)		1.46	
Conv. Total (m3/s)	126.2	Conv. (m3/s)		126.2	
Length Wtd. (m)	0.30	Wetted Per. (m)		4.92	
Min Ch El (m)	468.81	Shear (N/m2)		47.55	
Alpha	1.00	Stream Power (N/m s)		179.28	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.23	1.45	
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.93	1.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 16 Profile: TR 500

E.G. Elev (m)	470.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.	0.060	0.017	0.060
W.S. Elev (m)	470.52	Reach Len. (m)	0.30	0.30	0.30
Crit W.S. (m)	470.51	Flow Area (m2)	4.78	3.30	3.14
E.G. Slope (m/m)	0.002529	Area (m2)	4.78	3.30	3.14
Q Total (m3/s)	11.78	Flow (m3/s)	3.01	7.25	1.51
Top Width (m)	14.35	Top Width (m)	5.78	2.06	6.50
Vel Total (m/s)	1.05	Avg. Vel. (m/s)	0.63	2.20	0.48
Max Chl Dpth (m)	1.71	Hydr. Depth (m)	0.83	1.60	0.48
Conv. Total (m3/s)	234.2	Conv. (m3/s)	59.9	144.2	30.0
Length Wtd. (m)	0.30	Wetted Per. (m)	7.34	5.14	7.43
Min Ch El (m)	468.81	Shear (N/m2)	16.17	15.91	10.49
Alpha	2.82	Stream Power (N/m s)	10.19	34.99	5.05
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.33	1.48	0.01
C & E Loss (m)	0.02	Cum SA (1000 m2)	1.20	1.30	0.03

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15.5 BR U Profile: TR 20

E.G. Elev (m)	470.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	470.46	Reach Len. (m)	0.30	0.30	0.30
Crit W.S. (m)	470.46	Flow Area (m2)	4.43	2.44	
E.G. Slope (m/m)	0.006986	Area (m2)	4.43	2.44	
Q Total (m3/s)	9.79	Flow (m3/s)	4.44	5.35	
Top Width (m)	7.84	Top Width (m)	5.78	2.06	
Vel Total (m/s)	1.43	Avg. Vel. (m/s)	1.00	2.20	
Max Chl Dpth (m)	1.65	Hydr. Depth (m)	0.77	1.18	
Conv. Total (m3/s)	117.1	Conv. (m3/s)	53.1	64.0	
Length Wtd. (m)		Wetted Per. (m)	7.28	8.16	
Min Ch El (m)	468.81	Shear (N/m2)	41.75	20.45	
Alpha	1.52	Stream Power (N/m s)	41.81	44.92	
Frctn Loss (m)		Cum Volume (1000 m3)	0.19	1.37	
C & E Loss (m)		Cum SA (1000 m2)	0.90	1.29	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15.5 BR U Profile: TR 100

E.G. Elev (m)	470.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	470.46	Reach Len. (m)	0.30	0.30	0.30
Crit W.S. (m)	470.46	Flow Area (m2)	4.43	2.44	
E.G. Slope (m/m)	0.008655	Area (m2)	4.43	2.44	
Q Total (m3/s)	10.89	Flow (m3/s)	4.94	5.95	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15.5 BR U Profile: TR 100 (Continued)

Top Width (m)	7.84	Top Width (m)	5.78	2.06	
Vel Total (m/s)	1.59	Avg. Vel. (m/s)	1.11	2.44	
Max Chl Dpth (m)	1.65	Hydr. Depth (m)	0.77	1.18	
Conv. Total (m3/s)	117.1	Conv. (m3/s)	53.1	64.0	
Length Wtd. (m)		Wetted Per. (m)	7.28	8.16	
Min Ch El (m)	468.81	Shear (N/m2)	51.70	25.33	
Alpha	1.52	Stream Power (N/m s)	57.61	61.91	
Frctn Loss (m)		Cum Volume (1000 m3)	0.22	1.43	
C & E Loss (m)		Cum SA (1000 m2)	0.93	1.29	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15.5 BR U Profile: TR 200

E.G. Elev (m)	470.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.	0.060	0.017	
W.S. Elev (m)	470.46	Reach Len. (m)	0.30	0.30	0.30
Crit W.S. (m)	470.46	Flow Area (m2)	4.43	2.44	
E.G. Slope (m/m)	0.009266	Area (m2)	4.43	2.44	
Q Total (m3/s)	11.27	Flow (m3/s)	5.11	6.16	
Top Width (m)	7.84	Top Width (m)	5.78	2.06	
Vel Total (m/s)	1.64	Avg. Vel. (m/s)	1.15	2.53	
Max Chl Dpth (m)	1.65	Hydr. Depth (m)	0.77	1.18	
Conv. Total (m3/s)	117.1	Conv. (m3/s)	53.1	64.0	
Length Wtd. (m)		Wetted Per. (m)	7.28	8.16	
Min Ch El (m)	468.81	Shear (N/m2)	55.36	27.12	
Alpha	1.52	Stream Power (N/m s)	63.83	68.59	
Frctn Loss (m)		Cum Volume (1000 m3)	0.23	1.45	
C & E Loss (m)		Cum SA (1000 m2)	0.93	1.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15.5 BR U Profile: TR 500

E.G. Elev (m)	470.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.	0.060	0.017	0.060
W.S. Elev (m)	470.56	Reach Len. (m)	6.97	6.97	6.97
Crit W.S. (m)	470.46	Flow Area (m2)	5.02	2.65	3.42
E.G. Slope (m/m)	0.004733	Area (m2)	5.02	2.65	3.42
Q Total (m3/s)	11.78	Flow (m3/s)	4.46	5.04	2.29
Top Width (m)	14.52	Top Width (m)	5.78	2.06	6.67
Vel Total (m/s)	1.06	Avg. Vel. (m/s)	0.89	1.90	0.67
Max Chl Dpth (m)	1.75	Hydr. Depth (m)	0.87	1.28	0.51
Conv. Total (m3/s)	171.2	Conv. (m3/s)	64.8	73.2	33.3
Length Wtd. (m)	6.97	Wetted Per. (m)	7.38	8.21	7.65
Min Ch El (m)	468.81	Shear (N/m2)	31.60	14.97	20.73
Alpha	1.71	Stream Power (N/m s)	28.04	28.48	13.89
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.33	1.48	0.01
C & E Loss (m)	0.04	Cum SA (1000 m2)	1.19	1.30	0.02

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15.5 BR D Profile: TR 20

E.G. Elev (m)	470.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.62	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	469.83	Reach Len. (m)	6.97	6.97	6.97
Crit W.S. (m)	469.99	Flow Area (m2)	0.53	2.40	
E.G. Slope (m/m)	0.086099	Area (m2)	0.53	2.40	
Q Total (m3/s)	9.79	Flow (m3/s)	1.06	8.73	
Top Width (m)	4.37	Top Width (m)	1.73	2.64	
Vel Total (m/s)	3.34	Avg. Vel. (m/s)	1.99	3.64	
Max Chl Dpth (m)	1.40	Hydr. Depth (m)	0.31	0.91	
Conv. Total (m3/s)	33.4	Conv. (m3/s)	3.6	29.8	
Length Wtd. (m)	6.97	Wetted Per. (m)	2.06	9.18	
Min Ch El (m)	468.44	Shear (N/m2)	218.64	220.77	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15.5 BR D Profile: TR 20 (Continued)

Alpha	1.10	Stream Power (N/m s)	434.42	802.68	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.19	1.37	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.89	1.29	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15.5 BR D Profile: TR 100

E.G. Elev (m)	470.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	469.97	Reach Len. (m)	6.97	6.97	6.97
Crit W.S. (m)	470.05	Flow Area (m2)	0.76	2.75	
E.G. Slope (m/m)	0.063547	Area (m2)	0.76	2.75	
Q Total (m3/s)	10.89	Flow (m3/s)	1.58	9.31	
Top Width (m)	4.37	Top Width (m)	1.73	2.64	
Vel Total (m/s)	3.10	Avg. Vel. (m/s)	2.08	3.39	
Max Chl Dpth (m)	1.53	Hydr. Depth (m)	0.44	1.04	
Conv. Total (m3/s)	43.2	Conv. (m3/s)	6.3	36.9	
Length Wtd. (m)	6.97	Wetted Per. (m)	2.19	9.32	
Min Ch El (m)	468.44	Shear (N/m2)	216.73	183.91	
Alpha	1.08	Stream Power (N/m s)	450.34	622.73	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	0.22	1.43	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.93	1.29	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15.5 BR D Profile: TR 200

E.G. Elev (m)	470.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	470.03	Reach Len. (m)	6.97	6.97	6.97
Crit W.S. (m)	470.07	Flow Area (m2)	0.87	2.92	
E.G. Slope (m/m)	0.054394	Area (m2)	0.87	2.92	
Q Total (m3/s)	11.27	Flow (m3/s)	1.80	9.47	
Top Width (m)	4.37	Top Width (m)	1.73	2.64	
Vel Total (m/s)	2.97	Avg. Vel. (m/s)	2.06	3.24	
Max Chl Dpth (m)	1.59	Hydr. Depth (m)	0.50	1.11	
Conv. Total (m3/s)	48.3	Conv. (m3/s)	7.7	40.6	
Length Wtd. (m)	6.97	Wetted Per. (m)	2.25	9.38	
Min Ch El (m)	468.44	Shear (N/m2)	206.53	165.95	
Alpha	1.08	Stream Power (N/m s)	426.45	538.50	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	0.23	1.45	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.93	1.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15.5 BR D Profile: TR 500

E.G. Elev (m)	470.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.45	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	470.10	Reach Len. (m)	0.38	0.38	0.38
Crit W.S. (m)	470.10	Flow Area (m2)	0.99	3.10	
E.G. Slope (m/m)	0.047462	Area (m2)	0.99	3.10	
Q Total (m3/s)	11.78	Flow (m3/s)	2.04	9.74	
Top Width (m)	4.37	Top Width (m)	1.73	2.64	
Vel Total (m/s)	2.88	Avg. Vel. (m/s)	2.06	3.14	
Max Chl Dpth (m)	1.66	Hydr. Depth (m)	0.57	1.17	
Conv. Total (m3/s)	54.1	Conv. (m3/s)	9.4	44.7	
Length Wtd. (m)	0.38	Wetted Per. (m)	2.32	9.45	
Min Ch El (m)	468.44	Shear (N/m2)	198.84	152.72	
Alpha	1.07	Stream Power (N/m s)	409.55	479.63	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.30	1.46	
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.17	1.29	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15 Profile: TR 20

E.G. Elev (m)	470.39	Element	Left OB	Channel	Right OB
Vel Head (m)	1.01	Wt. n-Val.		0.033	
W.S. Elev (m)	469.38	Reach Len. (m)	31.90	31.93	31.94
Crit W.S. (m)	469.72	Flow Area (m2)		2.20	
E.G. Slope (m/m)	0.049592	Area (m2)		2.20	
Q Total (m3/s)	9.79	Flow (m3/s)		9.79	
Top Width (m)	2.61	Top Width (m)		2.61	
Vel Total (m/s)	4.46	Avg. Vel. (m/s)		4.46	
Max Chl Dpth (m)	0.94	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	44.0	Conv. (m3/s)		44.0	
Length Wtd. (m)	31.93	Wetted Per. (m)		4.09	
Min Ch El (m)	468.44	Shear (N/m2)		261.04	
Alpha	1.00	Stream Power (N/m s)		1163.46	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.19	1.36	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.89	1.27	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15 Profile: TR 100

E.G. Elev (m)	470.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.94	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	469.50	Reach Len. (m)	31.90	31.93	31.94
Crit W.S. (m)	469.80	Flow Area (m2)	0.09	2.52	
E.G. Slope (m/m)	0.040581	Area (m2)	0.09	2.52	
Q Total (m3/s)	10.89	Flow (m3/s)	0.04	10.85	
Top Width (m)	4.37	Top Width (m)	1.73	2.63	
Vel Total (m/s)	4.18	Avg. Vel. (m/s)	0.45	4.31	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)	0.05	0.96	
Conv. Total (m3/s)	54.1	Conv. (m3/s)	0.2	53.9	
Length Wtd. (m)	31.93	Wetted Per. (m)	1.75	4.26	
Min Ch El (m)	468.44	Shear (N/m2)	19.54	235.71	
Alpha	1.06	Stream Power (N/m s)	8.80	1014.82	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.21	1.41	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.92	1.27	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15 Profile: TR 200

E.G. Elev (m)	470.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.91	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	469.54	Reach Len. (m)	31.90	31.93	31.94
Crit W.S. (m)	469.81	Flow Area (m2)	0.16	2.63	
E.G. Slope (m/m)	0.037747	Area (m2)	0.16	2.63	
Q Total (m3/s)	11.27	Flow (m3/s)	0.10	11.17	
Top Width (m)	4.37	Top Width (m)	1.73	2.64	
Vel Total (m/s)	4.04	Avg. Vel. (m/s)	0.64	4.24	
Max Chl Dpth (m)	1.11	Hydr. Depth (m)	0.09	1.00	
Conv. Total (m3/s)	58.0	Conv. (m3/s)	0.5	57.5	
Length Wtd. (m)	31.93	Wetted Per. (m)	1.79	4.30	
Min Ch El (m)	468.44	Shear (N/m2)	32.79	226.61	
Alpha	1.09	Stream Power (N/m s)	21.10	961.88	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.22	1.43	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.92	1.28	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15 Profile: TR 500

E.G. Elev (m)	470.49	Element	Left OB	Channel	Right OB
Vel Head (m)	0.91	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	469.58	Reach Len. (m)	31.90	31.93	31.94
Crit W.S. (m)	469.85	Flow Area (m2)	0.22	2.73	
E.G. Slope (m/m)	0.036389	Area (m2)	0.22	2.73	
Q Total (m3/s)	11.78	Flow (m3/s)	0.18	11.60	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 15 Profile: TR 500 (Continued)

Top Width (m)	4.37	Top Width (m)	1.73	2.64	
Vel Total (m/s)	3.98	Avg. Vel. (m/s)	0.79	4.25	
Max Chl Dpth (m)	1.14	Hydr. Depth (m)	0.13	1.03	
Conv. Total (m3/s)	61.8	Conv. (m3/s)	0.9	60.8	
Length Wtd. (m)	31.93	Wetted Per. (m)	1.83	4.34	
Min Ch El (m)	468.44	Shear (N/m2)	43.83	224.80	
Alpha	1.12	Stream Power (N/m s)	34.43	954.94	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.30	1.46	
C & E Loss (m)	0.05	Cum SA (1000 m2)	1.17	1.28	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 14 Profile: TR 20

E.G. Elev (m)	469.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.38	Wt. n-Val.		0.033	
W.S. Elev (m)	468.95	Reach Len. (m)	30.62	31.08	31.46
Crit W.S. (m)	468.87	Flow Area (m2)		3.59	
E.G. Slope (m/m)	0.012737	Area (m2)		3.59	
Q Total (m3/s)	9.79	Flow (m3/s)		9.79	
Top Width (m)	3.74	Top Width (m)		3.74	
Vel Total (m/s)	2.72	Avg. Vel. (m/s)		2.72	
Max Chl Dpth (m)	1.25	Hydr. Depth (m)		0.96	
Conv. Total (m3/s)	86.7	Conv. (m3/s)		86.7	
Length Wtd. (m)	31.08	Wetted Per. (m)		5.06	
Min Ch El (m)	467.70	Shear (N/m2)		88.75	
Alpha	1.00	Stream Power (N/m s)		241.70	
Frctn Loss (m)	0.43	Cum Volume (1000 m3)	0.19	1.26	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.89	1.17	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 14 Profile: TR 100

E.G. Elev (m)	469.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.58	Wt. n-Val.		0.033	
W.S. Elev (m)	468.85	Reach Len. (m)	30.62	31.08	31.46
Crit W.S. (m)	468.94	Flow Area (m2)		3.24	
E.G. Slope (m/m)	0.020930	Area (m2)		3.24	
Q Total (m3/s)	10.89	Flow (m3/s)		10.89	
Top Width (m)	3.61	Top Width (m)		3.61	
Vel Total (m/s)	3.36	Avg. Vel. (m/s)		3.36	
Max Chl Dpth (m)	1.15	Hydr. Depth (m)		0.90	
Conv. Total (m3/s)	75.3	Conv. (m3/s)		75.3	
Length Wtd. (m)	31.09	Wetted Per. (m)		4.83	
Min Ch El (m)	467.70	Shear (N/m2)		137.79	
Alpha	1.00	Stream Power (N/m s)		463.14	
Frctn Loss (m)	0.90	Cum Volume (1000 m3)	0.21	1.32	
C & E Loss (m)	0.11	Cum SA (1000 m2)	0.89	1.17	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 14 Profile: TR 200

E.G. Elev (m)	469.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.60	Wt. n-Val.		0.033	
W.S. Elev (m)	468.87	Reach Len. (m)	30.62	31.08	31.46
Crit W.S. (m)	469.06	Flow Area (m2)		3.28	
E.G. Slope (m/m)	0.021645	Area (m2)		3.28	
Q Total (m3/s)	11.27	Flow (m3/s)		11.27	
Top Width (m)	3.63	Top Width (m)		3.63	
Vel Total (m/s)	3.43	Avg. Vel. (m/s)		3.43	
Max Chl Dpth (m)	1.16	Hydr. Depth (m)		0.90	
Conv. Total (m3/s)	76.6	Conv. (m3/s)		76.6	
Length Wtd. (m)	31.09	Wetted Per. (m)		4.85	
Min Ch El (m)	467.70	Shear (N/m2)		143.50	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 14 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		492.82	
Frctn Loss (m)	0.90	Cum Volume (1000 m3)	0.22	1.33	
C & E Loss (m)	0.09	Cum SA (1000 m2)	0.89	1.18	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 14 Profile: TR 500

E.G. Elev (m)	469.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.63	Wt. n-Val.		0.033	
W.S. Elev (m)	468.89	Reach Len. (m)	30.62	31.08	31.46
Crit W.S. (m)	469.09	Flow Area (m2)		3.36	
E.G. Slope (m/m)	0.022217	Area (m2)		3.36	
Q Total (m3/s)	11.78	Flow (m3/s)		11.78	
Top Width (m)	3.66	Top Width (m)		3.66	
Vel Total (m/s)	3.51	Avg. Vel. (m/s)		3.51	
Max Chl Dpth (m)	1.18	Hydr. Depth (m)		0.92	
Conv. Total (m3/s)	79.0	Conv. (m3/s)		79.0	
Length Wtd. (m)	31.05	Wetted Per. (m)		4.90	
Min Ch El (m)	467.70	Shear (N/m2)		149.16	
Alpha	1.00	Stream Power (N/m s)		523.32	
Frctn Loss (m)	0.89	Cum Volume (1000 m3)	0.30	1.36	
C & E Loss (m)	0.08	Cum SA (1000 m2)	1.14	1.18	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 13 Profile: TR 20

E.G. Elev (m)	468.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.41	Wt. n-Val.		0.033	
W.S. Elev (m)	468.48	Reach Len. (m)	26.58	28.63	30.75
Crit W.S. (m)	468.48	Flow Area (m2)		3.43	
E.G. Slope (m/m)	0.015172	Area (m2)		3.43	
Q Total (m3/s)	9.79	Flow (m3/s)		9.79	
Top Width (m)	4.14	Top Width (m)		4.14	
Vel Total (m/s)	2.85	Avg. Vel. (m/s)		2.85	
Max Chl Dpth (m)	1.11	Hydr. Depth (m)		0.83	
Conv. Total (m3/s)	79.5	Conv. (m3/s)		79.5	
Length Wtd. (m)	28.55	Wetted Per. (m)		5.14	
Min Ch El (m)	467.37	Shear (N/m2)		99.38	
Alpha	1.00	Stream Power (N/m s)		283.43	
Frctn Loss (m)	0.38	Cum Volume (1000 m3)	0.19	1.16	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.89	1.04	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 13 Profile: TR 100

E.G. Elev (m)	468.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.		0.033	
W.S. Elev (m)	468.55	Reach Len. (m)	26.58	28.63	30.75
Crit W.S. (m)	468.55	Flow Area (m2)		3.74	
E.G. Slope (m/m)	0.014816	Area (m2)		3.74	
Q Total (m3/s)	10.89	Flow (m3/s)		10.89	
Top Width (m)	4.26	Top Width (m)		4.26	
Vel Total (m/s)	2.91	Avg. Vel. (m/s)		2.91	
Max Chl Dpth (m)	1.18	Hydr. Depth (m)		0.88	
Conv. Total (m3/s)	89.5	Conv. (m3/s)		89.5	
Length Wtd. (m)	28.53	Wetted Per. (m)		5.33	
Min Ch El (m)	467.37	Shear (N/m2)		101.98	
Alpha	1.00	Stream Power (N/m s)		297.10	
Frctn Loss (m)	0.38	Cum Volume (1000 m3)	0.21	1.21	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.89	1.05	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 13 Profile: TR 200

E.G. Elev (m)	469.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.44	Wt. n-Val.		0.033	
W.S. Elev (m)	468.57	Reach Len. (m)	26.58	28.63	30.75
Crit W.S. (m)	468.57	Flow Area (m2)		3.83	
E.G. Slope (m/m)	0.014880	Area (m2)		3.83	
Q Total (m3/s)	11.27	Flow (m3/s)		11.27	
Top Width (m)	4.30	Top Width (m)		4.30	
Vel Total (m/s)	2.95	Avg. Vel. (m/s)		2.95	
Max Chl Dpth (m)	1.20	Hydr. Depth (m)		0.89	
Conv. Total (m3/s)	92.4	Conv. (m3/s)		92.4	
Length Wtd. (m)	28.52	Wetted Per. (m)		5.38	
Min Ch El (m)	467.37	Shear (N/m2)		103.80	
Alpha	1.00	Stream Power (N/m s)		305.75	
Frctn Loss (m)	0.38	Cum Volume (1000 m3)	0.22	1.22	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.89	1.05	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 13 Profile: TR 500

E.G. Elev (m)	468.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	468.65	Reach Len. (m)	26.58	28.63	30.75
Crit W.S. (m)	468.65	Flow Area (m2)	2.71	4.17	
E.G. Slope (m/m)	0.009061	Area (m2)	2.71	4.17	
Q Total (m3/s)	11.78	Flow (m3/s)	1.88	9.90	
Top Width (m)	13.17	Top Width (m)	8.75	4.42	
Vel Total (m/s)	1.71	Avg. Vel. (m/s)	0.69	2.38	
Max Chl Dpth (m)	1.28	Hydr. Depth (m)	0.31	0.94	
Conv. Total (m3/s)	123.7	Conv. (m3/s)	19.8	104.0	
Length Wtd. (m)	28.35	Wetted Per. (m)	9.39	5.58	
Min Ch El (m)	467.37	Shear (N/m2)	25.68	66.40	
Alpha	1.64	Stream Power (N/m s)	17.81	157.71	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	0.26	1.25	
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.00	1.06	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 12 Profile: TR 20

E.G. Elev (m)	468.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.81	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	467.37	Reach Len. (m)	26.12	25.86	23.78
Crit W.S. (m)	467.62	Flow Area (m2)	0.89	2.17	
E.G. Slope (m/m)	0.041044	Area (m2)	0.89	2.17	
Q Total (m3/s)	9.79	Flow (m3/s)	0.79	9.00	
Top Width (m)	9.28	Top Width (m)	6.35	2.94	
Vel Total (m/s)	3.19	Avg. Vel. (m/s)	0.89	4.14	
Max Chl Dpth (m)	0.94	Hydr. Depth (m)	0.14	0.74	
Conv. Total (m3/s)	48.3	Conv. (m3/s)	3.9	44.4	
Length Wtd. (m)	25.87	Wetted Per. (m)	6.63	3.92	
Min Ch El (m)	466.44	Shear (N/m2)	54.11	222.94	
Alpha	1.55	Stream Power (N/m s)	47.94	923.08	
Frctn Loss (m)	0.68	Cum Volume (1000 m3)	0.18	1.08	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.80	0.94	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 12 Profile: TR 100

E.G. Elev (m)	468.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.86	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	467.40	Reach Len. (m)	26.12	25.86	23.78
Crit W.S. (m)	467.67	Flow Area (m2)	1.09	2.26	
E.G. Slope (m/m)	0.042700	Area (m2)	1.09	2.26	
Q Total (m3/s)	10.89	Flow (m3/s)	1.12	9.77	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 12 Profile: TR 100 (Continued)

Top Width (m)	9.30	Top Width (m)	6.35	2.95	
Vel Total (m/s)	3.25	Avg. Vel. (m/s)	1.03	4.32	
Max Chl Dpth (m)	0.97	Hydr. Depth (m)	0.17	0.77	
Conv. Total (m3/s)	52.7	Conv. (m3/s)	5.4	47.3	
Length Wtd. (m)	25.87	Wetted Per. (m)	6.66	3.96	
Min Ch El (m)	466.44	Shear (N/m2)	68.34	239.61	
Alpha	1.59	Stream Power (N/m s)	70.29	1034.18	
Frctn Loss (m)	0.67	Cum Volume (1000 m3)	0.20	1.12	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.80	0.95	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 12 Profile: TR 200

E.G. Elev (m)	468.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.88	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	467.41	Reach Len. (m)	26.12	25.86	23.78
Crit W.S. (m)	467.68	Flow Area (m2)	1.14	2.29	
E.G. Slope (m/m)	0.043758	Area (m2)	1.14	2.29	
Q Total (m3/s)	11.27	Flow (m3/s)	1.22	10.05	
Top Width (m)	9.30	Top Width (m)	6.35	2.95	
Vel Total (m/s)	3.29	Avg. Vel. (m/s)	1.07	4.39	
Max Chl Dpth (m)	0.97	Hydr. Depth (m)	0.18	0.77	
Conv. Total (m3/s)	53.9	Conv. (m3/s)	5.8	48.0	
Length Wtd. (m)	25.87	Wetted Per. (m)	6.67	3.97	
Min Ch El (m)	466.44	Shear (N/m2)	73.20	247.57	
Alpha	1.60	Stream Power (N/m s)	78.49	1087.57	
Frctn Loss (m)	0.68	Cum Volume (1000 m3)	0.20	1.14	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.80	0.95	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 12 Profile: TR 500

E.G. Elev (m)	468.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.92	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	467.42	Reach Len. (m)	26.12	25.86	23.78
Crit W.S. (m)	467.69	Flow Area (m2)	1.20	2.32	
E.G. Slope (m/m)	0.045245	Area (m2)	1.20	2.32	
Q Total (m3/s)	11.78	Flow (m3/s)	1.36	10.42	
Top Width (m)	9.30	Top Width (m)	6.35	2.96	
Vel Total (m/s)	3.35	Avg. Vel. (m/s)	1.13	4.50	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)	0.19	0.78	
Conv. Total (m3/s)	55.4	Conv. (m3/s)	6.4	49.0	
Length Wtd. (m)	25.87	Wetted Per. (m)	6.68	3.98	
Min Ch El (m)	466.44	Shear (N/m2)	79.81	258.60	
Alpha	1.61	Stream Power (N/m s)	90.15	1163.06	
Frctn Loss (m)	0.49	Cum Volume (1000 m3)	0.21	1.15	
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.80	0.95	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 11 Profile: TR 20

E.G. Elev (m)	467.25	Element	Left OB	Channel	Right OB
Vel Head (m)	0.70	Wt. n-Val.		0.033	
W.S. Elev (m)	466.55	Reach Len. (m)	31.81	32.40	33.00
Crit W.S. (m)	466.67	Flow Area (m2)		2.63	
E.G. Slope (m/m)	0.029631	Area (m2)		2.63	
Q Total (m3/s)	9.79	Flow (m3/s)		9.79	
Top Width (m)	2.54	Top Width (m)		2.54	
Vel Total (m/s)	3.72	Avg. Vel. (m/s)		3.72	
Max Chl Dpth (m)	1.19	Hydr. Depth (m)		1.04	
Conv. Total (m3/s)	56.9	Conv. (m3/s)		56.9	
Length Wtd. (m)	32.32	Wetted Per. (m)		4.38	
Min Ch El (m)	465.36	Shear (N/m2)		174.75	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 11 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		649.45	
Frctn Loss (m)	0.90	Cum Volume (1000 m3)	0.17	1.01	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.72	0.87	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 11 Profile: TR 100

E.G. Elev (m)	467.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.67	Wt. n-Val.		0.033	
W.S. Elev (m)	466.69	Reach Len. (m)	31.81	32.40	33.00
Crit W.S. (m)	466.76	Flow Area (m2)		3.01	
E.G. Slope (m/m)	0.025647	Area (m2)		3.01	
Q Total (m3/s)	10.89	Flow (m3/s)		10.89	
Top Width (m)	2.61	Top Width (m)		2.61	
Vel Total (m/s)	3.62	Avg. Vel. (m/s)		3.62	
Max Chl Dpth (m)	1.33	Hydr. Depth (m)		1.15	
Conv. Total (m3/s)	68.0	Conv. (m3/s)		68.0	
Length Wtd. (m)	32.32	Wetted Per. (m)		4.68	
Min Ch El (m)	465.36	Shear (N/m2)		161.80	
Alpha	1.00	Stream Power (N/m s)		585.16	
Frctn Loss (m)	0.84	Cum Volume (1000 m3)	0.18	1.05	
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.72	0.88	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 11 Profile: TR 200

E.G. Elev (m)	467.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.65	Wt. n-Val.		0.033	
W.S. Elev (m)	466.75	Reach Len. (m)	31.81	32.40	33.00
Crit W.S. (m)	466.83	Flow Area (m2)		3.16	
E.G. Slope (m/m)	0.024271	Area (m2)		3.16	
Q Total (m3/s)	11.27	Flow (m3/s)		11.27	
Top Width (m)	2.64	Top Width (m)		2.64	
Vel Total (m/s)	3.57	Avg. Vel. (m/s)		3.57	
Max Chl Dpth (m)	1.39	Hydr. Depth (m)		1.20	
Conv. Total (m3/s)	72.3	Conv. (m3/s)		72.3	
Length Wtd. (m)	32.32	Wetted Per. (m)		4.79	
Min Ch El (m)	465.36	Shear (N/m2)		156.66	
Alpha	1.00	Stream Power (N/m s)		559.60	
Frctn Loss (m)	0.82	Cum Volume (1000 m3)	0.19	1.07	
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.72	0.88	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 11 Profile: TR 500

E.G. Elev (m)	467.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.63	Wt. n-Val.		0.033	
W.S. Elev (m)	466.83	Reach Len. (m)	31.81	32.40	33.00
Crit W.S. (m)	466.83	Flow Area (m2)		3.36	
E.G. Slope (m/m)	0.022485	Area (m2)		3.36	
Q Total (m3/s)	11.78	Flow (m3/s)		11.78	
Top Width (m)	2.67	Top Width (m)		2.67	
Vel Total (m/s)	3.51	Avg. Vel. (m/s)		3.51	
Max Chl Dpth (m)	1.47	Hydr. Depth (m)		1.26	
Conv. Total (m3/s)	78.6	Conv. (m3/s)		78.6	
Length Wtd. (m)	32.33	Wetted Per. (m)		4.95	
Min Ch El (m)	465.36	Shear (N/m2)		149.57	
Alpha	1.00	Stream Power (N/m s)		524.67	
Frctn Loss (m)	0.80	Cum Volume (1000 m3)	0.19	1.08	
C & E Loss (m)	0.09	Cum SA (1000 m2)	0.72	0.88	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 10 Profile: TR 20

E.G. Elev (m)	466.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	465.89	Reach Len. (m)	15.45	15.80	16.41
Crit W.S. (m)	466.01	Flow Area (m2)	2.42	2.26	
E.G. Slope (m/m)	0.024781	Area (m2)	2.42	2.26	
Q Total (m3/s)	9.79	Flow (m3/s)	2.61	7.18	
Top Width (m)	10.98	Top Width (m)	8.80	2.18	
Vel Total (m/s)	2.09	Avg. Vel. (m/s)	1.08	3.17	
Max Chl Dpth (m)	1.35	Hydr. Depth (m)	0.28	1.04	
Conv. Total (m3/s)	62.2	Conv. (m3/s)	16.6	45.6	
Length Wtd. (m)	15.73	Wetted Per. (m)	9.16	4.17	
Min Ch El (m)	464.55	Shear (N/m2)	64.17	131.79	
Alpha	1.76	Stream Power (N/m s)	69.30	418.06	
Frctn Loss (m)	0.87	Cum Volume (1000 m3)	0.13	0.93	
C & E Loss (m)	0.09	Cum SA (1000 m2)	0.58	0.80	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 10 Profile: TR 100

E.G. Elev (m)	466.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.51	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	465.88	Reach Len. (m)	15.45	15.80	16.41
Crit W.S. (m)	466.04	Flow Area (m2)	2.34	2.24	
E.G. Slope (m/m)	0.032151	Area (m2)	2.34	2.24	
Q Total (m3/s)	10.89	Flow (m3/s)	2.82	8.07	
Top Width (m)	10.98	Top Width (m)	8.80	2.18	
Vel Total (m/s)	2.38	Avg. Vel. (m/s)	1.20	3.60	
Max Chl Dpth (m)	1.34	Hydr. Depth (m)	0.27	1.03	
Conv. Total (m3/s)	60.7	Conv. (m3/s)	15.7	45.0	
Length Wtd. (m)	15.72	Wetted Per. (m)	9.16	4.16	
Min Ch El (m)	464.55	Shear (N/m2)	80.67	169.89	
Alpha	1.77	Stream Power (N/m s)	97.16	611.24	
Frctn Loss (m)	0.92	Cum Volume (1000 m3)	0.15	0.97	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.58	0.80	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 10 Profile: TR 200

E.G. Elev (m)	466.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.55	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	465.88	Reach Len. (m)	15.45	15.80	16.41
Crit W.S. (m)	466.06	Flow Area (m2)	2.31	2.23	
E.G. Slope (m/m)	0.035098	Area (m2)	2.31	2.23	
Q Total (m3/s)	11.27	Flow (m3/s)	2.88	8.39	
Top Width (m)	10.98	Top Width (m)	8.80	2.18	
Vel Total (m/s)	2.48	Avg. Vel. (m/s)	1.25	3.75	
Max Chl Dpth (m)	1.34	Hydr. Depth (m)	0.26	1.03	
Conv. Total (m3/s)	60.2	Conv. (m3/s)	15.4	44.8	
Length Wtd. (m)	15.72	Wetted Per. (m)	9.15	4.16	
Min Ch El (m)	464.55	Shear (N/m2)	86.91	184.98	
Alpha	1.77	Stream Power (N/m s)	108.42	694.15	
Frctn Loss (m)	0.93	Cum Volume (1000 m3)	0.15	0.98	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.58	0.80	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 10 Profile: TR 500

E.G. Elev (m)	466.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.64	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	465.87	Reach Len. (m)	15.45	15.80	16.41
Crit W.S. (m)	466.07	Flow Area (m2)	2.23	2.22	
E.G. Slope (m/m)	0.040285	Area (m2)	2.23	2.22	
Q Total (m3/s)	11.78	Flow (m3/s)	2.91	8.87	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 10 Profile: TR 500 (Continued)

Top Width (m)	10.98	Top Width (m)	8.80	2.18	
Vel Total (m/s)	2.65	Avg. Vel. (m/s)	1.31	4.00	
Max Chl Dpth (m)	1.33	Hydr. Depth (m)	0.25	1.02	
Conv. Total (m3/s)	58.7	Conv. (m3/s)	14.5	44.2	
Length Wtd. (m)	15.72	Wetted Per. (m)	9.14	4.15	
Min Ch El (m)	464.55	Shear (N/m2)	96.39	210.89	
Alpha	1.78	Stream Power (N/m s)	125.91	844.06	
Frctn Loss (m)	0.95	Cum Volume (1000 m3)	0.16	0.99	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.58	0.80	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 9 Profile: TR 20

E.G. Elev (m)	465.95	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	465.52	Reach Len. (m)	55.26	55.84	56.29
Crit W.S. (m)	465.66	Flow Area (m2)	2.04	2.69	
E.G. Slope (m/m)	0.018391	Area (m2)	2.04	2.69	
Q Total (m3/s)	9.79	Flow (m3/s)	1.37	8.42	
Top Width (m)	15.24	Top Width (m)	12.55	2.70	
Vel Total (m/s)	2.07	Avg. Vel. (m/s)	0.67	3.13	
Max Chl Dpth (m)	1.58	Hydr. Depth (m)	0.16	1.00	
Conv. Total (m3/s)	72.2	Conv. (m3/s)	10.1	62.1	
Length Wtd. (m)	55.80	Wetted Per. (m)	12.61	4.05	
Min Ch El (m)	463.94	Shear (N/m2)	29.16	119.80	
Alpha	1.98	Stream Power (N/m s)	19.56	374.79	
Frctn Loss (m)	0.33	Cum Volume (1000 m3)	0.10	0.89	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.42	0.76	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 9 Profile: TR 100

E.G. Elev (m)	466.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.45	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	465.55	Reach Len. (m)	55.26	55.84	56.29
Crit W.S. (m)	465.70	Flow Area (m2)	2.45	2.78	
E.G. Slope (m/m)	0.019094	Area (m2)	2.45	2.78	
Q Total (m3/s)	10.89	Flow (m3/s)	1.89	9.00	
Top Width (m)	15.26	Top Width (m)	12.55	2.71	
Vel Total (m/s)	2.08	Avg. Vel. (m/s)	0.77	3.24	
Max Chl Dpth (m)	1.61	Hydr. Depth (m)	0.20	1.02	
Conv. Total (m3/s)	78.8	Conv. (m3/s)	13.7	65.1	
Length Wtd. (m)	55.79	Wetted Per. (m)	12.64	4.09	
Min Ch El (m)	463.94	Shear (N/m2)	36.28	127.30	
Alpha	2.02	Stream Power (N/m s)	27.97	412.14	
Frctn Loss (m)	0.38	Cum Volume (1000 m3)	0.11	0.93	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.42	0.76	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 9 Profile: TR 200

E.G. Elev (m)	466.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.44	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	465.56	Reach Len. (m)	55.26	55.84	56.29
Crit W.S. (m)	465.70	Flow Area (m2)	2.62	2.82	
E.G. Slope (m/m)	0.019027	Area (m2)	2.62	2.82	
Q Total (m3/s)	11.27	Flow (m3/s)	2.11	9.16	
Top Width (m)	15.27	Top Width (m)	12.55	2.72	
Vel Total (m/s)	2.07	Avg. Vel. (m/s)	0.80	3.25	
Max Chl Dpth (m)	1.63	Hydr. Depth (m)	0.21	1.03	
Conv. Total (m3/s)	81.7	Conv. (m3/s)	15.3	66.4	
Length Wtd. (m)	55.79	Wetted Per. (m)	12.66	4.11	
Min Ch El (m)	463.94	Shear (N/m2)	38.62	128.05	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 9 Profile: TR 200 (Continued)

Alpha	2.03	Stream Power (N/m s)	31.07	416.44	
Frctn Loss (m)	0.40	Cum Volume (1000 m3)	0.11	0.94	
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.42	0.76	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 9 Profile: TR 500

E.G. Elev (m)	466.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.46	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	465.57	Reach Len. (m)	55.26	55.84	56.29
Crit W.S. (m)	465.71	Flow Area (m2)	2.74	2.84	
E.G. Slope (m/m)	0.019793	Area (m2)	2.74	2.84	
Q Total (m3/s)	11.78	Flow (m3/s)	2.31	9.47	
Top Width (m)	15.27	Top Width (m)	12.55	2.73	
Vel Total (m/s)	2.11	Avg. Vel. (m/s)	0.84	3.33	
Max Chl Dpth (m)	1.64	Hydr. Depth (m)	0.22	1.04	
Conv. Total (m3/s)	83.7	Conv. (m3/s)	16.4	67.3	
Length Wtd. (m)	55.78	Wetted Per. (m)	12.67	4.12	
Min Ch El (m)	463.94	Shear (N/m2)	41.94	134.06	
Alpha	2.03	Stream Power (N/m s)	35.40	446.56	
Frctn Loss (m)	0.43	Cum Volume (1000 m3)	0.12	0.95	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.42	0.76	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 8 Profile: TR 20

E.G. Elev (m)	464.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.91	Wt. n-Val.		0.033	
W.S. Elev (m)	463.52	Reach Len. (m)	27.36	27.02	26.82
Crit W.S. (m)	463.78	Flow Area (m2)		2.31	
E.G. Slope (m/m)	0.041119	Area (m2)		2.31	
Q Total (m3/s)	9.79	Flow (m3/s)		9.79	
Top Width (m)	3.03	Top Width (m)		3.03	
Vel Total (m/s)	4.23	Avg. Vel. (m/s)		4.23	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.76	
Conv. Total (m3/s)	48.3	Conv. (m3/s)		48.3	
Length Wtd. (m)	27.02	Wetted Per. (m)		4.04	
Min Ch El (m)	462.52	Shear (N/m2)		230.55	
Alpha	1.00	Stream Power (N/m s)		975.91	
Frctn Loss (m)	1.47	Cum Volume (1000 m3)	0.04	0.76	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.07	0.60	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 8 Profile: TR 100

E.G. Elev (m)	464.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.90	Wt. n-Val.		0.033	
W.S. Elev (m)	463.61	Reach Len. (m)	27.36	27.02	26.82
Crit W.S. (m)	463.93	Flow Area (m2)		2.60	
E.G. Slope (m/m)	0.036867	Area (m2)		2.60	
Q Total (m3/s)	10.89	Flow (m3/s)		10.89	
Top Width (m)	3.07	Top Width (m)		3.07	
Vel Total (m/s)	4.20	Avg. Vel. (m/s)		4.20	
Max Chl Dpth (m)	1.09	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	56.7	Conv. (m3/s)		56.7	
Length Wtd. (m)	27.02	Wetted Per. (m)		4.24	
Min Ch El (m)	462.52	Shear (N/m2)		221.36	
Alpha	1.00	Stream Power (N/m s)		928.69	
Frctn Loss (m)	1.44	Cum Volume (1000 m3)	0.04	0.78	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.07	0.60	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 8 Profile: TR 200

E.G. Elev (m)	464.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.90	Wt. n-Val.		0.033	
W.S. Elev (m)	463.64	Reach Len. (m)	27.36	27.02	26.82
Crit W.S. (m)	463.93	Flow Area (m2)		2.68	
E.G. Slope (m/m)	0.036184	Area (m2)		2.68	
Q Total (m3/s)	11.27	Flow (m3/s)		11.27	
Top Width (m)	3.09	Top Width (m)		3.09	
Vel Total (m/s)	4.21	Avg. Vel. (m/s)		4.21	
Max Chl Dpth (m)	1.12	Hydr. Depth (m)		0.87	
Conv. Total (m3/s)	59.2	Conv. (m3/s)		59.2	
Length Wtd. (m)	27.02	Wetted Per. (m)		4.30	
Min Ch El (m)	462.52	Shear (N/m2)		221.25	
Alpha	1.00	Stream Power (N/m s)		930.81	
Frctn Loss (m)	1.42	Cum Volume (1000 m3)	0.04	0.78	
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.07	0.60	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 8 Profile: TR 500

E.G. Elev (m)	464.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.88	Wt. n-Val.		0.033	
W.S. Elev (m)	463.69	Reach Len. (m)	27.36	27.02	26.82
Crit W.S. (m)	463.93	Flow Area (m2)		2.83	
E.G. Slope (m/m)	0.034001	Area (m2)		2.83	
Q Total (m3/s)	11.78	Flow (m3/s)		11.78	
Top Width (m)	3.11	Top Width (m)		3.11	
Vel Total (m/s)	4.16	Avg. Vel. (m/s)		4.16	
Max Chl Dpth (m)	1.17	Hydr. Depth (m)		0.91	
Conv. Total (m3/s)	63.9	Conv. (m3/s)		63.9	
Length Wtd. (m)	27.02	Wetted Per. (m)		4.40	
Min Ch El (m)	462.52	Shear (N/m2)		214.48	
Alpha	1.00	Stream Power (N/m s)		893.03	
Frctn Loss (m)	1.42	Cum Volume (1000 m3)	0.04	0.79	
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.07	0.60	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 7 Profile: TR 20

E.G. Elev (m)	463.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.		0.033	
W.S. Elev (m)	463.48	Reach Len. (m)	129.37	129.37	129.37
Crit W.S. (m)	462.71	Flow Area (m2)		4.37	
E.G. Slope (m/m)	0.008731	Area (m2)		4.37	
Q Total (m3/s)	9.79	Flow (m3/s)		9.79	
Top Width (m)	2.07	Top Width (m)		2.07	
Vel Total (m/s)	2.24	Avg. Vel. (m/s)		2.24	
Max Chl Dpth (m)	2.29	Hydr. Depth (m)		2.11	
Conv. Total (m3/s)	104.8	Conv. (m3/s)		104.8	
Length Wtd. (m)	129.37	Wetted Per. (m)		6.20	
Min Ch El (m)	461.19	Shear (N/m2)		60.29	
Alpha	1.00	Stream Power (N/m s)		135.11	
Frctn Loss (m)		Cum Volume (1000 m3)	0.04	0.66	
C & E Loss (m)		Cum SA (1000 m2)	0.07	0.53	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 7 Profile: TR 100

E.G. Elev (m)	463.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.		0.033	
W.S. Elev (m)	463.54	Reach Len. (m)	129.37	129.37	129.37
Crit W.S. (m)	462.81	Flow Area (m2)		4.51	
E.G. Slope (m/m)	0.010005	Area (m2)		4.51	
Q Total (m3/s)	10.89	Flow (m3/s)		10.89	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 7 Profile: TR 100 (Continued)

Top Width (m)	2.07	Top Width (m)		2.07	
Vel Total (m/s)	2.42	Avg. Vel. (m/s)		2.42	
Max Chl Dpth (m)	2.35	Hydr. Depth (m)		2.18	
Conv. Total (m3/s)	108.9	Conv. (m3/s)		108.9	
Length Wtd. (m)	129.37	Wetted Per. (m)		6.34	
Min Ch El (m)	461.19	Shear (N/m2)		69.78	
Alpha	1.00	Stream Power (N/m s)		168.54	
Frctn Loss (m)		Cum Volume (1000 m3)	0.04	0.68	
C & E Loss (m)		Cum SA (1000 m2)	0.07	0.53	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 7 Profile: TR 200

E.G. Elev (m)	463.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.		0.033	
W.S. Elev (m)	463.56	Reach Len. (m)	129.37	129.37	129.37
Crit W.S. (m)	462.85	Flow Area (m2)		4.54	
E.G. Slope (m/m)	0.010530	Area (m2)		4.54	
Q Total (m3/s)	11.27	Flow (m3/s)		11.27	
Top Width (m)	2.07	Top Width (m)		2.07	
Vel Total (m/s)	2.48	Avg. Vel. (m/s)		2.48	
Max Chl Dpth (m)	2.37	Hydr. Depth (m)		2.19	
Conv. Total (m3/s)	109.8	Conv. (m3/s)		109.8	
Length Wtd. (m)	129.37	Wetted Per. (m)		6.37	
Min Ch El (m)	461.19	Shear (N/m2)		73.61	
Alpha	1.00	Stream Power (N/m s)		182.65	
Frctn Loss (m)		Cum Volume (1000 m3)	0.04	0.69	
C & E Loss (m)		Cum SA (1000 m2)	0.07	0.53	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 7 Profile: TR 500

E.G. Elev (m)	463.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.		0.033	
W.S. Elev (m)	463.59	Reach Len. (m)	129.37	129.37	129.37
Crit W.S. (m)	462.90	Flow Area (m2)		4.61	
E.G. Slope (m/m)	0.011127	Area (m2)		4.61	
Q Total (m3/s)	11.78	Flow (m3/s)		11.78	
Top Width (m)	2.07	Top Width (m)		2.07	
Vel Total (m/s)	2.56	Avg. Vel. (m/s)		2.56	
Max Chl Dpth (m)	2.40	Hydr. Depth (m)		2.22	
Conv. Total (m3/s)	111.7	Conv. (m3/s)		111.7	
Length Wtd. (m)	129.37	Wetted Per. (m)		6.43	
Min Ch El (m)	461.19	Shear (N/m2)		78.12	
Alpha	1.00	Stream Power (N/m s)		199.82	
Frctn Loss (m)		Cum Volume (1000 m3)	0.04	0.69	
C & E Loss (m)		Cum SA (1000 m2)	0.07	0.53	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 6 Profile: TR 20

E.G. Elev (m)	458.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.62	Wt. n-Val.		0.033	
W.S. Elev (m)	457.97	Reach Len. (m)	24.29	25.24	25.41
Crit W.S. (m)	457.97	Flow Area (m2)		1.67	
E.G. Slope (m/m)	0.010518	Area (m2)		1.78	
Q Total (m3/s)	5.86	Flow (m3/s)		5.86	
Top Width (m)	1.52	Top Width (m)		1.52	
Vel Total (m/s)	3.50	Avg. Vel. (m/s)		3.50	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)		1.25	
Conv. Total (m3/s)	57.1	Conv. (m3/s)		57.1	
Length Wtd. (m)	25.24	Wetted Per. (m)		1.40	
Min Ch El (m)	456.68	Shear (N/m2)		123.39	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 6 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		432.15	
Frctn Loss (m)	0.31	Cum Volume (1000 m3)	0.04	0.27	
C & E Loss (m)	0.09	Cum SA (1000 m2)	0.07	0.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 6 Profile: TR 100

E.G. Elev (m)	458.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.61	Wt. n-Val.		0.033	
W.S. Elev (m)	458.02	Reach Len. (m)	24.29	25.24	25.41
Crit W.S. (m)	458.02	Flow Area (m2)		1.74	
E.G. Slope (m/m)	0.009679	Area (m2)		1.86	
Q Total (m3/s)	6.01	Flow (m3/s)		6.01	
Top Width (m)	1.52	Top Width (m)		1.52	
Vel Total (m/s)	3.45	Avg. Vel. (m/s)		3.45	
Max Chl Dpth (m)	1.34	Hydr. Depth (m)		1.30	
Conv. Total (m3/s)	61.1	Conv. (m3/s)		61.1	
Length Wtd. (m)	25.24	Wetted Per. (m)		1.40	
Min Ch El (m)	456.68	Shear (N/m2)		118.20	
Alpha	1.00	Stream Power (N/m s)		407.87	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	0.04	0.27	
C & E Loss (m)	0.09	Cum SA (1000 m2)	0.07	0.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 6 Profile: TR 200

E.G. Elev (m)	458.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.62	Wt. n-Val.		0.033	
W.S. Elev (m)	458.02	Reach Len. (m)	24.29	25.24	25.41
Crit W.S. (m)	458.02	Flow Area (m2)		1.74	
E.G. Slope (m/m)	0.009844	Area (m2)		1.86	
Q Total (m3/s)	6.06	Flow (m3/s)		6.06	
Top Width (m)	1.52	Top Width (m)		1.52	
Vel Total (m/s)	3.48	Avg. Vel. (m/s)		3.48	
Max Chl Dpth (m)	1.34	Hydr. Depth (m)		1.30	
Conv. Total (m3/s)	61.1	Conv. (m3/s)		61.1	
Length Wtd. (m)	25.24	Wetted Per. (m)		1.40	
Min Ch El (m)	456.68	Shear (N/m2)		120.21	
Alpha	1.00	Stream Power (N/m s)		418.34	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	0.04	0.27	
C & E Loss (m)	0.09	Cum SA (1000 m2)	0.07	0.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 6 Profile: TR 500

E.G. Elev (m)	458.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.63	Wt. n-Val.		0.033	
W.S. Elev (m)	458.02	Reach Len. (m)	24.29	25.24	25.41
Crit W.S. (m)	458.02	Flow Area (m2)		1.74	
E.G. Slope (m/m)	0.009974	Area (m2)		1.86	
Q Total (m3/s)	6.10	Flow (m3/s)		6.10	
Top Width (m)	1.52	Top Width (m)		1.52	
Vel Total (m/s)	3.50	Avg. Vel. (m/s)		3.50	
Max Chl Dpth (m)	1.34	Hydr. Depth (m)		1.30	
Conv. Total (m3/s)	61.1	Conv. (m3/s)		61.1	
Length Wtd. (m)	25.24	Wetted Per. (m)		1.40	
Min Ch El (m)	456.68	Shear (N/m2)		121.79	
Alpha	1.00	Stream Power (N/m s)		426.60	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	0.04	0.27	
C & E Loss (m)	0.09	Cum SA (1000 m2)	0.07	0.30	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 5 Profile: TR 20

E.G. Elev (m)	458.09	Element	Left OB	Channel	Right OB
Vel Head (m)	0.76	Wt. n-Val.		0.033	
W.S. Elev (m)	457.32	Reach Len. (m)	35.33	35.33	35.33
Crit W.S. (m)	457.56	Flow Area (m2)		1.51	
E.G. Slope (m/m)	0.048435	Area (m2)		1.51	
Q Total (m3/s)	5.86	Flow (m3/s)		5.86	
Top Width (m)	2.27	Top Width (m)		2.27	
Vel Total (m/s)	3.87	Avg. Vel. (m/s)		3.87	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	26.6	Conv. (m3/s)		26.6	
Length Wtd. (m)	35.33	Wetted Per. (m)		3.42	
Min Ch El (m)	456.40	Shear (N/m2)		210.31	
Alpha	1.00	Stream Power (N/m s)		814.79	
Frctn Loss (m)	0.49	Cum Volume (1000 m3)	0.04	0.23	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.07	0.25	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 5 Profile: TR 100

E.G. Elev (m)	458.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.81	Wt. n-Val.		0.033	
W.S. Elev (m)	457.32	Reach Len. (m)	35.33	35.33	35.33
Crit W.S. (m)	457.57	Flow Area (m2)		1.51	
E.G. Slope (m/m)	0.051596	Area (m2)		1.51	
Q Total (m3/s)	6.01	Flow (m3/s)		6.01	
Top Width (m)	2.27	Top Width (m)		2.27	
Vel Total (m/s)	3.99	Avg. Vel. (m/s)		3.99	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	26.5	Conv. (m3/s)		26.5	
Length Wtd. (m)	35.33	Wetted Per. (m)		3.41	
Min Ch El (m)	456.40	Shear (N/m2)		223.51	
Alpha	1.00	Stream Power (N/m s)		892.37	
Frctn Loss (m)	0.48	Cum Volume (1000 m3)	0.04	0.23	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.07	0.25	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 5 Profile: TR 200

E.G. Elev (m)	458.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.81	Wt. n-Val.		0.033	
W.S. Elev (m)	457.32	Reach Len. (m)	35.33	35.33	35.33
Crit W.S. (m)	457.58	Flow Area (m2)		1.52	
E.G. Slope (m/m)	0.051364	Area (m2)		1.52	
Q Total (m3/s)	6.06	Flow (m3/s)		6.06	
Top Width (m)	2.28	Top Width (m)		2.28	
Vel Total (m/s)	3.99	Avg. Vel. (m/s)		3.99	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	26.7	Conv. (m3/s)		26.7	
Length Wtd. (m)	35.33	Wetted Per. (m)		3.42	
Min Ch El (m)	456.40	Shear (N/m2)		223.39	
Alpha	1.00	Stream Power (N/m s)		892.23	
Frctn Loss (m)	0.48	Cum Volume (1000 m3)	0.04	0.23	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.07	0.25	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 5 Profile: TR 500

E.G. Elev (m)	458.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.81	Wt. n-Val.		0.033	
W.S. Elev (m)	457.33	Reach Len. (m)	35.33	35.33	35.33
Crit W.S. (m)	457.59	Flow Area (m2)		1.53	
E.G. Slope (m/m)	0.051237	Area (m2)		1.53	
Q Total (m3/s)	6.10	Flow (m3/s)		6.10	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 5 Profile: TR 500 (Continued)

Top Width (m)	2.28	Top Width (m)		2.28	
Vel Total (m/s)	4.00	Avg. Vel. (m/s)		4.00	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	26.9	Conv. (m3/s)		26.9	
Length Wtd. (m)	35.33	Wetted Per. (m)		3.43	
Min Ch El (m)	456.40	Shear (N/m2)		223.48	
Alpha	1.00	Stream Power (N/m s)		893.17	
Frctn Loss (m)	0.49	Cum Volume (1000 m3)	0.04	0.23	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.07	0.25	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 4 Profile: TR 20

E.G. Elev (m)	457.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.		0.033	
W.S. Elev (m)	457.03	Reach Len. (m)	6.96	5.41	3.53
Crit W.S. (m)	457.03	Flow Area (m2)		2.18	
E.G. Slope (m/m)	0.017892	Area (m2)		2.18	
Q Total (m3/s)	5.86	Flow (m3/s)		5.86	
Top Width (m)	2.96	Top Width (m)		2.96	
Vel Total (m/s)	2.68	Avg. Vel. (m/s)		2.68	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)		0.74	
Conv. Total (m3/s)	43.8	Conv. (m3/s)		43.8	
Length Wtd. (m)	5.41	Wetted Per. (m)		4.06	
Min Ch El (m)	456.05	Shear (N/m2)		94.45	
Alpha	1.00	Stream Power (N/m s)		253.34	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	0.04	0.16	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.07	0.16	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 4 Profile: TR 100

E.G. Elev (m)	457.42	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.		0.033	
W.S. Elev (m)	457.04	Reach Len. (m)	6.96	5.41	3.53
Crit W.S. (m)	457.04	Flow Area (m2)		2.22	
E.G. Slope (m/m)	0.018070	Area (m2)		2.22	
Q Total (m3/s)	6.01	Flow (m3/s)		6.01	
Top Width (m)	2.97	Top Width (m)		2.97	
Vel Total (m/s)	2.71	Avg. Vel. (m/s)		2.71	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.75	
Conv. Total (m3/s)	44.7	Conv. (m3/s)		44.7	
Length Wtd. (m)	5.41	Wetted Per. (m)		4.08	
Min Ch El (m)	456.05	Shear (N/m2)		96.20	
Alpha	1.00	Stream Power (N/m s)		260.78	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	0.04	0.16	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.07	0.16	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 4 Profile: TR 200

E.G. Elev (m)	457.42	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.		0.033	
W.S. Elev (m)	457.05	Reach Len. (m)	6.96	5.41	3.53
Crit W.S. (m)	457.05	Flow Area (m2)		2.23	
E.G. Slope (m/m)	0.017978	Area (m2)		2.23	
Q Total (m3/s)	6.06	Flow (m3/s)		6.06	
Top Width (m)	2.98	Top Width (m)		2.98	
Vel Total (m/s)	2.71	Avg. Vel. (m/s)		2.71	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.75	
Conv. Total (m3/s)	45.2	Conv. (m3/s)		45.2	
Length Wtd. (m)	5.41	Wetted Per. (m)		4.10	
Min Ch El (m)	456.05	Shear (N/m2)		96.15	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 4 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		260.76	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	0.04	0.16	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.07	0.16	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 4 Profile: TR 500

E.G. Elev (m)	457.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.		0.033	
W.S. Elev (m)	457.05	Reach Len. (m)	6.96	5.41	3.53
Crit W.S. (m)	457.05	Flow Area (m2)		2.25	
E.G. Slope (m/m)	0.017883	Area (m2)		2.25	
Q Total (m3/s)	6.10	Flow (m3/s)		6.10	
Top Width (m)	2.98	Top Width (m)		2.98	
Vel Total (m/s)	2.71	Avg. Vel. (m/s)		2.71	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.75	
Conv. Total (m3/s)	45.6	Conv. (m3/s)		45.6	
Length Wtd. (m)	5.41	Wetted Per. (m)		4.11	
Min Ch El (m)	456.05	Shear (N/m2)		96.00	
Alpha	1.00	Stream Power (N/m s)		260.34	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	0.04	0.16	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.07	0.16	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 3 Profile: TR 20

E.G. Elev (m)	457.25	Element	Left OB	Channel	Right OB
Vel Head (m)	0.59	Wt. n-Val.		0.033	
W.S. Elev (m)	456.66	Reach Len. (m)	30.85	30.85	30.85
Crit W.S. (m)	456.80	Flow Area (m2)		1.73	
E.G. Slope (m/m)	0.034609	Area (m2)		1.73	
Q Total (m3/s)	5.86	Flow (m3/s)		5.86	
Top Width (m)	2.62	Top Width (m)		2.62	
Vel Total (m/s)	3.39	Avg. Vel. (m/s)		3.39	
Max Chl Dpth (m)	0.89	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	31.5	Conv. (m3/s)		31.5	
Length Wtd. (m)	30.85	Wetted Per. (m)		3.71	
Min Ch El (m)	455.77	Shear (N/m2)		158.29	
Alpha	1.00	Stream Power (N/m s)		536.64	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	0.04	0.15	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.07	0.14	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 3 Profile: TR 100

E.G. Elev (m)	457.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.59	Wt. n-Val.		0.033	
W.S. Elev (m)	456.68	Reach Len. (m)	30.85	30.85	30.85
Crit W.S. (m)	456.82	Flow Area (m2)		1.77	
E.G. Slope (m/m)	0.033958	Area (m2)		1.77	
Q Total (m3/s)	6.01	Flow (m3/s)		6.01	
Top Width (m)	2.62	Top Width (m)		2.62	
Vel Total (m/s)	3.39	Avg. Vel. (m/s)		3.39	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	32.6	Conv. (m3/s)		32.6	
Length Wtd. (m)	30.85	Wetted Per. (m)		3.74	
Min Ch El (m)	455.77	Shear (N/m2)		157.73	
Alpha	1.00	Stream Power (N/m s)		535.22	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	0.04	0.15	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.07	0.14	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 3 Profile: TR 200

E.G. Elev (m)	457.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.59	Wt. n-Val.		0.033	
W.S. Elev (m)	456.68	Reach Len. (m)	30.85	30.85	30.85
Crit W.S. (m)	456.82	Flow Area (m2)		1.78	
E.G. Slope (m/m)	0.033954	Area (m2)		1.78	
Q Total (m3/s)	6.06	Flow (m3/s)		6.06	
Top Width (m)	2.62	Top Width (m)		2.62	
Vel Total (m/s)	3.40	Avg. Vel. (m/s)		3.40	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	32.9	Conv. (m3/s)		32.9	
Length Wtd. (m)	30.85	Wetted Per. (m)		3.75	
Min Ch El (m)	455.77	Shear (N/m2)		158.31	
Alpha	1.00	Stream Power (N/m s)		538.50	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	0.04	0.15	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.07	0.14	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 3 Profile: TR 500

E.G. Elev (m)	457.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.59	Wt. n-Val.		0.033	
W.S. Elev (m)	456.69	Reach Len. (m)	30.85	30.85	30.85
Crit W.S. (m)	456.83	Flow Area (m2)		1.79	
E.G. Slope (m/m)	0.033975	Area (m2)		1.79	
Q Total (m3/s)	6.10	Flow (m3/s)		6.10	
Top Width (m)	2.62	Top Width (m)		2.62	
Vel Total (m/s)	3.41	Avg. Vel. (m/s)		3.41	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	33.1	Conv. (m3/s)		33.1	
Length Wtd. (m)	30.85	Wetted Per. (m)		3.75	
Min Ch El (m)	455.77	Shear (N/m2)		158.85	
Alpha	1.00	Stream Power (N/m s)		541.48	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	0.04	0.15	
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.07	0.14	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 2 Profile: TR 20

E.G. Elev (m)	456.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	456.78	Reach Len. (m)	17.20	17.20	17.20
Crit W.S. (m)	456.30	Flow Area (m2)	1.62	3.59	
E.G. Slope (m/m)	0.002942	Area (m2)	1.62	3.59	
Q Total (m3/s)	5.86	Flow (m3/s)	0.88	4.97	
Top Width (m)	5.47	Top Width (m)	2.91	2.57	
Vel Total (m/s)	1.13	Avg. Vel. (m/s)	0.55	1.39	
Max Chl Dpth (m)	1.82	Hydr. Depth (m)	0.56	1.40	
Conv. Total (m3/s)	108.0	Conv. (m3/s)	16.3	91.7	
Length Wtd. (m)	17.20	Wetted Per. (m)	3.46	4.63	
Min Ch El (m)	454.96	Shear (N/m2)	13.52	22.37	
Alpha	1.33	Stream Power (N/m s)	7.38	31.02	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.07	
C & E Loss (m)		Cum SA (1000 m2)	0.03	0.06	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 2 Profile: TR 100

E.G. Elev (m)	456.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	456.82	Reach Len. (m)	17.20	17.20	17.20
Crit W.S. (m)	456.30	Flow Area (m2)	1.71	3.67	
E.G. Slope (m/m)	0.002858	Area (m2)	1.71	3.67	
Q Total (m3/s)	6.01	Flow (m3/s)	0.95	5.06	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 2 Profile: TR 100 (Continued)

Top Width (m)	5.47	Top Width (m)	2.91	2.57	
Vel Total (m/s)	1.12	Avg. Vel. (m/s)	0.55	1.38	
Max Chl Dpth (m)	1.85	Hydr. Depth (m)	0.59	1.43	
Conv. Total (m3/s)	112.4	Conv. (m3/s)	17.7	94.7	
Length Wtd. (m)	17.20	Wetted Per. (m)	3.49	4.66	
Min Ch El (m)	454.96	Shear (N/m2)	13.74	22.06	
Alpha	1.32	Stream Power (N/m s)	7.61	30.47	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.07	
C & E Loss (m)		Cum SA (1000 m2)	0.03	0.06	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 2 Profile: TR 200

E.G. Elev (m)	456.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	456.82	Reach Len. (m)	17.20	17.20	17.20
Crit W.S. (m)	456.30	Flow Area (m2)	1.74	3.69	
E.G. Slope (m/m)	0.002842	Area (m2)	1.74	3.69	
Q Total (m3/s)	6.06	Flow (m3/s)	0.97	5.09	
Top Width (m)	5.47	Top Width (m)	2.91	2.57	
Vel Total (m/s)	1.12	Avg. Vel. (m/s)	0.56	1.38	
Max Chl Dpth (m)	1.86	Hydr. Depth (m)	0.60	1.44	
Conv. Total (m3/s)	113.7	Conv. (m3/s)	18.1	95.5	
Length Wtd. (m)	17.20	Wetted Per. (m)	3.50	4.67	
Min Ch El (m)	454.96	Shear (N/m2)	13.83	22.03	
Alpha	1.32	Stream Power (N/m s)	7.71	30.43	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.07	
C & E Loss (m)		Cum SA (1000 m2)	0.03	0.06	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 2 Profile: TR 500

E.G. Elev (m)	456.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	456.83	Reach Len. (m)	17.20	17.20	17.20
Crit W.S. (m)	456.30	Flow Area (m2)	1.75	3.70	
E.G. Slope (m/m)	0.002833	Area (m2)	1.75	3.70	
Q Total (m3/s)	6.10	Flow (m3/s)	0.98	5.12	
Top Width (m)	5.47	Top Width (m)	2.91	2.57	
Vel Total (m/s)	1.12	Avg. Vel. (m/s)	0.56	1.38	
Max Chl Dpth (m)	1.87	Hydr. Depth (m)	0.60	1.44	
Conv. Total (m3/s)	114.6	Conv. (m3/s)	18.4	96.2	
Length Wtd. (m)	17.20	Wetted Per. (m)	3.50	4.67	
Min Ch El (m)	454.96	Shear (N/m2)	13.91	22.03	
Alpha	1.32	Stream Power (N/m s)	7.78	30.44	
Frctn Loss (m)		Cum Volume (1000 m3)	0.02	0.07	
C & E Loss (m)		Cum SA (1000 m2)	0.03	0.06	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 1 Profile: TR 20

E.G. Elev (m)	456.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.87	Wt. n-Val.		0.033	
W.S. Elev (m)	455.84	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	455.84	Flow Area (m2)		1.41	
E.G. Slope (m/m)	0.016787	Area (m2)		2.04	
Q Total (m3/s)	5.86	Flow (m3/s)		5.86	
Top Width (m)	2.08	Top Width (m)		2.08	
Vel Total (m/s)	4.14	Avg. Vel. (m/s)		4.14	
Max Chl Dpth (m)	1.15	Hydr. Depth (m)		1.09	
Conv. Total (m3/s)	45.2	Conv. (m3/s)		45.2	
Length Wtd. (m)	10.00	Wetted Per. (m)		1.31	
Min Ch El (m)	454.69	Shear (N/m2)		178.38	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 1 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		738.86	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.02	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 1 Profile: TR 100

E.G. Elev (m)	456.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.92	Wt. n-Val.		0.033	
W.S. Elev (m)	455.84	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	455.84	Flow Area (m2)		1.41	
E.G. Slope (m/m)	0.017658	Area (m2)		2.04	
Q Total (m3/s)	6.01	Flow (m3/s)		6.01	
Top Width (m)	2.08	Top Width (m)		2.08	
Vel Total (m/s)	4.25	Avg. Vel. (m/s)		4.25	
Max Chl Dpth (m)	1.15	Hydr. Depth (m)		1.09	
Conv. Total (m3/s)	45.2	Conv. (m3/s)		45.2	
Length Wtd. (m)	10.00	Wetted Per. (m)		1.31	
Min Ch El (m)	454.69	Shear (N/m2)		187.64	
Alpha	1.00	Stream Power (N/m s)		797.10	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.02	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 1 Profile: TR 200

E.G. Elev (m)	456.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.94	Wt. n-Val.		0.033	
W.S. Elev (m)	455.84	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	455.84	Flow Area (m2)		1.41	
E.G. Slope (m/m)	0.017959	Area (m2)		2.04	
Q Total (m3/s)	6.06	Flow (m3/s)		6.06	
Top Width (m)	2.08	Top Width (m)		2.08	
Vel Total (m/s)	4.28	Avg. Vel. (m/s)		4.28	
Max Chl Dpth (m)	1.15	Hydr. Depth (m)		1.09	
Conv. Total (m3/s)	45.2	Conv. (m3/s)		45.2	
Length Wtd. (m)	10.00	Wetted Per. (m)		1.31	
Min Ch El (m)	454.69	Shear (N/m2)		190.83	
Alpha	1.00	Stream Power (N/m s)		817.56	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.02	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 1 Profile: TR 500

E.G. Elev (m)	456.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.95	Wt. n-Val.		0.033	
W.S. Elev (m)	455.84	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	455.84	Flow Area (m2)		1.41	
E.G. Slope (m/m)	0.018195	Area (m2)		2.04	
Q Total (m3/s)	6.10	Flow (m3/s)		6.10	
Top Width (m)	2.08	Top Width (m)		2.08	
Vel Total (m/s)	4.31	Avg. Vel. (m/s)		4.31	
Max Chl Dpth (m)	1.15	Hydr. Depth (m)		1.09	
Conv. Total (m3/s)	45.2	Conv. (m3/s)		45.2	
Length Wtd. (m)	10.00	Wetted Per. (m)		1.31	
Min Ch El (m)	454.69	Shear (N/m2)		193.34	
Alpha	1.00	Stream Power (N/m s)		833.71	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)		0.02	
C & E Loss (m)	0.02	Cum SA (1000 m2)		0.02	

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 0.5 Profile: TR 20

E.G. Elev (m)	456.50	Element	Left OB	Channel	Right OB
Vel Head (m)	1.06	Wt. n-Val.		0.033	
W.S. Elev (m)	455.44	Reach Len. (m)			
Crit W.S. (m)	455.54	Flow Area (m2)		1.29	
E.G. Slope (m/m)	0.023054	Area (m2)		1.84	
Q Total (m3/s)	5.86	Flow (m3/s)		5.86	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	4.56	Avg. Vel. (m/s)		4.56	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.99	
Conv. Total (m3/s)	38.6	Conv. (m3/s)		38.6	
Length Wtd. (m)		Wetted Per. (m)		1.31	
Min Ch El (m)	454.38	Shear (N/m2)		222.74	
Alpha	1.00	Stream Power (N/m s)		1014.76	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)			
C & E Loss (m)	0.02	Cum SA (1000 m2)			

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 0.5 Profile: TR 100

E.G. Elev (m)	456.54	Element	Left OB	Channel	Right OB
Vel Head (m)	1.09	Wt. n-Val.		0.033	
W.S. Elev (m)	455.45	Reach Len. (m)			
Crit W.S. (m)	455.54	Flow Area (m2)		1.30	
E.G. Slope (m/m)	0.023342	Area (m2)		1.86	
Q Total (m3/s)	6.01	Flow (m3/s)		6.01	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	4.62	Avg. Vel. (m/s)		4.62	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		1.00	
Conv. Total (m3/s)	39.3	Conv. (m3/s)		39.3	
Length Wtd. (m)		Wetted Per. (m)		1.31	
Min Ch El (m)	454.38	Shear (N/m2)		228.12	
Alpha	1.00	Stream Power (N/m s)		1053.74	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)			
C & E Loss (m)	0.02	Cum SA (1000 m2)			

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 0.5 Profile: TR 200

E.G. Elev (m)	456.55	Element	Left OB	Channel	Right OB
Vel Head (m)	1.10	Wt. n-Val.		0.033	
W.S. Elev (m)	455.45	Reach Len. (m)			
Crit W.S. (m)	455.54	Flow Area (m2)		1.31	
E.G. Slope (m/m)	0.023453	Area (m2)		1.87	
Q Total (m3/s)	6.06	Flow (m3/s)		6.06	
Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	4.64	Avg. Vel. (m/s)		4.64	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		1.00	
Conv. Total (m3/s)	39.6	Conv. (m3/s)		39.6	
Length Wtd. (m)		Wetted Per. (m)		1.31	
Min Ch El (m)	454.38	Shear (N/m2)		230.04	
Alpha	1.00	Stream Power (N/m s)		1067.74	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)			
C & E Loss (m)	0.02	Cum SA (1000 m2)			

Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 0.5 Profile: TR 500

E.G. Elev (m)	456.56	Element	Left OB	Channel	Right OB
Vel Head (m)	1.11	Wt. n-Val.		0.033	
W.S. Elev (m)	455.46	Reach Len. (m)			
Crit W.S. (m)	455.54	Flow Area (m2)		1.31	
E.G. Slope (m/m)	0.023548	Area (m2)		1.87	
Q Total (m3/s)	6.10	Flow (m3/s)		6.10	

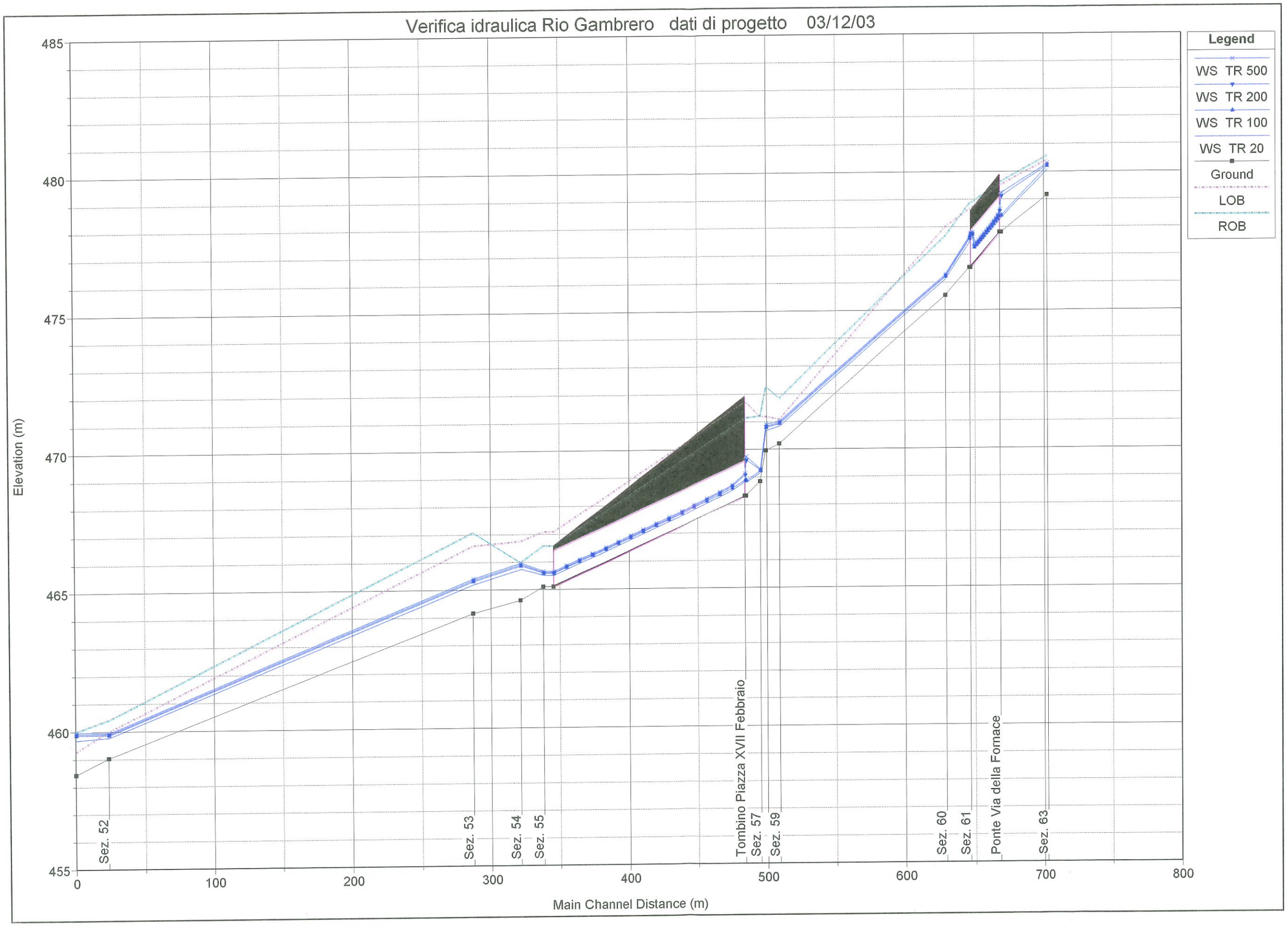
Plan: boer River: Rio dei Boer Reach:Luserna S.G. Riv Sta: 0.5 Profile: TR 500 (Continued)

Top Width (m)	2.05	Top Width (m)		2.05	
Vel Total (m/s)	4.66	Avg. Vel. (m/s)		4.66	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		1.01	
Conv. Total (m3/s)	39.7	Conv. (m3/s)		39.7	
Length Wtd. (m)		Wetted Per. (m)		1.31	
Min Ch El (m)	454.38	Shear (N/m2)		231.60	
Alpha	1.00	Stream Power (N/m s)		1079.06	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)			
C & E Loss (m)	0.02	Cum SA (1000 m2)			

11 – ALLEGATI GRAFICI E NUMERICI RIO GAMBRERO

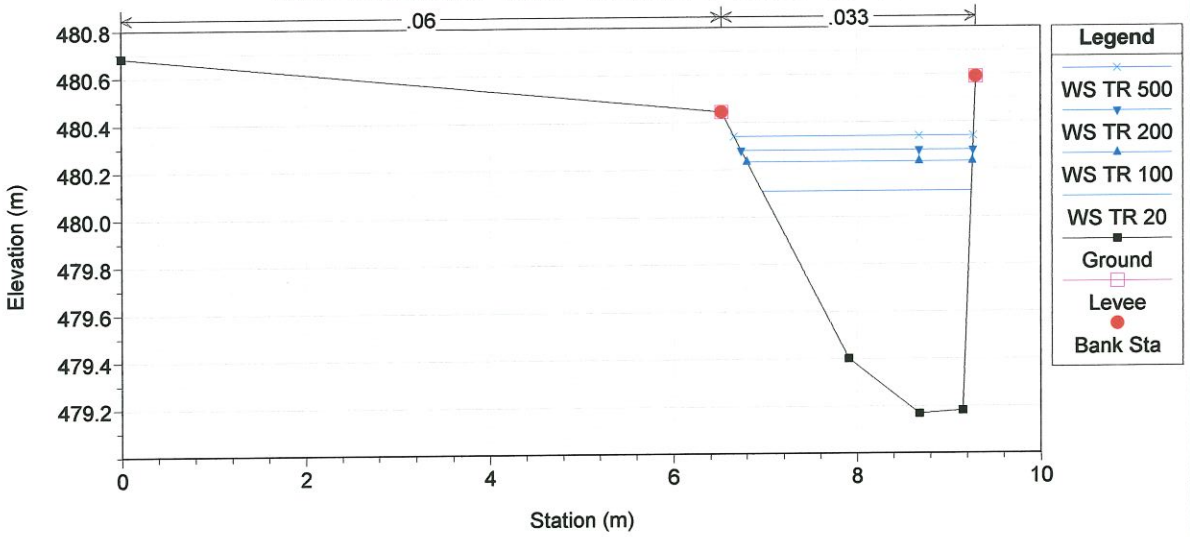
Studio Tecnico ing. Paolo Vaschetto - loc. Sereisie, 172 – 10060 Angrogna (TO)
tel. 0121/944267 - fax 0121/944800 - e-mail: vasco@dag.it - rif. 03v02

Verifica idraulica Rio Gambrero dati di progetto 03/12/03



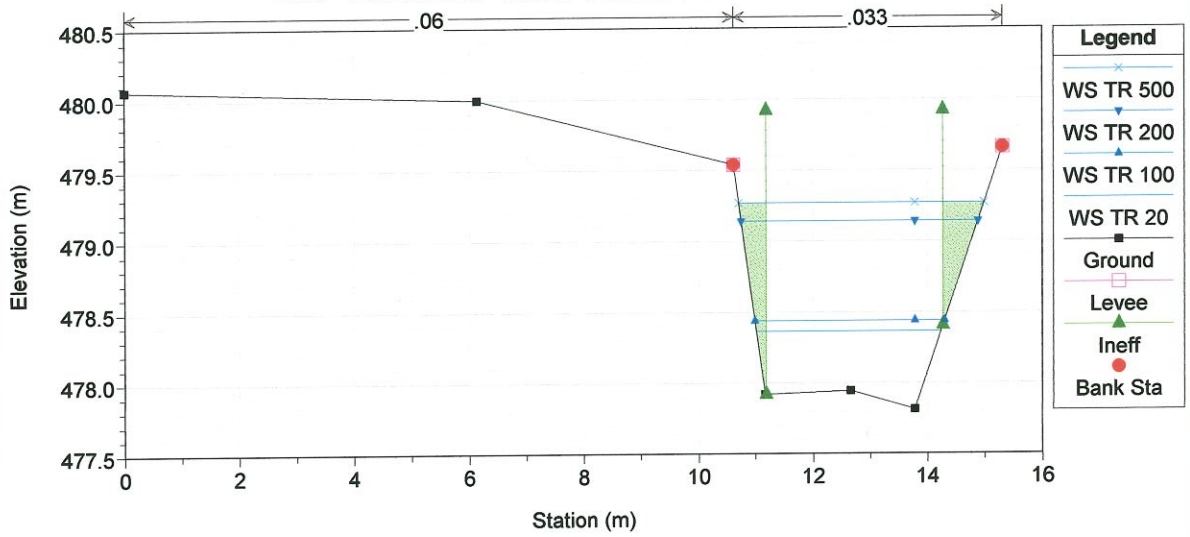
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Luserna S.G. Sez. 63 RS = 63



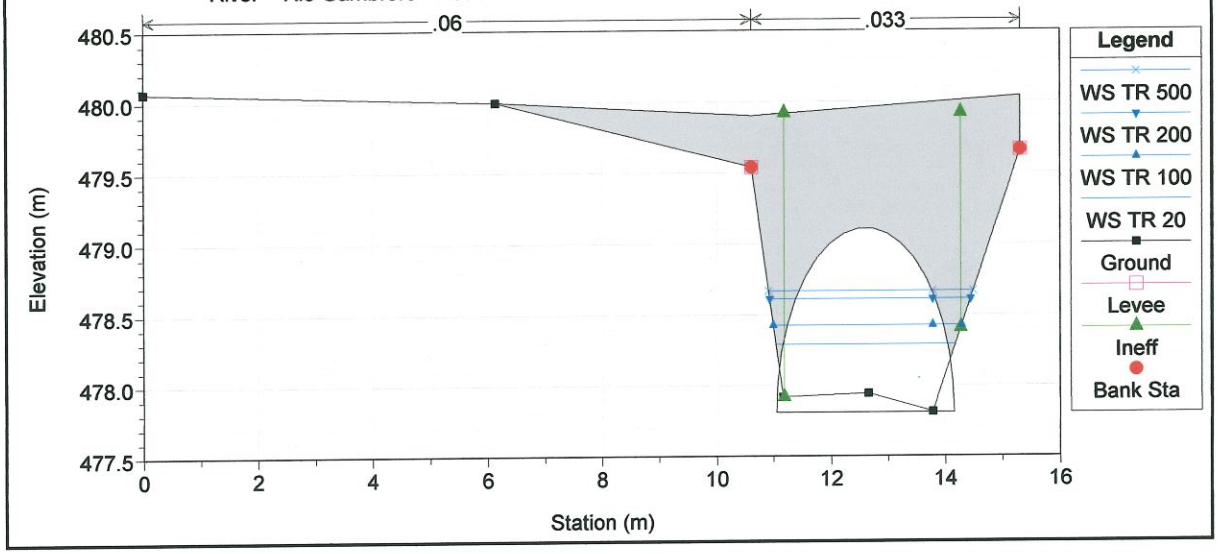
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Luserna S.G. Sez. 62 RS = 62



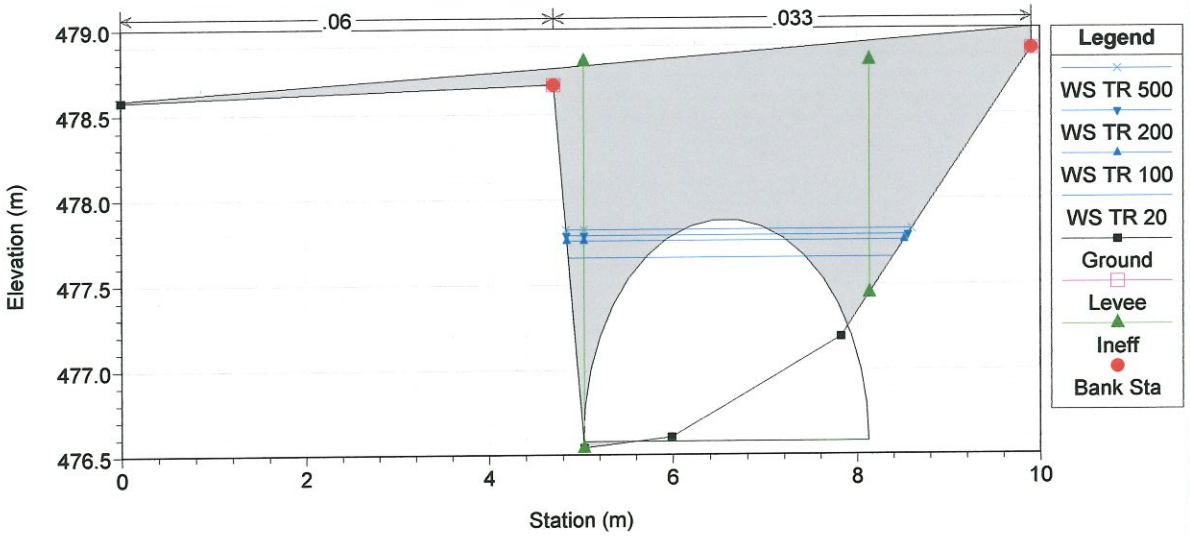
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Luserna S.G. Ponte Via della Fornace RS = 61.5



Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Luserna S.G. Ponte Via della Fornace RS = 61.5



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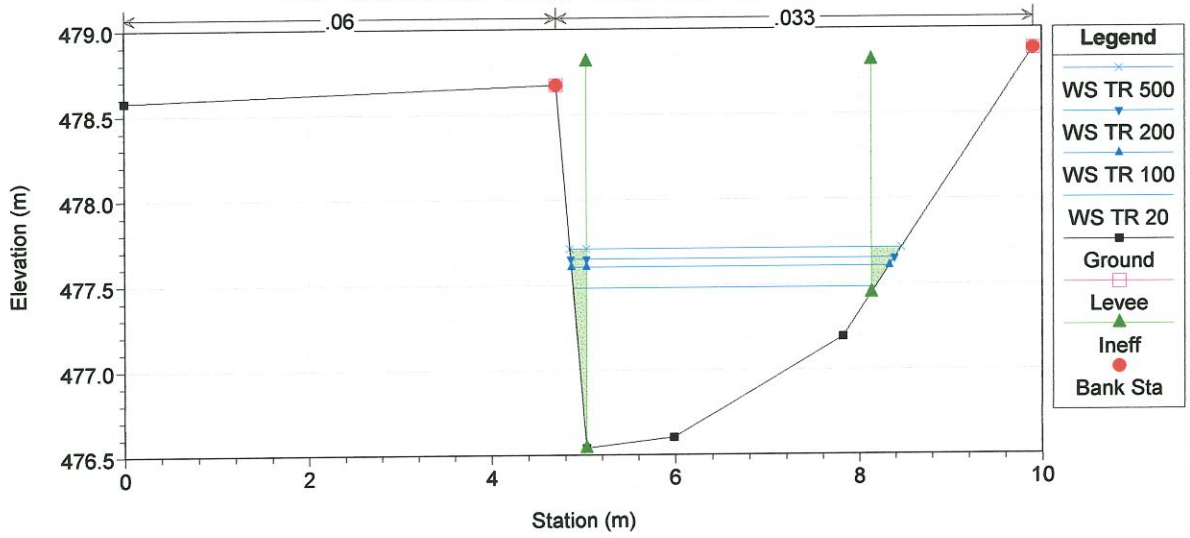

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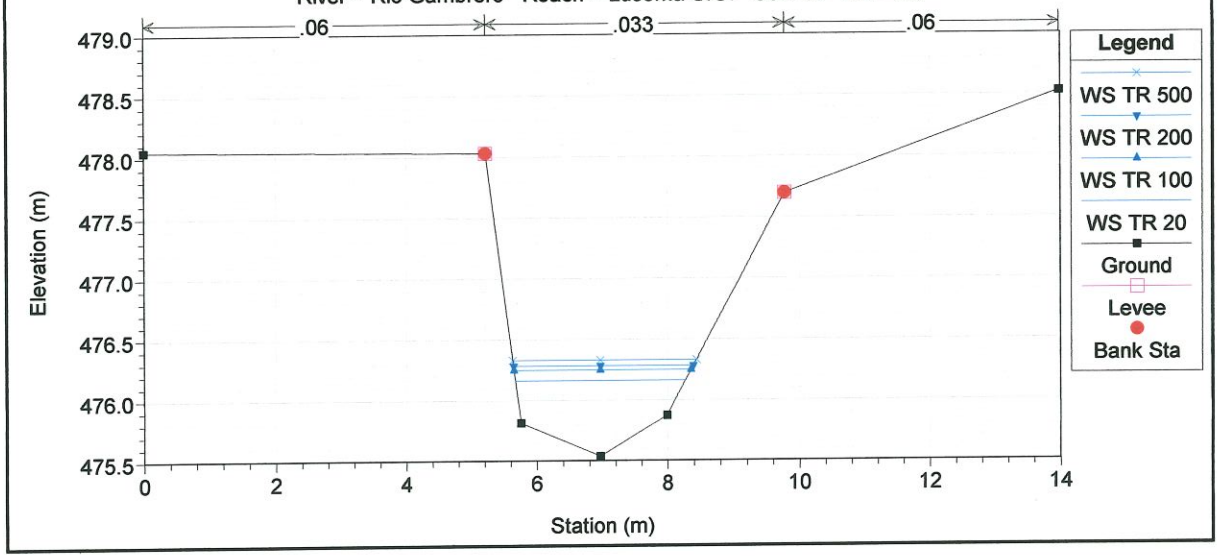
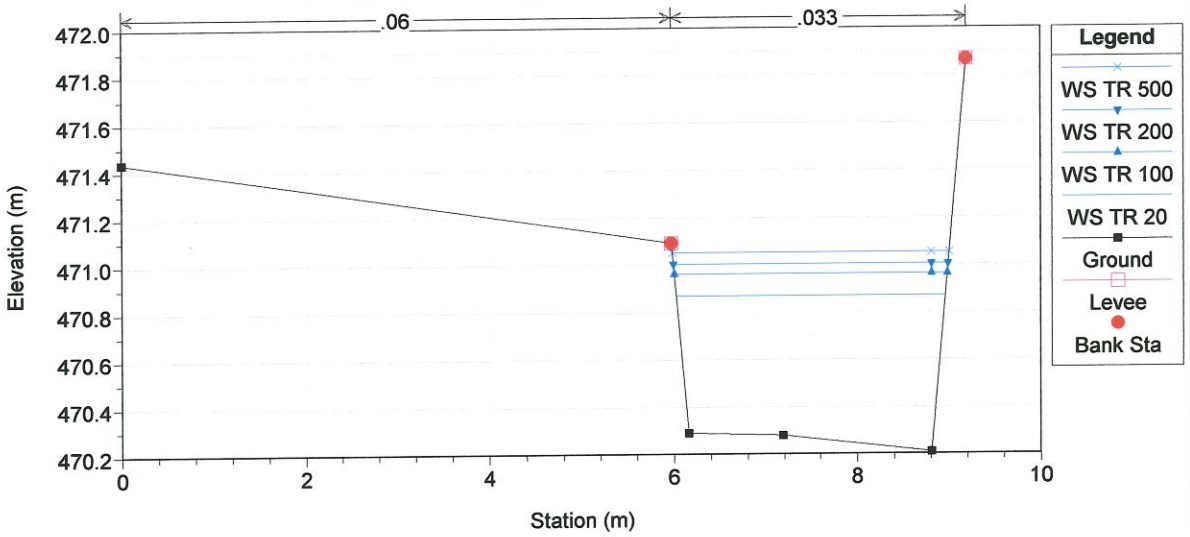


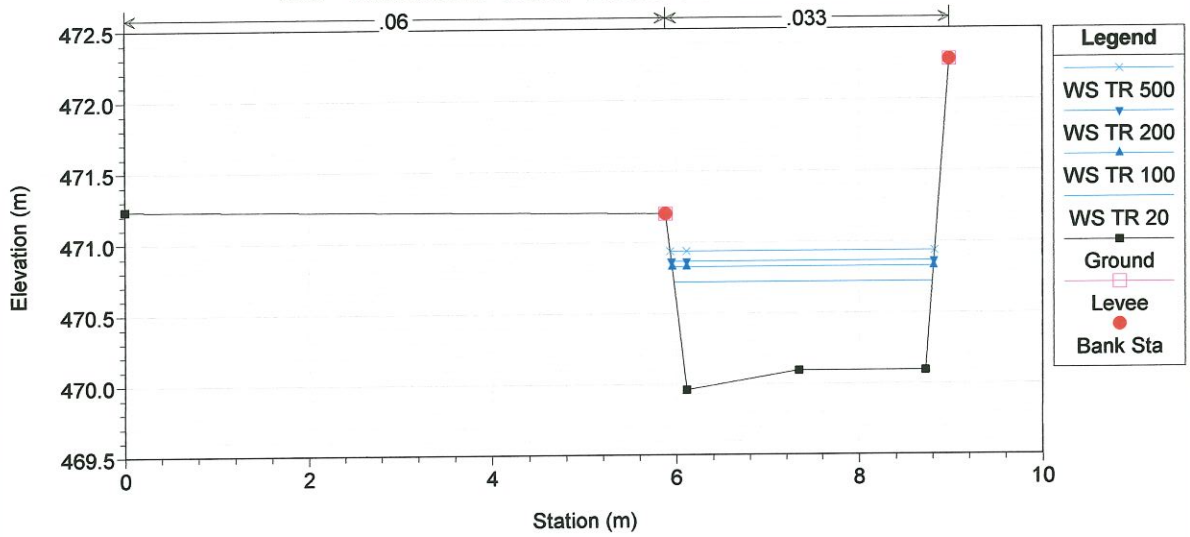
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Luserna S.G. Sez. 59 RS = 59



Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Luserna S.G. Sez. 58 RS = 58



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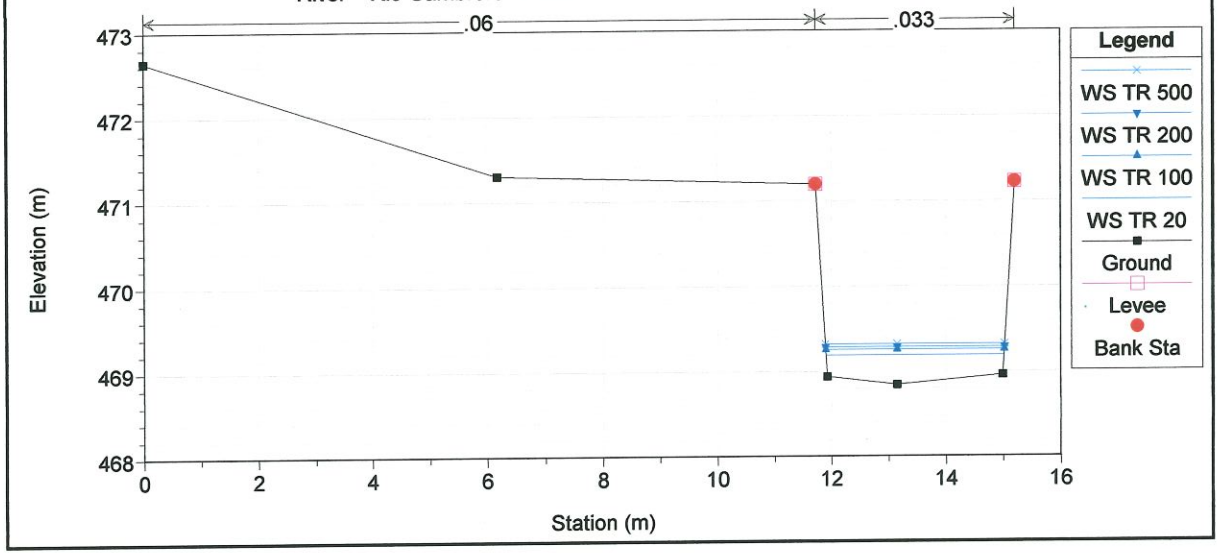
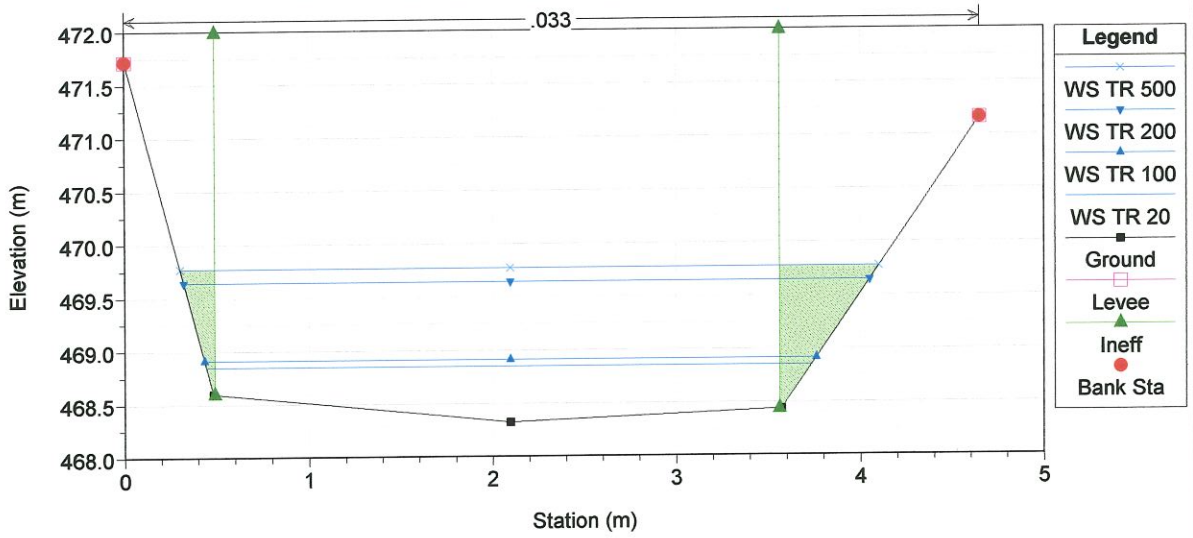


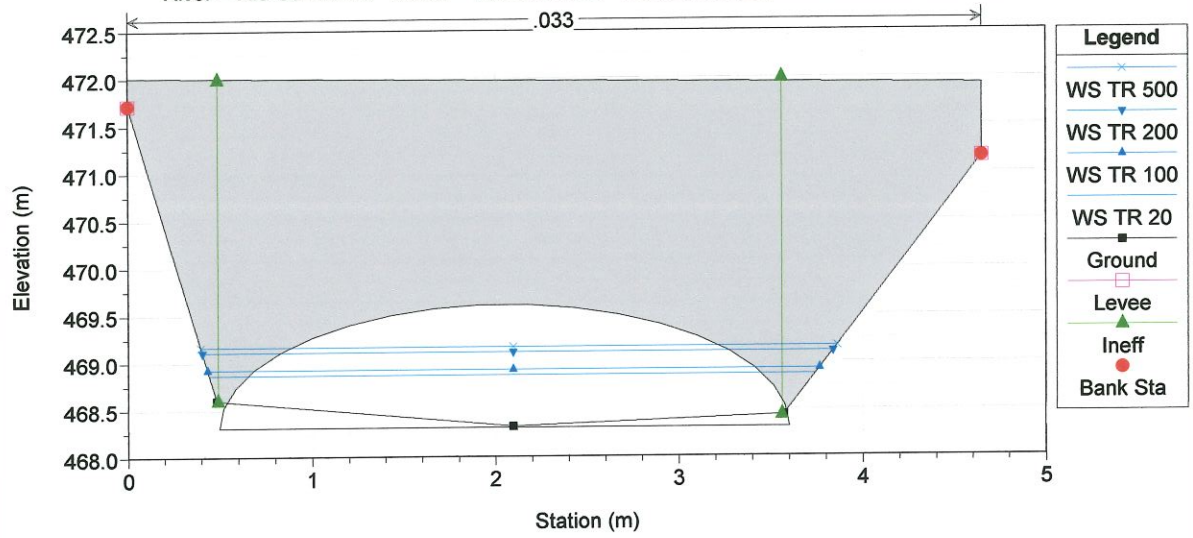
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Luserna S.G. Sez. 56 RS = 56



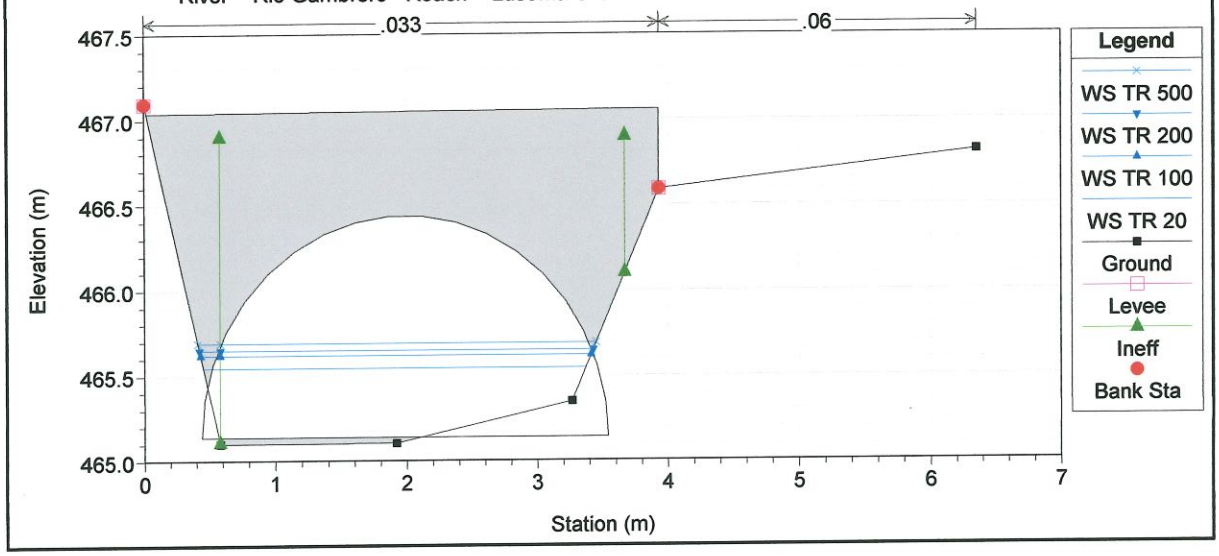
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Luserna S.G. Tombino Piazza XVII Febbraio RS = 55.5



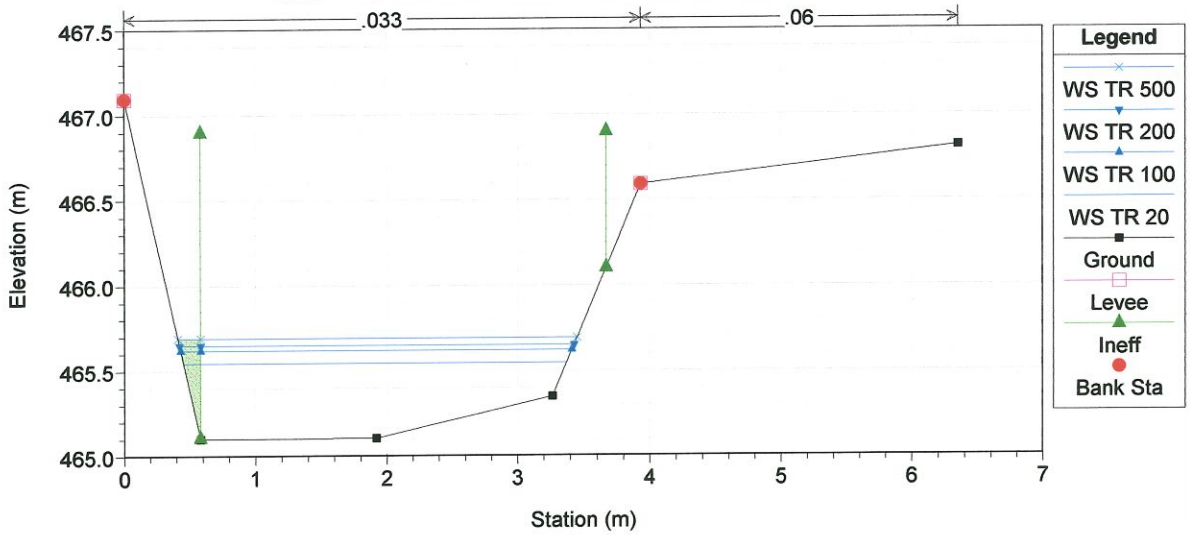
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Luserna S.G. Tombino Piazza XVII Febbraio RS = 55.5



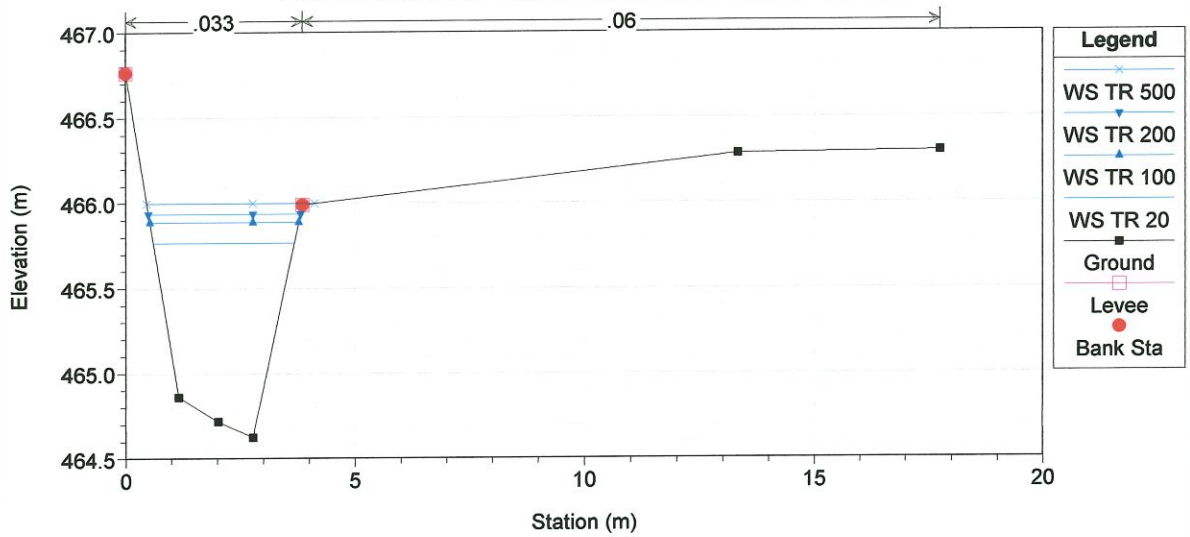
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Luserna S.G. Sez. 55 RS = 55



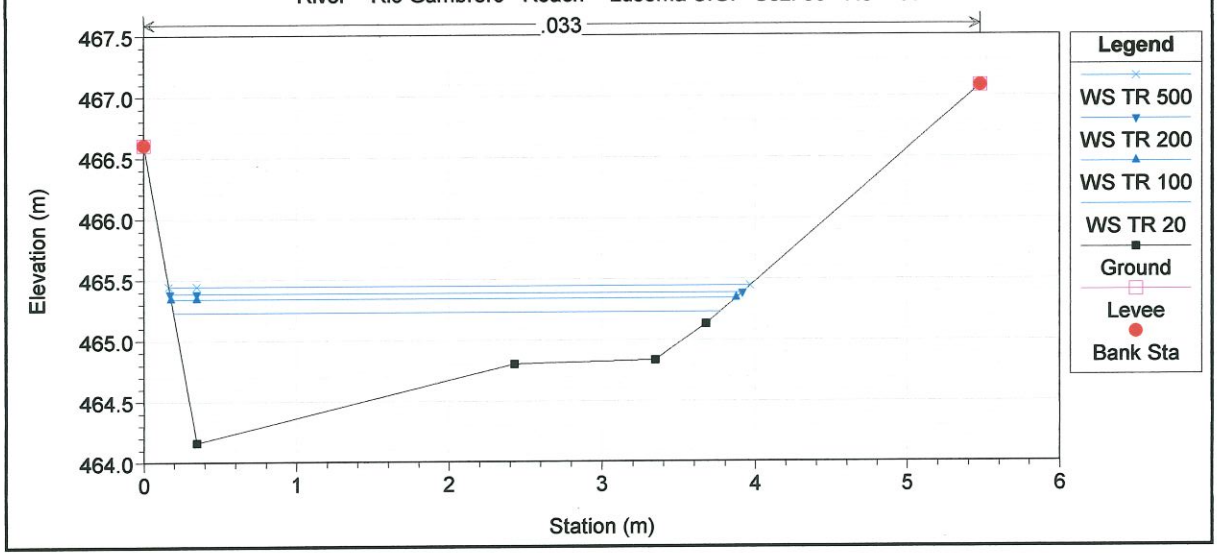
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Luserna S.G. Sez. 54 RS = 54



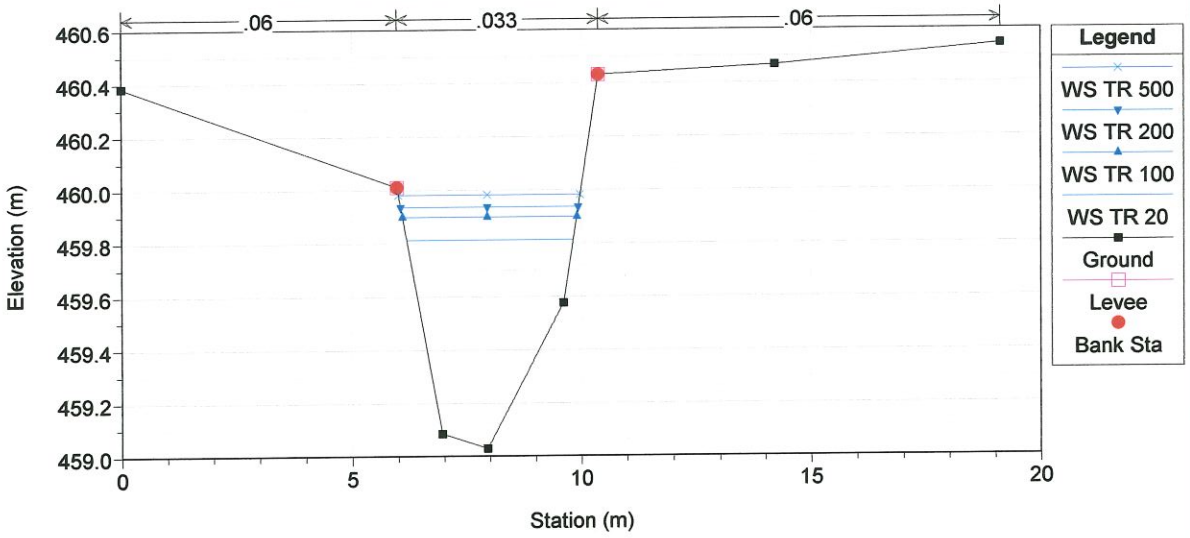
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Luserna S.G. Sez. 53 RS = 53



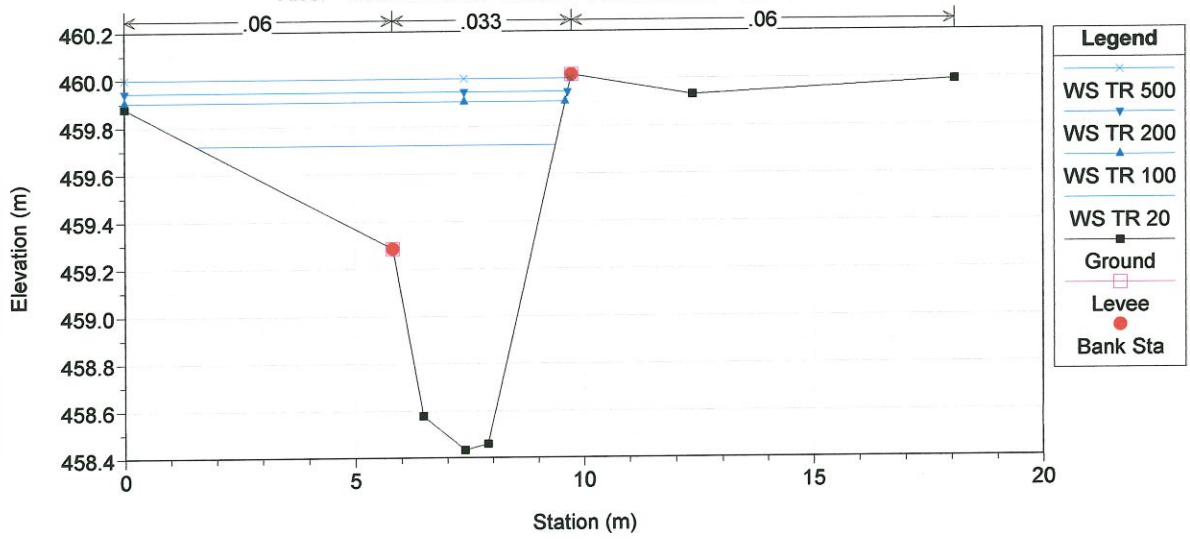
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

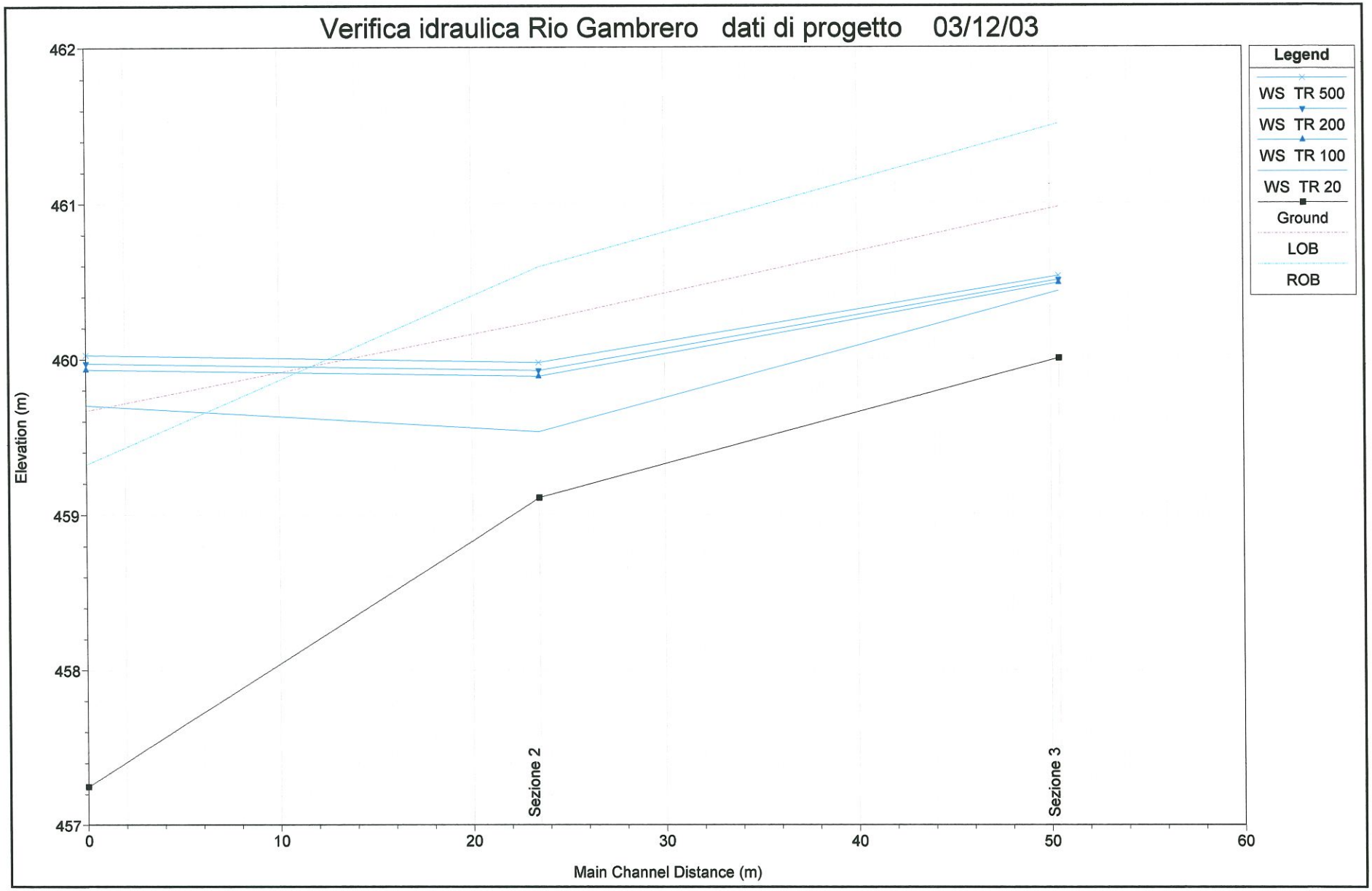
River = Rio Gambrero Reach = Luserna S.G. Sez. 52 RS = 52



Verifica idraulica Rio Gambrero dati di progetto 03/12/03

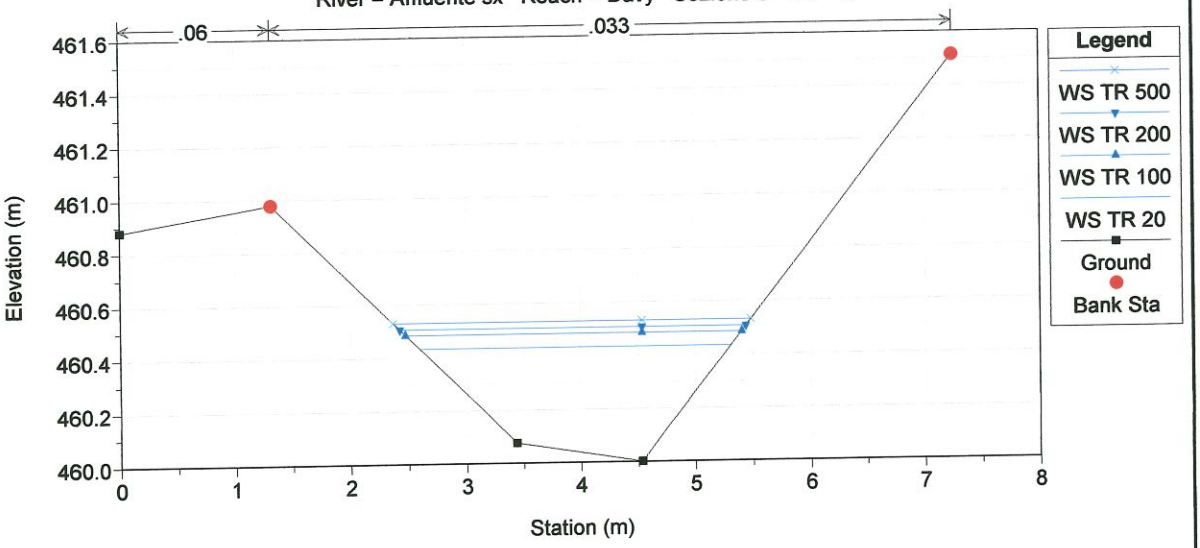
River = Rio Gambrero Reach = Luserna S.G. Sez. 51 RS = 51




Verifica idraulica Rio Gambrero dati di progetto 03/12/03
Legend
WS TR 500
WS TR 200
WS TR 100
WS TR 20
Ground
LOB
ROB
Elevation (m)
462
461
460
459
458
457
0
10
20
30
40
50
60
Main Channel Distance (m)
Sezione 2
Sezione 3

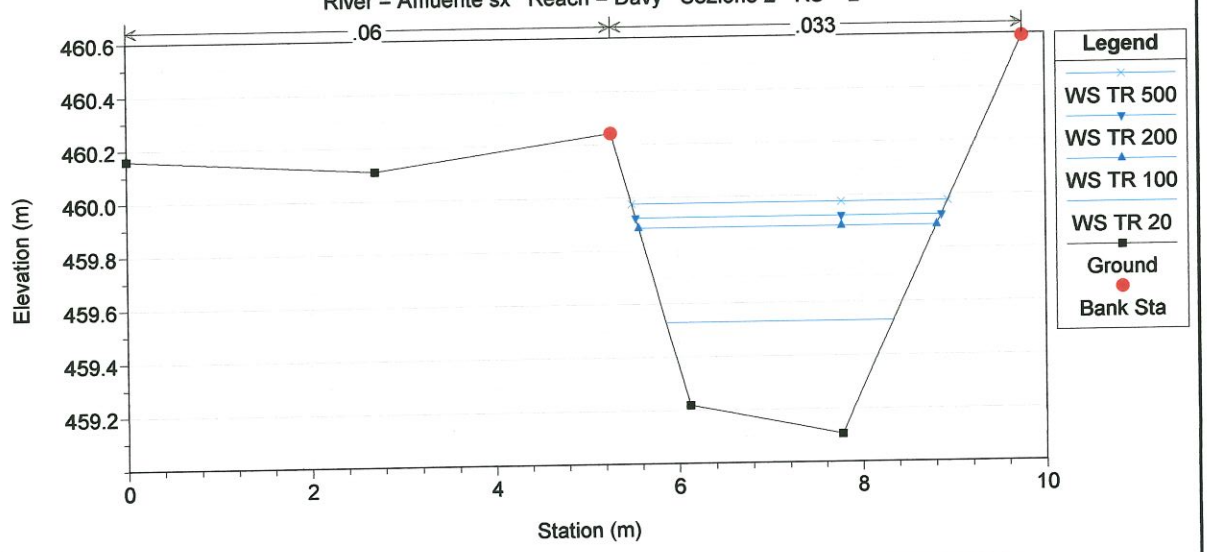
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Affluente sx Reach = Davy Sezione 3 RS = 3



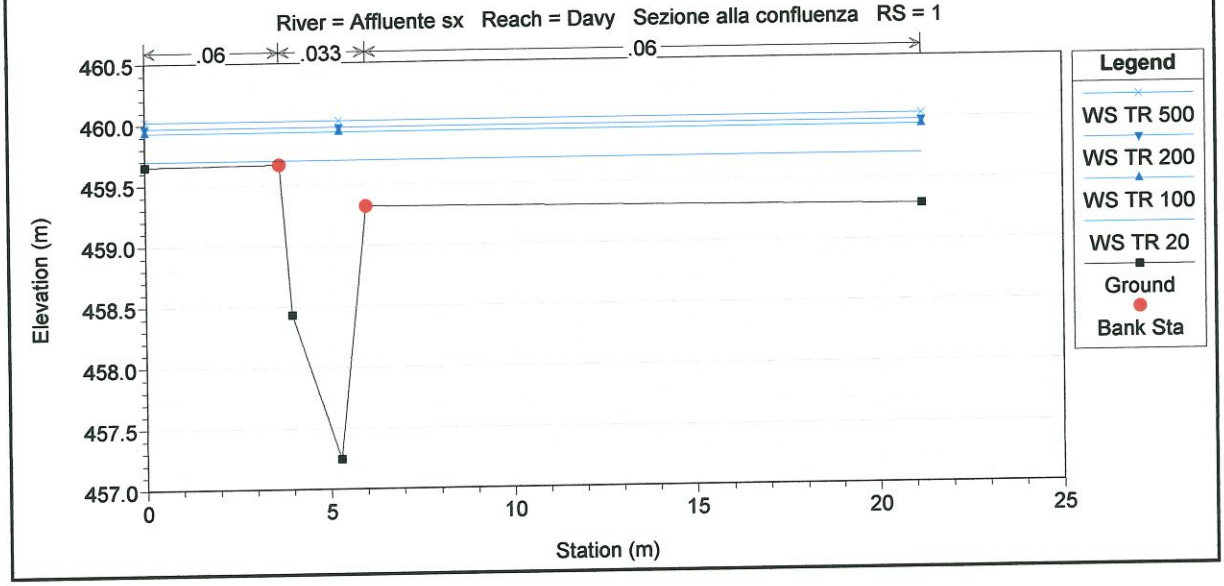
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Affluente sx Reach = Davy Sezione 2 RS = 2

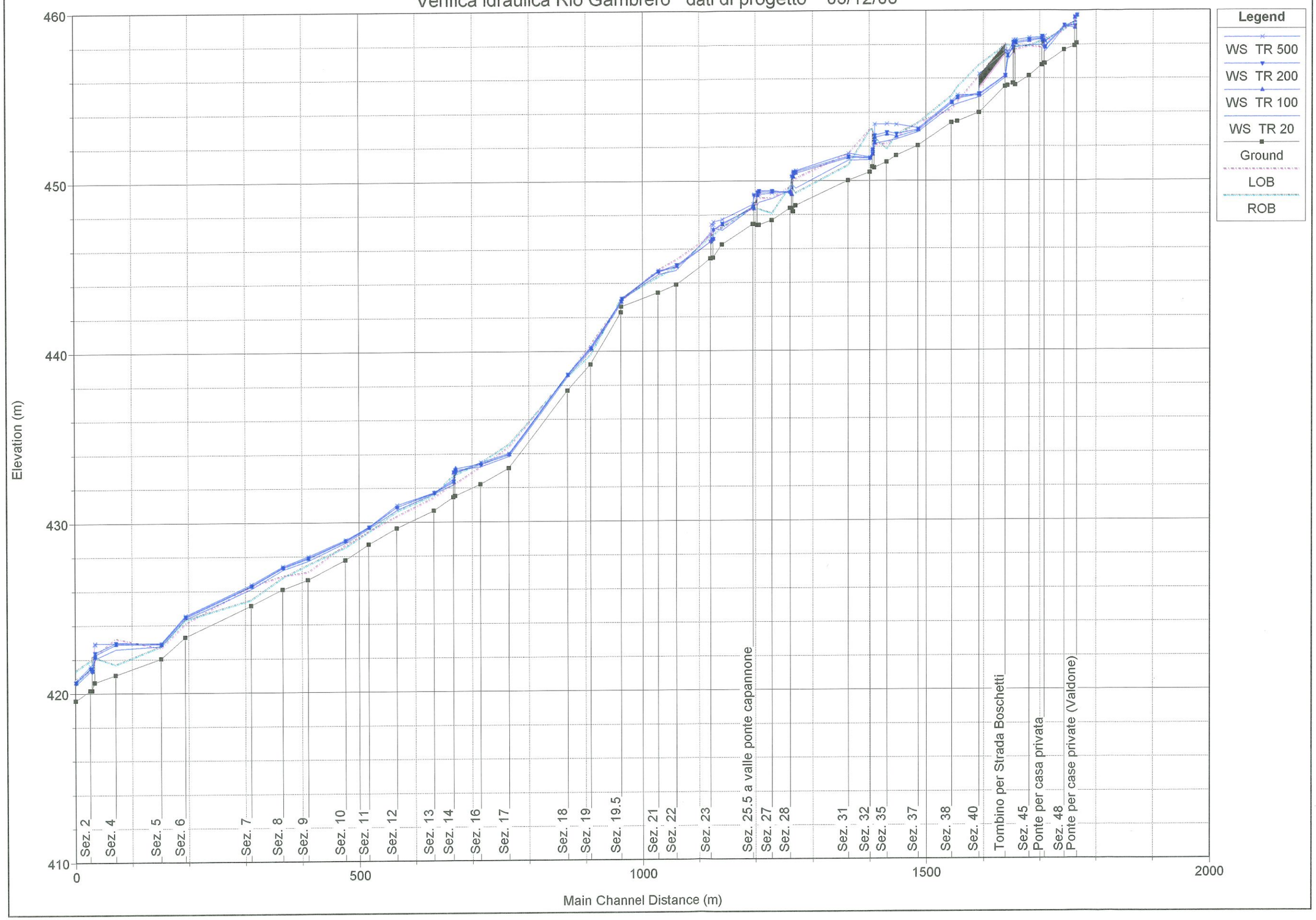


Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Affluente sx Reach = Davy Sezione alla confluenza RS = 1

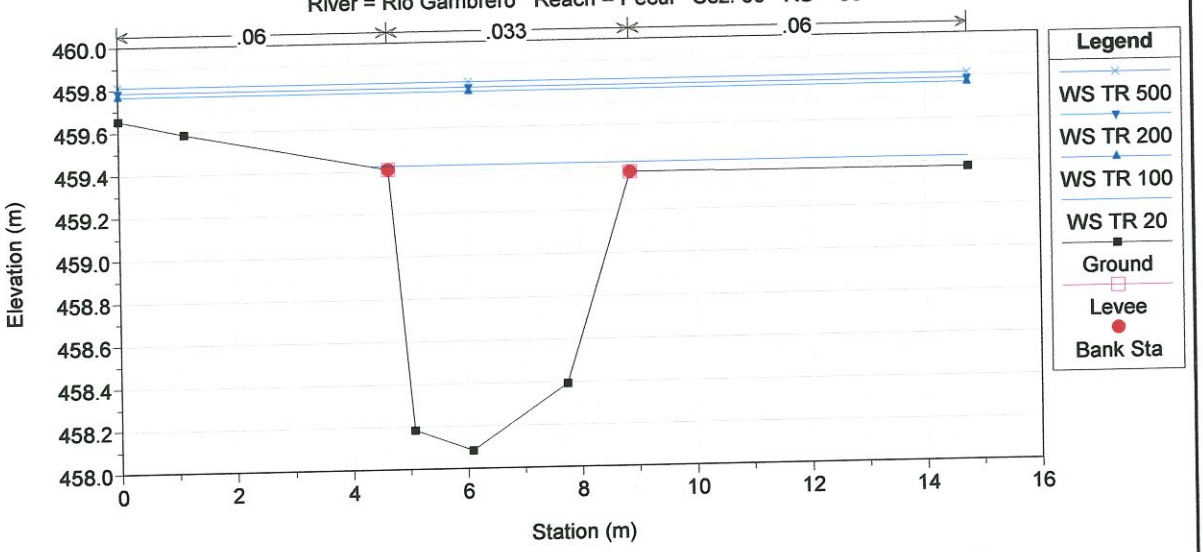


Verifica idraulica Rio Gambrero dati di progetto 03/12/03



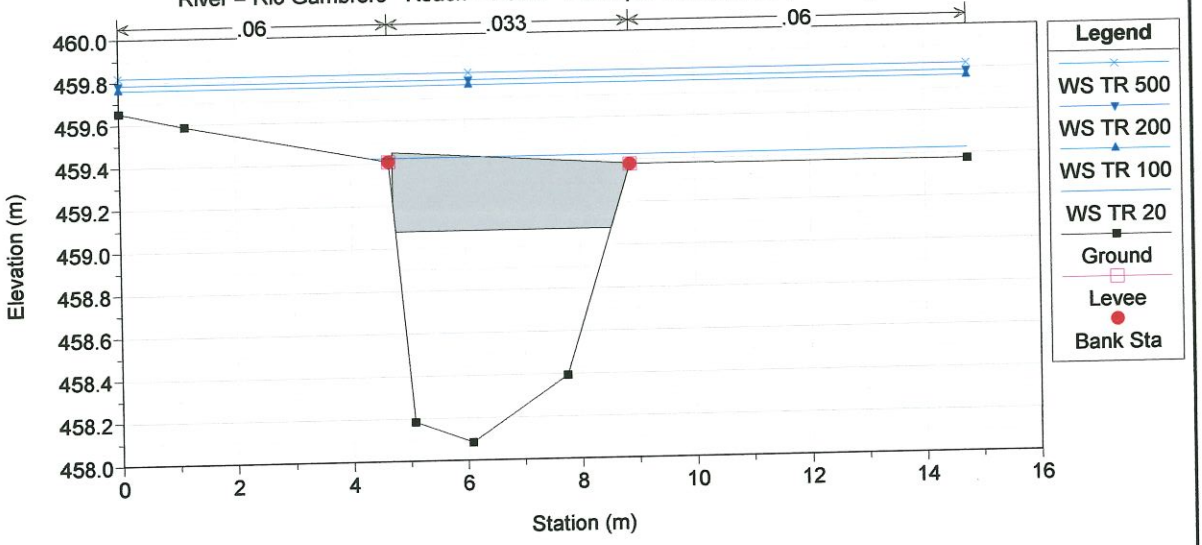
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 50 RS = 50



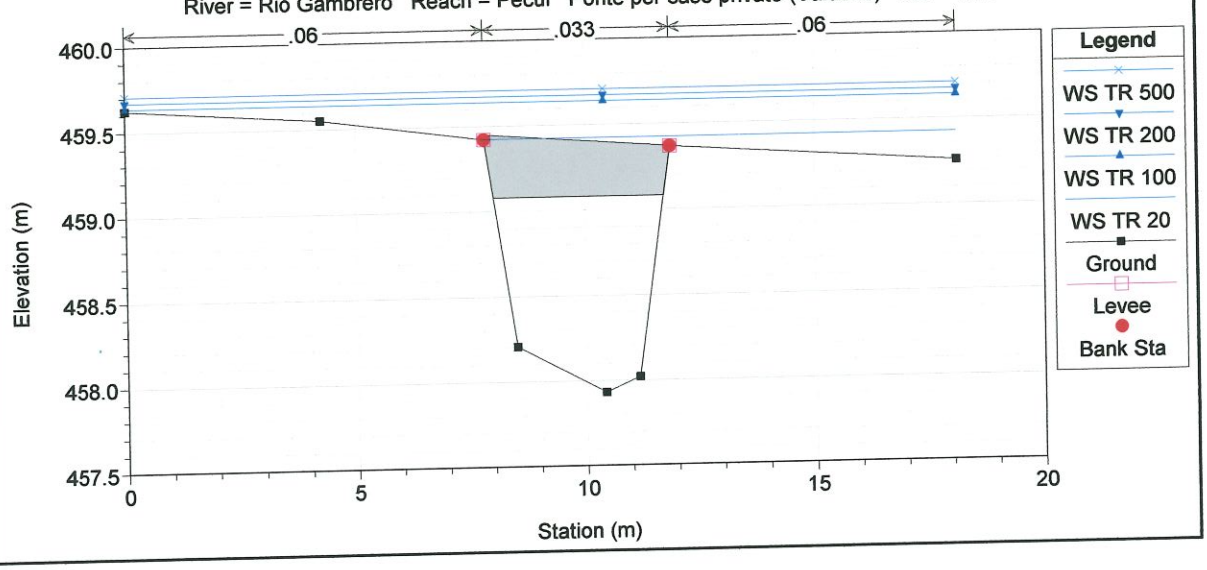
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte per case private (Valdone) RS = 49.5



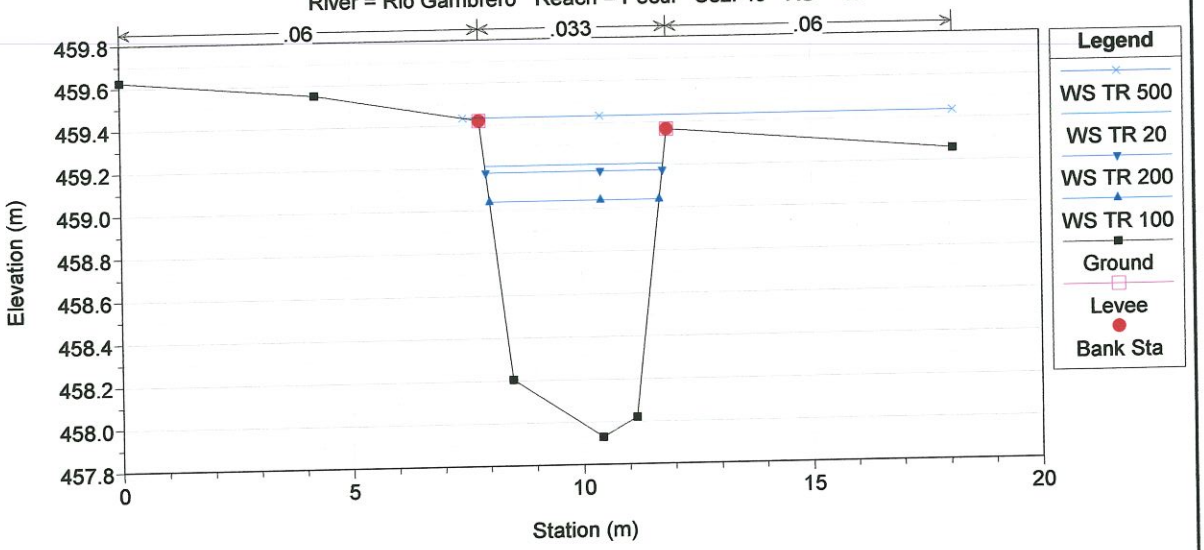
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte per case private (Valdone) RS = 49.5



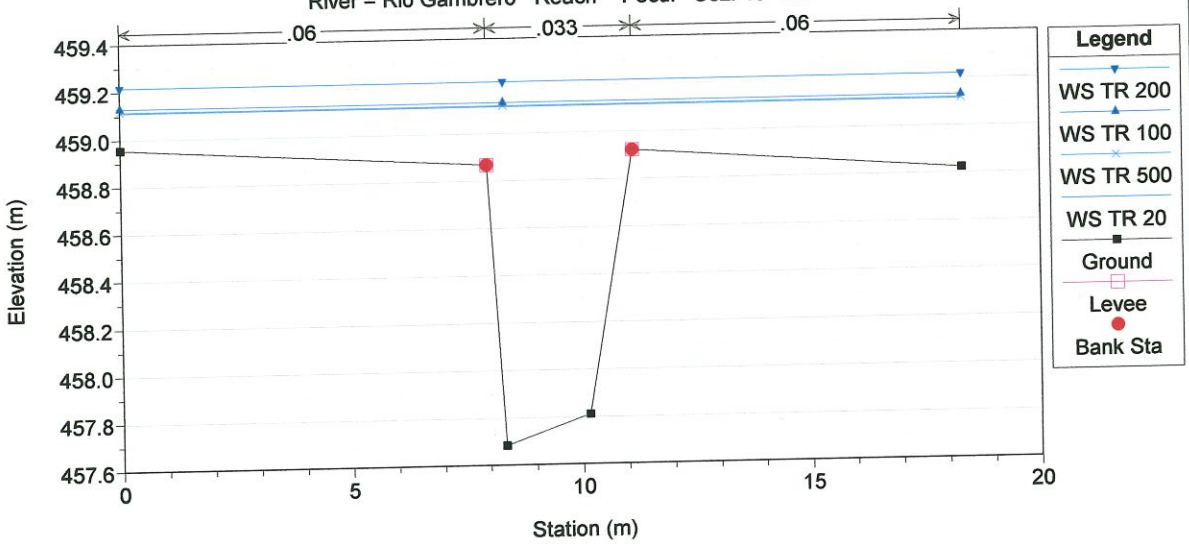
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 49 RS = 49



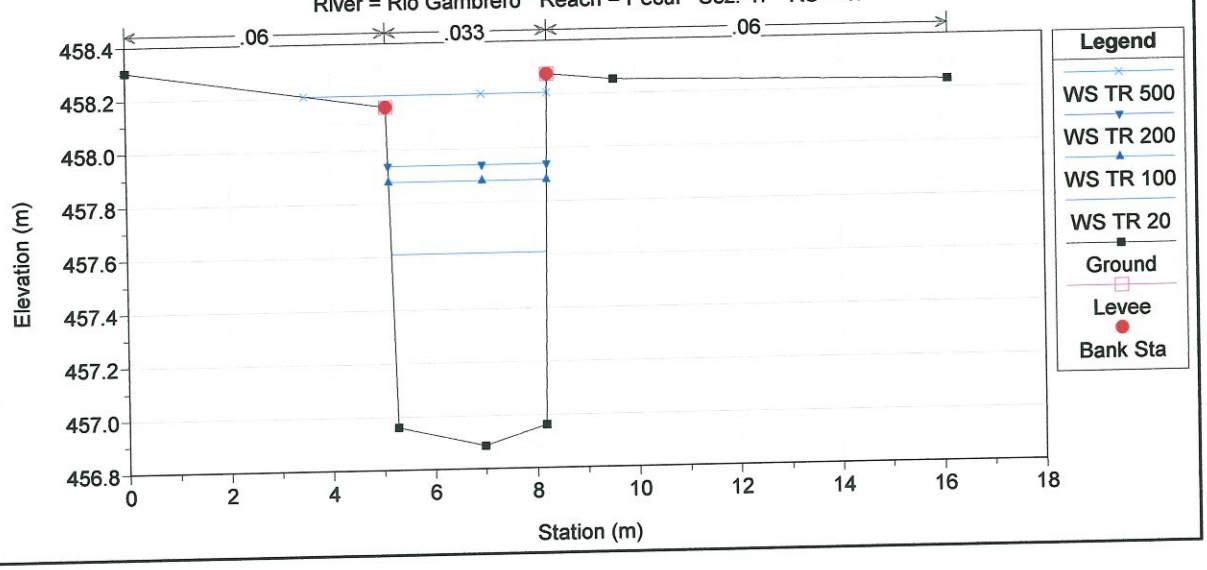
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 48 RS = 48



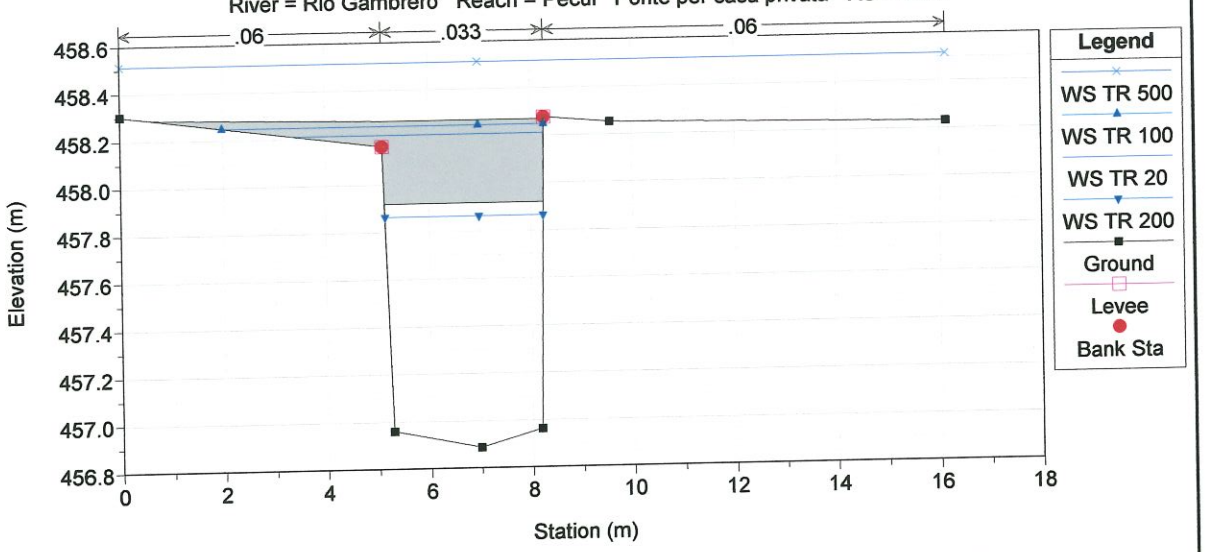
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 47 RS = 47



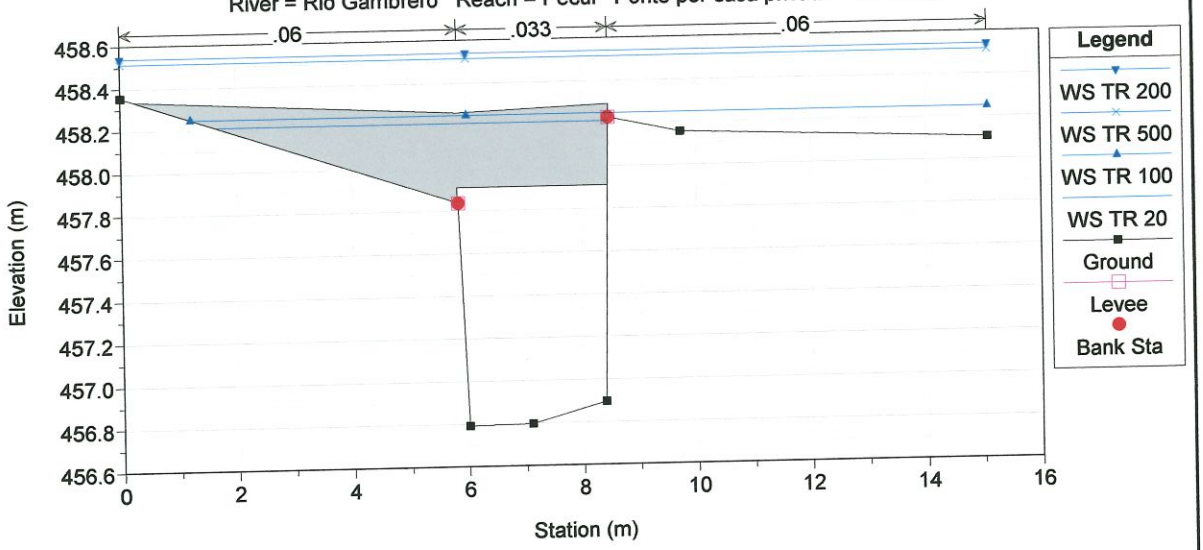
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte per casa privata RS = 46.5



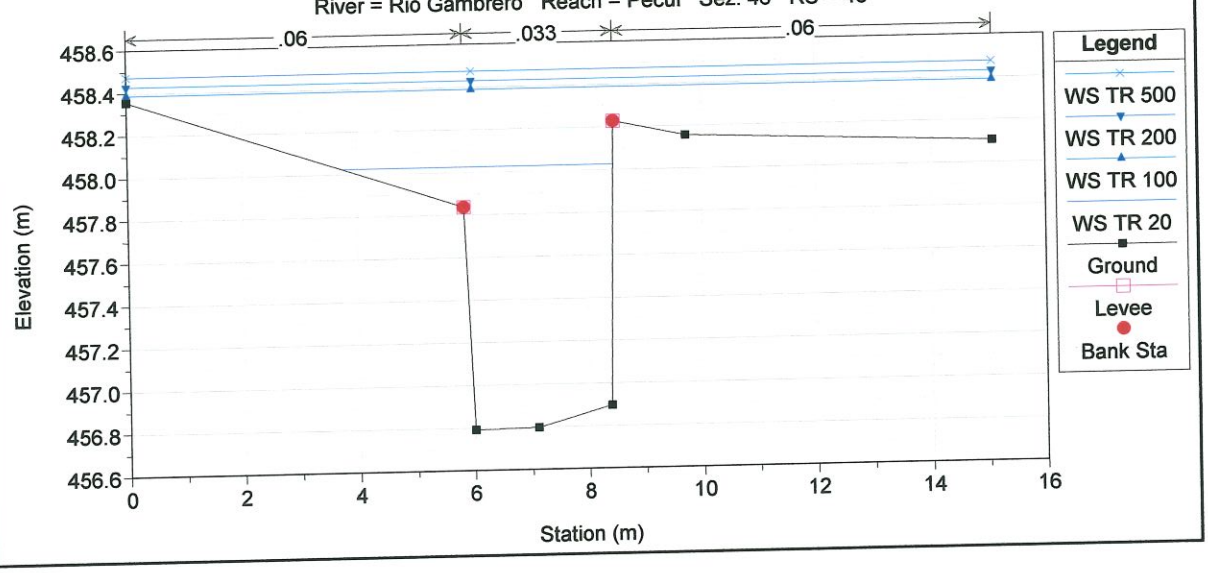
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte per casa privata RS = 46.5



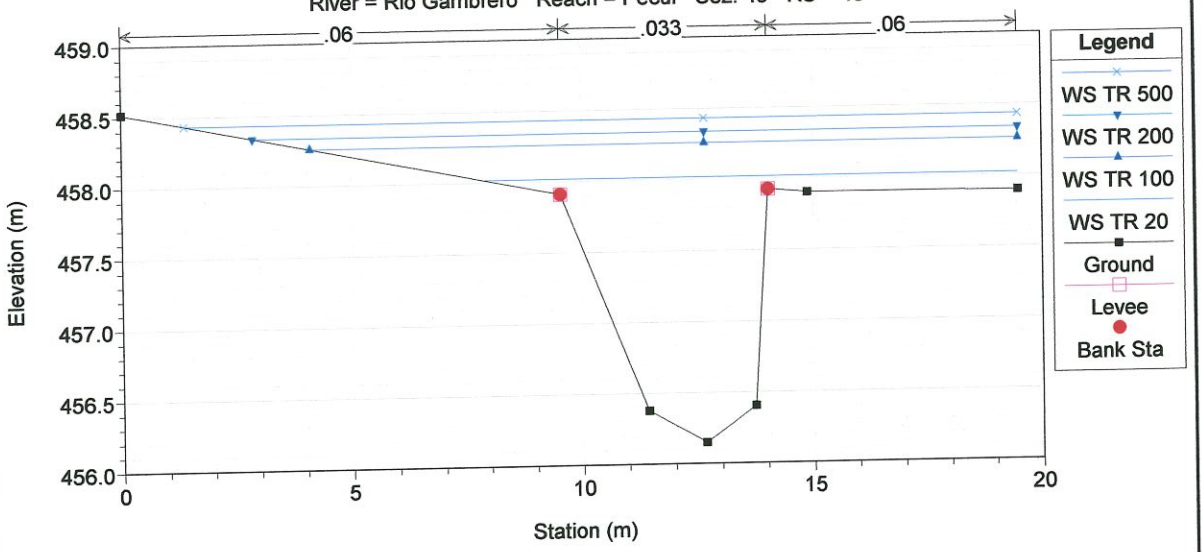
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 46 RS = 46



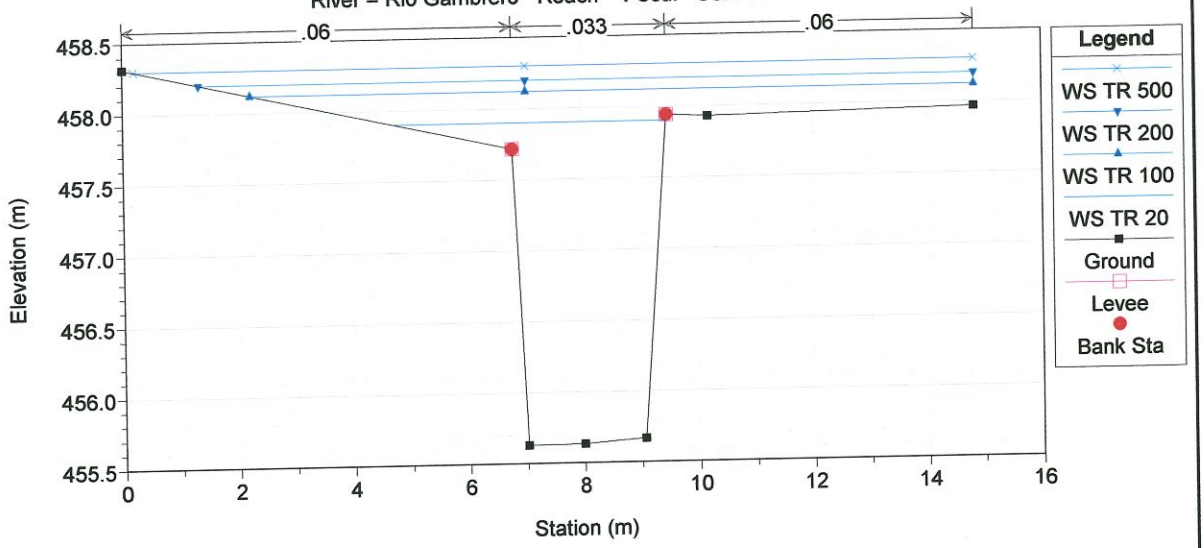
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 45 RS = 45



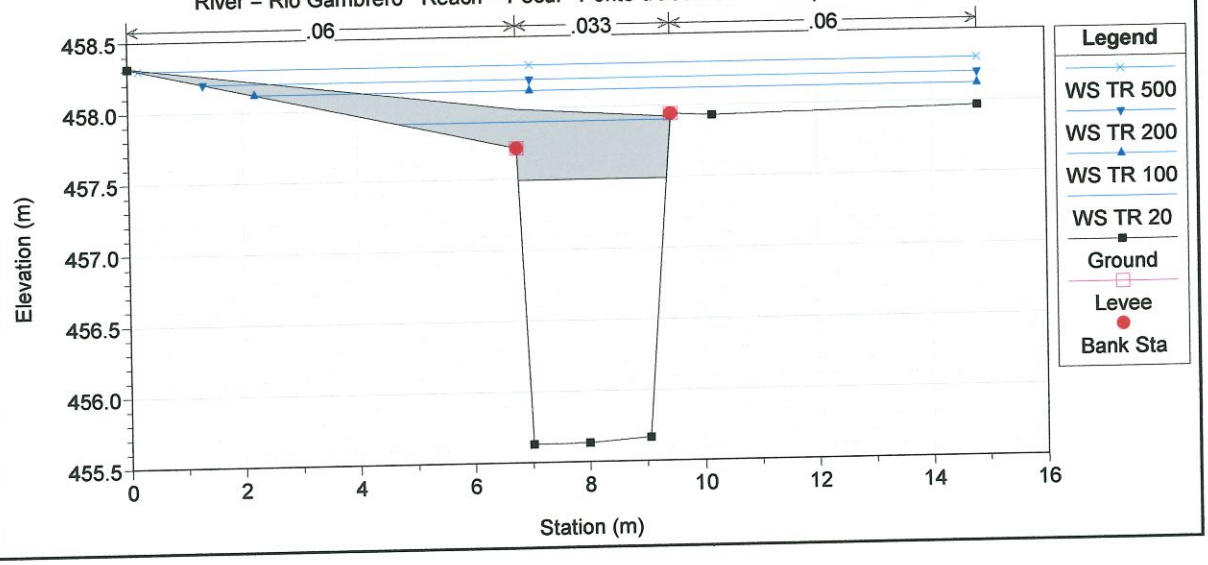
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 44 RS = 44



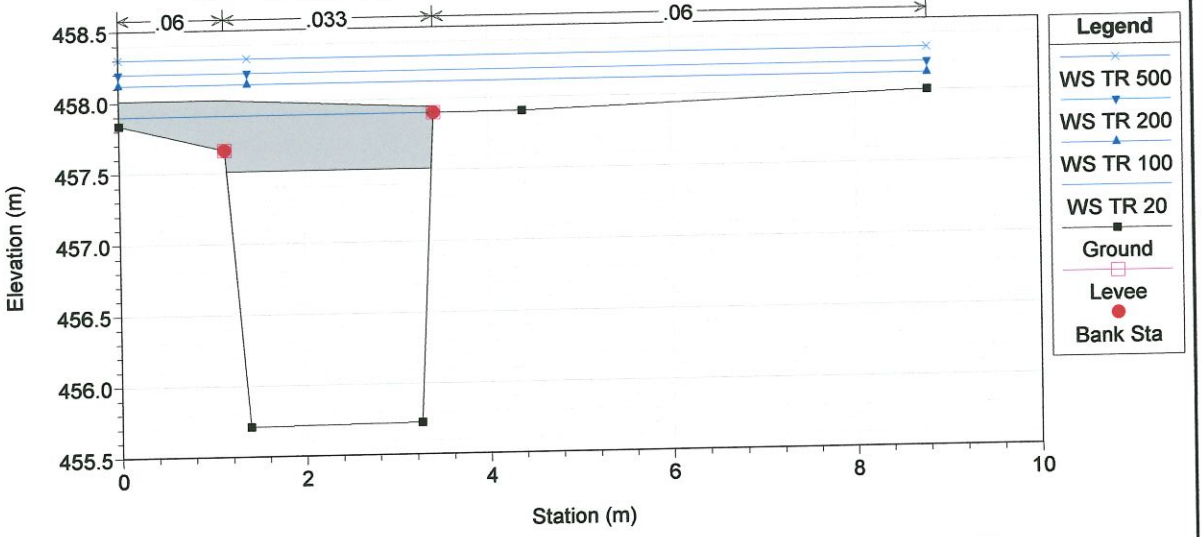
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte d'accesso a casa privata RS = 43.5



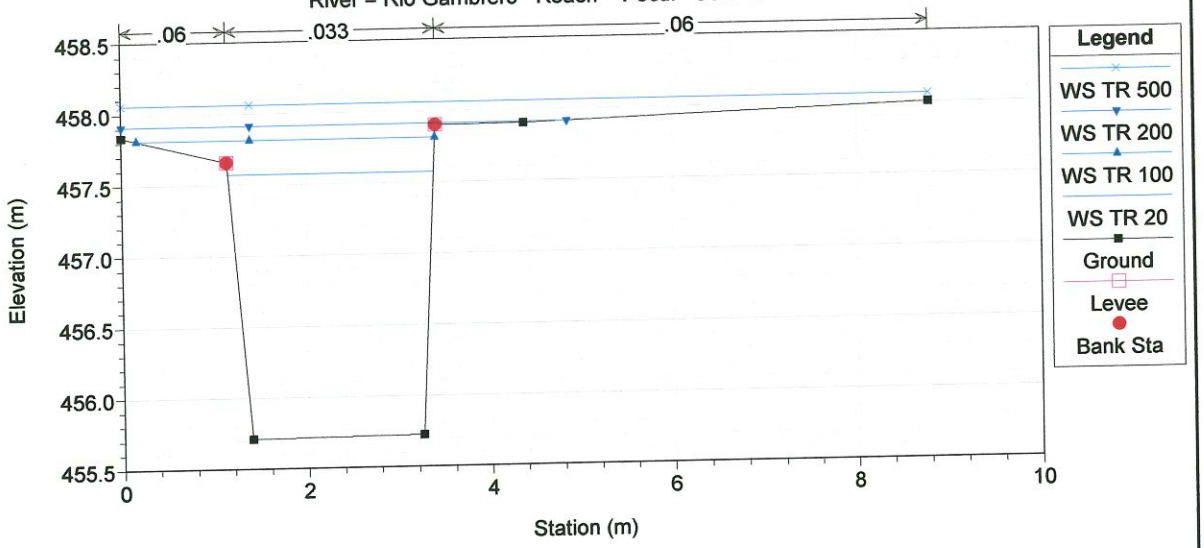
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte d'accesso a casa privata RS = 43.5



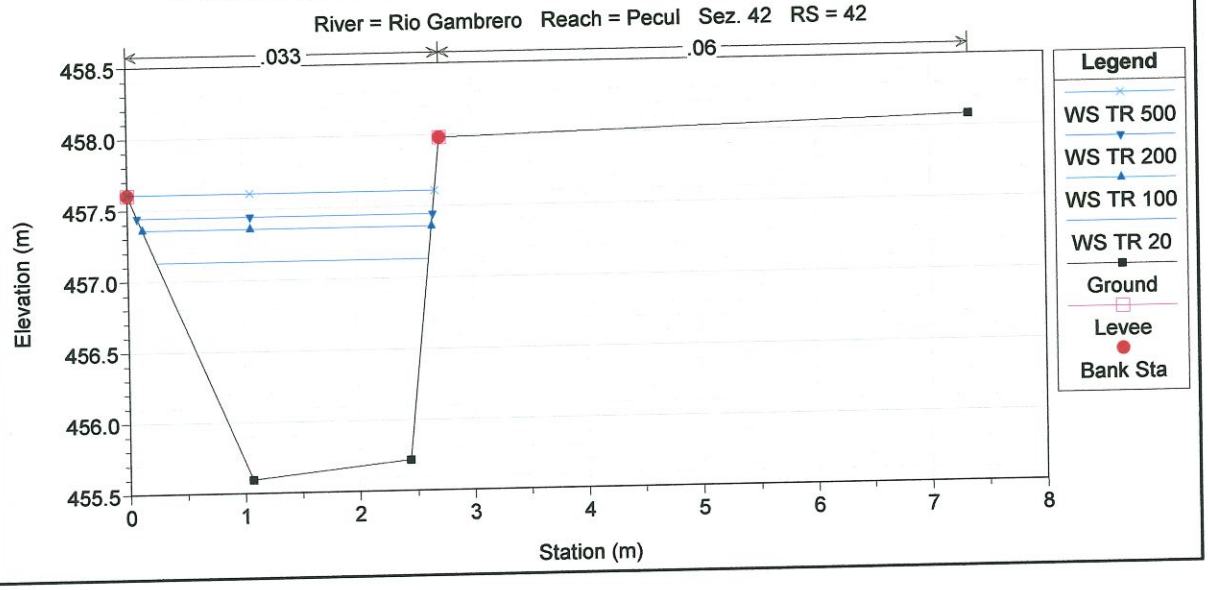
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 43 RS = 43



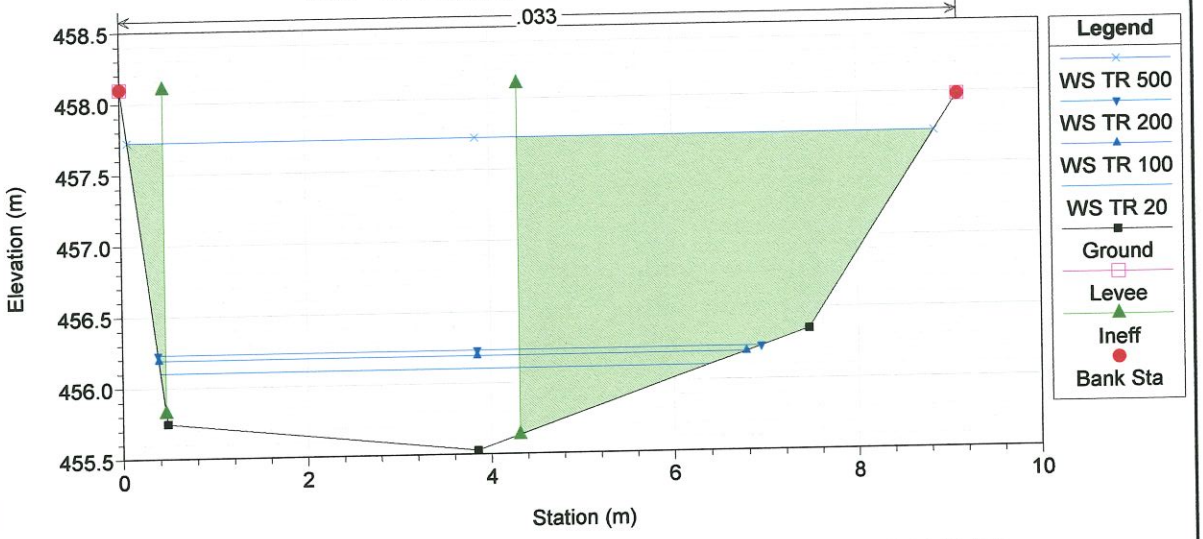
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 42 RS = 42



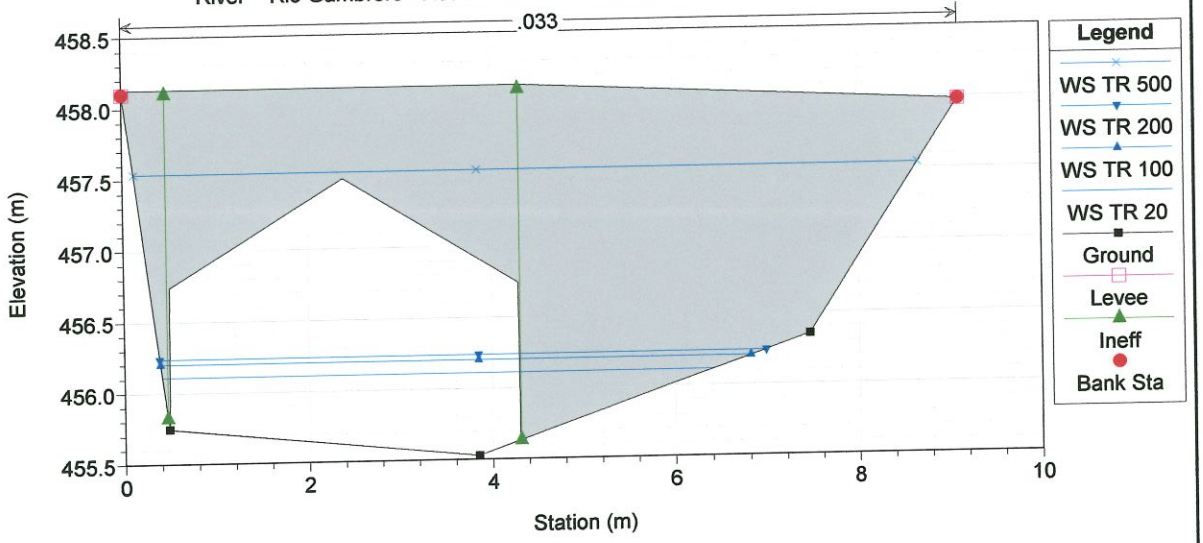
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 41 RS = 41



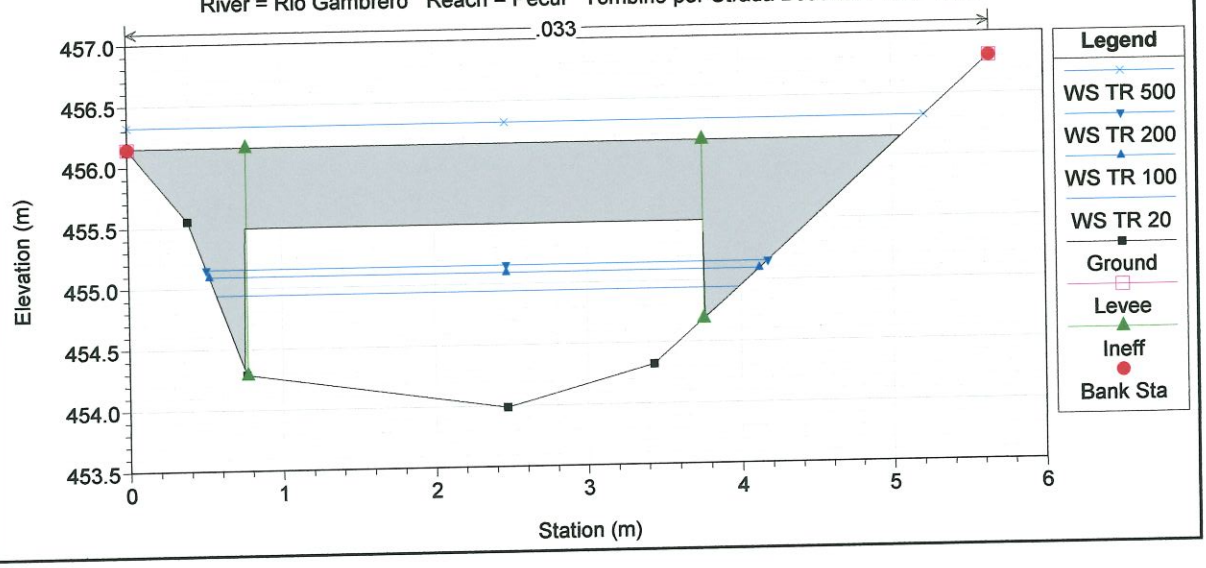
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Tombino per Strada Boschetti RS = 40.5



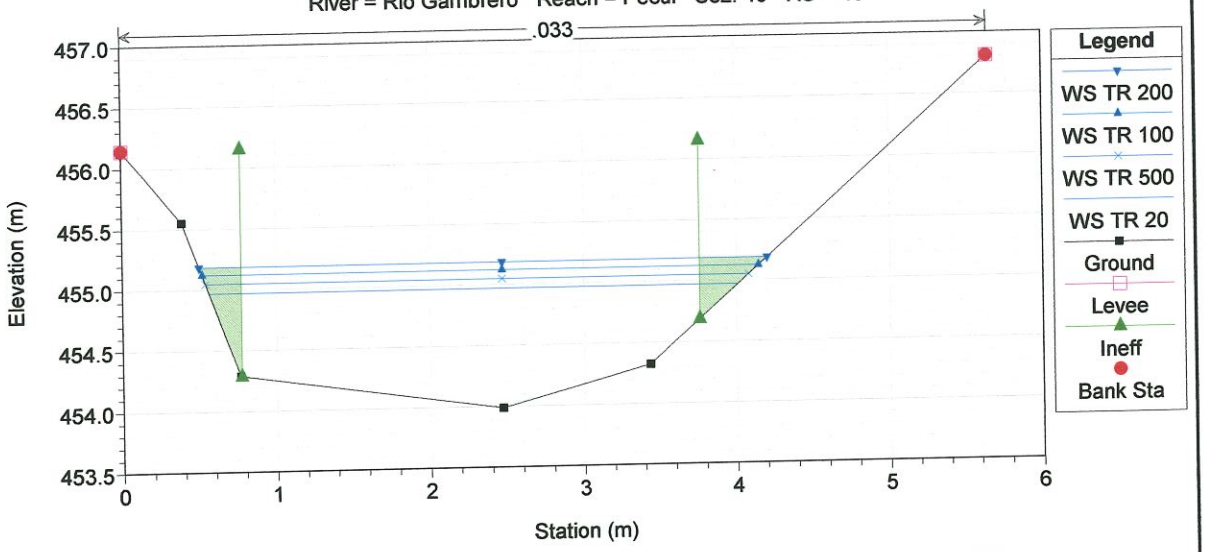
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Tombino per Strada Boschetti RS = 40.5



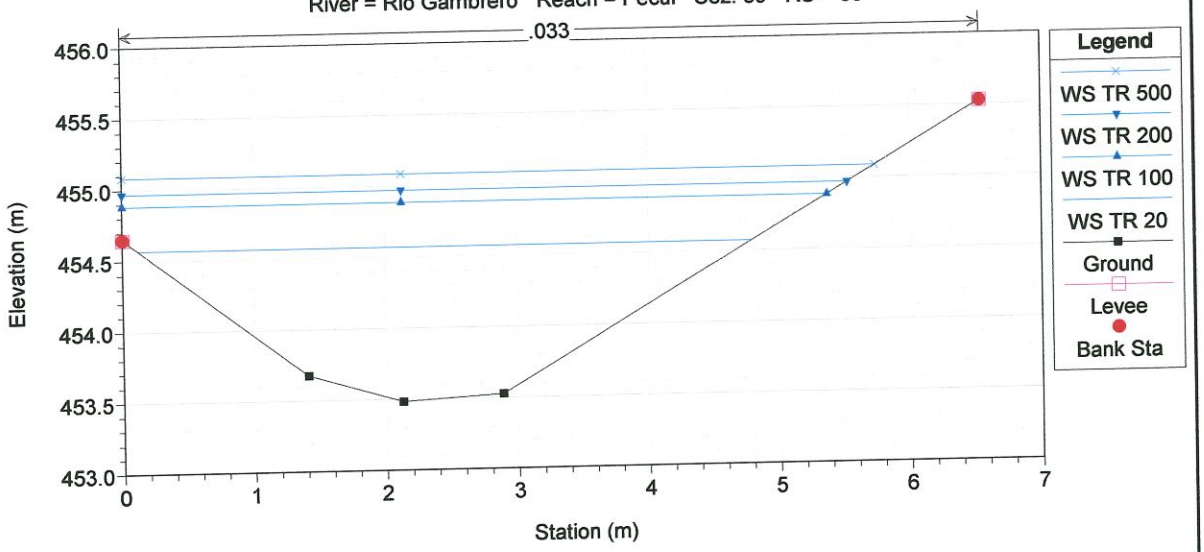
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 40 RS = 40



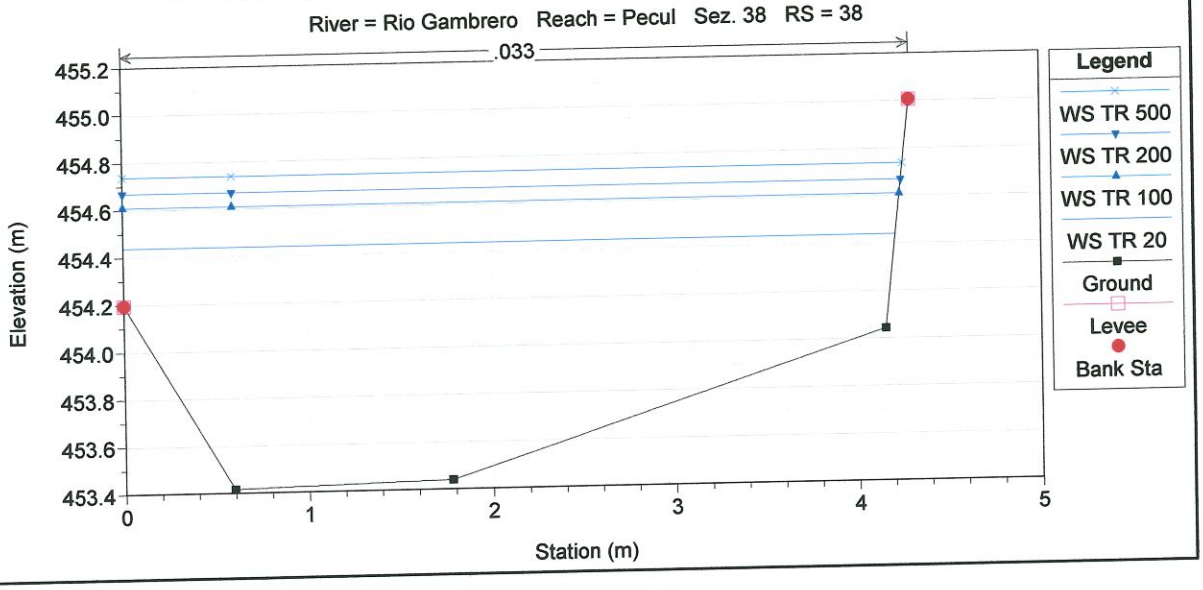
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 39 RS = 39



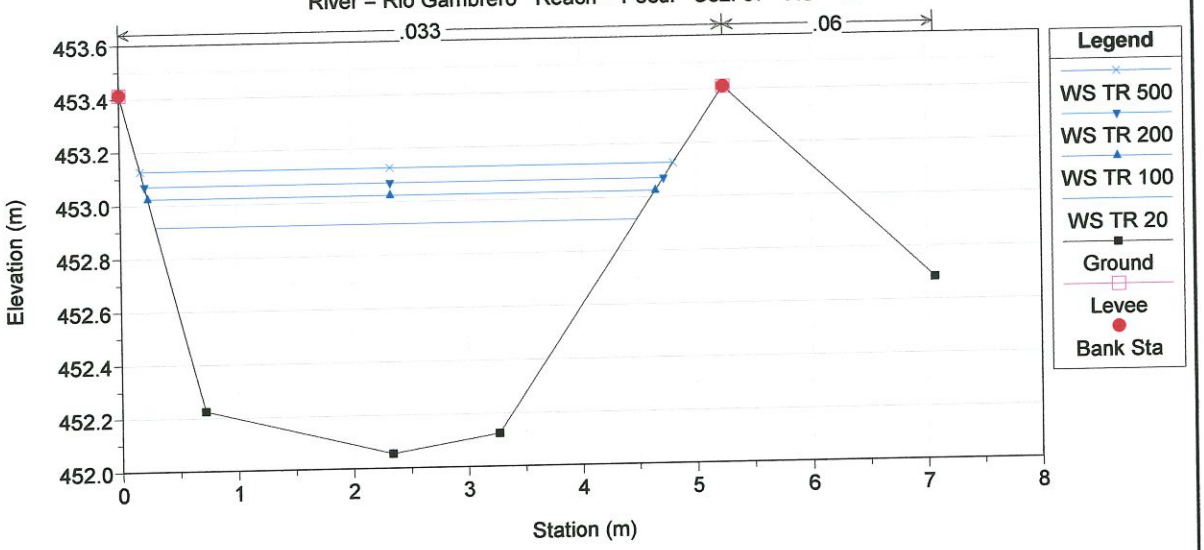
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 38 RS = 38



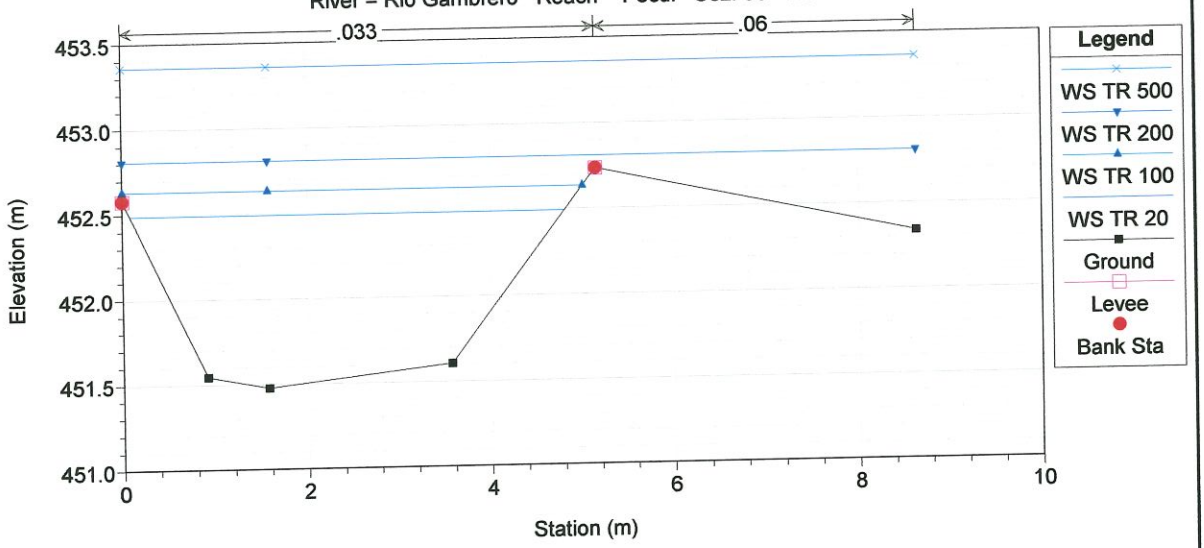
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 37 RS = 37



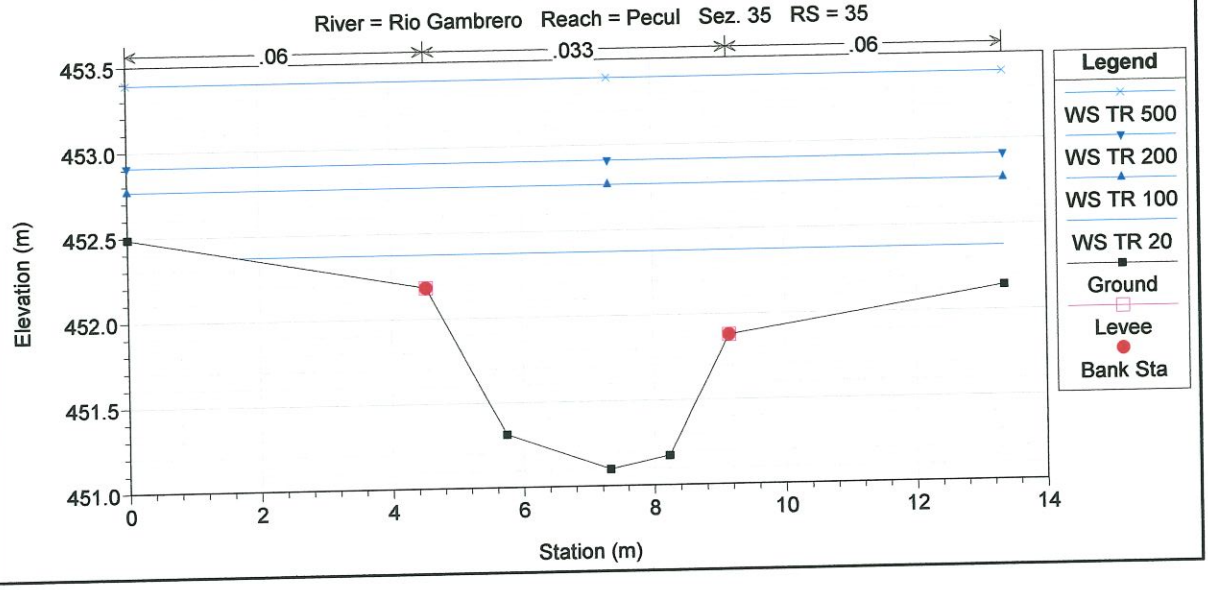
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 36 RS = 36



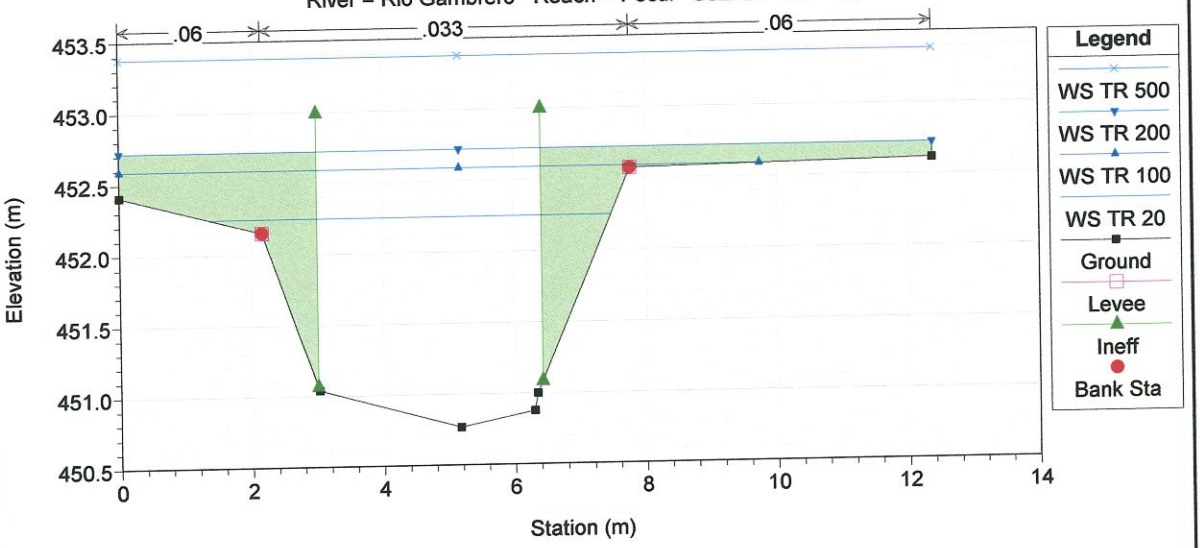
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 35 RS = 35



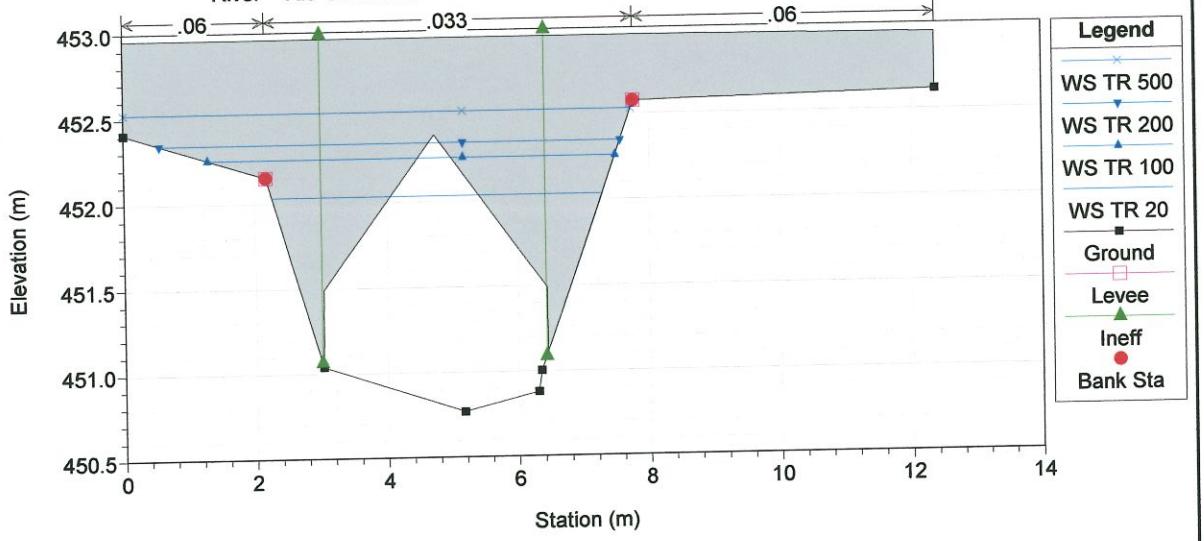
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 34 RS = 34



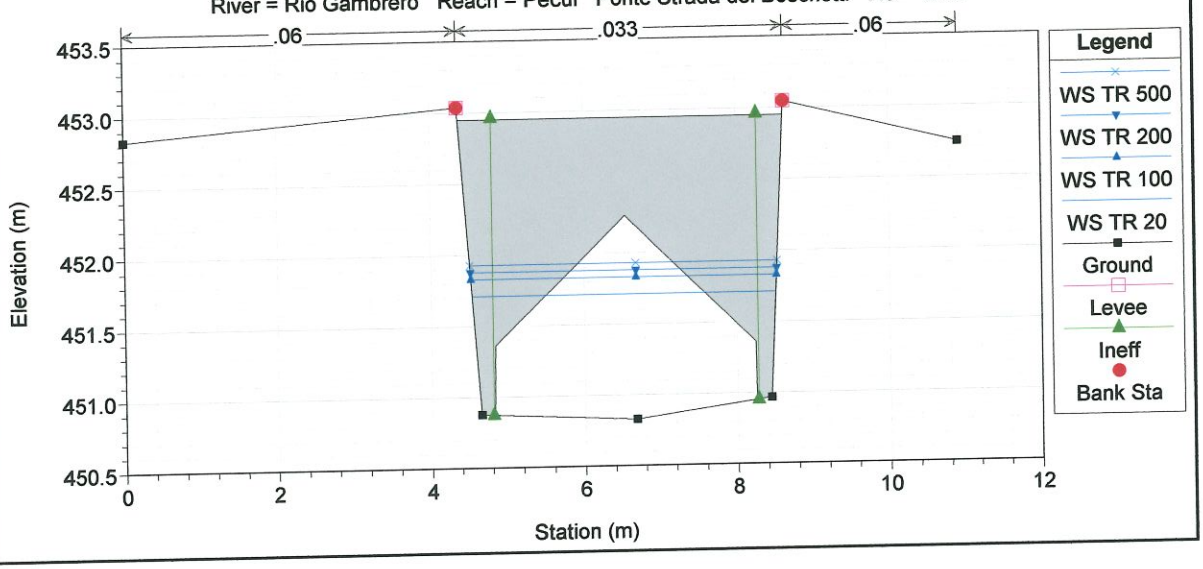
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte Strada dei Boschetti RS = 33.5



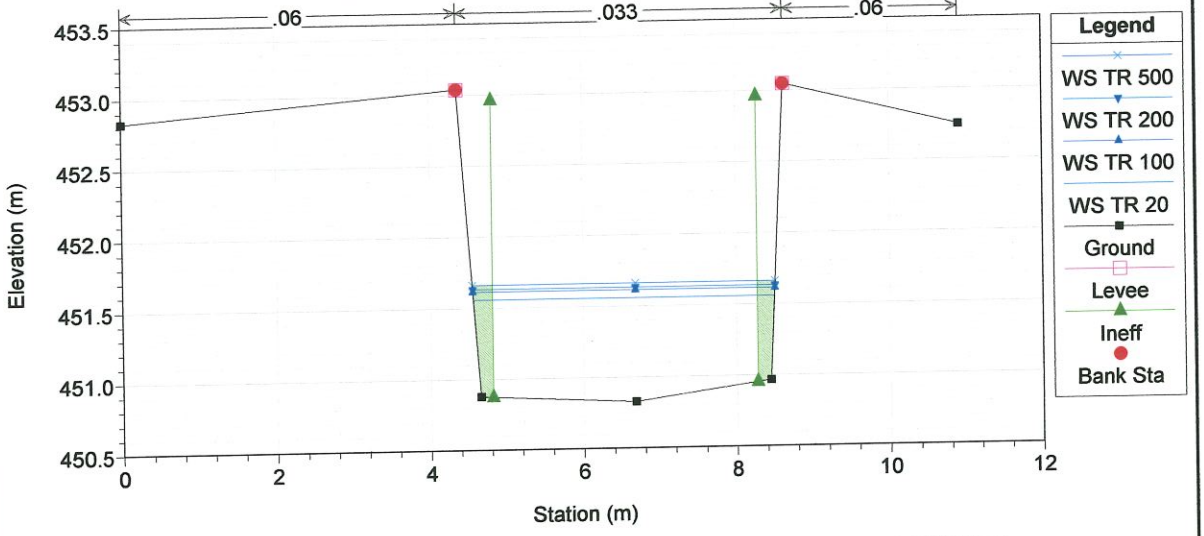
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte Strada dei Boschetti RS = 33.5



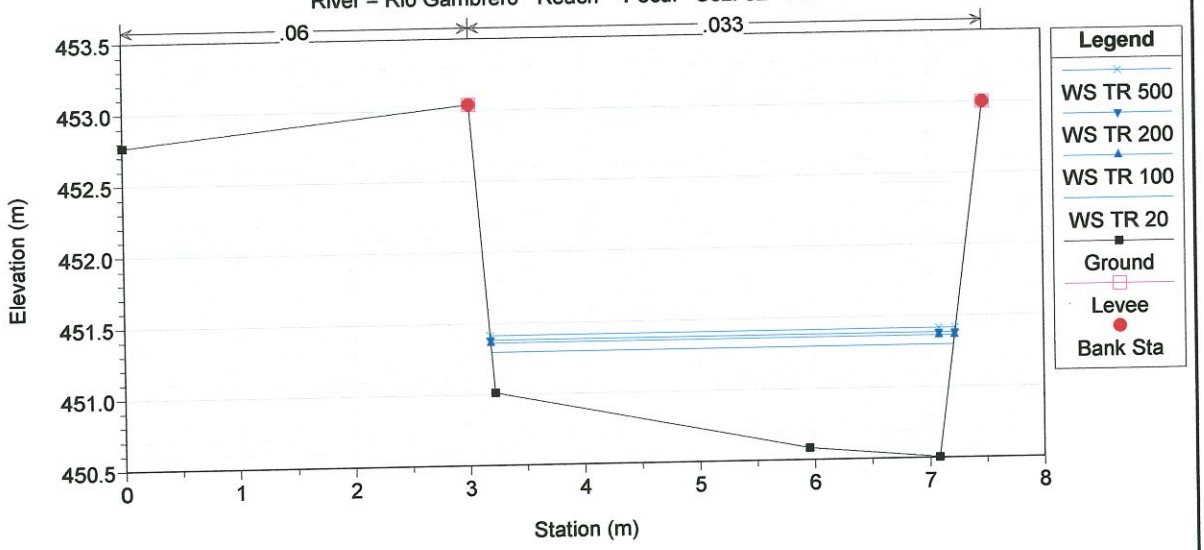
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 33 RS = 33



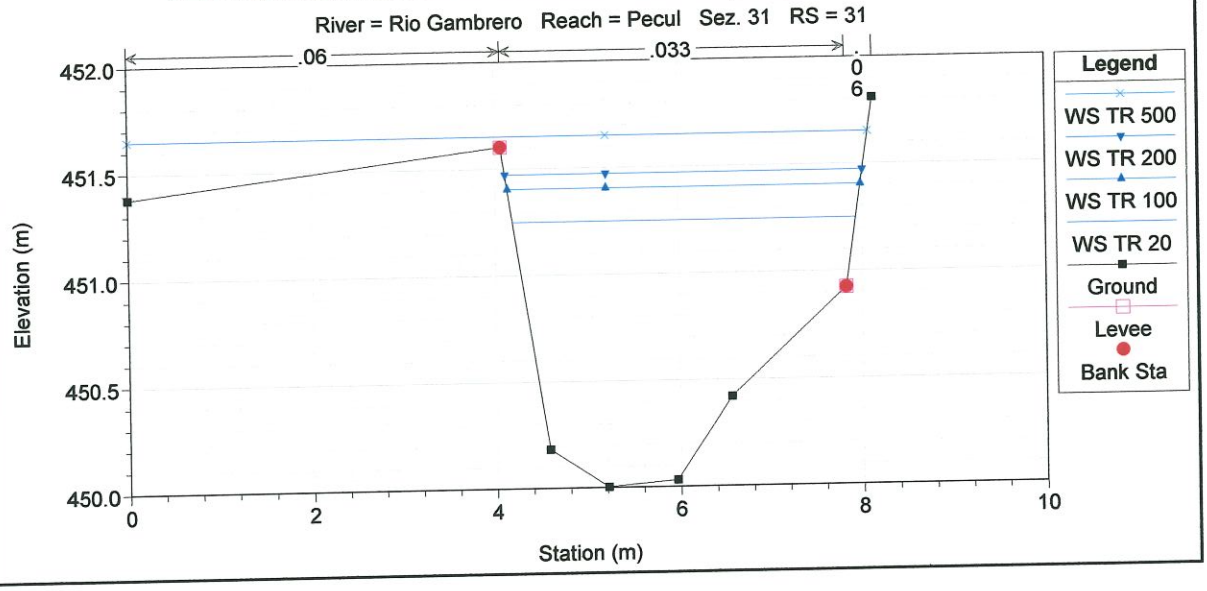
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 32 RS = 32



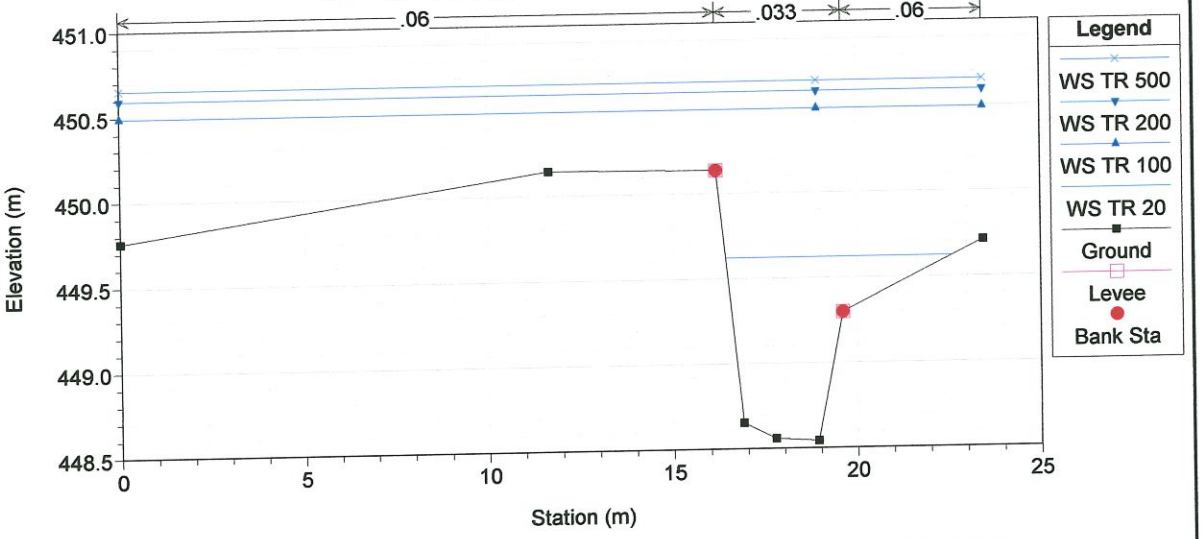
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 31 RS = 31



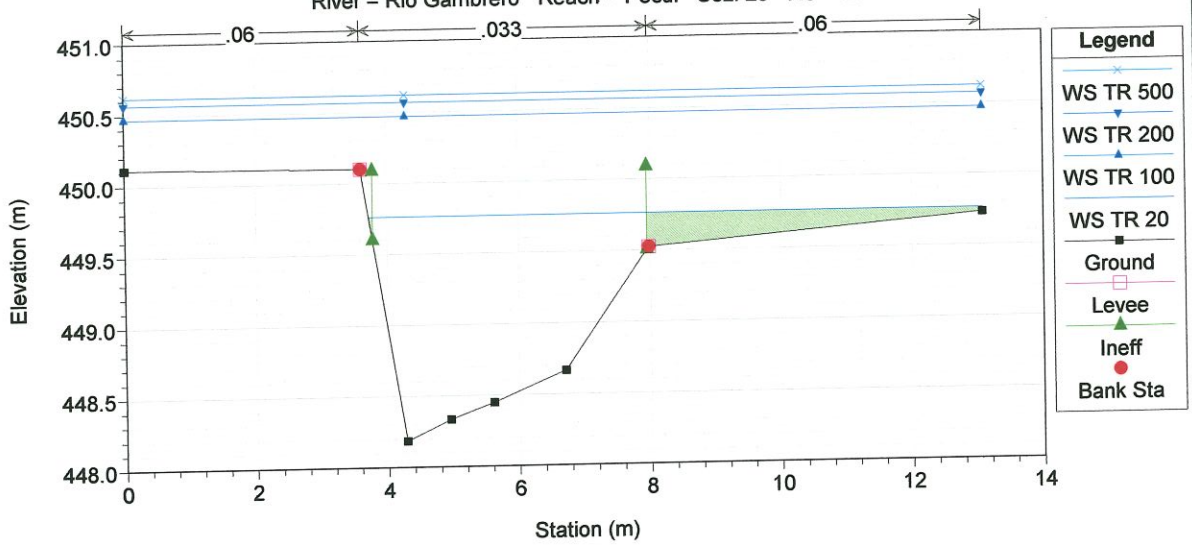
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 30 RS = 30



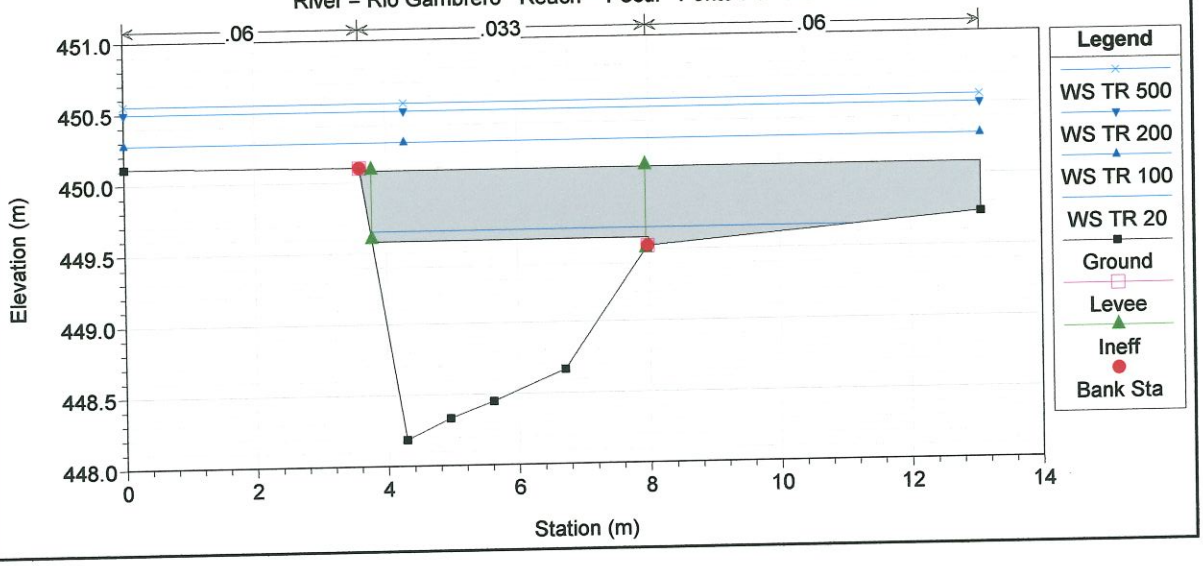
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 29 RS = 29



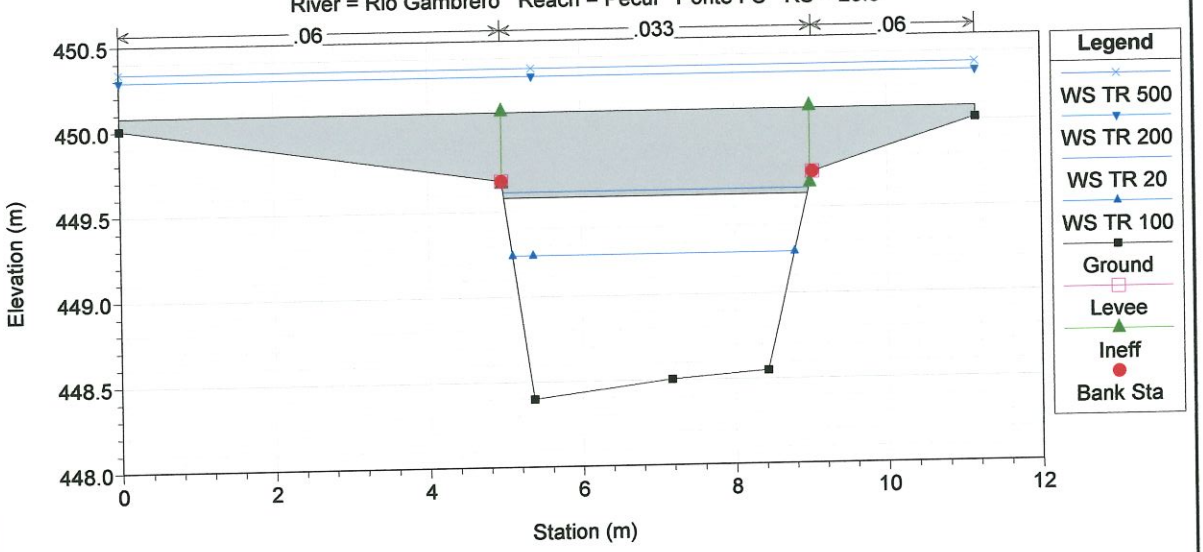
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte FS RS = 28.5



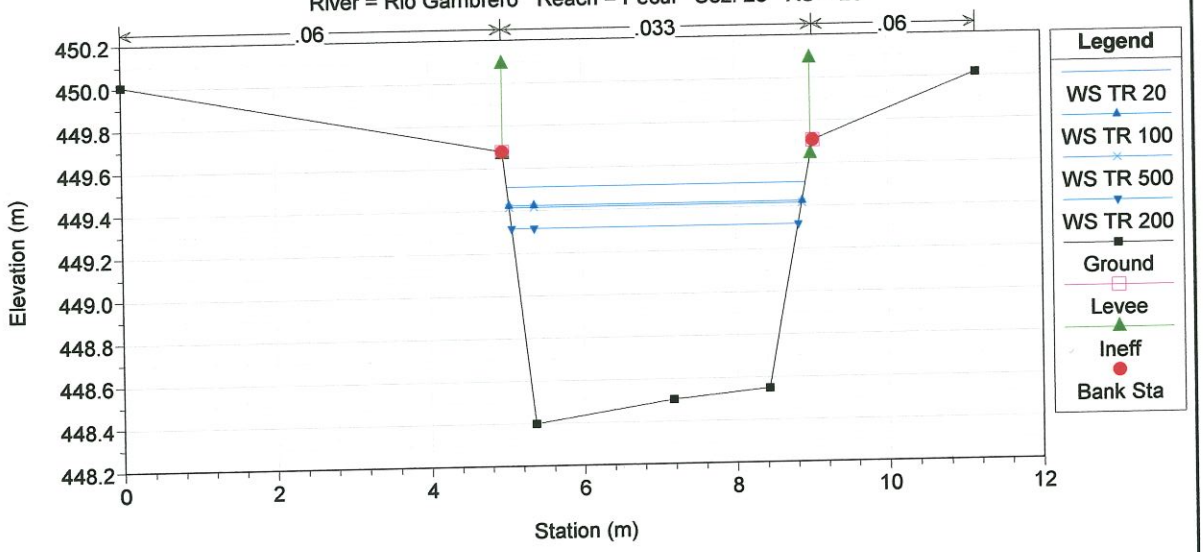
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte FS RS = 28.5



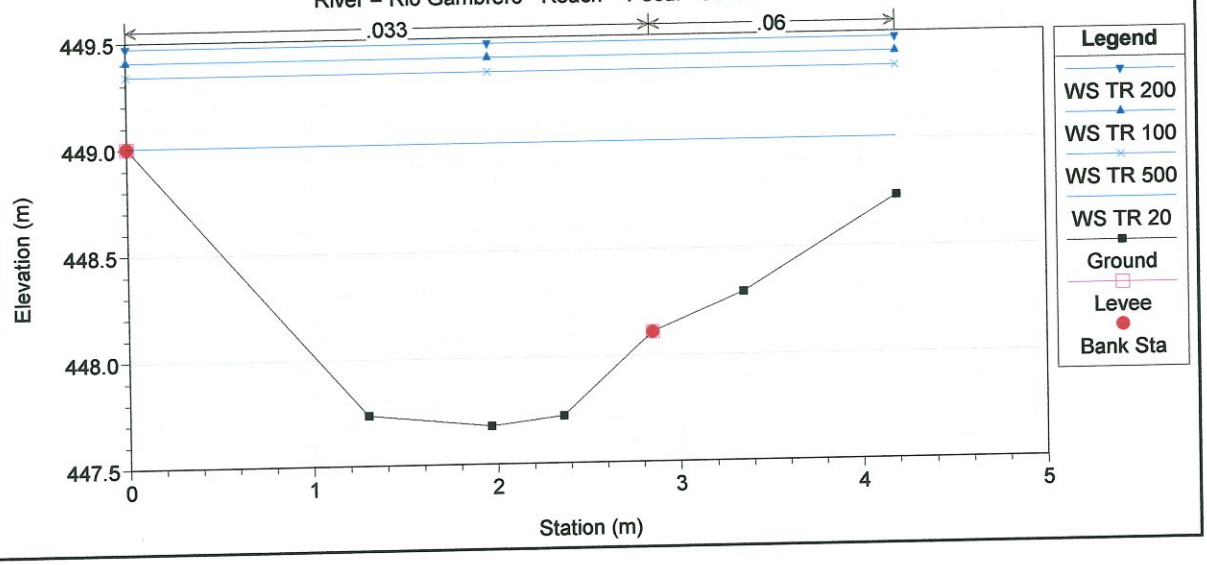
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 28 RS = 28



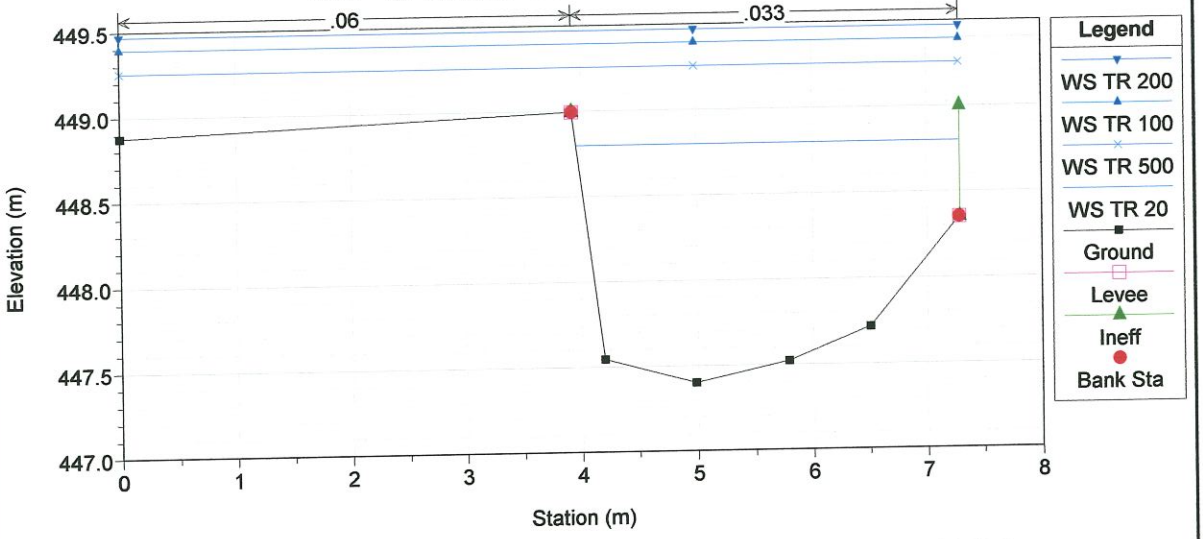
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 27 RS = 27



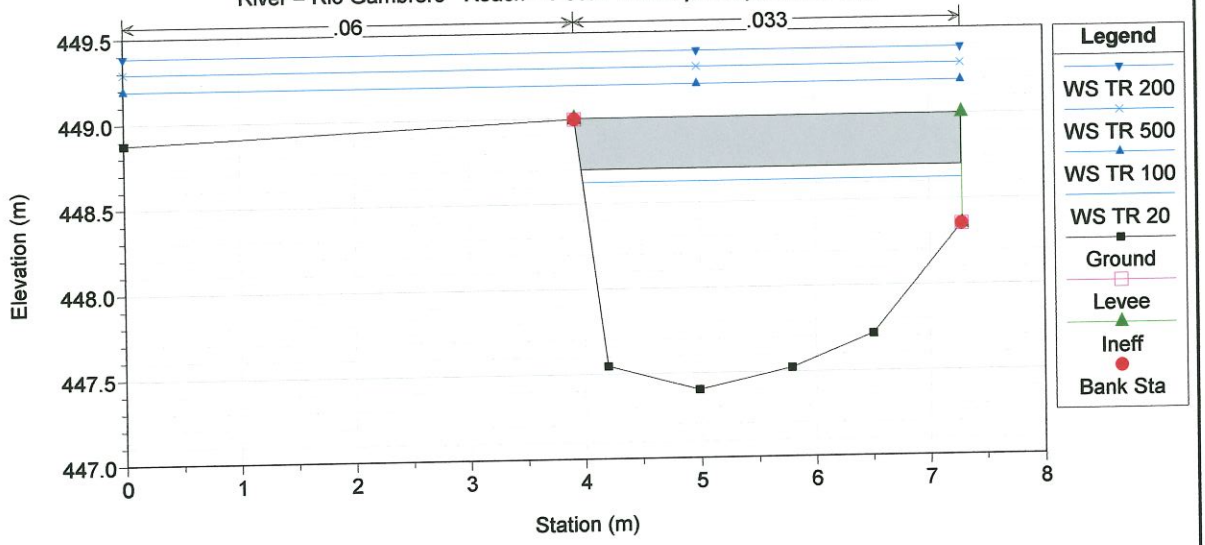
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 26 RS = 26



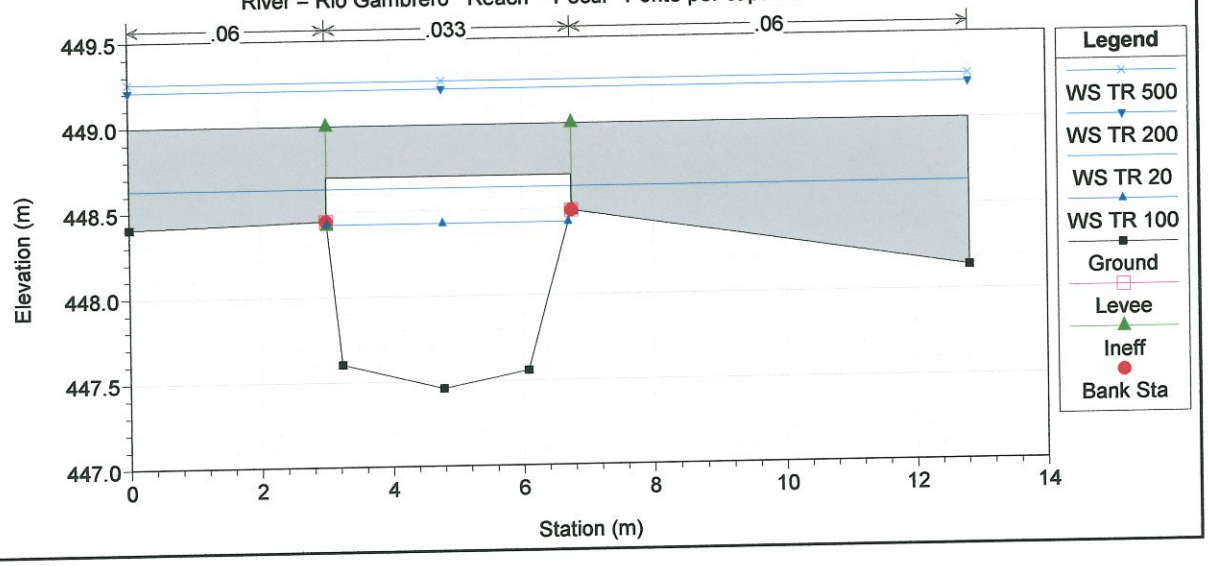
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte per capannone RS = 25.7



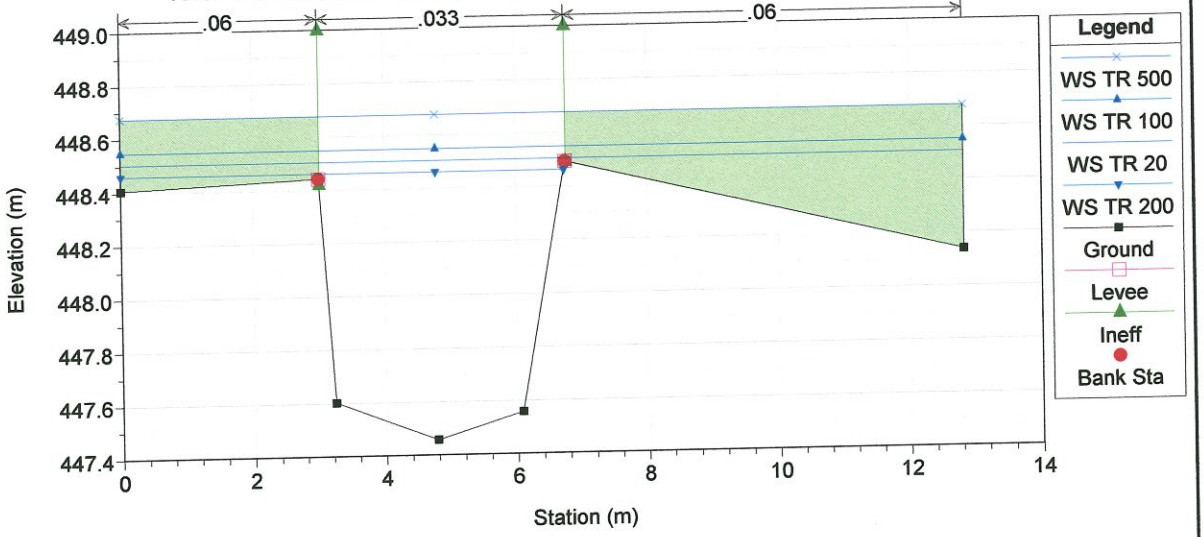
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte per capannone RS = 25.7



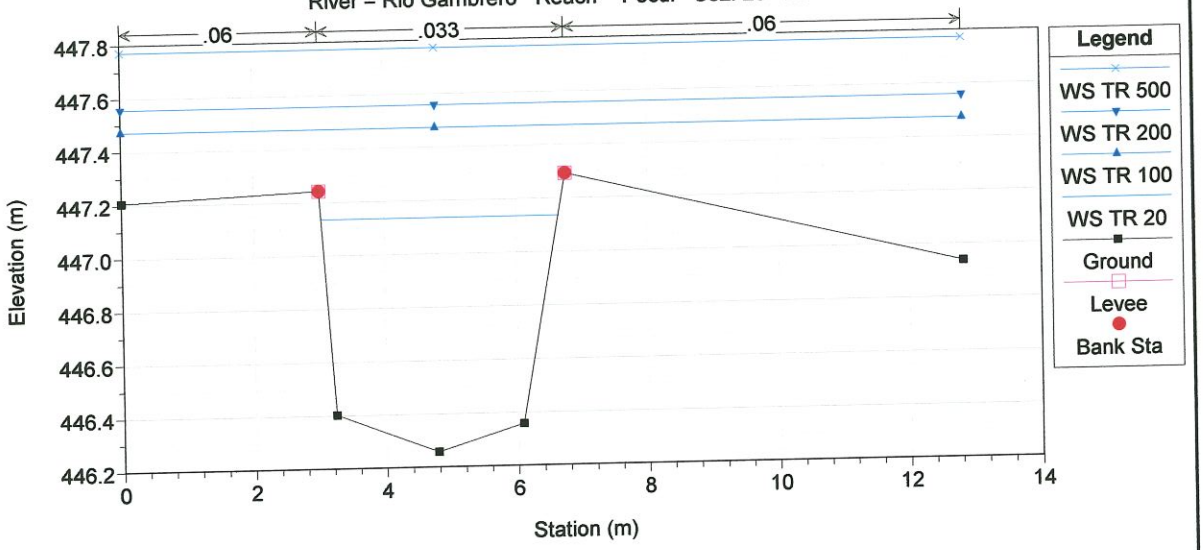
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 25.5 a valle ponte capannone RS = 25.5



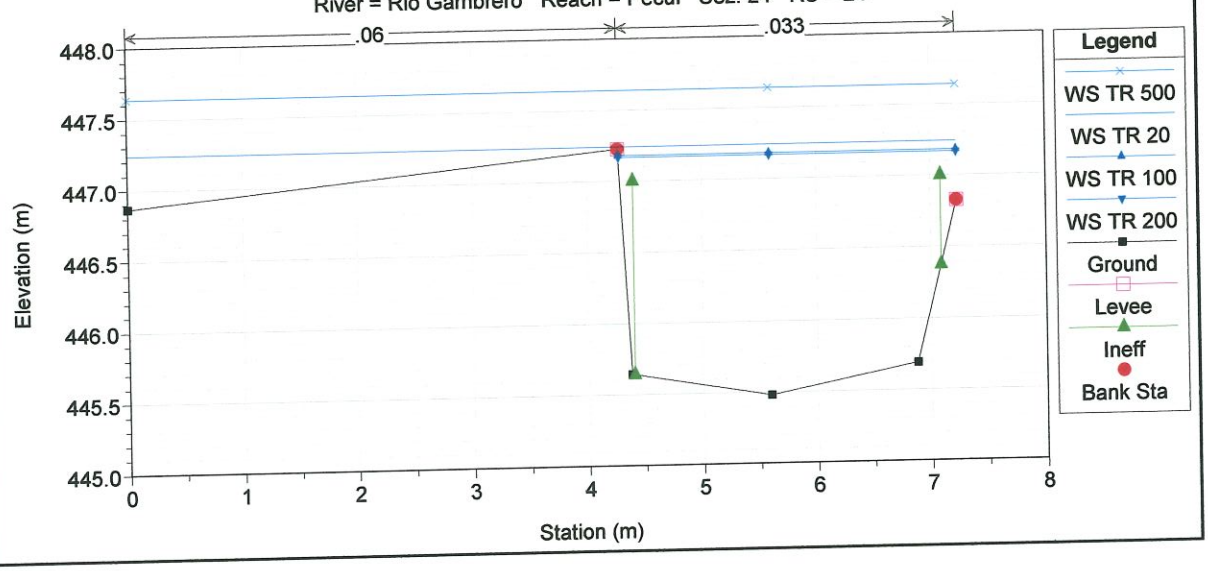
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 25 RS = 25



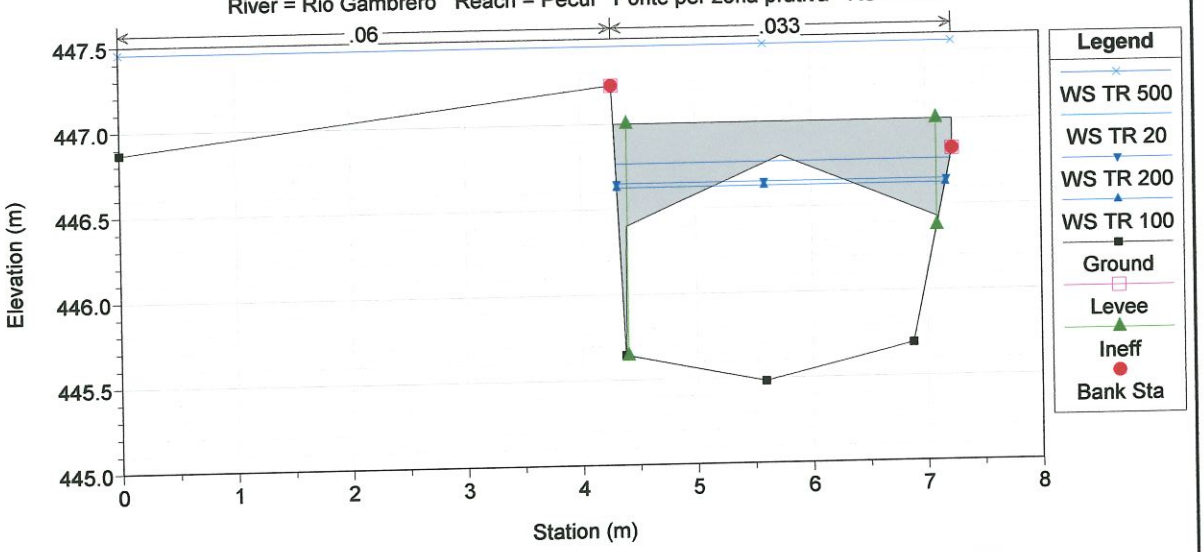
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 24 RS = 24



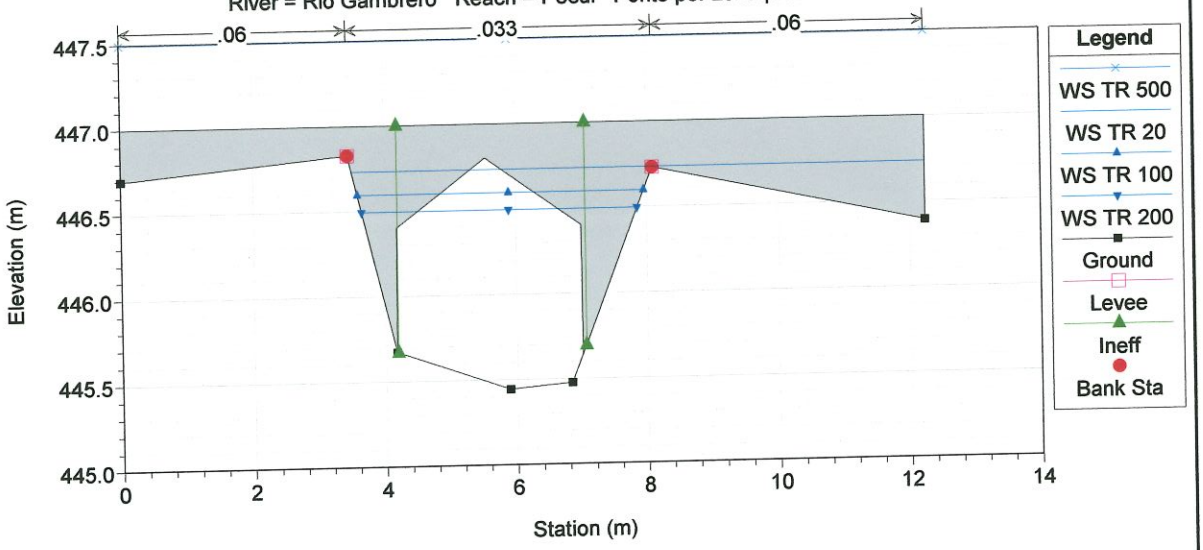
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte per zona prativa RS = 23.5



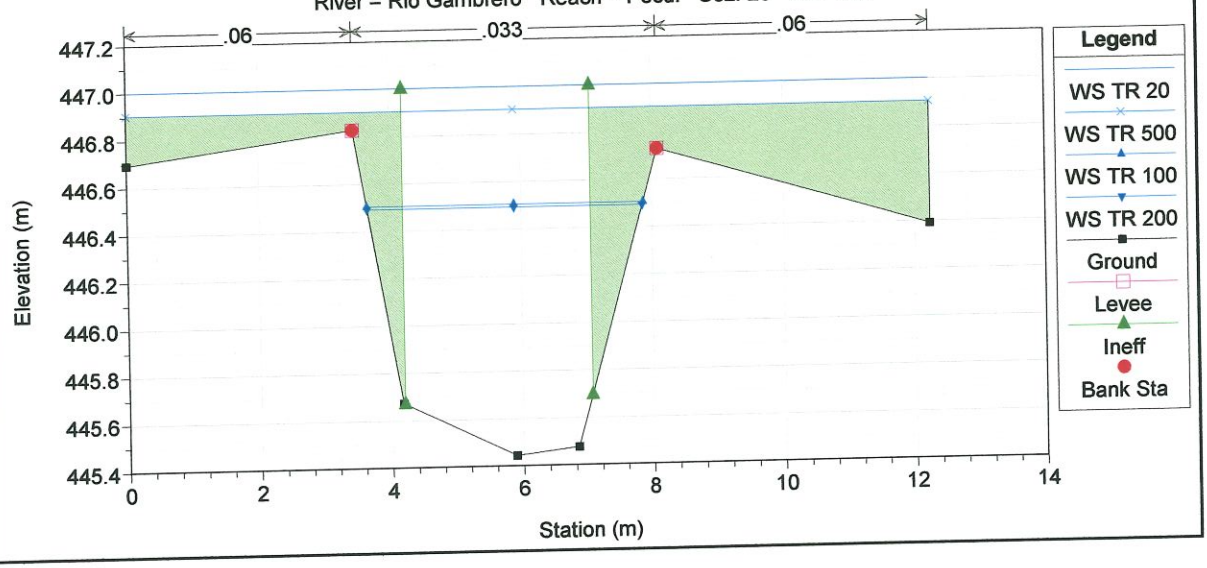
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte per zona prativa RS = 23.5



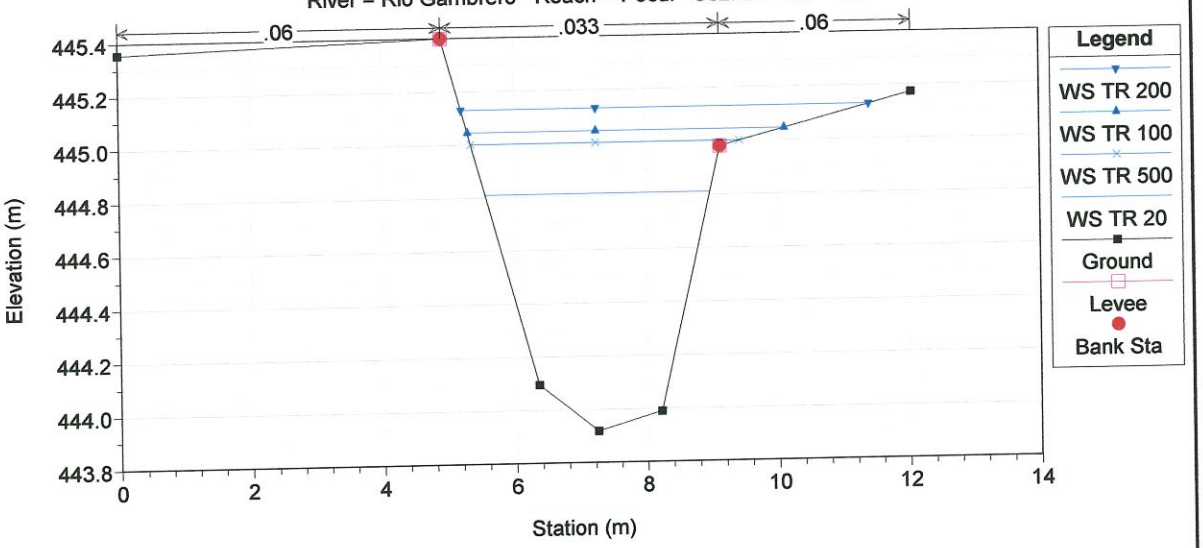
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 23 RS = 23



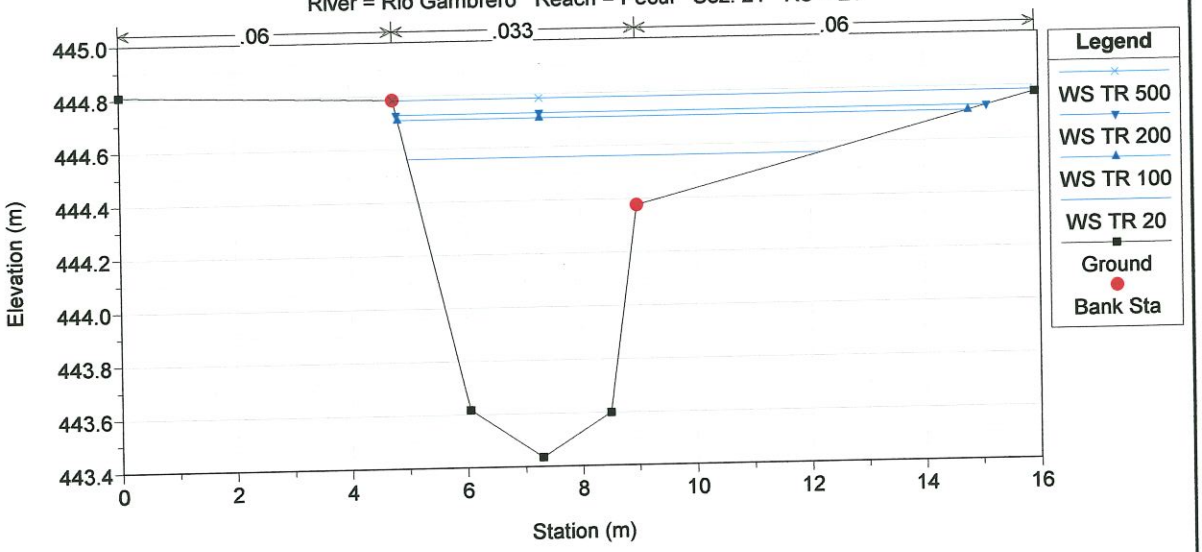
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 22 RS = 22



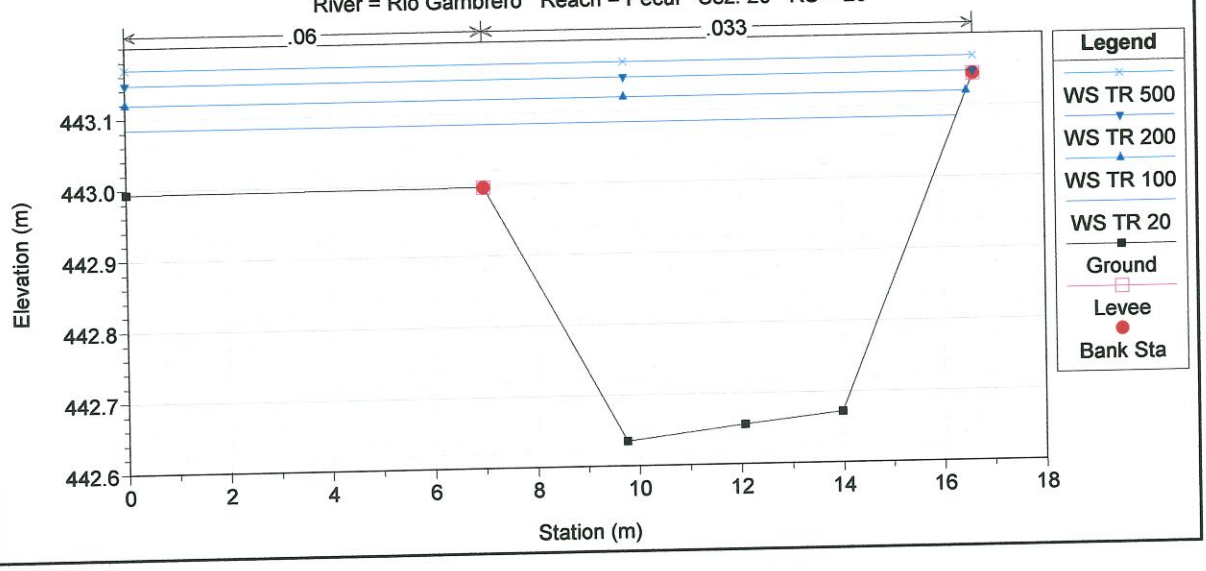
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 21 RS = 21



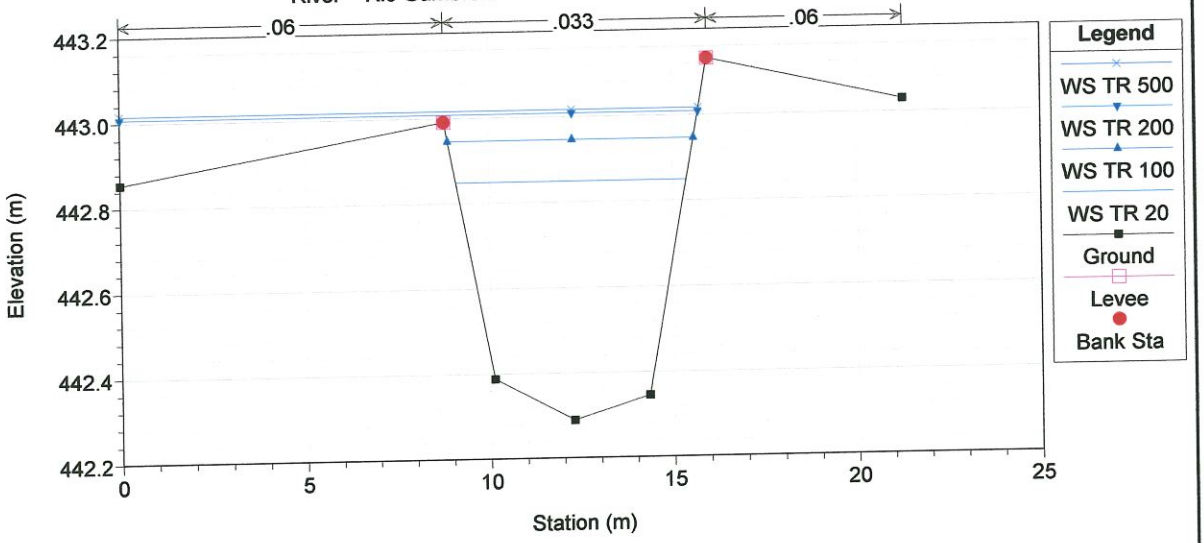
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 20 RS = 20



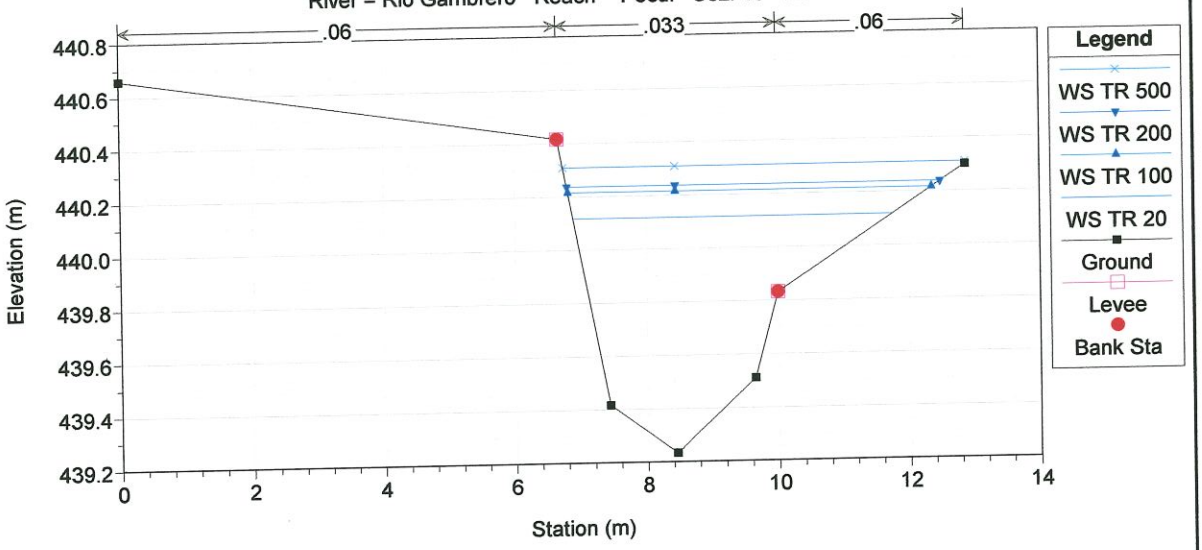
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 19.5 RS = 19.5



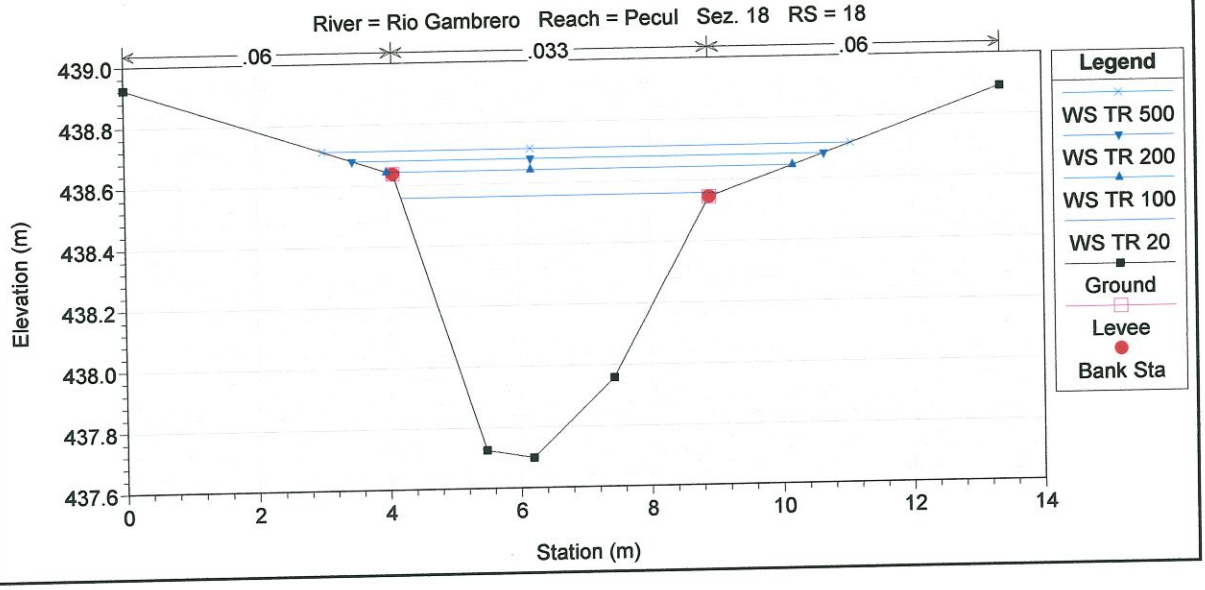
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 19 RS = 19



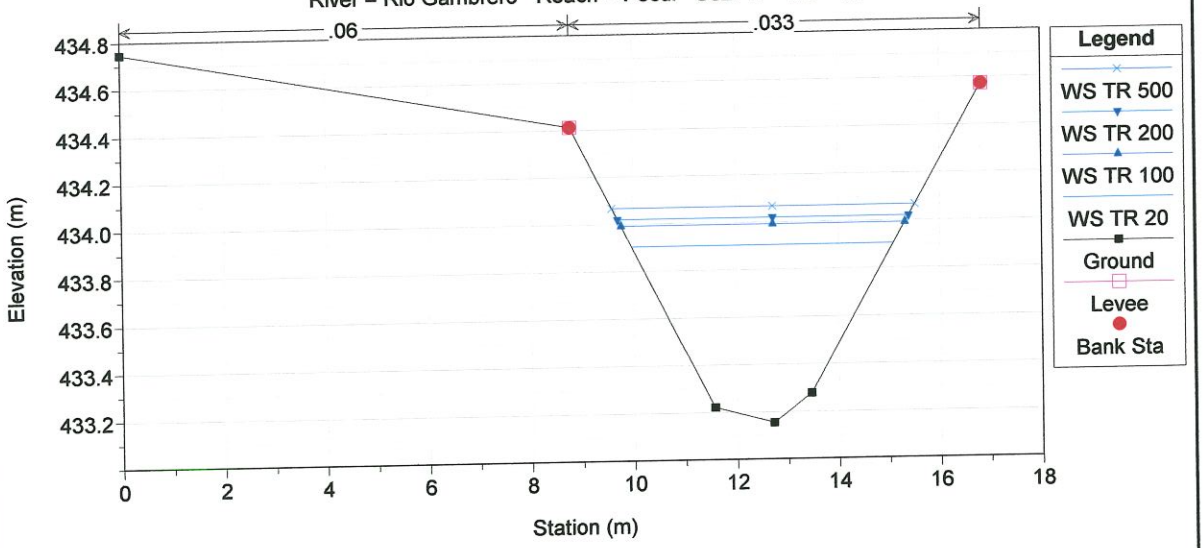
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 18 RS = 18



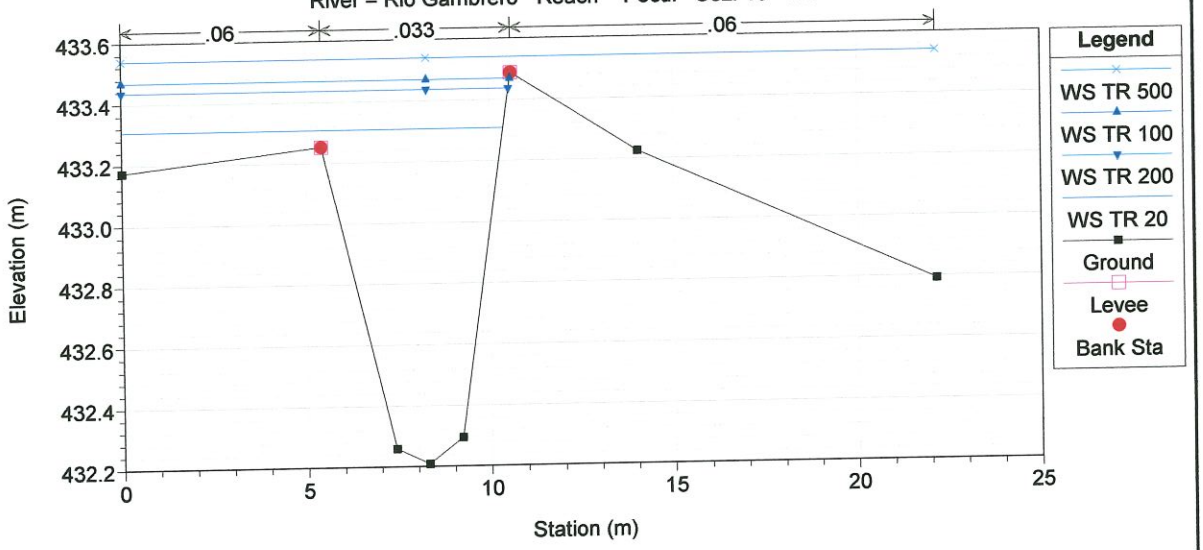
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 17 RS = 17



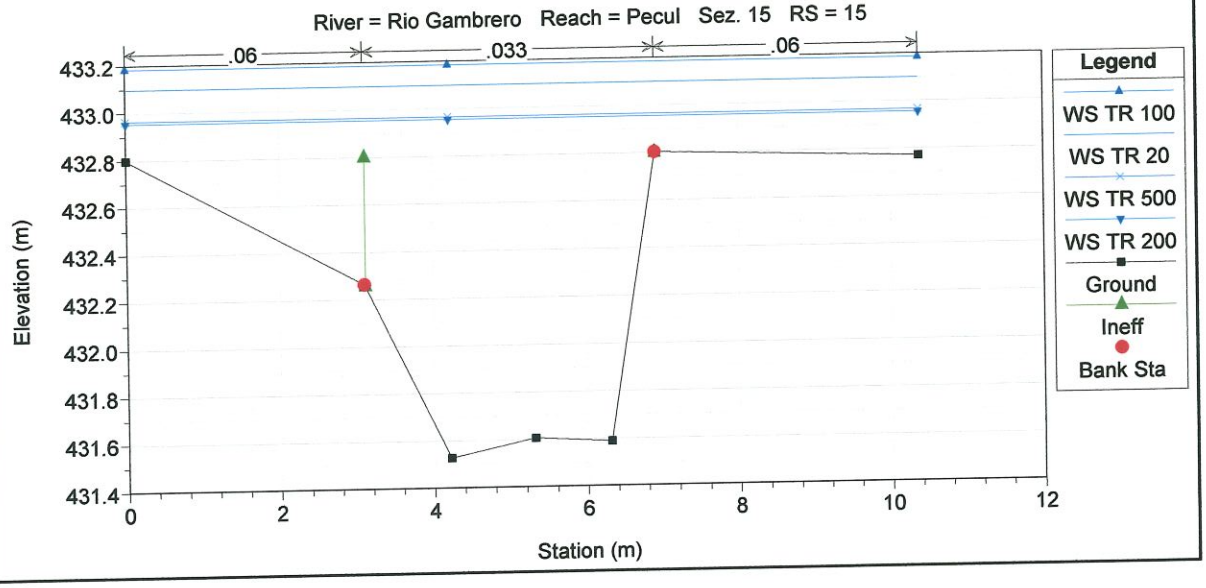
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 16 RS = 16



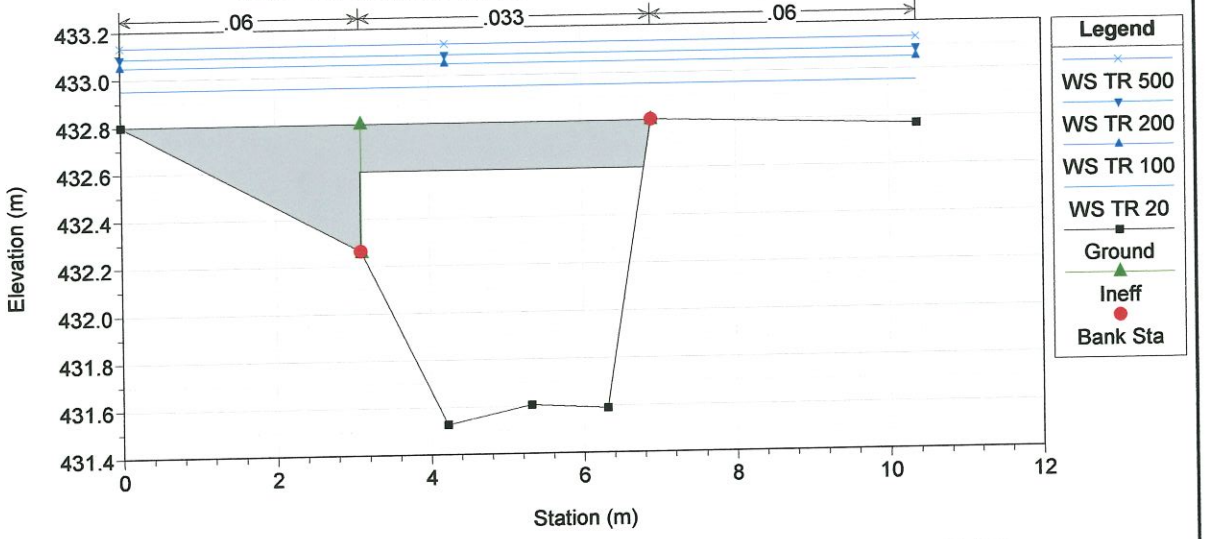
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 15 RS = 15



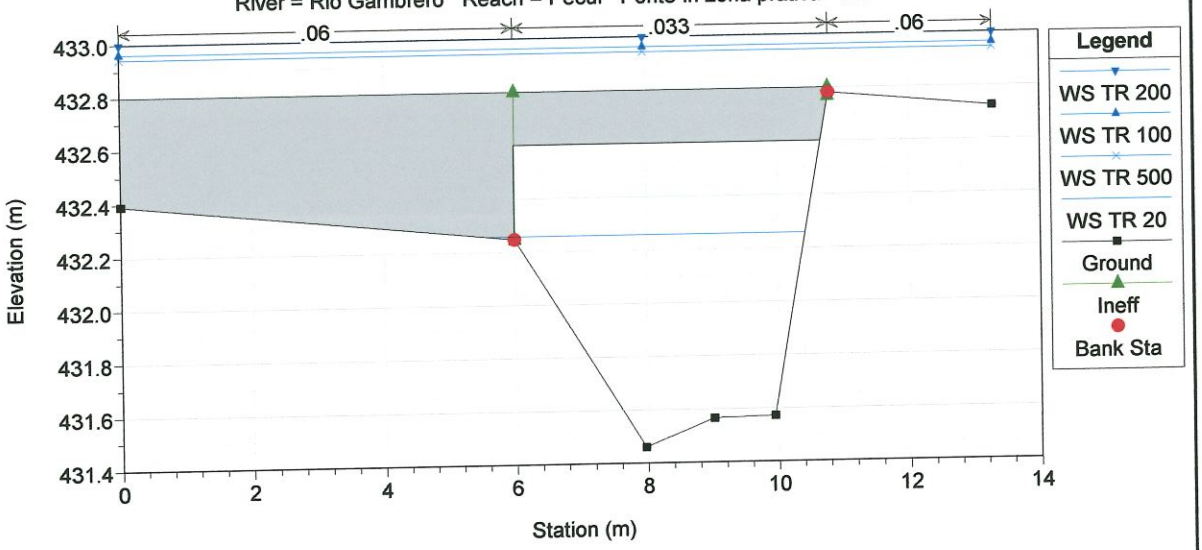
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte in zona prativa RS = 14.5



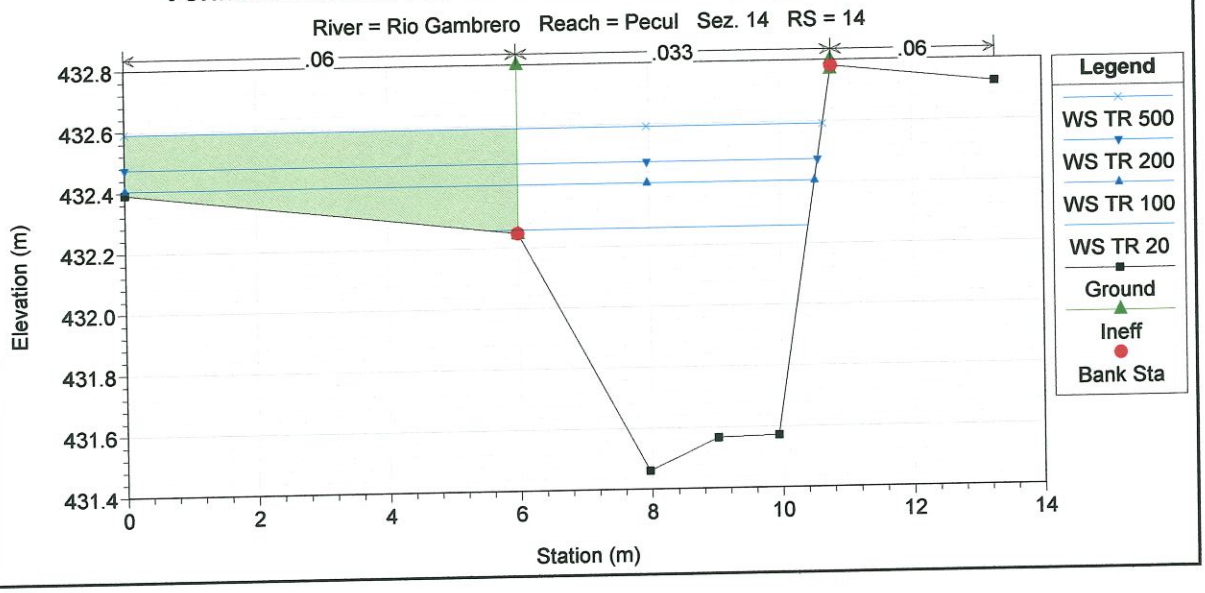
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte in zona prativa RS = 14.5



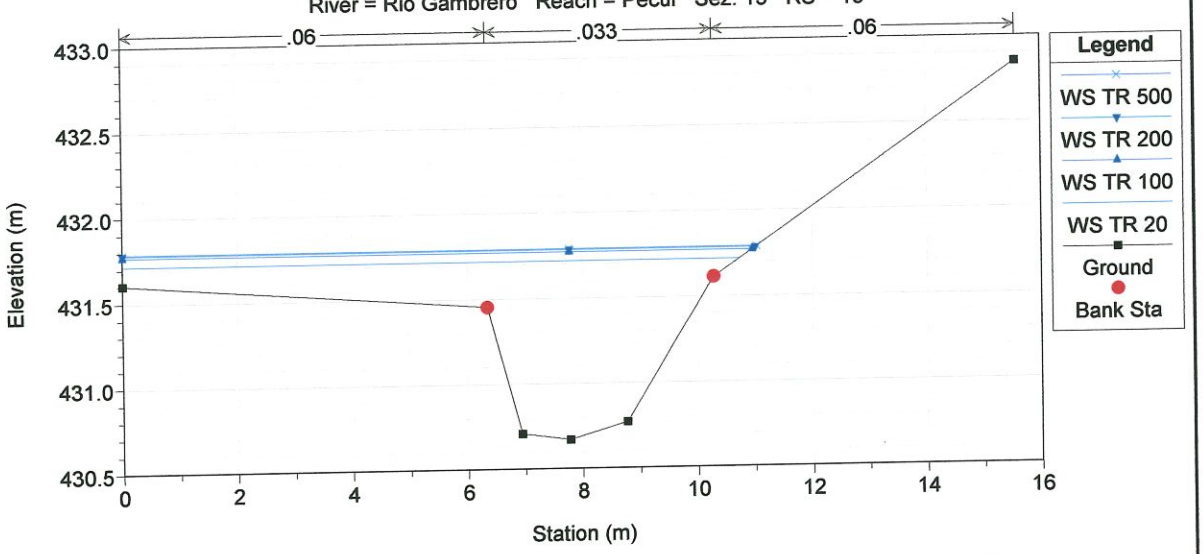
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 14 RS = 14



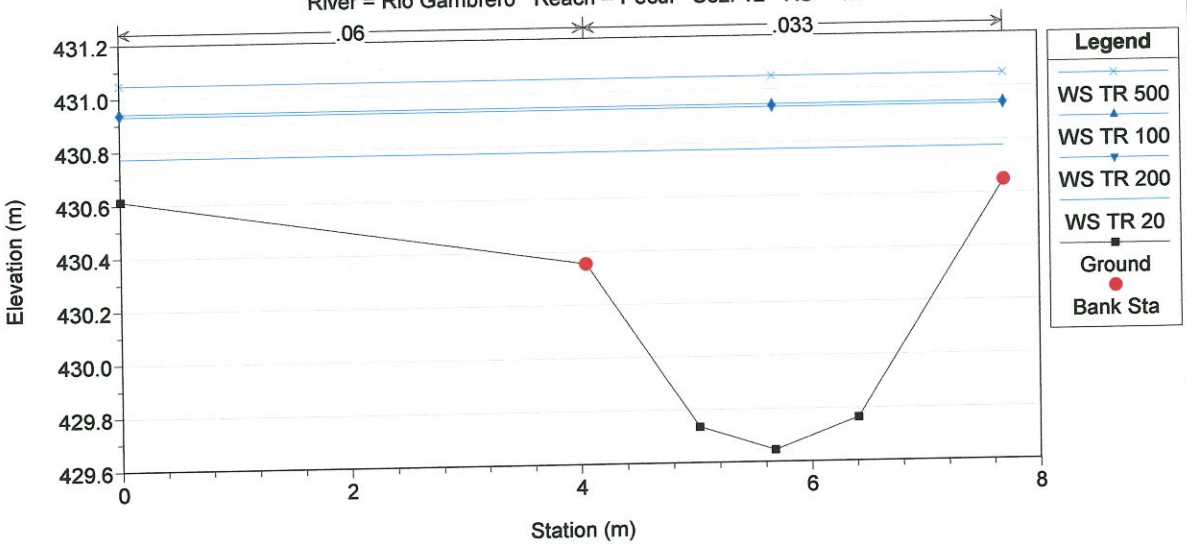
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 13 RS = 13



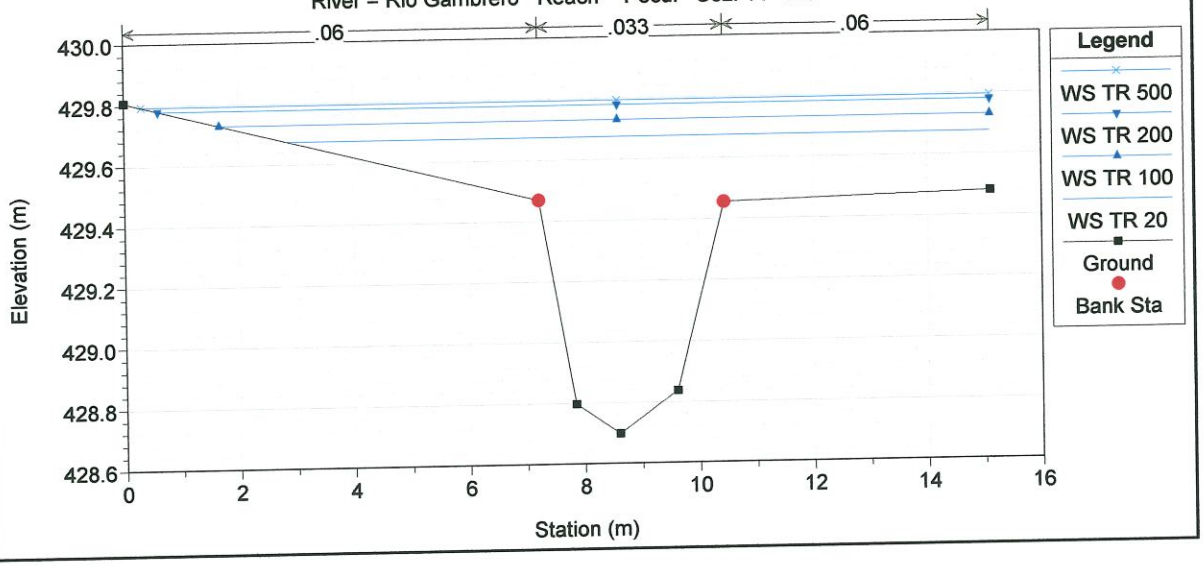
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 12 RS = 12



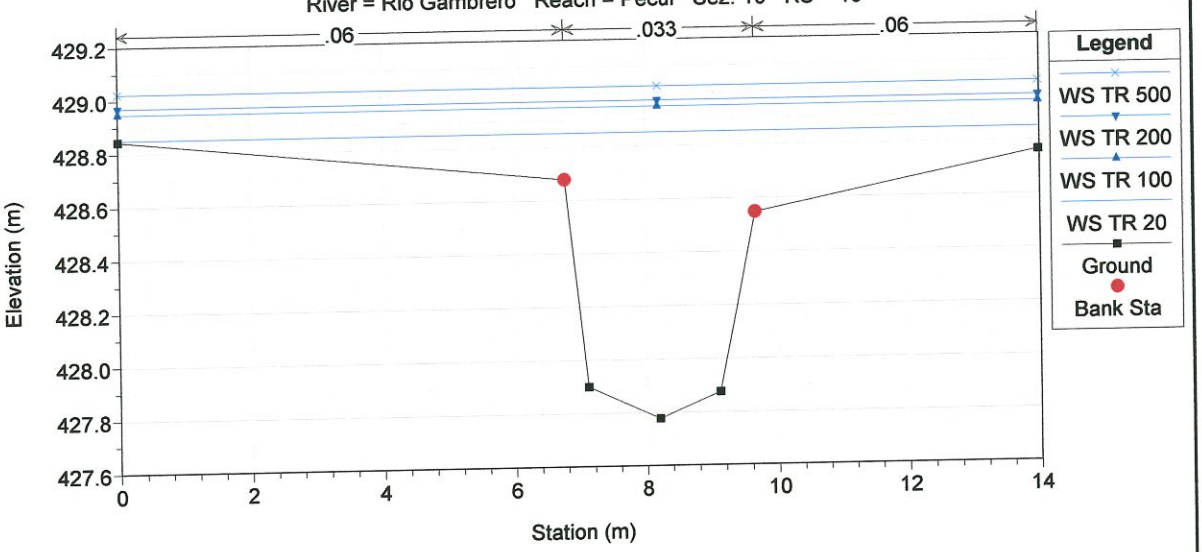
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 11 RS = 11



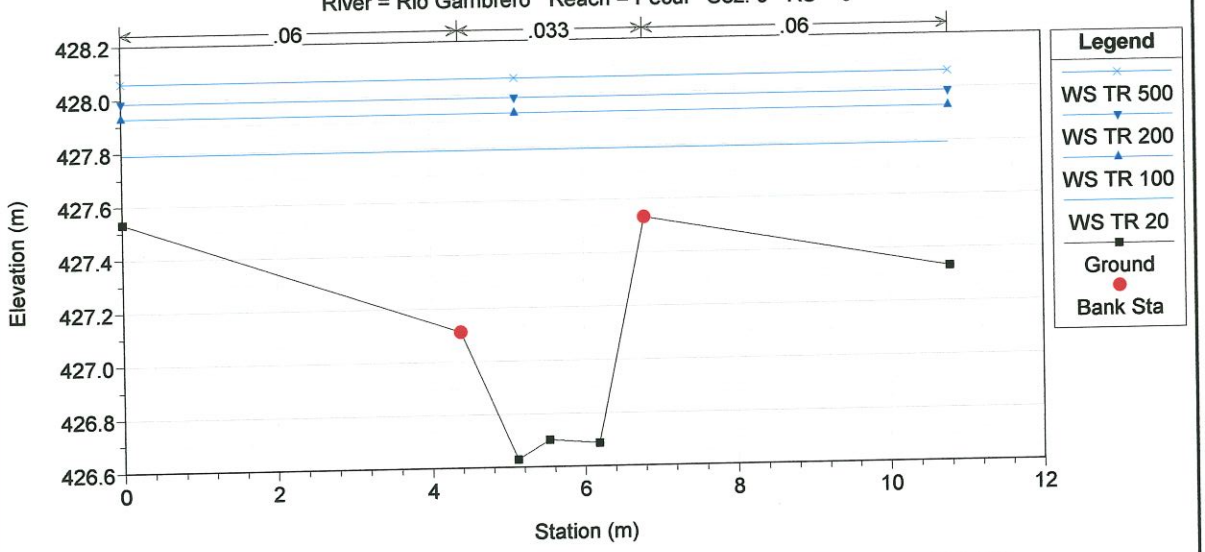
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 10 RS = 10



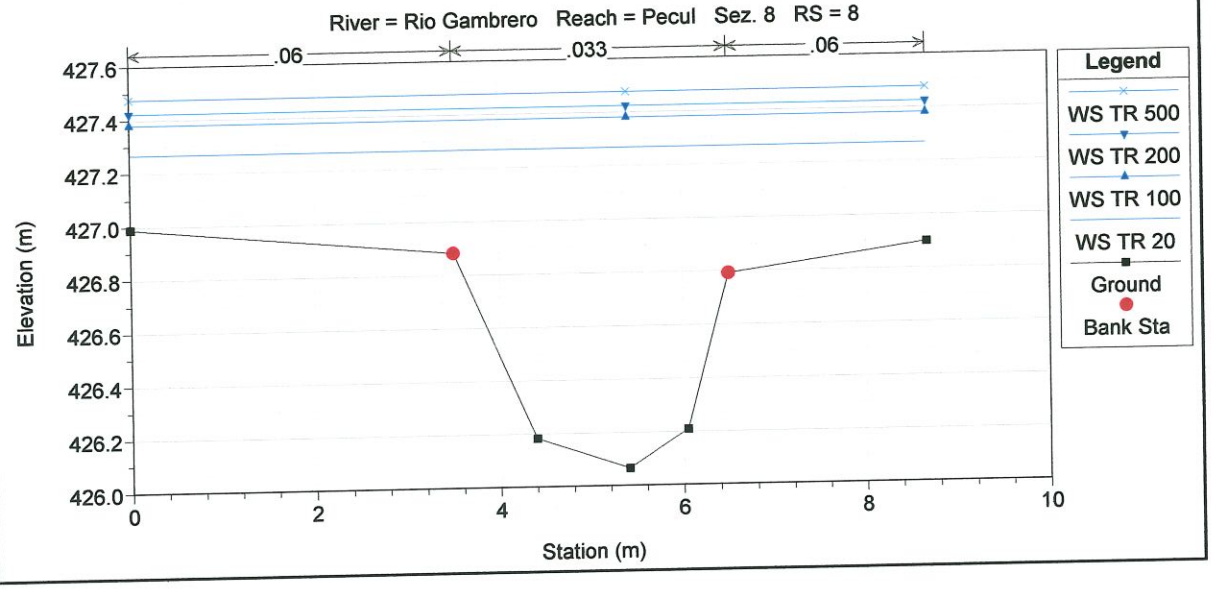
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 9 RS = 9



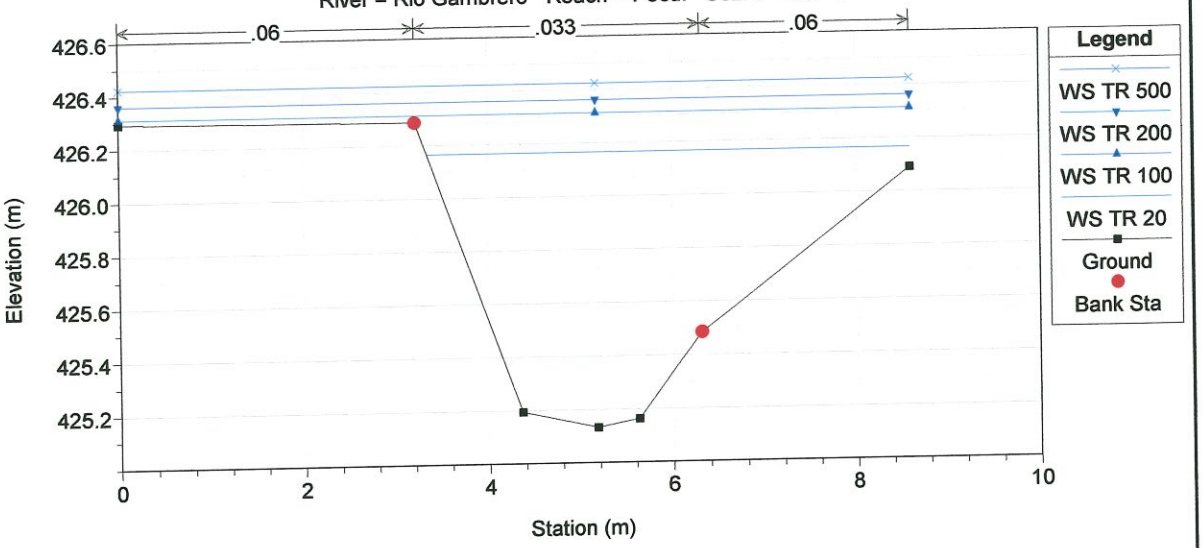
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 8 RS = 8



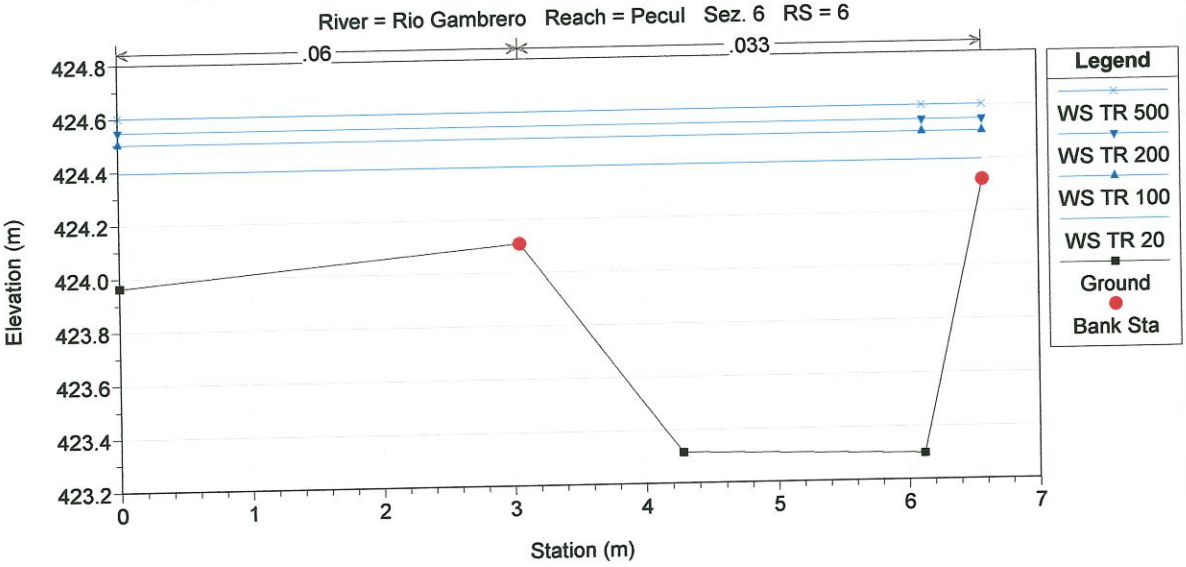
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 7 RS = 7



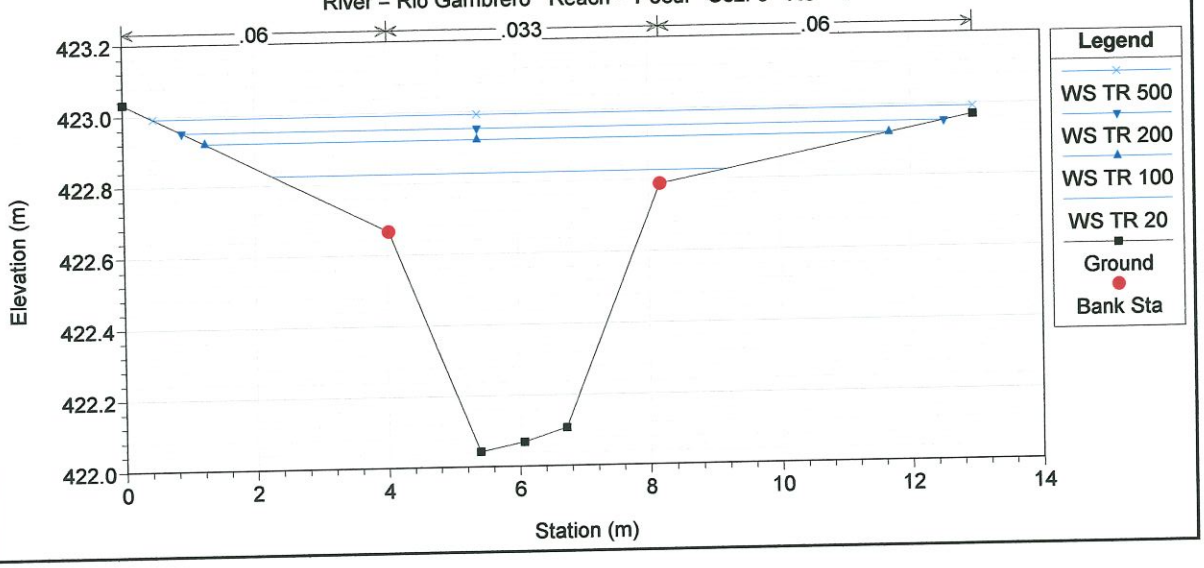
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 6 RS = 6



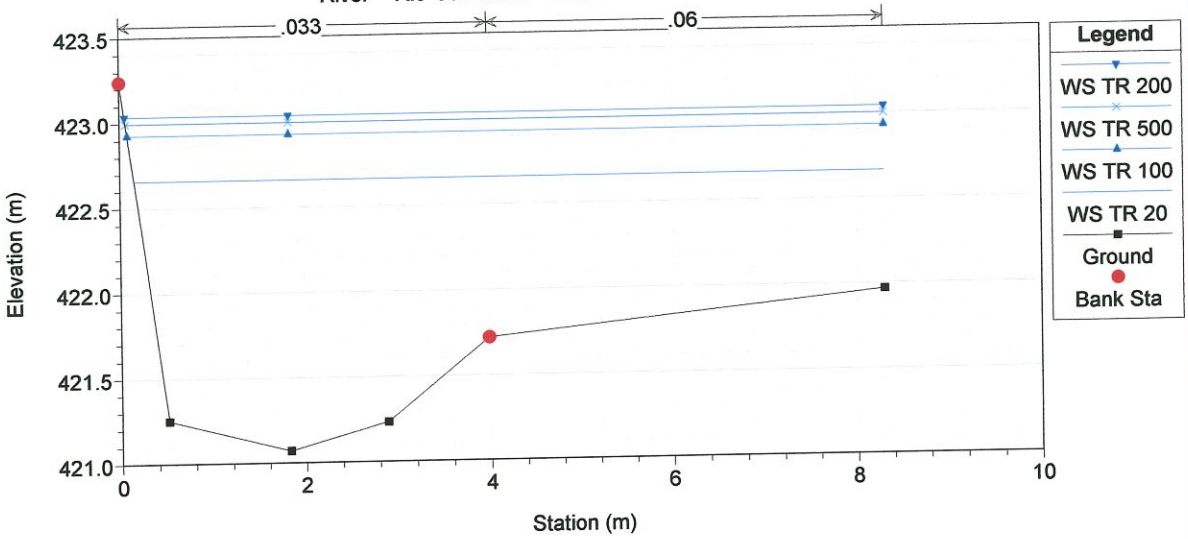
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 5 RS = 5



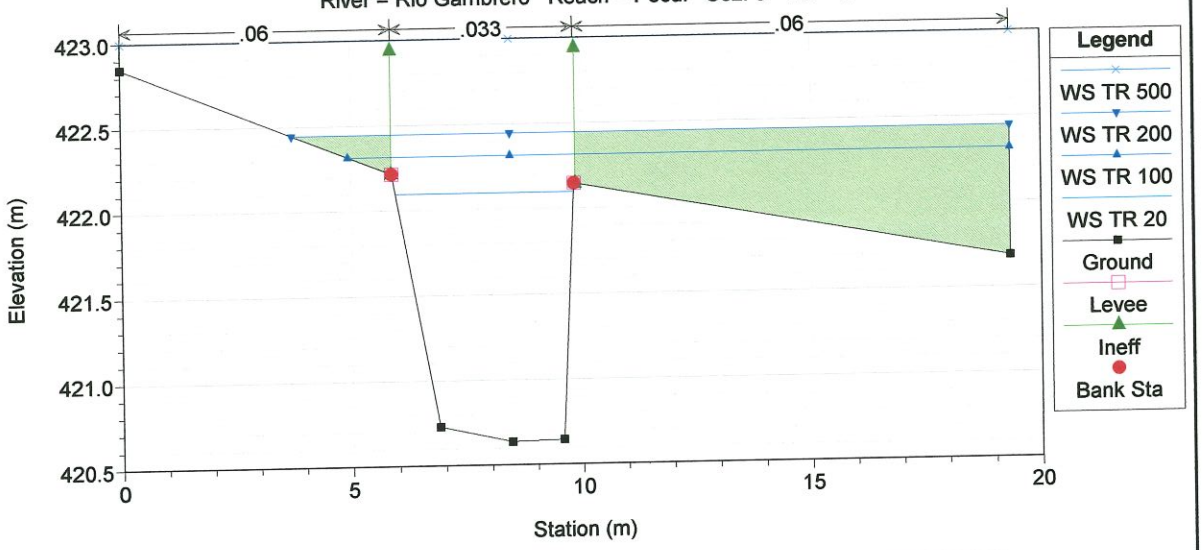
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 4 RS = 4



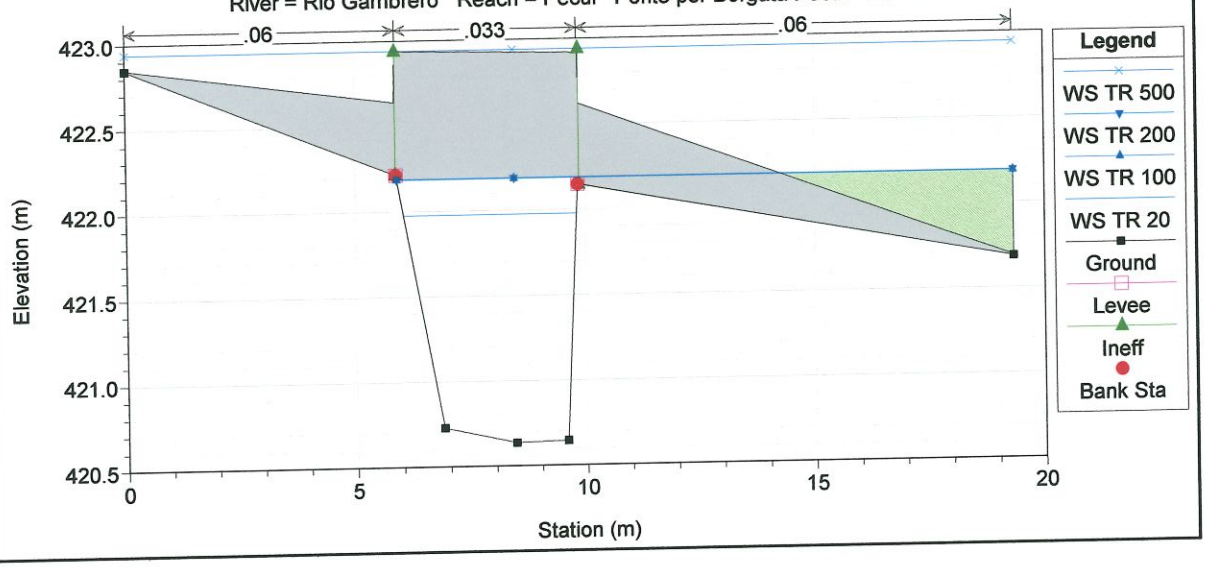
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 3 RS = 3



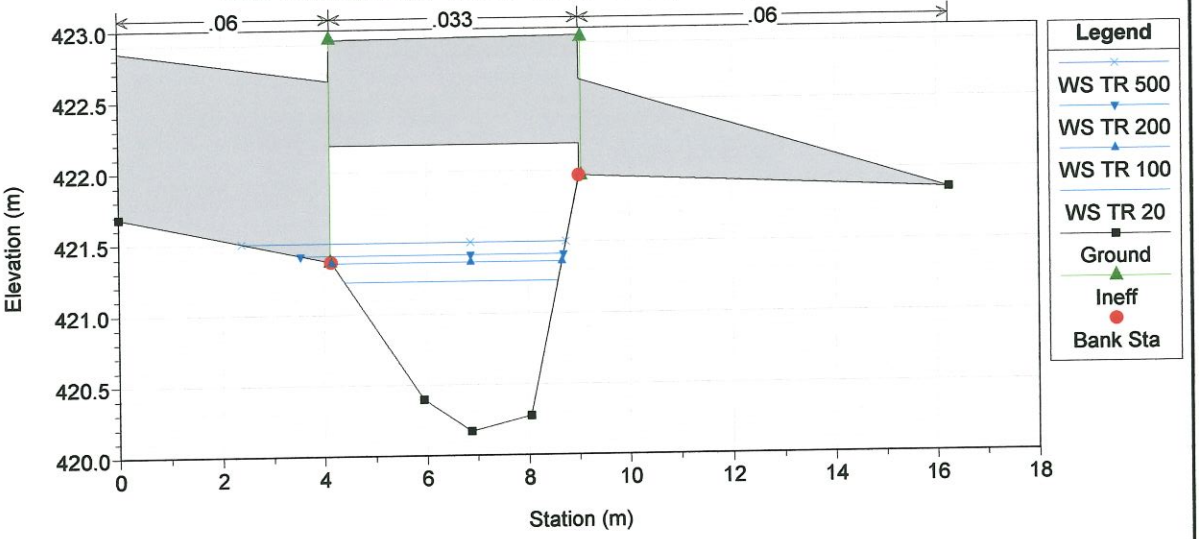
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte per Borgata Pecul RS = 2.5



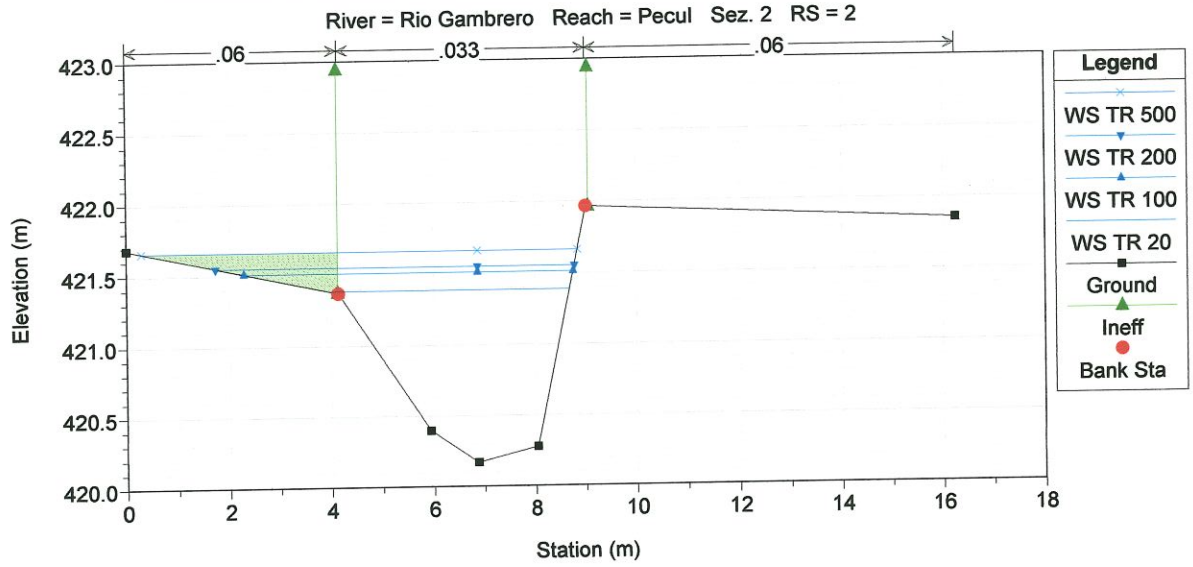
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Ponte per Borgata Pecul RS = 2.5



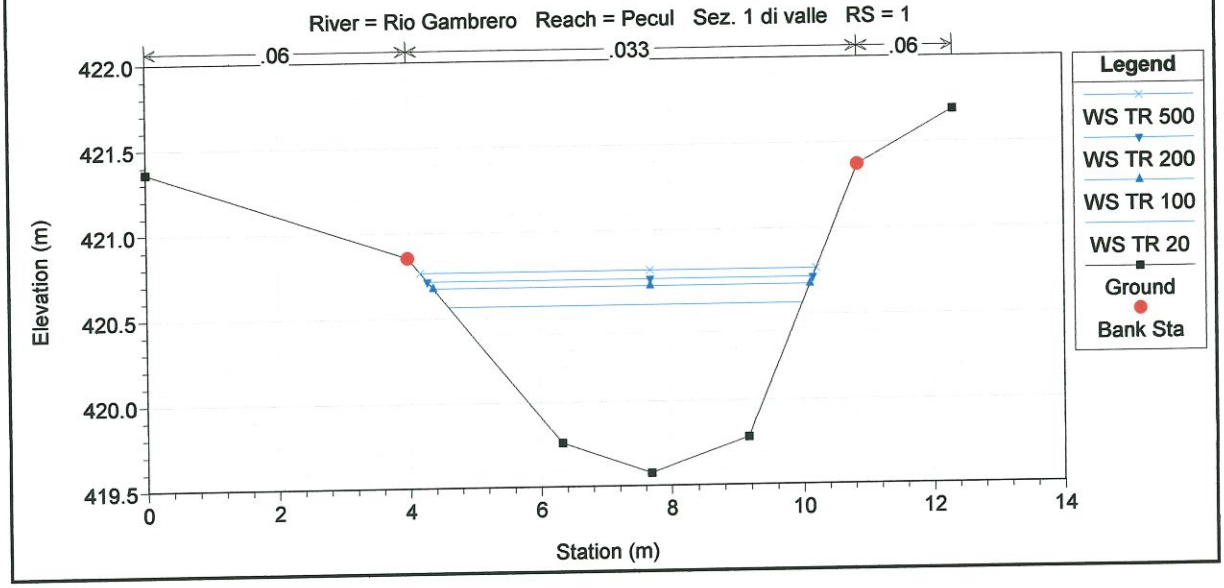
Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 2 RS = 2



Verifica idraulica Rio Gambrero dati di progetto 03/12/03

River = Rio Gambrero Reach = Pecul Sez. 1 di valle RS = 1



Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 63 Profile: TR 20

E.G. Elev (m)	480.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.62	Wt. n-Val.		0.033	
W.S. Elev (m)	480.11	Reach Len. (m)	31.36	32.86	34.49
Crit W.S. (m)	480.28	Flow Area (m2)		1.45	
E.G. Slope (m/m)	0.041216	Area (m2)		1.45	
Q Total (m3/s)	5.08	Flow (m3/s)		5.08	
Top Width (m)	2.28	Top Width (m)		2.28	
Vel Total (m/s)	3.50	Avg. Vel. (m/s)		3.50	
Max Chl Dpth (m)	0.94	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	25.0	Conv. (m3/s)		25.0	
Length Wtd. (m)	32.86	Wetted Per. (m)		3.38	
Min Ch El (m)	479.17	Shear (N/m2)		173.40	
Alpha	1.00	Stream Power (N/m s)		606.81	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	1.26	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.00	2.28	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 63 Profile: TR 100

E.G. Elev (m)	480.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.70	Wt. n-Val.		0.033	
W.S. Elev (m)	480.23	Reach Len. (m)	31.36	32.86	34.49
Crit W.S. (m)	480.45	Flow Area (m2)		1.74	
E.G. Slope (m/m)	0.041219	Area (m2)		1.74	
Q Total (m3/s)	6.48	Flow (m3/s)		6.48	
Top Width (m)	2.45	Top Width (m)		2.45	
Vel Total (m/s)	3.72	Avg. Vel. (m/s)		3.72	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	31.9	Conv. (m3/s)		31.9	
Length Wtd. (m)	32.86	Wetted Per. (m)		3.71	
Min Ch El (m)	479.17	Shear (N/m2)		189.87	
Alpha	1.00	Stream Power (N/m s)		705.86	
Frctn Loss (m)		Cum Volume (1000 m3)	0.04	1.50	0.04
C & E Loss (m)		Cum SA (1000 m2)	0.06	2.36	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 63 Profile: TR 200

E.G. Elev (m)	481.02	Element	Left OB	Channel	Right OB
Vel Head (m)	0.74	Wt. n-Val.		0.033	
W.S. Elev (m)	480.28	Reach Len. (m)	31.36	32.86	34.49
Crit W.S. (m)	480.52	Flow Area (m2)		1.86	
E.G. Slope (m/m)	0.041254	Area (m2)		1.86	
Q Total (m3/s)	7.08	Flow (m3/s)		7.08	
Top Width (m)	2.52	Top Width (m)		2.52	
Vel Total (m/s)	3.80	Avg. Vel. (m/s)		3.80	
Max Chl Dpth (m)	1.11	Hydr. Depth (m)		0.74	
Conv. Total (m3/s)	34.9	Conv. (m3/s)		34.9	
Length Wtd. (m)	32.86	Wetted Per. (m)		3.84	
Min Ch El (m)	479.17	Shear (N/m2)		196.30	
Alpha	1.00	Stream Power (N/m s)		746.06	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	1.86	0.04
C & E Loss (m)		Cum SA (1000 m2)	0.06	2.44	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 63 Profile: TR 500

E.G. Elev (m)	481.12	Element	Left OB	Channel	Right OB
Vel Head (m)	0.77	Wt. n-Val.		0.033	
W.S. Elev (m)	480.34	Reach Len. (m)	31.36	32.86	34.49
Crit W.S. (m)	480.72	Flow Area (m2)		2.02	
E.G. Slope (m/m)	0.041247	Area (m2)		2.02	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 63 Profile: TR 500 (Continued)

Top Width (m)	2.61	Top Width (m)		2.61	
Vel Total (m/s)	3.90	Avg. Vel. (m/s)		3.90	
Max Chl Dpth (m)	1.17	Hydr. Depth (m)		0.77	
Conv. Total (m3/s)	38.8	Conv. (m3/s)		38.8	
Length Wtd. (m)	32.81	Wetted Per. (m)		4.00	
Min Ch El (m)	479.17	Shear (N/m2)		204.01	
Alpha	1.00	Stream Power (N/m s)		795.57	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	2.01	0.04
C & E Loss (m)		Cum SA (1000 m2)	0.06	2.49	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 62 Profile: TR 20

E.G. Elev (m)	479.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.77	Wt. n-Val.		0.033	
W.S. Elev (m)	478.36	Reach Len. (m)	23.47	23.26	22.98
Crit W.S. (m)	478.60	Flow Area (m2)		1.31	
E.G. Slope (m/m)	0.056895	Area (m2)		1.35	
Q Total (m3/s)	5.08	Flow (m3/s)		5.08	
Top Width (m)	3.22	Top Width (m)		3.22	
Vel Total (m/s)	3.88	Avg. Vel. (m/s)		3.88	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	21.3	Conv. (m3/s)		21.3	
Length Wtd. (m)	23.26	Wetted Per. (m)		3.32	
Min Ch El (m)	477.81	Shear (N/m2)		219.69	
Alpha	1.00	Stream Power (N/m s)		853.04	
Frctn Loss (m)	1.58	Cum Volume (1000 m3)	0.01	1.21	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.00	2.19	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 62 Profile: TR 100

E.G. Elev (m)	479.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.90	Wt. n-Val.		0.033	
W.S. Elev (m)	478.44	Reach Len. (m)	23.47	23.26	22.98
Crit W.S. (m)	478.70	Flow Area (m2)		1.54	
E.G. Slope (m/m)	0.054984	Area (m2)		1.59	
Q Total (m3/s)	6.48	Flow (m3/s)		6.48	
Top Width (m)	3.31	Top Width (m)		3.31	
Vel Total (m/s)	4.21	Avg. Vel. (m/s)		4.21	
Max Chl Dpth (m)	0.63	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	27.7	Conv. (m3/s)		27.7	
Length Wtd. (m)	23.26	Wetted Per. (m)		3.38	
Min Ch El (m)	477.81	Shear (N/m2)		245.92	
Alpha	1.00	Stream Power (N/m s)		1035.40	
Frctn Loss (m)	1.57	Cum Volume (1000 m3)	0.04	1.45	0.04
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.06	2.26	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 62 Profile: TR 200

E.G. Elev (m)	479.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.033	
W.S. Elev (m)	479.14	Reach Len. (m)	23.47	23.26	22.98
Crit W.S. (m)	478.76	Flow Area (m2)		3.71	
E.G. Slope (m/m)	0.003515	Area (m2)		4.20	
Q Total (m3/s)	7.08	Flow (m3/s)		7.08	
Top Width (m)	4.13	Top Width (m)		4.13	
Vel Total (m/s)	1.91	Avg. Vel. (m/s)		1.91	
Max Chl Dpth (m)	1.33	Hydr. Depth (m)		1.20	
Conv. Total (m3/s)	119.5	Conv. (m3/s)		119.5	
Length Wtd. (m)	23.26	Wetted Per. (m)		3.38	
Min Ch El (m)	477.81	Shear (N/m2)		37.83	

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 62 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		72.31	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	1.76	0.04
C & E Loss (m)		Cum SA (1000 m2)	0.06	2.33	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 62 Profile: TR 500

E.G. Elev (m)	479.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.033	
W.S. Elev (m)	479.27	Reach Len. (m)	23.47	23.26	22.98
Crit W.S. (m)	478.81	Flow Area (m2)		4.10	
E.G. Slope (m/m)	0.003087	Area (m2)		4.74	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	4.28	Top Width (m)		4.28	
Vel Total (m/s)	1.92	Avg. Vel. (m/s)		1.92	
Max Chl Dpth (m)	1.46	Hydr. Depth (m)		1.33	
Conv. Total (m3/s)	141.7	Conv. (m3/s)		141.7	
Length Wtd. (m)	23.26	Wetted Per. (m)		3.38	
Min Ch El (m)	477.81	Shear (N/m2)		36.80	
Alpha	1.00	Stream Power (N/m s)		70.58	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	1.90	0.04
C & E Loss (m)		Cum SA (1000 m2)	0.06	2.37	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 61 Profile: TR 20

E.G. Elev (m)	477.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.		0.033	
W.S. Elev (m)	477.48	Reach Len. (m)	16.81	17.33	18.08
Crit W.S. (m)	477.48	Flow Area (m2)		1.99	
E.G. Slope (m/m)	0.013747	Area (m2)		2.06	
Q Total (m3/s)	5.08	Flow (m3/s)		5.08	
Top Width (m)	3.29	Top Width (m)		3.29	
Vel Total (m/s)	2.55	Avg. Vel. (m/s)		2.55	
Max Chl Dpth (m)	0.94	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	43.3	Conv. (m3/s)		43.3	
Length Wtd. (m)	17.33	Wetted Per. (m)		3.28	
Min Ch El (m)	476.54	Shear (N/m2)		81.87	
Alpha	1.00	Stream Power (N/m s)		208.61	
Frctn Loss (m)	0.26	Cum Volume (1000 m3)	0.01	1.17	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.00	2.12	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 61 Profile: TR 100

E.G. Elev (m)	477.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.38	Wt. n-Val.		0.033	
W.S. Elev (m)	477.61	Reach Len. (m)	16.81	17.33	18.08
Crit W.S. (m)	477.61	Flow Area (m2)		2.38	
E.G. Slope (m/m)	0.012478	Area (m2)		2.48	
Q Total (m3/s)	6.48	Flow (m3/s)		6.48	
Top Width (m)	3.46	Top Width (m)		3.46	
Vel Total (m/s)	2.73	Avg. Vel. (m/s)		2.73	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.77	
Conv. Total (m3/s)	58.1	Conv. (m3/s)		58.1	
Length Wtd. (m)	17.33	Wetted Per. (m)		3.28	
Min Ch El (m)	476.54	Shear (N/m2)		88.57	
Alpha	1.00	Stream Power (N/m s)		241.69	
Frctn Loss (m)	0.25	Cum Volume (1000 m3)	0.04	1.40	0.04
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.06	2.18	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 61 Profile: TR 200

E.G. Elev (m)	478.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.40	Wt. n-Val.		0.033	
W.S. Elev (m)	477.65	Reach Len. (m)	16.81	17.33	18.08
Crit W.S. (m)	477.65	Flow Area (m2)		2.52	
E.G. Slope (m/m)	0.012262	Area (m2)		2.64	
Q Total (m3/s)	7.08	Flow (m3/s)		7.08	
Top Width (m)	3.53	Top Width (m)		3.53	
Vel Total (m/s)	2.81	Avg. Vel. (m/s)		2.81	
Max Chl Dpth (m)	1.11	Hydr. Depth (m)		0.81	
Conv. Total (m3/s)	64.0	Conv. (m3/s)		64.0	
Length Wtd. (m)	17.33	Wetted Per. (m)		3.28	
Min Ch El (m)	476.54	Shear (N/m2)		92.27	
Alpha	1.00	Stream Power (N/m s)		259.50	
Frctn Loss (m)	0.25	Cum Volume (1000 m3)	0.05	1.68	0.04
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.06	2.24	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 61 Profile: TR 500

E.G. Elev (m)	478.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.		0.033	
W.S. Elev (m)	477.71	Reach Len. (m)	16.81	17.33	18.08
Crit W.S. (m)	477.71	Flow Area (m2)		2.71	
E.G. Slope (m/m)	0.011936	Area (m2)		2.85	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	3.61	Top Width (m)		3.61	
Vel Total (m/s)	2.91	Avg. Vel. (m/s)		2.91	
Max Chl Dpth (m)	1.17	Hydr. Depth (m)		0.87	
Conv. Total (m3/s)	72.1	Conv. (m3/s)		72.1	
Length Wtd. (m)	17.33	Wetted Per. (m)		3.28	
Min Ch El (m)	476.54	Shear (N/m2)		96.46	
Alpha	1.00	Stream Power (N/m s)		280.68	
Frctn Loss (m)	0.24	Cum Volume (1000 m3)	0.05	1.81	0.04
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.06	2.28	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 60 Profile: TR 20

E.G. Elev (m)	477.23	Element	Left OB	Channel	Right OB
Vel Head (m)	1.07	Wt. n-Val.		0.033	
W.S. Elev (m)	476.16	Reach Len. (m)	121.17	120.04	118.68
Crit W.S. (m)	476.47	Flow Area (m2)		1.11	
E.G. Slope (m/m)	0.089664	Area (m2)		1.11	
Q Total (m3/s)	5.08	Flow (m3/s)		5.08	
Top Width (m)	2.60	Top Width (m)		2.60	
Vel Total (m/s)	4.59	Avg. Vel. (m/s)		4.59	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	17.0	Conv. (m3/s)		17.0	
Length Wtd. (m)	120.04	Wetted Per. (m)		3.08	
Min Ch El (m)	475.54	Shear (N/m2)		316.19	
Alpha	1.00	Stream Power (N/m s)		1450.85	
Frctn Loss (m)	0.49	Cum Volume (1000 m3)	0.01	1.14	0.00
C & E Loss (m)	0.08	Cum SA (1000 m2)	0.00	2.07	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 60 Profile: TR 100

E.G. Elev (m)	477.44	Element	Left OB	Channel	Right OB
Vel Head (m)	1.20	Wt. n-Val.		0.033	
W.S. Elev (m)	476.25	Reach Len. (m)	121.17	120.04	118.68
Crit W.S. (m)	476.60	Flow Area (m2)		1.34	
E.G. Slope (m/m)	0.084734	Area (m2)		1.34	
Q Total (m3/s)	6.48	Flow (m3/s)		6.48	

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 60 Profile: TR 100 (Continued)

Top Width (m)	2.71	Top Width (m)		2.71	
Vel Total (m/s)	4.84	Avg. Vel. (m/s)		4.84	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	22.3	Conv. (m3/s)		22.3	
Length Wtd. (m)	120.04	Wetted Per. (m)		3.29	
Min Ch El (m)	475.54	Shear (N/m2)		338.08	
Alpha	1.00	Stream Power (N/m s)		1637.45	
Frctn Loss (m)	0.45	Cum Volume (1000 m3)	0.04	1.37	0.04
C & E Loss (m)	0.08	Cum SA (1000 m2)	0.06	2.13	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 60 Profile: TR 200

E.G. Elev (m)	477.53	Element	Left OB	Channel	Right OB
Vel Head (m)	1.24	Wt. n-Val.		0.033	
W.S. Elev (m)	476.28	Reach Len. (m)	121.17	120.04	118.68
Crit W.S. (m)	476.65	Flow Area (m2)		1.43	
E.G. Slope (m/m)	0.083084	Area (m2)		1.43	
Q Total (m3/s)	7.08	Flow (m3/s)		7.08	
Top Width (m)	2.75	Top Width (m)		2.75	
Vel Total (m/s)	4.94	Avg. Vel. (m/s)		4.94	
Max Chl Dpth (m)	0.74	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	24.6	Conv. (m3/s)		24.6	
Length Wtd. (m)	120.04	Wetted Per. (m)		3.38	
Min Ch El (m)	475.54	Shear (N/m2)		346.29	
Alpha	1.00	Stream Power (N/m s)		1709.84	
Frctn Loss (m)	0.45	Cum Volume (1000 m3)	0.05	1.64	0.04
C & E Loss (m)	0.08	Cum SA (1000 m2)	0.06	2.19	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 60 Profile: TR 500

E.G. Elev (m)	477.62	Element	Left OB	Channel	Right OB
Vel Head (m)	1.29	Wt. n-Val.		0.033	
W.S. Elev (m)	476.33	Reach Len. (m)	121.17	120.04	118.68
Crit W.S. (m)	476.72	Flow Area (m2)		1.56	
E.G. Slope (m/m)	0.080643	Area (m2)		1.56	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	2.81	Top Width (m)		2.81	
Vel Total (m/s)	5.04	Avg. Vel. (m/s)		5.04	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	27.7	Conv. (m3/s)		27.7	
Length Wtd. (m)	120.04	Wetted Per. (m)		3.49	
Min Ch El (m)	475.54	Shear (N/m2)		354.30	
Alpha	1.00	Stream Power (N/m s)		1785.10	
Frctn Loss (m)	0.44	Cum Volume (1000 m3)	0.05	1.78	0.04
C & E Loss (m)	0.09	Cum SA (1000 m2)	0.06	2.22	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 59 Profile: TR 20

E.G. Elev (m)	471.32	Element	Left OB	Channel	Right OB
Vel Head (m)	0.45	Wt. n-Val.		0.033	
W.S. Elev (m)	470.87	Reach Len. (m)	9.52	9.52	9.52
Crit W.S. (m)	470.97	Flow Area (m2)		1.70	
E.G. Slope (m/m)	0.029556	Area (m2)		1.70	
Q Total (m3/s)	5.08	Flow (m3/s)		5.08	
Top Width (m)	2.93	Top Width (m)		2.93	
Vel Total (m/s)	2.99	Avg. Vel. (m/s)		2.99	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	29.5	Conv. (m3/s)		29.5	
Length Wtd. (m)	9.52	Wetted Per. (m)		3.92	
Min Ch El (m)	470.21	Shear (N/m2)		125.82	

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 59 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		375.79	
Frctn Loss (m)	5.73	Cum Volume (1000 m3)	0.01	0.98	0.00
C & E Loss (m)	0.19	Cum SA (1000 m2)	0.00	1.73	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 59 Profile: TR 100

E.G. Elev (m)	471.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.55	Wt. n-Val.		0.033	
W.S. Elev (m)	470.96	Reach Len. (m)	9.52	9.52	9.52
Crit W.S. (m)	471.10	Flow Area (m2)		1.98	
E.G. Slope (m/m)	0.031077	Area (m2)		1.98	
Q Total (m3/s)	6.48	Flow (m3/s)		6.48	
Top Width (m)	2.97	Top Width (m)		2.97	
Vel Total (m/s)	3.28	Avg. Vel. (m/s)		3.28	
Max Chl Dpth (m)	0.75	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	36.8	Conv. (m3/s)		36.8	
Length Wtd. (m)	9.52	Wetted Per. (m)		4.11	
Min Ch El (m)	470.21	Shear (N/m2)		146.60	
Alpha	1.00	Stream Power (N/m s)		480.82	
Frctn Loss (m)	5.74	Cum Volume (1000 m3)	0.04	1.17	0.04
C & E Loss (m)	0.20	Cum SA (1000 m2)	0.06	1.79	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 59 Profile: TR 200

E.G. Elev (m)	471.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.58	Wt. n-Val.		0.033	
W.S. Elev (m)	471.00	Reach Len. (m)	9.52	9.52	9.52
Crit W.S. (m)	471.15	Flow Area (m2)		2.10	
E.G. Slope (m/m)	0.031129	Area (m2)		2.10	
Q Total (m3/s)	7.08	Flow (m3/s)		7.08	
Top Width (m)	2.99	Top Width (m)		2.99	
Vel Total (m/s)	3.37	Avg. Vel. (m/s)		3.37	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.70	
Conv. Total (m3/s)	40.2	Conv. (m3/s)		40.2	
Length Wtd. (m)	9.52	Wetted Per. (m)		4.20	
Min Ch El (m)	470.21	Shear (N/m2)		152.89	
Alpha	1.00	Stream Power (N/m s)		515.51	
Frctn Loss (m)	5.74	Cum Volume (1000 m3)	0.05	1.43	0.04
C & E Loss (m)	0.20	Cum SA (1000 m2)	0.06	1.84	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 59 Profile: TR 500

E.G. Elev (m)	471.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.62	Wt. n-Val.		0.033	
W.S. Elev (m)	471.05	Reach Len. (m)	9.52	9.52	9.52
Crit W.S. (m)	471.25	Flow Area (m2)		2.25	
E.G. Slope (m/m)	0.031666	Area (m2)		2.25	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	3.02	Top Width (m)		3.02	
Vel Total (m/s)	3.50	Avg. Vel. (m/s)		3.50	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.75	
Conv. Total (m3/s)	44.2	Conv. (m3/s)		44.2	
Length Wtd. (m)	9.52	Wetted Per. (m)		4.30	
Min Ch El (m)	470.21	Shear (N/m2)		162.51	
Alpha	1.00	Stream Power (N/m s)		569.06	
Frctn Loss (m)	5.74	Cum Volume (1000 m3)	0.05	1.55	0.04
C & E Loss (m)	0.20	Cum SA (1000 m2)	0.06	1.88	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 58 Profile: TR 20

E.G. Elev (m)	471.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.41	Wt. n-Val.		0.033	
W.S. Elev (m)	470.72	Reach Len. (m)	4.30	4.13	4.28
Crit W.S. (m)	470.78	Flow Area (m2)		1.79	
E.G. Slope (m/m)	0.025954	Area (m2)		1.79	
Q Total (m3/s)	5.08	Flow (m3/s)		5.08	
Top Width (m)	2.82	Top Width (m)		2.82	
Vel Total (m/s)	2.84	Avg. Vel. (m/s)		2.84	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	31.5	Conv. (m3/s)		31.5	
Length Wtd. (m)	4.13	Wetted Per. (m)		4.02	
Min Ch El (m)	469.96	Shear (N/m2)		113.16	
Alpha	1.00	Stream Power (N/m s)		321.83	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)	0.01	0.96	0.00
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.00	1.71	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 58 Profile: TR 100

E.G. Elev (m)	471.32	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.		0.033	
W.S. Elev (m)	470.83	Reach Len. (m)	4.30	4.13	4.28
Crit W.S. (m)	470.90	Flow Area (m2)		2.09	
E.G. Slope (m/m)	0.026870	Area (m2)		2.09	
Q Total (m3/s)	6.48	Flow (m3/s)		6.48	
Top Width (m)	2.86	Top Width (m)		2.86	
Vel Total (m/s)	3.10	Avg. Vel. (m/s)		3.10	
Max Chl Dpth (m)	0.87	Hydr. Depth (m)		0.73	
Conv. Total (m3/s)	39.6	Conv. (m3/s)		39.6	
Length Wtd. (m)	4.13	Wetted Per. (m)		4.23	
Min Ch El (m)	469.96	Shear (N/m2)		130.07	
Alpha	1.00	Stream Power (N/m s)		403.55	
Frctn Loss (m)	0.24	Cum Volume (1000 m3)	0.04	1.15	0.04
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.06	1.76	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 58 Profile: TR 200

E.G. Elev (m)	471.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.		0.033	
W.S. Elev (m)	470.87	Reach Len. (m)	4.30	4.13	4.28
Crit W.S. (m)	470.94	Flow Area (m2)		2.20	
E.G. Slope (m/m)	0.027635	Area (m2)		2.20	
Q Total (m3/s)	7.08	Flow (m3/s)		7.08	
Top Width (m)	2.87	Top Width (m)		2.87	
Vel Total (m/s)	3.22	Avg. Vel. (m/s)		3.22	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.77	
Conv. Total (m3/s)	42.6	Conv. (m3/s)		42.6	
Length Wtd. (m)	4.13	Wetted Per. (m)		4.31	
Min Ch El (m)	469.96	Shear (N/m2)		138.35	
Alpha	1.00	Stream Power (N/m s)		445.16	
Frctn Loss (m)	0.24	Cum Volume (1000 m3)	0.05	1.41	0.04
C & E Loss (m)	0.04	Cum SA (1000 m2)	0.06	1.81	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 58 Profile: TR 500

E.G. Elev (m)	471.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.54	Wt. n-Val.		0.033	
W.S. Elev (m)	470.94	Reach Len. (m)	4.30	4.13	4.28
Crit W.S. (m)	471.02	Flow Area (m2)		2.41	
E.G. Slope (m/m)	0.026453	Area (m2)		2.41	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 58 Profile: TR 500 (Continued)

Top Width (m)	2.89	Top Width (m)		2.89	
Vel Total (m/s)	3.27	Avg. Vel. (m/s)		3.27	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)		0.83	
Conv. Total (m3/s)	48.4	Conv. (m3/s)		48.4	
Length Wtd. (m)	4.13	Wetted Per. (m)		4.46	
Min Ch El (m)	469.96	Shear (N/m2)		140.12	
Alpha	1.00	Stream Power (N/m s)		458.05	
Frctn Loss (m)	0.24	Cum Volume (1000 m3)	0.05	1.53	0.04
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.06	1.85	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 57 Profile: TR 20

E.G. Elev (m)	470.78	Element	Left OB	Channel	Right OB
Vel Head (m)	1.59	Wt. n-Val.		0.033	
W.S. Elev (m)	469.19	Reach Len. (m)	9.68	9.91	10.00
Crit W.S. (m)	469.54	Flow Area (m2)		0.91	
E.G. Slope (m/m)	0.208972	Area (m2)		0.91	
Q Total (m3/s)	5.08	Flow (m3/s)		5.08	
Top Width (m)	3.11	Top Width (m)		3.11	
Vel Total (m/s)	5.58	Avg. Vel. (m/s)		5.58	
Max Chl Dpth (m)	0.35	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	11.1	Conv. (m3/s)		11.1	
Length Wtd. (m)	9.91	Wetted Per. (m)		3.56	
Min Ch El (m)	468.84	Shear (N/m2)		523.64	
Alpha	1.00	Stream Power (N/m s)		2920.93	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)	0.01	0.95	0.00
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.00	1.70	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 57 Profile: TR 100

E.G. Elev (m)	470.96	Element	Left OB	Channel	Right OB
Vel Head (m)	1.70	Wt. n-Val.		0.033	
W.S. Elev (m)	469.26	Reach Len. (m)	9.68	9.91	10.00
Crit W.S. (m)	469.66	Flow Area (m2)		1.12	
E.G. Slope (m/m)	0.178304	Area (m2)		1.12	
Q Total (m3/s)	6.48	Flow (m3/s)		6.48	
Top Width (m)	3.12	Top Width (m)		3.12	
Vel Total (m/s)	5.78	Avg. Vel. (m/s)		5.78	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	15.4	Conv. (m3/s)		15.4	
Length Wtd. (m)	9.91	Wetted Per. (m)		3.70	
Min Ch El (m)	468.84	Shear (N/m2)		530.40	
Alpha	1.00	Stream Power (N/m s)		3064.01	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)	0.04	1.14	0.04
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.06	1.75	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 57 Profile: TR 200

E.G. Elev (m)	471.03	Element	Left OB	Channel	Right OB
Vel Head (m)	1.74	Wt. n-Val.		0.033	
W.S. Elev (m)	469.29	Reach Len. (m)	9.68	9.91	10.00
Crit W.S. (m)	469.70	Flow Area (m2)		1.21	
E.G. Slope (m/m)	0.168313	Area (m2)		1.21	
Q Total (m3/s)	7.08	Flow (m3/s)		7.08	
Top Width (m)	3.13	Top Width (m)		3.13	
Vel Total (m/s)	5.85	Avg. Vel. (m/s)		5.85	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	17.3	Conv. (m3/s)		17.3	
Length Wtd. (m)	9.91	Wetted Per. (m)		3.76	
Min Ch El (m)	468.84	Shear (N/m2)		532.27	

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 57 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		3111.81	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)	0.05	1.40	0.04
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.06	1.80	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 57 Profile: TR 500

E.G. Elev (m)	471.15	Element	Left OB	Channel	Right OB
Vel Head (m)	1.83	Wt. n-Val.		0.033	
W.S. Elev (m)	469.32	Reach Len. (m)	9.68	9.91	10.00
Crit W.S. (m)	469.77	Flow Area (m2)		1.31	
E.G. Slope (m/m)	0.162211	Area (m2)		1.31	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	3.14	Top Width (m)		3.14	
Vel Total (m/s)	5.99	Avg. Vel. (m/s)		5.99	
Max Chl Dpth (m)	0.48	Hydr. Depth (m)		0.42	
Conv. Total (m3/s)	19.5	Conv. (m3/s)		19.5	
Length Wtd. (m)	9.91	Wetted Per. (m)		3.82	
Min Ch El (m)	468.84	Shear (N/m2)		546.82	
Alpha	1.00	Stream Power (N/m s)		3274.92	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)	0.05	1.52	0.04
C & E Loss (m)	0.13	Cum SA (1000 m2)	0.06	1.83	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 56 Profile: TR 20

E.G. Elev (m)	469.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.77	Wt. n-Val.		0.033	
W.S. Elev (m)	468.85	Reach Len. (m)	145.38	147.11	147.04
Crit W.S. (m)	469.07	Flow Area (m2)		1.31	
E.G. Slope (m/m)	0.051861	Area (m2)		1.35	
Q Total (m3/s)	5.08	Flow (m3/s)		5.08	
Top Width (m)	3.29	Top Width (m)		3.29	
Vel Total (m/s)	3.88	Avg. Vel. (m/s)		3.88	
Max Chl Dpth (m)	0.52	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	22.3	Conv. (m3/s)		22.3	
Length Wtd. (m)	147.11	Wetted Per. (m)		3.10	
Min Ch El (m)	468.33	Shear (N/m2)		214.78	
Alpha	1.00	Stream Power (N/m s)		834.30	
Frctn Loss (m)	0.91	Cum Volume (1000 m3)	0.01	0.94	0.00
C & E Loss (m)	0.25	Cum SA (1000 m2)	0.00	1.66	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 56 Profile: TR 100

E.G. Elev (m)	469.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.94	Wt. n-Val.		0.033	
W.S. Elev (m)	468.91	Reach Len. (m)	145.38	147.11	147.04
Crit W.S. (m)	469.19	Flow Area (m2)		1.51	
E.G. Slope (m/m)	0.052614	Area (m2)		1.57	
Q Total (m3/s)	6.48	Flow (m3/s)		6.48	
Top Width (m)	3.32	Top Width (m)		3.32	
Vel Total (m/s)	4.30	Avg. Vel. (m/s)		4.30	
Max Chl Dpth (m)	0.59	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	28.3	Conv. (m3/s)		28.3	
Length Wtd. (m)	147.11	Wetted Per. (m)		3.10	
Min Ch El (m)	468.33	Shear (N/m2)		251.18	
Alpha	1.00	Stream Power (N/m s)		1080.44	
Frctn Loss (m)	0.88	Cum Volume (1000 m3)	0.04	1.13	0.04
C & E Loss (m)	0.23	Cum SA (1000 m2)	0.06	1.72	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 56 Profile: TR 200

E.G. Elev (m)	469.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.033	
W.S. Elev (m)	469.64	Reach Len. (m)	145.38	147.11	147.04
Crit W.S. (m)	469.24	Flow Area (m2)		3.75	
E.G. Slope (m/m)	0.003024	Area (m2)		4.14	
Q Total (m3/s)	7.08	Flow (m3/s)		7.08	
Top Width (m)	3.73	Top Width (m)		3.73	
Vel Total (m/s)	1.89	Avg. Vel. (m/s)		1.89	
Max Chl Dpth (m)	1.32	Hydr. Depth (m)		1.22	
Conv. Total (m3/s)	128.8	Conv. (m3/s)		128.8	
Length Wtd. (m)	147.11	Wetted Per. (m)		3.10	
Min Ch El (m)	468.33	Shear (N/m2)		35.87	
Alpha	1.00	Stream Power (N/m s)		67.84	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	1.38	0.04
C & E Loss (m)		Cum SA (1000 m2)	0.06	1.77	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 56 Profile: TR 500

E.G. Elev (m)	469.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.033	
W.S. Elev (m)	469.77	Reach Len. (m)	145.38	147.11	147.04
Crit W.S. (m)	469.29	Flow Area (m2)		4.14	
E.G. Slope (m/m)	0.002676	Area (m2)		4.62	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	3.80	Top Width (m)		3.80	
Vel Total (m/s)	1.90	Avg. Vel. (m/s)		1.90	
Max Chl Dpth (m)	1.45	Hydr. Depth (m)		1.35	
Conv. Total (m3/s)	152.2	Conv. (m3/s)		152.2	
Length Wtd. (m)	147.11	Wetted Per. (m)		3.10	
Min Ch El (m)	468.33	Shear (N/m2)		35.08	
Alpha	1.00	Stream Power (N/m s)		66.72	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	1.49	0.04
C & E Loss (m)		Cum SA (1000 m2)	0.06	1.80	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 55 Profile: TR 20

E.G. Elev (m)	466.78	Element	Left OB	Channel	Right OB
Vel Head (m)	1.23	Wt. n-Val.		0.033	
W.S. Elev (m)	465.55	Reach Len. (m)	16.22	16.74	17.34
Crit W.S. (m)	465.87	Flow Area (m2)		1.03	
E.G. Slope (m/m)	0.106220	Area (m2)		1.06	
Q Total (m3/s)	5.08	Flow (m3/s)		5.08	
Top Width (m)	2.92	Top Width (m)		2.92	
Vel Total (m/s)	4.92	Avg. Vel. (m/s)		4.92	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	15.6	Conv. (m3/s)		15.6	
Length Wtd. (m)	16.74	Wetted Per. (m)		2.94	
Min Ch El (m)	465.10	Shear (N/m2)		365.81	
Alpha	1.00	Stream Power (N/m s)		1798.29	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.77	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.00	1.21	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 55 Profile: TR 100

E.G. Elev (m)	467.00	Element	Left OB	Channel	Right OB
Vel Head (m)	1.38	Wt. n-Val.		0.033	
W.S. Elev (m)	465.62	Reach Len. (m)	16.22	16.74	17.34
Crit W.S. (m)	465.99	Flow Area (m2)		1.24	
E.G. Slope (m/m)	0.096846	Area (m2)		1.28	
Q Total (m3/s)	6.48	Flow (m3/s)		6.48	

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 55 Profile: TR 100 (Continued)

Top Width (m)	2.98	Top Width (m)		2.98	
Vel Total (m/s)	5.21	Avg. Vel. (m/s)		5.21	
Max Chl Dpth (m)	0.52	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	20.8	Conv. (m3/s)		20.8	
Length Wtd. (m)	16.74	Wetted Per. (m)		3.03	
Min Ch El (m)	465.10	Shear (N/m2)		390.27	
Alpha	1.00	Stream Power (N/m s)		2034.23	
Frctn Loss (m)		Cum Volume (1000 m3)	0.04	0.92	0.04
C & E Loss (m)		Cum SA (1000 m2)	0.06	1.25	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 55 Profile: TR 200

E.G. Elev (m)	467.10	Element	Left OB	Channel	Right OB
Vel Head (m)	1.44	Wt. n-Val.		0.033	
W.S. Elev (m)	465.65	Reach Len. (m)	16.22	16.74	17.34
Crit W.S. (m)	466.04	Flow Area (m2)		1.33	
E.G. Slope (m/m)	0.093828	Area (m2)		1.37	
Q Total (m3/s)	7.08	Flow (m3/s)		7.08	
Top Width (m)	3.01	Top Width (m)		3.01	
Vel Total (m/s)	5.33	Avg. Vel. (m/s)		5.33	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	23.1	Conv. (m3/s)		23.1	
Length Wtd. (m)	16.74	Wetted Per. (m)		3.06	
Min Ch El (m)	465.10	Shear (N/m2)		399.81	
Alpha	1.00	Stream Power (N/m s)		2129.05	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	0.97	0.04
C & E Loss (m)		Cum SA (1000 m2)	0.06	1.27	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 55 Profile: TR 500

E.G. Elev (m)	467.19	Element	Left OB	Channel	Right OB
Vel Head (m)	1.50	Wt. n-Val.		0.033	
W.S. Elev (m)	465.69	Reach Len. (m)	16.22	16.74	17.34
Crit W.S. (m)	466.11	Flow Area (m2)		1.45	
E.G. Slope (m/m)	0.088585	Area (m2)		1.50	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	3.04	Top Width (m)		3.04	
Vel Total (m/s)	5.43	Avg. Vel. (m/s)		5.43	
Max Chl Dpth (m)	0.59	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	26.4	Conv. (m3/s)		26.4	
Length Wtd. (m)	16.74	Wetted Per. (m)		3.11	
Min Ch El (m)	465.10	Shear (N/m2)		405.32	
Alpha	1.00	Stream Power (N/m s)		2199.15	
Frctn Loss (m)		Cum Volume (1000 m3)	0.05	1.04	0.04
C & E Loss (m)		Cum SA (1000 m2)	0.06	1.30	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 54 Profile: TR 20

E.G. Elev (m)	465.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.033	
W.S. Elev (m)	465.77	Reach Len. (m)	32.49	34.26	35.87
Crit W.S. (m)	465.60	Flow Area (m2)		2.43	
E.G. Slope (m/m)	0.009726	Area (m2)		2.43	
Q Total (m3/s)	5.08	Flow (m3/s)		5.08	
Top Width (m)	3.07	Top Width (m)		3.07	
Vel Total (m/s)	2.09	Avg. Vel. (m/s)		2.09	
Max Chl Dpth (m)	1.14	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	51.5	Conv. (m3/s)		51.5	
Length Wtd. (m)	34.26	Wetted Per. (m)		4.14	
Min Ch El (m)	464.62	Shear (N/m2)		55.88	

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 54 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		116.94	
Frctn Loss (m)	0.45	Cum Volume (1000 m3)	0.01	0.74	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.00	1.16	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 54 Profile: TR 100

E.G. Elev (m)	466.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.		0.033	
W.S. Elev (m)	465.89	Reach Len. (m)	32.49	34.26	35.87
Crit W.S. (m)	465.74	Flow Area (m2)		2.81	
E.G. Slope (m/m)	0.010625	Area (m2)		2.81	
Q Total (m3/s)	6.48	Flow (m3/s)		6.48	
Top Width (m)	3.24	Top Width (m)		3.24	
Vel Total (m/s)	2.30	Avg. Vel. (m/s)		2.30	
Max Chl Dpth (m)	1.26	Hydr. Depth (m)		0.87	
Conv. Total (m3/s)	62.9	Conv. (m3/s)		62.9	
Length Wtd. (m)	34.26	Wetted Per. (m)		4.44	
Min Ch El (m)	464.62	Shear (N/m2)		65.99	
Alpha	1.00	Stream Power (N/m s)		152.03	
Frctn Loss (m)	0.47	Cum Volume (1000 m3)	0.04	0.88	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.06	1.20	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 54 Profile: TR 200

E.G. Elev (m)	466.23	Element	Left OB	Channel	Right OB
Vel Head (m)	0.29	Wt. n-Val.		0.033	
W.S. Elev (m)	465.94	Reach Len. (m)	32.49	34.26	35.87
Crit W.S. (m)	465.80	Flow Area (m2)		2.97	
E.G. Slope (m/m)	0.010928	Area (m2)		2.97	
Q Total (m3/s)	7.08	Flow (m3/s)		7.08	
Top Width (m)	3.31	Top Width (m)		3.31	
Vel Total (m/s)	2.38	Avg. Vel. (m/s)		2.38	
Max Chl Dpth (m)	1.31	Hydr. Depth (m)		0.90	
Conv. Total (m3/s)	67.8	Conv. (m3/s)		67.8	
Length Wtd. (m)	34.26	Wetted Per. (m)		4.56	
Min Ch El (m)	464.62	Shear (N/m2)		69.85	
Alpha	1.00	Stream Power (N/m s)		166.36	
Frctn Loss (m)	0.47	Cum Volume (1000 m3)	0.05	0.93	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.06	1.22	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 54 Profile: TR 500

E.G. Elev (m)	466.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	466.00	Reach Len. (m)	32.49	34.26	35.87
Crit W.S. (m)	465.86	Flow Area (m2)		3.18	0.00
E.G. Slope (m/m)	0.011275	Area (m2)		3.18	0.00
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	0.00
Top Width (m)	3.64	Top Width (m)		3.39	0.25
Vel Total (m/s)	2.48	Avg. Vel. (m/s)		2.48	0.04
Max Chl Dpth (m)	1.37	Hydr. Depth (m)		0.94	0.00
Conv. Total (m3/s)	74.1	Conv. (m3/s)		74.1	0.0
Length Wtd. (m)	34.26	Wetted Per. (m)		4.70	0.25
Min Ch El (m)	464.62	Shear (N/m2)		74.71	0.43
Alpha	1.00	Stream Power (N/m s)		185.12	0.02
Frctn Loss (m)	0.48	Cum Volume (1000 m3)	0.05	1.00	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.06	1.24	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 53 Profile: TR 20

E.G. Elev (m)	465.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.		0.033	
W.S. Elev (m)	465.23	Reach Len. (m)	265.32	263.58	262.17
Crit W.S. (m)	465.23	Flow Area (m2)		2.10	
E.G. Slope (m/m)	0.018969	Area (m2)		2.10	
Q Total (m3/s)	5.08	Flow (m3/s)		5.08	
Top Width (m)	3.57	Top Width (m)		3.57	
Vel Total (m/s)	2.42	Avg. Vel. (m/s)		2.42	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.59	
Conv. Total (m3/s)	36.9	Conv. (m3/s)		36.9	
Length Wtd. (m)	263.58	Wetted Per. (m)		4.75	
Min Ch El (m)	464.16	Shear (N/m2)		82.16	
Alpha	1.00	Stream Power (N/m s)		198.87	
Frctn Loss (m)	4.50	Cum Volume (1000 m3)	0.01	0.66	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.00	1.04	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 53 Profile: TR 100

E.G. Elev (m)	465.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.34	Wt. n-Val.		0.033	
W.S. Elev (m)	465.34	Reach Len. (m)	265.32	263.58	262.17
Crit W.S. (m)	465.34	Flow Area (m2)		2.51	
E.G. Slope (m/m)	0.018257	Area (m2)		2.51	
Q Total (m3/s)	6.48	Flow (m3/s)		6.48	
Top Width (m)	3.69	Top Width (m)		3.69	
Vel Total (m/s)	2.58	Avg. Vel. (m/s)		2.58	
Max Chl Dpth (m)	1.18	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	48.0	Conv. (m3/s)		48.0	
Length Wtd. (m)	263.58	Wetted Per. (m)		5.02	
Min Ch El (m)	464.16	Shear (N/m2)		89.58	
Alpha	1.00	Stream Power (N/m s)		231.17	
Frctn Loss (m)	4.37	Cum Volume (1000 m3)	0.04	0.79	0.04
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.06	1.08	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 53 Profile: TR 200

E.G. Elev (m)	465.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.36	Wt. n-Val.		0.033	
W.S. Elev (m)	465.39	Reach Len. (m)	265.32	263.58	262.17
Crit W.S. (m)	465.39	Flow Area (m2)		2.68	
E.G. Slope (m/m)	0.018114	Area (m2)		2.68	
Q Total (m3/s)	7.08	Flow (m3/s)		7.08	
Top Width (m)	3.74	Top Width (m)		3.74	
Vel Total (m/s)	2.65	Avg. Vel. (m/s)		2.65	
Max Chl Dpth (m)	1.23	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	52.6	Conv. (m3/s)		52.6	
Length Wtd. (m)	263.58	Wetted Per. (m)		5.13	
Min Ch El (m)	464.16	Shear (N/m2)		92.78	
Alpha	1.00	Stream Power (N/m s)		245.43	
Frctn Loss (m)	4.27	Cum Volume (1000 m3)	0.05	0.84	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.06	1.10	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 53 Profile: TR 500

E.G. Elev (m)	465.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.38	Wt. n-Val.		0.033	
W.S. Elev (m)	465.45	Reach Len. (m)	265.32	263.58	262.17
Crit W.S. (m)	465.45	Flow Area (m2)		2.89	
E.G. Slope (m/m)	0.017977	Area (m2)		2.89	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 53 Profile: TR 500 (Continued)

Top Width (m)	3.80	Top Width (m)		3.80	
Vel Total (m/s)	2.72	Avg. Vel. (m/s)		2.72	
Max Chl Dpth (m)	1.28	Hydr. Depth (m)		0.76	
Conv. Total (m3/s)	58.7	Conv. (m3/s)		58.7	
Length Wtd. (m)	263.58	Wetted Per. (m)		5.26	
Min Ch El (m)	464.16	Shear (N/m2)		96.82	
Alpha	1.00	Stream Power (N/m s)		263.83	
Frctn Loss (m)	4.11	Cum Volume (1000 m3)	0.05	0.90	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.06	1.12	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 52 Profile: TR 20

E.G. Elev (m)	460.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.36	Wt. n-Val.		0.033	
W.S. Elev (m)	459.81	Reach Len. (m)	24.22	23.61	22.85
Crit W.S. (m)	459.88	Flow Area (m2)		1.91	
E.G. Slope (m/m)	0.021607	Area (m2)		1.91	
Q Total (m3/s)	5.08	Flow (m3/s)		5.08	
Top Width (m)	3.64	Top Width (m)		3.64	
Vel Total (m/s)	2.66	Avg. Vel. (m/s)		2.66	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	34.6	Conv. (m3/s)		34.6	
Length Wtd. (m)	23.63	Wetted Per. (m)		4.13	
Min Ch El (m)	459.03	Shear (N/m2)		97.96	
Alpha	1.00	Stream Power (N/m s)		260.90	
Frctn Loss (m)	5.35	Cum Volume (1000 m3)	0.01	0.13	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.00	0.09	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 52 Profile: TR 100

E.G. Elev (m)	460.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.		0.033	
W.S. Elev (m)	459.90	Reach Len. (m)	24.22	23.61	22.85
Crit W.S. (m)	459.99	Flow Area (m2)		2.23	
E.G. Slope (m/m)	0.022691	Area (m2)		2.23	
Q Total (m3/s)	6.48	Flow (m3/s)		6.48	
Top Width (m)	3.81	Top Width (m)		3.81	
Vel Total (m/s)	2.91	Avg. Vel. (m/s)		2.91	
Max Chl Dpth (m)	0.87	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	43.0	Conv. (m3/s)		43.0	
Length Wtd. (m)	23.65	Wetted Per. (m)		4.36	
Min Ch El (m)	459.03	Shear (N/m2)		113.47	
Alpha	1.00	Stream Power (N/m s)		330.58	
Frctn Loss (m)	5.35	Cum Volume (1000 m3)	0.04	0.17	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.06	0.09	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 52 Profile: TR 200

E.G. Elev (m)	460.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.46	Wt. n-Val.		0.033	
W.S. Elev (m)	459.94	Reach Len. (m)	24.22	23.61	22.85
Crit W.S. (m)	460.04	Flow Area (m2)		2.37	
E.G. Slope (m/m)	0.022719	Area (m2)		2.37	
Q Total (m3/s)	7.08	Flow (m3/s)		7.08	
Top Width (m)	3.88	Top Width (m)		3.88	
Vel Total (m/s)	2.99	Avg. Vel. (m/s)		2.99	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	47.0	Conv. (m3/s)		47.0	
Length Wtd. (m)	23.65	Wetted Per. (m)		4.47	
Min Ch El (m)	459.03	Shear (N/m2)		118.08	

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 52 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		353.23	
Frctn Loss (m)	5.34	Cum Volume (1000 m3)	0.05	0.17	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.06	0.10	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 52 Profile: TR 500

E.G. Elev (m)	460.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.		0.033	
W.S. Elev (m)	459.98	Reach Len. (m)	24.22	23.61	22.85
Crit W.S. (m)	460.10	Flow Area (m2)		2.55	
E.G. Slope (m/m)	0.022838	Area (m2)		2.55	
Q Total (m3/s)	7.87	Flow (m3/s)		7.87	
Top Width (m)	3.97	Top Width (m)		3.97	
Vel Total (m/s)	3.09	Avg. Vel. (m/s)		3.09	
Max Chl Dpth (m)	0.95	Hydr. Depth (m)		0.64	
Conv. Total (m3/s)	52.1	Conv. (m3/s)		52.1	
Length Wtd. (m)	23.66	Wetted Per. (m)		4.60	
Min Ch El (m)	459.03	Shear (N/m2)		124.13	
Alpha	1.00	Stream Power (N/m s)		383.57	
Frctn Loss (m)	5.34	Cum Volume (1000 m3)	0.05	0.18	0.04
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.06	0.10	0.07

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 51 Profile: TR 20

E.G. Elev (m)	459.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	459.72	Reach Len. (m)	22.49	22.49	22.49
Crit W.S. (m)	459.38	Flow Area (m2)	0.93	3.21	
E.G. Slope (m/m)	0.003582	Area (m2)	0.93	3.21	
Q Total (m3/s)	5.08	Flow (m3/s)	0.33	4.75	
Top Width (m)	7.82	Top Width (m)	4.26	3.57	
Vel Total (m/s)	1.23	Avg. Vel. (m/s)	0.36	1.48	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)	0.22	0.90	
Conv. Total (m3/s)	84.9	Conv. (m3/s)	5.6	79.3	
Length Wtd. (m)	22.49	Wetted Per. (m)	4.28	4.35	
Min Ch El (m)	458.43	Shear (N/m2)	7.61	25.91	
Alpha	1.36	Stream Power (N/m s)	2.74	38.37	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	0.01	0.06	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)			

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 51 Profile: TR 100

E.G. Elev (m)	460.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	459.90	Reach Len. (m)	22.49	22.49	22.49
Crit W.S. (m)	459.52	Flow Area (m2)	1.87	3.88	
E.G. Slope (m/m)	0.002969	Area (m2)	1.87	3.88	
Q Total (m3/s)	6.48	Flow (m3/s)	0.79	5.69	
Top Width (m)	9.60	Top Width (m)	5.81	3.78	
Vel Total (m/s)	1.13	Avg. Vel. (m/s)	0.42	1.47	
Max Chl Dpth (m)	1.47	Hydr. Depth (m)	0.32	1.03	
Conv. Total (m3/s)	119.0	Conv. (m3/s)	14.5	104.5	
Length Wtd. (m)	22.49	Wetted Per. (m)	5.87	4.63	
Min Ch El (m)	458.43	Shear (N/m2)	9.27	24.40	
Alpha	1.50	Stream Power (N/m s)	3.93	35.81	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.03	0.08	0.01
C & E Loss (m)	0.01	Cum SA (1000 m2)			

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 51 Profile: TR 200

E.G. Elev (m)	460.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	459.95	Reach Len. (m)	22.49	22.49	22.49
Crit W.S. (m)	459.58	Flow Area (m2)	2.11	4.04	
E.G. Slope (m/m)	0.003045	Area (m2)	2.11	4.04	
Q Total (m3/s)	7.08	Flow (m3/s)	0.98	6.11	
Top Width (m)	9.64	Top Width (m)	5.81	3.83	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)	0.46	1.51	
Max Chl Dpth (m)	1.51	Hydr. Depth (m)	0.36	1.05	
Conv. Total (m3/s)	128.4	Conv. (m3/s)	17.7	110.7	
Length Wtd. (m)	22.49	Wetted Per. (m)	5.91	4.69	
Min Ch El (m)	458.43	Shear (N/m2)	10.67	25.69	
Alpha	1.51	Stream Power (N/m s)	4.94	38.86	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.03	0.08	0.01
C & E Loss (m)	0.01	Cum SA (1000 m2)			

Plan: gambrero River: Rio Gambrero Reach:Luserna S.G. Riv Sta: 51 Profile: TR 500

E.G. Elev (m)	460.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	460.00	Reach Len. (m)	22.49	22.49	22.49
Crit W.S. (m)	459.65	Flow Area (m2)	2.43	4.25	
E.G. Slope (m/m)	0.003094	Area (m2)	2.43	4.25	
Q Total (m3/s)	7.87	Flow (m3/s)	1.24	6.63	
Top Width (m)	9.71	Top Width (m)	5.81	3.90	
Vel Total (m/s)	1.18	Avg. Vel. (m/s)	0.51	1.56	
Max Chl Dpth (m)	1.57	Hydr. Depth (m)	0.42	1.09	
Conv. Total (m3/s)	141.5	Conv. (m3/s)	22.3	119.2	
Length Wtd. (m)	22.49	Wetted Per. (m)	5.96	4.78	
Min Ch El (m)	458.43	Shear (N/m2)	12.38	27.00	
Alpha	1.51	Stream Power (N/m s)	6.32	42.09	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)	0.03	0.08	0.01
C & E Loss (m)	0.01	Cum SA (1000 m2)			

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 50 Profile: TR 20

E.G. Elev (m)	459.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.42	Reach Len. (m)	0.29	0.29	0.29
Crit W.S. (m)	459.21	Flow Area (m2)	0.00	4.14	0.28
E.G. Slope (m/m)	0.007994	Area (m2)	0.00	4.14	0.28
Q Total (m3/s)	9.35	Flow (m3/s)	0.00	9.30	0.06
Top Width (m)	10.43	Top Width (m)	0.35	4.21	5.87
Vel Total (m/s)	2.11	Avg. Vel. (m/s)	0.06	2.24	0.20
Max Chl Dpth (m)	1.34	Hydr. Depth (m)	0.01	0.98	0.05
Conv. Total (m3/s)	104.6	Conv. (m3/s)	0.0	104.0	0.6
Length Wtd. (m)	0.29	Wetted Per. (m)	0.35	5.50	5.92
Min Ch El (m)	458.08	Shear (N/m2)	0.69	59.10	3.74
Alpha	1.12	Stream Power (N/m s)	0.04	132.65	0.73
Frctn Loss (m)		Cum Volume (1000 m3)	0.63	5.41	0.76
C & E Loss (m)		Cum SA (1000 m2)	3.04	6.84	2.53

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 50 Profile: TR 100

E.G. Elev (m)	459.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.77	Reach Len. (m)	0.29	0.29	0.29
Crit W.S. (m)	459.49	Flow Area (m2)	1.13	5.59	2.30
E.G. Slope (m/m)	0.003618	Area (m2)	1.13	5.59	2.30
Q Total (m3/s)	11.93	Flow (m3/s)	0.43	10.31	1.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 50 Profile: TR 100 (Continued)

Top Width (m)	14.75	Top Width (m)	4.66	4.21	5.87
Vel Total (m/s)	1.32	Avg. Vel. (m/s)	0.38	1.84	0.51
Max Chl Dpth (m)	1.68	Hydr. Depth (m)	0.24	1.33	0.39
Conv. Total (m3/s)	198.3	Conv. (m3/s)	7.2	171.4	19.7
Length Wtd. (m)	0.29	Wetted Per. (m)	4.78	5.50	6.27
Min Ch El (m)	458.08	Shear (N/m2)	8.36	36.11	13.04
Alpha	1.70	Stream Power (N/m s)	3.20	66.59	6.70
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.42	6.43	1.40
C & E Loss (m)	0.00	Cum SA (1000 m2)	4.71	7.07	3.52

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 50 Profile: TR 200

E.G. Elev (m)	459.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.79	Reach Len. (m)	0.29	0.29	0.29
Crit W.S. (m)	459.56	Flow Area (m2)	1.21	5.67	2.41
E.G. Slope (m/m)	0.004054	Area (m2)	1.21	5.67	2.41
Q Total (m3/s)	13.03	Flow (m3/s)	0.51	11.17	1.35
Top Width (m)	14.75	Top Width (m)	4.66	4.21	5.87
Vel Total (m/s)	1.40	Avg. Vel. (m/s)	0.42	1.97	0.56
Max Chl Dpth (m)	1.70	Hydr. Depth (m)	0.26	1.35	0.41
Conv. Total (m3/s)	204.7	Conv. (m3/s)	8.1	175.4	21.2
Length Wtd. (m)	0.29	Wetted Per. (m)	4.80	5.50	6.29
Min Ch El (m)	458.08	Shear (N/m2)	10.04	41.01	15.24
Alpha	1.71	Stream Power (N/m s)	4.25	80.79	8.54
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.67	6.73	1.59
C & E Loss (m)	0.00	Cum SA (1000 m2)	5.13	7.11	3.65

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 50 Profile: TR 500

E.G. Elev (m)	460.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.81	Reach Len. (m)	0.29	0.29	0.29
Crit W.S. (m)	459.64	Flow Area (m2)	1.33	5.78	2.56
E.G. Slope (m/m)	0.004587	Area (m2)	1.33	5.78	2.56
Q Total (m3/s)	14.48	Flow (m3/s)	0.64	12.26	1.58
Top Width (m)	14.75	Top Width (m)	4.66	4.21	5.87
Vel Total (m/s)	1.50	Avg. Vel. (m/s)	0.48	2.12	0.62
Max Chl Dpth (m)	1.73	Hydr. Depth (m)	0.29	1.37	0.44
Conv. Total (m3/s)	213.8	Conv. (m3/s)	9.4	181.0	23.4
Length Wtd. (m)	0.29	Wetted Per. (m)	4.83	5.50	6.31
Min Ch El (m)	458.08	Shear (N/m2)	12.41	47.28	18.25
Alpha	1.72	Stream Power (N/m s)	5.93	100.33	11.29
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	2.12	7.50	2.32
C & E Loss (m)	0.00	Cum SA (1000 m2)	5.84	7.15	4.68

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49.5 BR U Profile: TR 20

E.G. Elev (m)	459.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.			
W.S. Elev (m)	459.42	Reach Len. (m)	3.58	3.58	3.58
Crit W.S. (m)	459.61	Flow Area (m2)	0.00	2.83	0.28
E.G. Slope (m/m)		Area (m2)	0.00	2.83	0.28
Q Total (m3/s)	9.35	Flow (m3/s)	0.42	7.46	1.54
Top Width (m)	8.95	Top Width (m)	0.35	2.73	5.87
Vel Total (m/s)	3.00	Avg. Vel. (m/s)	138.14	2.63	5.43
Max Chl Dpth (m)	1.34	Hydr. Depth (m)	0.01	1.04	0.05
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	3.58	Wetted Per. (m)	0.35	11.56	5.92
Min Ch El (m)	458.08	Shear (N/m2)			

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49.5 BR U Profile: TR 20 (Continued)

Alpha	1.15	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.63	5.41	0.76
C & E Loss (m)		Cum SA (1000 m2)	3.04	6.84	2.52

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49.5 BR U Profile: TR 100

E.G. Elev (m)	459.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.76	Reach Len. (m)	3.58	3.58	3.58
Crit W.S. (m)	459.70	Flow Area (m2)	1.10	4.24	2.27
E.G. Slope (m/m)	0.018939	Area (m2)	1.10	4.24	2.27
Q Total (m3/s)	11.93	Flow (m3/s)	0.95	8.34	2.64
Top Width (m)	14.75	Top Width (m)	4.66	4.21	5.87
Vel Total (m/s)	1.57	Avg. Vel. (m/s)	0.86	1.97	1.17
Max Chl Dpth (m)	1.68	Hydr. Depth (m)	0.24	1.01	0.39
Conv. Total (m3/s)	86.7	Conv. (m3/s)	6.9	60.6	19.2
Length Wtd. (m)	3.58	Wetted Per. (m)	4.78	13.06	6.26
Min Ch El (m)	458.08	Shear (N/m2)	42.71	60.23	67.24
Alpha	1.25	Stream Power (N/m s)	36.77	118.56	78.34
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	1.42	6.43	1.40
C & E Loss (m)	0.00	Cum SA (1000 m2)	4.71	7.07	3.52

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49.5 BR U Profile: TR 200

E.G. Elev (m)	459.95	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.79	Reach Len. (m)	3.58	3.58	3.58
Crit W.S. (m)	459.73	Flow Area (m2)	1.21	4.34	2.41
E.G. Slope (m/m)	0.019921	Area (m2)	1.21	4.34	2.41
Q Total (m3/s)	13.03	Flow (m3/s)	1.14	8.90	2.99
Top Width (m)	14.75	Top Width (m)	4.66	4.21	5.87
Vel Total (m/s)	1.64	Avg. Vel. (m/s)	0.94	2.05	1.24
Max Chl Dpth (m)	1.70	Hydr. Depth (m)	0.26	1.03	0.41
Conv. Total (m3/s)	92.3	Conv. (m3/s)	8.1	63.1	21.2
Length Wtd. (m)	3.58	Wetted Per. (m)	4.80	13.06	6.29
Min Ch El (m)	458.08	Shear (N/m2)	49.31	64.88	74.89
Alpha	1.23	Stream Power (N/m s)	46.32	133.09	92.97
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	1.66	6.73	1.59
C & E Loss (m)	0.00	Cum SA (1000 m2)	5.13	7.10	3.65

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49.5 BR U Profile: TR 500

E.G. Elev (m)	460.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.82	Reach Len. (m)	3.58	3.58	3.58
Crit W.S. (m)	459.76	Flow Area (m2)	1.36	4.47	2.60
E.G. Slope (m/m)	0.020933	Area (m2)	1.36	4.47	2.60
Q Total (m3/s)	14.48	Flow (m3/s)	1.41	9.60	3.47
Top Width (m)	14.75	Top Width (m)	4.66	4.21	5.87
Vel Total (m/s)	1.72	Avg. Vel. (m/s)	1.04	2.15	1.33
Max Chl Dpth (m)	1.73	Hydr. Depth (m)	0.29	1.06	0.44
Conv. Total (m3/s)	100.1	Conv. (m3/s)	9.8	66.4	24.0
Length Wtd. (m)	3.58	Wetted Per. (m)	4.84	13.06	6.32
Min Ch El (m)	458.08	Shear (N/m2)	57.82	70.30	84.42
Alpha	1.22	Stream Power (N/m s)	59.91	150.88	112.57
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	2.12	7.50	2.32
C & E Loss (m)	0.00	Cum SA (1000 m2)	5.84	7.15	4.67

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49.5 BR D Profile: TR 20

E.G. Elev (m)	459.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.34	Wt. n-Val.			
W.S. Elev (m)	459.42	Reach Len. (m)	0.05	0.05	0.05
Crit W.S. (m)	459.52	Flow Area (m2)	0.00	3.35	0.70
E.G. Slope (m/m)		Area (m2)	0.00	3.35	0.70
Q Total (m3/s)	9.35	Flow (m3/s)	0.42	7.20	1.79
Top Width (m)	9.08	Top Width (m)	0.07	2.79	6.23
Vel Total (m/s)	2.31	Avg. Vel. (m/s)	5319.10	2.15	2.56
Max Chl Dpth (m)	1.49	Hydr. Depth (m)	0.00	1.20	0.11
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.05	Wetted Per. (m)	0.07	11.45	6.40
Min Ch El (m)	457.93	Shear (N/m2)			
Alpha	1.23	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.63	5.40	0.76
C & E Loss (m)		Cum SA (1000 m2)	3.04	6.83	2.50

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49.5 BR D Profile: TR 100

E.G. Elev (m)	459.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.64	Reach Len. (m)	0.05	0.05	0.05
Crit W.S. (m)	459.64	Flow Area (m2)	0.77	4.21	2.04
E.G. Slope (m/m)	0.022694	Area (m2)	0.77	4.21	2.04
Q Total (m3/s)	11.93	Flow (m3/s)	0.41	9.18	2.34
Top Width (m)	18.10	Top Width (m)	7.80	4.07	6.23
Vel Total (m/s)	1.70	Avg. Vel. (m/s)	0.53	2.18	1.15
Max Chl Dpth (m)	1.71	Hydr. Depth (m)	0.10	1.04	0.33
Conv. Total (m3/s)	79.2	Conv. (m3/s)	2.7	60.9	15.5
Length Wtd. (m)	0.05	Wetted Per. (m)	7.82	12.75	6.61
Min Ch El (m)	457.93	Shear (N/m2)	21.84	73.48	68.63
Alpha	1.36	Stream Power (N/m s)	11.66	160.23	78.66
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.42	6.41	1.39
C & E Loss (m)	0.03	Cum SA (1000 m2)	4.69	7.06	3.49

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49.5 BR D Profile: TR 200

E.G. Elev (m)	459.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.67	Reach Len. (m)	0.05	0.05	0.05
Crit W.S. (m)	459.67	Flow Area (m2)	1.03	4.35	2.25
E.G. Slope (m/m)	0.022464	Area (m2)	1.03	4.35	2.25
Q Total (m3/s)	13.03	Flow (m3/s)	0.67	9.64	2.73
Top Width (m)	18.10	Top Width (m)	7.80	4.07	6.23
Vel Total (m/s)	1.71	Avg. Vel. (m/s)	0.65	2.22	1.21
Max Chl Dpth (m)	1.74	Hydr. Depth (m)	0.13	1.07	0.36
Conv. Total (m3/s)	86.9	Conv. (m3/s)	4.4	64.3	18.2
Length Wtd. (m)	0.05	Wetted Per. (m)	7.85	12.75	6.65
Min Ch El (m)	457.93	Shear (N/m2)	28.93	75.11	74.58
Alpha	1.36	Stream Power (N/m s)	18.67	166.48	90.49
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.66	6.71	1.58
C & E Loss (m)	0.03	Cum SA (1000 m2)	5.11	7.09	3.63

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49.5 BR D Profile: TR 500

E.G. Elev (m)	459.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.71	Reach Len. (m)	0.05	0.05	0.05
Crit W.S. (m)	459.71	Flow Area (m2)	1.30	4.49	2.46
E.G. Slope (m/m)	0.023063	Area (m2)	1.30	4.49	2.46
Q Total (m3/s)	14.48	Flow (m3/s)	0.99	10.29	3.20

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49.5 BR D Profile: TR 500 (Continued)

Top Width (m)	18.10	Top Width (m)	7.80	4.07	6.23
Vel Total (m/s)	1.76	Avg. Vel. (m/s)	0.76	2.29	1.30
Max Chl Dpth (m)	1.78	Hydr. Depth (m)	0.17	1.10	0.40
Conv. Total (m3/s)	95.3	Conv. (m3/s)	6.5	67.7	21.1
Length Wtd. (m)	0.05	Wetted Per. (m)	7.88	12.75	6.68
Min Ch El (m)	457.93	Shear (N/m2)	37.20	79.57	83.37
Alpha	1.35	Stream Power (N/m s)	28.27	182.49	108.48
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	2.12	7.48	2.31
C & E Loss (m)	0.02	Cum SA (1000 m2)	5.82	7.13	4.65

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49 Profile: TR 20

E.G. Elev (m)	459.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.		0.033	
W.S. Elev (m)	459.21	Reach Len. (m)	20.71	20.21	20.04
Crit W.S. (m)	459.06	Flow Area (m2)		3.75	
E.G. Slope (m/m)	0.010383	Area (m2)		3.75	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	3.86	Top Width (m)		3.86	
Vel Total (m/s)	2.49	Avg. Vel. (m/s)		2.49	
Max Chl Dpth (m)	1.28	Hydr. Depth (m)		0.97	
Conv. Total (m3/s)	91.8	Conv. (m3/s)		91.8	
Length Wtd. (m)	20.22	Wetted Per. (m)		5.18	
Min Ch El (m)	457.93	Shear (N/m2)		73.80	
Alpha	1.00	Stream Power (N/m s)		183.87	
Frctn Loss (m)	0.17	Cum Volume (1000 m3)	0.63	5.40	0.76
C & E Loss (m)	0.03	Cum SA (1000 m2)	3.04	6.83	2.50

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49 Profile: TR 100

E.G. Elev (m)	459.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.74	Wt. n-Val.		0.033	
W.S. Elev (m)	459.04	Reach Len. (m)	20.71	20.21	20.04
Crit W.S. (m)	459.22	Flow Area (m2)		3.12	
E.G. Slope (m/m)	0.028213	Area (m2)		3.12	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	3.67	Top Width (m)		3.67	
Vel Total (m/s)	3.82	Avg. Vel. (m/s)		3.82	
Max Chl Dpth (m)	1.11	Hydr. Depth (m)		0.85	
Conv. Total (m3/s)	71.0	Conv. (m3/s)		71.0	
Length Wtd. (m)	20.23	Wetted Per. (m)		4.79	
Min Ch El (m)	457.93	Shear (N/m2)		180.05	
Alpha	1.00	Stream Power (N/m s)		688.22	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.42	6.41	1.39
C & E Loss (m)	0.05	Cum SA (1000 m2)	4.69	7.06	3.49

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49 Profile: TR 200

E.G. Elev (m)	459.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.65	Wt. n-Val.		0.033	
W.S. Elev (m)	459.18	Reach Len. (m)	20.71	20.21	20.04
Crit W.S. (m)	459.30	Flow Area (m2)		3.64	
E.G. Slope (m/m)	0.022007	Area (m2)		3.64	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	3.82	Top Width (m)		3.82	
Vel Total (m/s)	3.58	Avg. Vel. (m/s)		3.58	
Max Chl Dpth (m)	1.24	Hydr. Depth (m)		0.95	
Conv. Total (m3/s)	87.8	Conv. (m3/s)		87.8	
Length Wtd. (m)	20.21	Wetted Per. (m)		5.11	
Min Ch El (m)	457.93	Shear (N/m2)		153.60	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		550.43	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.66	6.71	1.58
C & E Loss (m)	0.05	Cum SA (1000 m2)	5.11	7.09	3.63

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 49 Profile: TR 500

E.G. Elev (m)	459.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.46	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.43	Reach Len. (m)	20.71	20.21	20.04
Crit W.S. (m)	459.52	Flow Area (m2)	0.00	4.66	0.76
E.G. Slope (m/m)	0.012822	Area (m2)	0.00	4.66	0.76
Q Total (m3/s)	14.48	Flow (m3/s)	0.00	14.13	0.35
Top Width (m)	10.65	Top Width (m)	0.35	4.07	6.23
Vel Total (m/s)	2.67	Avg. Vel. (m/s)	0.06	3.03	0.46
Max Chl Dpth (m)	1.50	Hydr. Depth (m)	0.01	1.15	0.12
Conv. Total (m3/s)	127.9	Conv. (m3/s)	0.0	124.8	3.1
Length Wtd. (m)	20.22	Wetted Per. (m)	0.35	5.61	6.41
Min Ch El (m)	457.93	Shear (N/m2)	0.79	104.47	14.96
Alpha	1.26	Stream Power (N/m s)	0.05	316.82	6.83
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	2.12	7.48	2.31
C & E Loss (m)	0.02	Cum SA (1000 m2)	5.82	7.13	4.65

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 48 Profile: TR 20

E.G. Elev (m)	459.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.11	Reach Len. (m)	32.51	33.17	33.74
Crit W.S. (m)	459.11	Flow Area (m2)	1.61	3.50	1.73
E.G. Slope (m/m)	0.007303	Area (m2)	1.61	3.50	1.73
Q Total (m3/s)	9.35	Flow (m3/s)	0.78	7.65	0.93
Top Width (m)	18.30	Top Width (m)	7.97	3.16	7.17
Vel Total (m/s)	1.37	Avg. Vel. (m/s)	0.48	2.18	0.54
Max Chl Dpth (m)	1.43	Hydr. Depth (m)	0.20	1.11	0.24
Conv. Total (m3/s)	109.4	Conv. (m3/s)	9.1	89.5	10.9
Length Wtd. (m)	33.17	Wetted Per. (m)	8.13	4.53	7.47
Min Ch El (m)	457.68	Shear (N/m2)	14.16	55.40	16.60
Alpha	2.11	Stream Power (N/m s)	6.85	120.90	8.93
Frctn Loss (m)	0.28	Cum Volume (1000 m3)	0.61	5.32	0.75
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.96	6.76	2.43

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 48 Profile: TR 100

E.G. Elev (m)	459.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.13	Reach Len. (m)	32.51	33.17	33.74
Crit W.S. (m)	459.19	Flow Area (m2)	1.74	3.56	1.85
E.G. Slope (m/m)	0.010885	Area (m2)	1.74	3.56	1.85
Q Total (m3/s)	11.93	Flow (m3/s)	1.08	9.57	1.27
Top Width (m)	18.30	Top Width (m)	7.97	3.16	7.17
Vel Total (m/s)	1.67	Avg. Vel. (m/s)	0.62	2.69	0.69
Max Chl Dpth (m)	1.45	Hydr. Depth (m)	0.22	1.13	0.26
Conv. Total (m3/s)	114.3	Conv. (m3/s)	10.4	91.8	12.2
Length Wtd. (m)	33.17	Wetted Per. (m)	8.15	4.53	7.48
Min Ch El (m)	457.68	Shear (N/m2)	22.84	83.84	26.43
Alpha	2.12	Stream Power (N/m s)	14.20	225.62	18.12
Frctn Loss (m)	0.27	Cum Volume (1000 m3)	1.40	6.35	1.37
C & E Loss (m)	0.16	Cum SA (1000 m2)	4.60	6.99	3.42

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 48 Profile: TR 200

E.G. Elev (m)	459.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.22	Reach Len. (m)	32.51	33.17	33.74
Crit W.S. (m)	459.23	Flow Area (m2)	2.44	3.84	2.48
E.G. Slope (m/m)	0.008439	Area (m2)	2.44	3.84	2.48
Q Total (m3/s)	13.03	Flow (m3/s)	1.67	9.56	1.81
Top Width (m)	18.30	Top Width (m)	7.97	3.16	7.17
Vel Total (m/s)	1.49	Avg. Vel. (m/s)	0.68	2.49	0.73
Max Chl Dpth (m)	1.53	Hydr. Depth (m)	0.31	1.21	0.35
Conv. Total (m3/s)	141.9	Conv. (m3/s)	18.1	104.0	19.7
Length Wtd. (m)	33.17	Wetted Per. (m)	8.23	4.53	7.57
Min Ch El (m)	457.68	Shear (N/m2)	24.57	70.08	27.16
Alpha	2.12	Stream Power (N/m s)	16.74	174.61	19.78
Frctn Loss (m)	0.65	Cum Volume (1000 m3)	1.64	6.63	1.55
C & E Loss (m)	0.06	Cum SA (1000 m2)	5.03	7.02	3.56

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 48 Profile: TR 500

E.G. Elev (m)	459.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.47	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.12	Reach Len. (m)	32.51	33.17	33.74
Crit W.S. (m)	459.26	Flow Area (m2)	1.64	3.52	1.76
E.G. Slope (m/m)	0.017145	Area (m2)	1.64	3.52	1.76
Q Total (m3/s)	14.48	Flow (m3/s)	1.23	11.78	1.46
Top Width (m)	18.30	Top Width (m)	7.97	3.16	7.17
Vel Total (m/s)	2.09	Avg. Vel. (m/s)	0.75	3.35	0.83
Max Chl Dpth (m)	1.43	Hydr. Depth (m)	0.21	1.11	0.25
Conv. Total (m3/s)	110.6	Conv. (m3/s)	9.4	90.0	11.2
Length Wtd. (m)	33.17	Wetted Per. (m)	8.13	4.53	7.47
Min Ch El (m)	457.68	Shear (N/m2)	33.89	130.52	39.60
Alpha	2.11	Stream Power (N/m s)	25.42	437.46	32.96
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	2.10	7.40	2.29
C & E Loss (m)	0.00	Cum SA (1000 m2)	5.73	7.06	4.52

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 47 Profile: TR 20

E.G. Elev (m)	458.69	Element	Left OB	Channel	Right OB
Vel Head (m)	1.08	Wt. n-Val.		0.033	
W.S. Elev (m)	457.61	Reach Len. (m)	0.59	0.59	0.59
Crit W.S. (m)	457.94	Flow Area (m2)		2.03	
E.G. Slope (m/m)	0.060906	Area (m2)		2.03	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	3.04	Top Width (m)		3.04	
Vel Total (m/s)	4.60	Avg. Vel. (m/s)		4.60	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	37.9	Conv. (m3/s)		37.9	
Length Wtd. (m)	0.59	Wetted Per. (m)		4.21	
Min Ch El (m)	456.89	Shear (N/m2)		288.25	
Alpha	1.00	Stream Power (N/m s)		1326.34	
Frctn Loss (m)	0.54	Cum Volume (1000 m3)	0.58	5.23	0.72
C & E Loss (m)	0.09	Cum SA (1000 m2)	2.83	6.66	2.31

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 47 Profile: TR 100

E.G. Elev (m)	458.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.89	Wt. n-Val.		0.033	
W.S. Elev (m)	457.88	Reach Len. (m)	0.59	0.59	0.59
Crit W.S. (m)	458.10	Flow Area (m2)		2.86	
E.G. Slope (m/m)	0.037244	Area (m2)		2.86	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 47 Profile: TR 100 (Continued)

Top Width (m)	3.10	Top Width (m)		3.10	
Vel Total (m/s)	4.17	Avg. Vel. (m/s)		4.17	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.92	
Conv. Total (m3/s)	61.8	Conv. (m3/s)		61.8	
Length Wtd. (m)	0.59	Wetted Per. (m)		4.76	
Min Ch El (m)	456.89	Shear (N/m2)		219.77	
Alpha	1.00	Stream Power (N/m s)		916.06	
Frctn Loss (m)	0.61	Cum Volume (1000 m3)	1.37	6.24	1.34
C & E Loss (m)	0.06	Cum SA (1000 m2)	4.48	6.88	3.30

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 47 Profile: TR 200

E.G. Elev (m)	458.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.93	Wt. n-Val.		0.033	
W.S. Elev (m)	457.94	Reach Len. (m)	0.59	0.59	0.59
Crit W.S. (m)	458.45	Flow Area (m2)		3.05	
E.G. Slope (m/m)	0.037166	Area (m2)		3.05	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	3.11	Top Width (m)		3.11	
Vel Total (m/s)	4.27	Avg. Vel. (m/s)		4.27	
Max Chl Dpth (m)	1.05	Hydr. Depth (m)		0.98	
Conv. Total (m3/s)	67.6	Conv. (m3/s)		67.6	
Length Wtd. (m)	0.59	Wetted Per. (m)		4.88	
Min Ch El (m)	456.89	Shear (N/m2)		227.92	
Alpha	1.00	Stream Power (N/m s)		973.73	
Frctn Loss (m)	0.51	Cum Volume (1000 m3)	1.60	6.52	1.51
C & E Loss (m)	0.07	Cum SA (1000 m2)	4.90	6.92	3.44

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 47 Profile: TR 500

E.G. Elev (m)	458.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.71	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	458.21	Reach Len. (m)	0.59	0.59	0.59
Crit W.S. (m)	458.51	Flow Area (m2)	0.03	3.89	
E.G. Slope (m/m)	0.023252	Area (m2)	0.03	3.89	
Q Total (m3/s)	14.48	Flow (m3/s)	0.01	14.47	
Top Width (m)	4.74	Top Width (m)	1.58	3.16	
Vel Total (m/s)	3.69	Avg. Vel. (m/s)	0.20	3.72	
Max Chl Dpth (m)	1.32	Hydr. Depth (m)	0.02	1.23	
Conv. Total (m3/s)	94.9	Conv. (m3/s)	0.0	94.9	
Length Wtd. (m)	0.59	Wetted Per. (m)	1.58	5.37	
Min Ch El (m)	456.89	Shear (N/m2)	4.94	165.01	
Alpha	1.02	Stream Power (N/m s)	0.98	614.56	
Frctn Loss (m)	0.66	Cum Volume (1000 m3)	2.07	7.28	2.26
C & E Loss (m)	0.02	Cum SA (1000 m2)	5.57	6.95	4.40

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46.5 BR U Profile: TR 20

E.G. Elev (m)	458.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.50	Wt. n-Val.		0.033	
W.S. Elev (m)	458.21	Reach Len. (m)	4.10	4.10	4.10
Crit W.S. (m)	458.46	Flow Area (m2)		2.98	
E.G. Slope (m/m)	0.039446	Area (m2)		2.98	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	3.13	Avg. Vel. (m/s)		3.13	
Max Chl Dpth (m)	1.32	Hydr. Depth (m)			
Conv. Total (m3/s)	47.1	Conv. (m3/s)		47.1	
Length Wtd. (m)		Wetted Per. (m)		7.94	
Min Ch El (m)	456.89	Shear (N/m2)		145.36	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46.5 BR U Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		455.55	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.58	5.23	0.72
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.83	6.66	2.31

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46.5 BR U Profile: TR 100

E.G. Elev (m)	459.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.81	Wt. n-Val.		0.033	
W.S. Elev (m)	458.25	Reach Len. (m)	4.10	4.10	4.10
Crit W.S. (m)	458.52	Flow Area (m2)		2.98	
E.G. Slope (m/m)	0.064145	Area (m2)		2.98	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	4.00	Avg. Vel. (m/s)		4.00	
Max Chl Dpth (m)	1.36	Hydr. Depth (m)			
Conv. Total (m3/s)	47.1	Conv. (m3/s)		47.1	
Length Wtd. (m)		Wetted Per. (m)		7.94	
Min Ch El (m)	456.89	Shear (N/m2)		236.37	
Alpha	1.00	Stream Power (N/m s)		944.66	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	1.37	6.24	1.34
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.48	6.88	3.30

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46.5 BR U Profile: TR 200

E.G. Elev (m)	458.96	Element	Left OB	Channel	Right OB
Vel Head (m)	1.09	Wt. n-Val.		0.033	
W.S. Elev (m)	457.86	Reach Len. (m)	4.10	4.10	4.10
Crit W.S. (m)	458.55	Flow Area (m2)		2.81	
E.G. Slope (m/m)	0.046614	Area (m2)		2.81	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	3.10	Top Width (m)		3.10	
Vel Total (m/s)	4.63	Avg. Vel. (m/s)		4.63	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)		0.91	
Conv. Total (m3/s)	60.4	Conv. (m3/s)		60.4	
Length Wtd. (m)		Wetted Per. (m)		4.72	
Min Ch El (m)	456.89	Shear (N/m2)		272.26	
Alpha	1.00	Stream Power (N/m s)		1260.93	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	1.60	6.52	1.51
C & E Loss (m)	0.22	Cum SA (1000 m2)	4.90	6.91	3.44

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46.5 BR U Profile: TR 500

E.G. Elev (m)	458.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.51	Reach Len. (m)	4.10	4.10	4.10
Crit W.S. (m)	458.58	Flow Area (m2)	1.19	3.76	2.13
E.G. Slope (m/m)	0.035229	Area (m2)	1.19	3.76	2.13
Q Total (m3/s)	14.48	Flow (m3/s)	1.38	10.39	2.71
Top Width (m)	16.13	Top Width (m)	5.10	3.17	7.86
Vel Total (m/s)	2.05	Avg. Vel. (m/s)	1.16	2.76	1.28
Max Chl Dpth (m)	1.63	Hydr. Depth (m)	0.23	1.19	0.27
Conv. Total (m3/s)	77.1	Conv. (m3/s)	7.3	55.3	14.5
Length Wtd. (m)		Wetted Per. (m)	5.31	11.11	8.15
Min Ch El (m)	456.89	Shear (N/m2)	77.56	116.89	90.12
Alpha	1.41	Stream Power (N/m s)	89.62	322.82	115.09
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	2.07	7.28	2.26
C & E Loss (m)	0.02	Cum SA (1000 m2)	5.57	6.95	4.39

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46.5 BR D Profile: TR 20

E.G. Elev (m)	458.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.60	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	458.21	Reach Len. (m)	0.52	0.52	0.52
Crit W.S. (m)	458.44	Flow Area (m2)	0.00	2.73	
E.G. Slope (m/m)	0.045749	Area (m2)	0.00	2.73	
Q Total (m3/s)	9.35	Flow (m3/s)	0.00	9.35	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	3.43	Avg. Vel. (m/s)	0.18	3.43	
Max Chl Dpth (m)	1.42	Hydr. Depth (m)			
Conv. Total (m3/s)	43.7	Conv. (m3/s)	0.0	43.7	
Length Wtd. (m)	0.52	Wetted Per. (m)	0.10	7.08	
Min Ch El (m)	456.79	Shear (N/m2)	4.91	172.74	
Alpha	1.00	Stream Power (N/m s)	0.86	592.57	
Frctn Loss (m)		Cum Volume (1000 m3)	0.58	5.22	0.72
C & E Loss (m)		Cum SA (1000 m2)	2.83	6.66	2.31

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46.5 BR D Profile: TR 100

E.G. Elev (m)	459.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.82	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.25	Reach Len. (m)	0.52	0.52	0.52
Crit W.S. (m)	458.51	Flow Area (m2)	0.00	2.73	0.70
E.G. Slope (m/m)	0.066364	Area (m2)	0.00	2.73	0.70
Q Total (m3/s)	11.93	Flow (m3/s)	0.00	11.26	0.66
Top Width (m)	6.60	Top Width (m)			6.60
Vel Total (m/s)	3.48	Avg. Vel. (m/s)	0.21	4.13	0.95
Max Chl Dpth (m)	1.46	Hydr. Depth (m)			0.11
Conv. Total (m3/s)	46.3	Conv. (m3/s)	0.0	43.7	2.6
Length Wtd. (m)	0.52	Wetted Per. (m)	0.10	7.08	6.77
Min Ch El (m)	456.79	Shear (N/m2)	7.12	250.58	67.31
Alpha	1.34	Stream Power (N/m s)	1.51	1035.30	63.68
Frctn Loss (m)		Cum Volume (1000 m3)	1.37	6.23	1.34
C & E Loss (m)		Cum SA (1000 m2)	4.48	6.88	3.29

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46.5 BR D Profile: TR 200

E.G. Elev (m)	458.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.54	Reach Len. (m)	0.52	0.52	0.52
Crit W.S. (m)	458.54	Flow Area (m2)	1.40	3.42	2.62
E.G. Slope (m/m)	0.024650	Area (m2)	1.40	3.42	2.62
Q Total (m3/s)	13.03	Flow (m3/s)	1.38	8.12	3.53
Top Width (m)	15.08	Top Width (m)	5.85	2.63	6.60
Vel Total (m/s)	1.75	Avg. Vel. (m/s)	0.99	2.37	1.35
Max Chl Dpth (m)	1.75	Hydr. Depth (m)	0.24	1.30	0.40
Conv. Total (m3/s)	83.0	Conv. (m3/s)	8.8	51.7	22.5
Length Wtd. (m)	0.52	Wetted Per. (m)	6.13	9.71	7.10
Min Ch El (m)	456.79	Shear (N/m2)	55.23	85.15	89.25
Alpha	1.34	Stream Power (N/m s)	54.43	202.07	120.19
Frctn Loss (m)		Cum Volume (1000 m3)	1.59	6.51	1.51
C & E Loss (m)		Cum SA (1000 m2)	4.88	6.90	3.42

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46.5 BR D Profile: TR 500

E.G. Elev (m)	458.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.29	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.51	Reach Len. (m)	0.52	0.52	0.52
Crit W.S. (m)	458.58	Flow Area (m2)	1.26	3.36	2.46
E.G. Slope (m/m)	0.034793	Area (m2)	1.26	3.36	2.46
Q Total (m3/s)	14.48	Flow (m3/s)	1.37	9.34	3.77

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46.5 BR D Profile: TR 500 (Continued)

Top Width (m)	15.08	Top Width (m)	5.85	2.63	6.60
Vel Total (m/s)	2.05	Avg. Vel. (m/s)	1.09	2.78	1.54
Max Chl Dpth (m)	1.72	Hydr. Depth (m)	0.21	1.28	0.37
Conv. Total (m3/s)	77.6	Conv. (m3/s)	7.3	50.1	20.2
Length Wtd. (m)	0.52	Wetted Per. (m)	6.11	9.71	7.08
Min Ch El (m)	456.79	Shear (N/m2)	70.08	117.87	118.44
Alpha	1.36	Stream Power (N/m s)	76.43	328.03	181.87
Frctn Loss (m)		Cum Volume (1000 m3)	2.07	7.26	2.25
C & E Loss (m)		Cum SA (1000 m2)	5.55	6.94	4.37

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46 Profile: TR 20

E.G. Elev (m)	458.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.47	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	458.02	Reach Len. (m)	22.65	22.44	22.43
Crit W.S. (m)	458.02	Flow Area (m2)	0.20	3.03	
E.G. Slope (m/m)	0.017749	Area (m2)	0.20	3.03	
Q Total (m3/s)	9.35	Flow (m3/s)	0.09	9.26	
Top Width (m)	4.74	Top Width (m)	2.12	2.62	
Vel Total (m/s)	2.90	Avg. Vel. (m/s)	0.46	3.06	
Max Chl Dpth (m)	1.23	Hydr. Depth (m)	0.09	1.16	
Conv. Total (m3/s)	70.2	Conv. (m3/s)	0.7	69.5	
Length Wtd. (m)	22.44	Wetted Per. (m)	2.13	4.59	
Min Ch El (m)	456.79	Shear (N/m2)	16.28	114.88	
Alpha	1.10	Stream Power (N/m s)	7.45	351.58	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.58	5.22	0.72
C & E Loss (m)	0.06	Cum SA (1000 m2)	2.83	6.66	2.31

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46 Profile: TR 100

E.G. Elev (m)	458.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.39	Reach Len. (m)	22.65	22.44	22.43
Crit W.S. (m)	458.39	Flow Area (m2)	1.71	3.98	1.62
E.G. Slope (m/m)	0.008471	Area (m2)	1.71	3.98	1.62
Q Total (m3/s)	11.93	Flow (m3/s)	1.15	9.82	0.95
Top Width (m)	15.08	Top Width (m)	5.85	2.63	6.60
Vel Total (m/s)	1.63	Avg. Vel. (m/s)	0.67	2.47	0.59
Max Chl Dpth (m)	1.60	Hydr. Depth (m)	0.29	1.51	0.25
Conv. Total (m3/s)	129.6	Conv. (m3/s)	12.5	106.7	10.3
Length Wtd. (m)	22.45	Wetted Per. (m)	5.90	4.79	6.89
Min Ch El (m)	456.79	Shear (N/m2)	24.09	69.10	19.60
Alpha	1.91	Stream Power (N/m s)	16.19	170.48	11.48
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	1.37	6.22	1.34
C & E Loss (m)	0.02	Cum SA (1000 m2)	4.47	6.88	3.28

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46 Profile: TR 200

E.G. Elev (m)	458.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.43	Reach Len. (m)	22.65	22.44	22.43
Crit W.S. (m)	458.43	Flow Area (m2)	1.95	4.09	1.89
E.G. Slope (m/m)	0.008640	Area (m2)	1.95	4.09	1.89
Q Total (m3/s)	13.03	Flow (m3/s)	1.43	10.37	1.23
Top Width (m)	15.08	Top Width (m)	5.85	2.63	6.60
Vel Total (m/s)	1.64	Avg. Vel. (m/s)	0.74	2.54	0.65
Max Chl Dpth (m)	1.64	Hydr. Depth (m)	0.33	1.55	0.29
Conv. Total (m3/s)	140.2	Conv. (m3/s)	15.4	111.5	13.3
Length Wtd. (m)	22.45	Wetted Per. (m)	5.94	4.79	6.93
Min Ch El (m)	456.79	Shear (N/m2)	27.76	72.35	23.12

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46 Profile: TR 200 (Continued)

Alpha	1.93	Stream Power (N/m s)	20.44	183.43	15.07
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	1.59	6.50	1.51
C & E Loss (m)	0.02	Cum SA (1000 m2)	4.88	6.90	3.42

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 46 Profile: TR 500

E.G. Elev (m)	458.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.28	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.47	Reach Len. (m)	22.65	22.44	22.43
Crit W.S. (m)	458.47	Flow Area (m2)	2.21	4.21	2.19
E.G. Slope (m/m)	0.008961	Area (m2)	2.21	4.21	2.19
Q Total (m3/s)	14.48	Flow (m3/s)	1.80	11.08	1.60
Top Width (m)	15.08	Top Width (m)	5.85	2.63	6.60
Vel Total (m/s)	1.68	Avg. Vel. (m/s)	0.81	2.63	0.73
Max Chl Dpth (m)	1.68	Hydr. Depth (m)	0.38	1.60	0.33
Conv. Total (m3/s)	152.9	Conv. (m3/s)	19.0	117.0	16.9
Length Wtd. (m)	22.46	Wetted Per. (m)	5.99	4.79	6.97
Min Ch El (m)	456.79	Shear (N/m2)	32.49	77.25	27.63
Alpha	1.93	Stream Power (N/m s)	26.41	203.34	20.15
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	2.07	7.26	2.25
C & E Loss (m)	0.02	Cum SA (1000 m2)	5.55	6.94	4.36

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 45 Profile: TR 20

E.G. Elev (m)	458.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.02	Reach Len. (m)	23.38	23.67	23.41
Crit W.S. (m)	457.36	Flow Area (m2)	0.09	5.93	0.63
E.G. Slope (m/m)	0.002872	Area (m2)	0.09	5.93	0.63
Q Total (m3/s)	9.35	Flow (m3/s)	0.01	9.21	0.13
Top Width (m)	11.59	Top Width (m)	1.65	4.49	5.45
Vel Total (m/s)	1.41	Avg. Vel. (m/s)	0.12	1.55	0.21
Max Chl Dpth (m)	1.87	Hydr. Depth (m)	0.05	1.32	0.12
Conv. Total (m3/s)	174.5	Conv. (m3/s)	0.2	171.8	2.5
Length Wtd. (m)	23.67	Wetted Per. (m)	1.65	6.34	5.57
Min Ch El (m)	456.15	Shear (N/m2)	1.47	26.34	3.21
Alpha	1.20	Stream Power (N/m s)	0.18	40.92	0.67
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.58	5.12	0.71
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.79	6.58	2.25

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 45 Profile: TR 100

E.G. Elev (m)	458.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.26	Reach Len. (m)	23.38	23.67	23.41
Crit W.S. (m)	457.54	Flow Area (m2)	0.94	7.01	1.95
E.G. Slope (m/m)	0.002320	Area (m2)	0.94	7.01	1.95
Q Total (m3/s)	11.93	Flow (m3/s)	0.23	10.94	0.75
Top Width (m)	15.37	Top Width (m)	5.43	4.49	5.45
Vel Total (m/s)	1.21	Avg. Vel. (m/s)	0.25	1.56	0.39
Max Chl Dpth (m)	2.11	Hydr. Depth (m)	0.17	1.56	0.36
Conv. Total (m3/s)	247.6	Conv. (m3/s)	4.8	227.1	15.6
Length Wtd. (m)	23.65	Wetted Per. (m)	5.44	6.34	5.81
Min Ch El (m)	456.15	Shear (N/m2)	3.92	25.16	7.62
Alpha	1.54	Stream Power (N/m s)	0.97	39.28	2.95
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	1.34	6.10	1.30
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.35	6.80	3.15

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 45 Profile: TR 200

E.G. Elev (m)	458.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.34	Reach Len. (m)	23.38	23.67	23.41
Crit W.S. (m)	457.60	Flow Area (m2)	1.42	7.36	2.38
E.G. Slope (m/m)	0.002219	Area (m2)	1.42	7.36	2.38
Q Total (m3/s)	13.03	Flow (m3/s)	0.39	11.62	1.02
Top Width (m)	16.62	Top Width (m)	6.67	4.49	5.45
Vel Total (m/s)	1.17	Avg. Vel. (m/s)	0.28	1.58	0.43
Max Chl Dpth (m)	2.19	Hydr. Depth (m)	0.21	1.64	0.44
Conv. Total (m3/s)	276.6	Conv. (m3/s)	8.4	246.6	21.6
Length Wtd. (m)	23.64	Wetted Per. (m)	6.68	6.34	5.89
Min Ch El (m)	456.15	Shear (N/m2)	4.61	25.28	8.78
Alpha	1.64	Stream Power (N/m s)	1.29	39.88	3.76
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	1.55	6.38	1.46
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.74	6.82	3.28

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 45 Profile: TR 500

E.G. Elev (m)	458.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.43	Reach Len. (m)	23.38	23.67	23.41
Crit W.S. (m)	457.69	Flow Area (m2)	2.12	7.79	2.90
E.G. Slope (m/m)	0.002112	Area (m2)	2.12	7.79	2.90
Q Total (m3/s)	14.48	Flow (m3/s)	0.66	12.45	1.37
Top Width (m)	18.11	Top Width (m)	8.17	4.49	5.45
Vel Total (m/s)	1.13	Avg. Vel. (m/s)	0.31	1.60	0.47
Max Chl Dpth (m)	2.28	Hydr. Depth (m)	0.26	1.73	0.53
Conv. Total (m3/s)	315.1	Conv. (m3/s)	14.4	270.9	29.7
Length Wtd. (m)	23.63	Wetted Per. (m)	8.18	6.34	5.99
Min Ch El (m)	456.15	Shear (N/m2)	5.37	25.46	10.02
Alpha	1.74	Stream Power (N/m s)	1.67	40.68	4.73
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	2.02	7.12	2.19
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.39	6.86	4.23

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 44 Profile: TR 20

E.G. Elev (m)	458.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	457.90	Reach Len. (m)	0.80	0.80	0.80
Crit W.S. (m)	456.89	Flow Area (m2)	0.19	5.35	
E.G. Slope (m/m)	0.004193	Area (m2)	0.19	5.35	
Q Total (m3/s)	9.35	Flow (m3/s)	0.04	9.31	
Top Width (m)	4.76	Top Width (m)	2.07	2.68	
Vel Total (m/s)	1.69	Avg. Vel. (m/s)	0.22	1.74	
Max Chl Dpth (m)	2.27	Hydr. Depth (m)	0.09	1.99	
Conv. Total (m3/s)	144.4	Conv. (m3/s)	0.6	143.8	
Length Wtd. (m)	0.80	Wetted Per. (m)	2.08	6.41	
Min Ch El (m)	455.63	Shear (N/m2)	3.74	34.33	
Alpha	1.06	Stream Power (N/m s)	0.82	59.72	
Frctn Loss (m)		Cum Volume (1000 m3)	0.58	4.98	0.70
C & E Loss (m)		Cum SA (1000 m2)	2.74	6.49	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 44 Profile: TR 100

E.G. Elev (m)	458.30	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.12	Reach Len. (m)	0.80	0.80	0.80
Crit W.S. (m)	457.10	Flow Area (m2)	0.92	5.94	0.94
E.G. Slope (m/m)	0.004365	Area (m2)	0.92	5.94	0.94
Q Total (m3/s)	11.93	Flow (m3/s)	0.35	11.26	0.32

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 44 Profile: TR 100 (Continued)

Top Width (m)	12.61	Top Width (m)	4.56	2.69	5.36
Vel Total (m/s)	1.53	Avg. Vel. (m/s)	0.38	1.90	0.34
Max Chl Dpth (m)	2.49	Hydr. Depth (m)	0.20	2.21	0.18
Conv. Total (m3/s)	180.5	Conv. (m3/s)	5.2	170.5	4.8
Length Wtd. (m)	0.80	Wetted Per. (m)	4.58	6.45	5.51
Min Ch El (m)	455.63	Shear (N/m2)	8.58	39.43	7.29
Alpha	1.45	Stream Power (N/m s)	3.23	74.73	2.47
Frctn Loss (m)		Cum Volume (1000 m3)	1.32	5.95	1.27
C & E Loss (m)		Cum SA (1000 m2)	4.23	6.72	3.02

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 44 Profile: TR 200

E.G. Elev (m)	458.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.20	Reach Len. (m)	0.80	0.80	0.80
Crit W.S. (m)	457.19	Flow Area (m2)	1.32	6.16	1.36
E.G. Slope (m/m)	0.004322	Area (m2)	1.32	6.16	1.36
Q Total (m3/s)	13.03	Flow (m3/s)	0.56	11.89	0.58
Top Width (m)	13.51	Top Width (m)	5.46	2.69	5.36
Vel Total (m/s)	1.47	Avg. Vel. (m/s)	0.42	1.93	0.43
Max Chl Dpth (m)	2.57	Hydr. Depth (m)	0.24	2.29	0.25
Conv. Total (m3/s)	198.2	Conv. (m3/s)	8.5	180.9	8.9
Length Wtd. (m)	0.80	Wetted Per. (m)	5.48	6.45	5.59
Min Ch El (m)	455.63	Shear (N/m2)	10.17	40.45	10.35
Alpha	1.57	Stream Power (N/m s)	4.30	78.12	4.43
Frctn Loss (m)		Cum Volume (1000 m3)	1.52	6.22	1.41
C & E Loss (m)		Cum SA (1000 m2)	4.60	6.74	3.16

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 44 Profile: TR 500

E.G. Elev (m)	458.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.30	Reach Len. (m)	0.80	0.80	0.80
Crit W.S. (m)	457.29	Flow Area (m2)	1.92	6.43	1.90
E.G. Slope (m/m)	0.004192	Area (m2)	1.92	6.43	1.90
Q Total (m3/s)	14.48	Flow (m3/s)	0.91	12.58	0.99
Top Width (m)	14.65	Top Width (m)	6.60	2.69	5.36
Vel Total (m/s)	1.41	Avg. Vel. (m/s)	0.47	1.96	0.52
Max Chl Dpth (m)	2.67	Hydr. Depth (m)	0.29	2.39	0.36
Conv. Total (m3/s)	223.6	Conv. (m3/s)	14.0	194.3	15.3
Length Wtd. (m)	0.80	Wetted Per. (m)	6.63	6.45	5.69
Min Ch El (m)	455.63	Shear (N/m2)	11.92	40.95	13.75
Alpha	1.69	Stream Power (N/m s)	5.64	80.14	7.15
Frctn Loss (m)		Cum Volume (1000 m3)	1.97	6.96	2.13
C & E Loss (m)		Cum SA (1000 m2)	5.21	6.77	4.10

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43.5 BR U Profile: TR 20

E.G. Elev (m)	458.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.			
W.S. Elev (m)	457.90	Reach Len. (m)	3.05	3.05	3.05
Crit W.S. (m)	456.89	Flow Area (m2)		4.27	
E.G. Slope (m/m)		Area (m2)		4.27	
Q Total (m3/s)	9.35	Flow (m3/s)		9.08	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.19	Avg. Vel. (m/s)	0.30	2.13	0.30
Max Chl Dpth (m)	2.27	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	3.05	Wetted Per. (m)		8.35	
Min Ch El (m)	455.63	Shear (N/m2)			

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43.5 BR U Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.58	4.98	0.70
C & E Loss (m)		Cum SA (1000 m2)	2.74	6.49	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43.5 BR U Profile: TR 100

E.G. Elev (m)	458.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.			
W.S. Elev (m)	458.12	Reach Len. (m)	3.05	3.05	3.05
Crit W.S. (m)	457.10	Flow Area (m2)	0.18	4.71	0.94
E.G. Slope (m/m)		Area (m2)	0.18	4.71	0.94
Q Total (m3/s)	11.93	Flow (m3/s)	0.58	9.21	2.09
Top Width (m)	10.74	Top Width (m)	2.69	2.69	5.36
Vel Total (m/s)	2.05	Avg. Vel. (m/s)	3.33	1.96	2.23
Max Chl Dpth (m)	2.49	Hydr. Depth (m)	0.07	1.75	0.18
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	3.05	Wetted Per. (m)	2.69	11.06	5.51
Min Ch El (m)	455.63	Shear (N/m2)			
Alpha	1.27	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	1.32	5.94	1.27
C & E Loss (m)		Cum SA (1000 m2)	4.23	6.72	3.02

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43.5 BR U Profile: TR 200

E.G. Elev (m)	458.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.			
W.S. Elev (m)	458.20	Reach Len. (m)	3.05	3.05	3.05
Crit W.S. (m)	457.19	Flow Area (m2)	0.46	4.93	1.36
E.G. Slope (m/m)		Area (m2)	0.46	4.93	1.36
Q Total (m3/s)	13.03	Flow (m3/s)	1.16	8.90	2.97
Top Width (m)	12.38	Top Width (m)	4.33	2.69	5.36
Vel Total (m/s)	1.93	Avg. Vel. (m/s)	2.55	1.81	2.18
Max Chl Dpth (m)	2.57	Hydr. Depth (m)	0.11	1.83	0.25
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	3.05	Wetted Per. (m)	4.34	11.06	5.59
Min Ch El (m)	455.63	Shear (N/m2)			
Alpha	1.35	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	1.52	6.21	1.41
C & E Loss (m)		Cum SA (1000 m2)	4.59	6.73	3.15

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43.5 BR U Profile: TR 500

E.G. Elev (m)	458.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.			
W.S. Elev (m)	458.30	Reach Len. (m)	3.05	3.05	3.05
Crit W.S. (m)	457.30	Flow Area (m2)	0.99	5.20	1.90
E.G. Slope (m/m)		Area (m2)	0.99	5.20	1.90
Q Total (m3/s)	14.48	Flow (m3/s)	2.10	8.32	4.05
Top Width (m)	14.45	Top Width (m)	6.40	2.69	5.36
Vel Total (m/s)	1.79	Avg. Vel. (m/s)	2.11	1.60	2.13
Max Chl Dpth (m)	2.67	Hydr. Depth (m)	0.16	1.93	0.36
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	3.05	Wetted Per. (m)	6.41	11.06	5.69
Min Ch El (m)	455.63	Shear (N/m2)			
Alpha	1.41	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	1.97	6.95	2.13
C & E Loss (m)		Cum SA (1000 m2)	5.21	6.77	4.10

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43.5 BR D Profile: TR 20

E.G. Elev (m)	458.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.			
W.S. Elev (m)	457.90	Reach Len. (m)	0.67	0.67	0.67
Crit W.S. (m)	457.06	Flow Area (m2)		3.65	
E.G. Slope (m/m)		Area (m2)		3.65	
Q Total (m3/s)	9.35	Flow (m3/s)		9.08	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.56	Avg. Vel. (m/s)	0.30	2.48	0.30
Max Chl Dpth (m)	2.19	Hydr. Depth (m)			
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.67	Wetted Per. (m)		7.68	
Min Ch El (m)	455.71	Shear (N/m2)			
Alpha	1.00	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	0.58	4.97	0.70
C & E Loss (m)		Cum SA (1000 m2)	2.74	6.49	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43.5 BR D Profile: TR 100

E.G. Elev (m)	458.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.36	Wt. n-Val.			
W.S. Elev (m)	458.12	Reach Len. (m)	0.67	0.67	0.67
Crit W.S. (m)	457.28	Flow Area (m2)	0.12	3.98	0.96
E.G. Slope (m/m)		Area (m2)	0.12	3.98	0.96
Q Total (m3/s)	11.93	Flow (m3/s)	0.59	9.07	2.23
Top Width (m)	8.78	Top Width (m)	1.14	2.27	5.38
Vel Total (m/s)	2.35	Avg. Vel. (m/s)	4.76	2.28	2.32
Max Chl Dpth (m)	2.41	Hydr. Depth (m)	0.11	1.76	0.18
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.67	Wetted Per. (m)	1.25	10.15	5.50
Min Ch El (m)	455.71	Shear (N/m2)			
Alpha	1.28	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	1.32	5.93	1.26
C & E Loss (m)		Cum SA (1000 m2)	4.22	6.71	3.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43.5 BR D Profile: TR 200

E.G. Elev (m)	458.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.34	Wt. n-Val.			
W.S. Elev (m)	458.20	Reach Len. (m)	0.67	0.67	0.67
Crit W.S. (m)	457.38	Flow Area (m2)	0.22	4.16	1.39
E.G. Slope (m/m)		Area (m2)	0.22	4.16	1.39
Q Total (m3/s)	13.03	Flow (m3/s)	1.13	8.73	3.18
Top Width (m)	8.78	Top Width (m)	1.14	2.27	5.38
Vel Total (m/s)	2.26	Avg. Vel. (m/s)	5.24	2.10	2.29
Max Chl Dpth (m)	2.49	Hydr. Depth (m)	0.19	1.84	0.26
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.67	Wetted Per. (m)	1.33	10.15	5.58
Min Ch El (m)	455.71	Shear (N/m2)			
Alpha	1.30	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	1.52	6.20	1.41
C & E Loss (m)		Cum SA (1000 m2)	4.59	6.73	3.14

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43.5 BR D Profile: TR 500

E.G. Elev (m)	458.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.			
W.S. Elev (m)	458.30	Reach Len. (m)	0.67	0.67	0.67
Crit W.S. (m)	458.27	Flow Area (m2)	0.33	4.39	1.93
E.G. Slope (m/m)		Area (m2)	0.33	4.39	1.93
Q Total (m3/s)	14.48	Flow (m3/s)	1.93	8.20	4.34

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43.5 BR D Profile: TR 500 (Continued)

Top Width (m)	8.78	Top Width (m)	1.14	2.27	5.38
Vel Total (m/s)	2.18	Avg. Vel. (m/s)	5.87	1.87	2.25
Max Chl Dpth (m)	2.59	Hydr. Depth (m)	0.29	1.94	0.36
Conv. Total (m3/s)		Conv. (m3/s)			
Length Wtd. (m)	0.67	Wetted Per. (m)	1.43	10.15	5.68
Min Ch El (m)	455.71	Shear (N/m2)			
Alpha	1.28	Stream Power (N/m s)			
Frctn Loss (m)		Cum Volume (1000 m3)	1.97	6.94	2.13
C & E Loss (m)		Cum SA (1000 m2)	5.20	6.76	4.08

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43 Profile: TR 20

E.G. Elev (m)	457.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.		0.033	
W.S. Elev (m)	457.57	Reach Len. (m)	9.07	9.20	9.40
Crit W.S. (m)	457.05	Flow Area (m2)		3.79	
E.G. Slope (m/m)	0.011105	Area (m2)		3.79	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	2.23	Top Width (m)		2.23	
Vel Total (m/s)	2.47	Avg. Vel. (m/s)		2.47	
Max Chl Dpth (m)	1.86	Hydr. Depth (m)		1.70	
Conv. Total (m3/s)	88.8	Conv. (m3/s)		88.8	
Length Wtd. (m)	9.20	Wetted Per. (m)		5.59	
Min Ch El (m)	455.71	Shear (N/m2)		73.93	
Alpha	1.00	Stream Power (N/m s)		182.34	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	0.58	4.97	0.70
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.74	6.49	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43 Profile: TR 100

E.G. Elev (m)	458.20	Element	Left OB	Channel	Right OB
Vel Head (m)	0.38	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	457.81	Reach Len. (m)	9.07	9.20	9.40
Crit W.S. (m)	457.28	Flow Area (m2)	0.07	4.33	
E.G. Slope (m/m)	0.012464	Area (m2)	0.07	4.33	
Q Total (m3/s)	11.93	Flow (m3/s)	0.02	11.90	
Top Width (m)	3.24	Top Width (m)	0.98	2.26	
Vel Total (m/s)	2.71	Avg. Vel. (m/s)	0.33	2.75	
Max Chl Dpth (m)	2.10	Hydr. Depth (m)	0.08	1.92	
Conv. Total (m3/s)	106.8	Conv. (m3/s)	0.2	106.6	
Length Wtd. (m)	9.20	Wetted Per. (m)	0.99	5.91	
Min Ch El (m)	455.71	Shear (N/m2)	9.20	89.51	
Alpha	1.03	Stream Power (N/m s)	3.05	246.02	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	1.32	5.93	1.26
C & E Loss (m)	0.03	Cum SA (1000 m2)	4.22	6.71	3.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43 Profile: TR 200

E.G. Elev (m)	458.32	Element	Left OB	Channel	Right OB
Vel Head (m)	0.41	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	457.91	Reach Len. (m)	9.07	9.20	9.40
Crit W.S. (m)	457.37	Flow Area (m2)	0.19	4.56	0.01
E.G. Slope (m/m)	0.012662	Area (m2)	0.19	4.56	0.01
Q Total (m3/s)	13.03	Flow (m3/s)	0.10	12.93	0.00
Top Width (m)	4.88	Top Width (m)	1.14	2.27	1.47
Vel Total (m/s)	2.74	Avg. Vel. (m/s)	0.53	2.84	0.08
Max Chl Dpth (m)	2.20	Hydr. Depth (m)	0.16	2.01	0.01
Conv. Total (m3/s)	115.8	Conv. (m3/s)	0.9	114.9	0.0
Length Wtd. (m)	9.20	Wetted Per. (m)	1.23	6.00	1.47
Min Ch El (m)	455.71	Shear (N/m2)	18.87	94.26	1.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43 Profile: TR 200 (Continued)

Alpha	1.07	Stream Power (N/m s)	10.08	267.49	0.10
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	1.52	6.19	1.41
C & E Loss (m)	0.03	Cum SA (1000 m2)	4.59	6.72	3.13

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 43 Profile: TR 500

E.G. Elev (m)	458.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.40	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	458.06	Reach Len. (m)	9.07	9.20	9.40
Crit W.S. (m)	457.49	Flow Area (m2)	0.35	4.89	0.63
E.G. Slope (m/m)	0.011651	Area (m2)	0.35	4.89	0.63
Q Total (m3/s)	14.48	Flow (m3/s)	0.26	13.95	0.27
Top Width (m)	8.78	Top Width (m)	1.14	2.27	5.38
Vel Total (m/s)	2.46	Avg. Vel. (m/s)	0.73	2.85	0.43
Max Chl Dpth (m)	2.35	Hydr. Depth (m)	0.31	2.16	0.12
Conv. Total (m3/s)	134.1	Conv. (m3/s)	2.4	129.3	2.5
Length Wtd. (m)	9.20	Wetted Per. (m)	1.37	6.00	5.44
Min Ch El (m)	455.71	Shear (N/m2)	29.41	93.08	13.24
Alpha	1.29	Stream Power (N/m s)	21.40	265.57	5.66
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	1.97	6.93	2.13
C & E Loss (m)	0.03	Cum SA (1000 m2)	5.20	6.76	4.08

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 42 Profile: TR 20

E.G. Elev (m)	457.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.58	Wt. n-Val.		0.033	
W.S. Elev (m)	457.13	Reach Len. (m)	8.58	4.67	0.00
Crit W.S. (m)	457.13	Flow Area (m2)		2.77	
E.G. Slope (m/m)	0.024042	Area (m2)		2.77	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	2.36	Top Width (m)		2.36	
Vel Total (m/s)	3.38	Avg. Vel. (m/s)		3.38	
Max Chl Dpth (m)	1.53	Hydr. Depth (m)		1.17	
Conv. Total (m3/s)	60.3	Conv. (m3/s)		60.3	
Length Wtd. (m)	4.67	Wetted Per. (m)		4.54	
Min Ch El (m)	455.60	Shear (N/m2)		143.85	
Alpha	1.00	Stream Power (N/m s)		486.24	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	0.58	4.94	0.70
C & E Loss (m)	0.07	Cum SA (1000 m2)	2.74	6.47	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 42 Profile: TR 100

E.G. Elev (m)	458.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.66	Wt. n-Val.		0.033	
W.S. Elev (m)	457.36	Reach Len. (m)	8.58	4.67	0.00
Crit W.S. (m)	457.36	Flow Area (m2)		3.32	
E.G. Slope (m/m)	0.024342	Area (m2)		3.32	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	2.51	Top Width (m)		2.51	
Vel Total (m/s)	3.59	Avg. Vel. (m/s)		3.59	
Max Chl Dpth (m)	1.76	Hydr. Depth (m)		1.32	
Conv. Total (m3/s)	76.4	Conv. (m3/s)		76.4	
Length Wtd. (m)	4.67	Wetted Per. (m)		5.02	
Min Ch El (m)	455.60	Shear (N/m2)		157.90	
Alpha	1.00	Stream Power (N/m s)		566.74	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	1.32	5.89	1.26
C & E Loss (m)	0.08	Cum SA (1000 m2)	4.22	6.68	3.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 42 Profile: TR 200

E.G. Elev (m)	458.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.69	Wt. n-Val.		0.033	
W.S. Elev (m)	457.45	Reach Len. (m)	8.58	4.67	0.00
Crit W.S. (m)	457.45	Flow Area (m2)		3.54	
E.G. Slope (m/m)	0.024614	Area (m2)		3.54	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	2.57	Top Width (m)		2.57	
Vel Total (m/s)	3.68	Avg. Vel. (m/s)		3.68	
Max Chl Dpth (m)	1.85	Hydr. Depth (m)		1.38	
Conv. Total (m3/s)	83.1	Conv. (m3/s)		83.1	
Length Wtd. (m)	4.67	Wetted Per. (m)		5.21	
Min Ch El (m)	455.60	Shear (N/m2)		164.19	
Alpha	1.00	Stream Power (N/m s)		603.77	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	1.52	6.16	1.41
C & E Loss (m)	0.08	Cum SA (1000 m2)	4.58	6.70	3.13

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 42 Profile: TR 500

E.G. Elev (m)	458.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.68	Wt. n-Val.		0.033	
W.S. Elev (m)	457.61	Reach Len. (m)	8.58	4.67	0.00
Crit W.S. (m)	457.61	Flow Area (m2)		3.97	
E.G. Slope (m/m)	0.022688	Area (m2)		3.97	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)	2.67	Top Width (m)		2.67	
Vel Total (m/s)	3.65	Avg. Vel. (m/s)		3.65	
Max Chl Dpth (m)	2.01	Hydr. Depth (m)		1.49	
Conv. Total (m3/s)	96.1	Conv. (m3/s)		96.1	
Length Wtd. (m)	4.67	Wetted Per. (m)		5.56	
Min Ch El (m)	455.60	Shear (N/m2)		158.93	
Alpha	1.00	Stream Power (N/m s)		579.67	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	1.97	6.89	2.12
C & E Loss (m)	0.15	Cum SA (1000 m2)	5.19	6.74	4.05

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 41 Profile: TR 20

E.G. Elev (m)	457.45	Element	Left OB	Channel	Right OB
Vel Head (m)	1.35	Wt. n-Val.		0.033	
W.S. Elev (m)	456.10	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	456.47	Flow Area (m2)		1.82	
E.G. Slope (m/m)	0.080575	Area (m2)		2.31	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	5.97	Top Width (m)		5.97	
Vel Total (m/s)	5.14	Avg. Vel. (m/s)		5.14	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	32.9	Conv. (m3/s)		32.9	
Length Wtd. (m)	0.10	Wetted Per. (m)		3.93	
Min Ch El (m)	455.53	Shear (N/m2)		365.50	
Alpha	1.00	Stream Power (N/m s)		1880.47	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)	0.58	4.92	0.70
C & E Loss (m)	0.08	Cum SA (1000 m2)	2.74	6.45	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 41 Profile: TR 100

E.G. Elev (m)	457.74	Element	Left OB	Channel	Right OB
Vel Head (m)	1.55	Wt. n-Val.		0.033	
W.S. Elev (m)	456.19	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	456.62	Flow Area (m2)		2.16	
E.G. Slope (m/m)	0.073187	Area (m2)		2.87	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 41 Profile: TR 100 (Continued)

Top Width (m)	6.39	Top Width (m)		6.39	
Vel Total (m/s)	5.51	Avg. Vel. (m/s)		5.51	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	44.1	Conv. (m3/s)		44.1	
Length Wtd. (m)	0.10	Wetted Per. (m)		3.93	
Min Ch El (m)	455.53	Shear (N/m2)		395.37	
Alpha	1.00	Stream Power (N/m s)		2178.12	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)	1.32	5.88	1.26
C & E Loss (m)	0.09	Cum SA (1000 m2)	4.22	6.66	3.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 41 Profile: TR 200

E.G. Elev (m)	457.86	Element	Left OB	Channel	Right OB
Vel Head (m)	1.63	Wt. n-Val.		0.033	
W.S. Elev (m)	456.23	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	456.68	Flow Area (m2)		2.31	
E.G. Slope (m/m)	0.070759	Area (m2)		3.10	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	6.56	Top Width (m)		6.56	
Vel Total (m/s)	5.65	Avg. Vel. (m/s)		5.65	
Max Chl Dpth (m)	0.70	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	49.0	Conv. (m3/s)		49.0	
Length Wtd. (m)	0.10	Wetted Per. (m)		3.93	
Min Ch El (m)	455.53	Shear (N/m2)		407.21	
Alpha	1.00	Stream Power (N/m s)		2300.84	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)	1.52	6.14	1.41
C & E Loss (m)	0.09	Cum SA (1000 m2)	4.58	6.68	3.13

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 41 Profile: TR 500

E.G. Elev (m)	457.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.033	
W.S. Elev (m)	457.73	Reach Len. (m)	0.10	0.10	0.10
Crit W.S. (m)	456.76	Flow Area (m2)		8.06	
E.G. Slope (m/m)	0.001348	Area (m2)		14.83	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)	8.77	Top Width (m)		8.77	
Vel Total (m/s)	1.80	Avg. Vel. (m/s)		1.80	
Max Chl Dpth (m)	2.20	Hydr. Depth (m)		2.09	
Conv. Total (m3/s)	394.3	Conv. (m3/s)		394.3	
Length Wtd. (m)	0.10	Wetted Per. (m)		3.93	
Min Ch El (m)	455.53	Shear (N/m2)		27.12	
Alpha	1.00	Stream Power (N/m s)		48.71	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.97	6.85	2.12
C & E Loss (m)	0.02	Cum SA (1000 m2)	5.19	6.71	4.05

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40.5 BR U Profile: TR 20

E.G. Elev (m)	457.44	Element	Left OB	Channel	Right OB
Vel Head (m)	1.33	Wt. n-Val.		0.033	
W.S. Elev (m)	456.11	Reach Len. (m)	46.00	46.00	46.00
Crit W.S. (m)	456.48	Flow Area (m2)		1.83	
E.G. Slope (m/m)	0.098991	Area (m2)		1.83	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	3.81	Top Width (m)		3.81	
Vel Total (m/s)	5.10	Avg. Vel. (m/s)		5.10	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.48	
Conv. Total (m3/s)	29.7	Conv. (m3/s)		29.7	
Length Wtd. (m)	46.00	Wetted Per. (m)		4.68	
Min Ch El (m)	455.53	Shear (N/m2)		379.92	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40.5 BR U Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		1938.04	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.58	4.92	0.70
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.74	6.45	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40.5 BR U Profile: TR 100

E.G. Elev (m)	457.73	Element	Left OB	Channel	Right OB
Vel Head (m)	1.52	Wt. n-Val.		0.033	
W.S. Elev (m)	456.20	Reach Len. (m)	46.00	46.00	46.00
Crit W.S. (m)	456.63	Flow Area (m2)		2.18	
E.G. Slope (m/m)	0.094903	Area (m2)		2.18	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	3.81	Top Width (m)		3.81	
Vel Total (m/s)	5.47	Avg. Vel. (m/s)		5.47	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)		0.57	
Conv. Total (m3/s)	38.7	Conv. (m3/s)		38.7	
Length Wtd. (m)	46.00	Wetted Per. (m)		4.87	
Min Ch El (m)	455.53	Shear (N/m2)		417.11	
Alpha	1.00	Stream Power (N/m s)		2280.43	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	1.32	5.88	1.26
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.22	6.66	3.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40.5 BR U Profile: TR 200

E.G. Elev (m)	457.84	Element	Left OB	Channel	Right OB
Vel Head (m)	1.60	Wt. n-Val.		0.033	
W.S. Elev (m)	456.24	Reach Len. (m)	46.00	46.00	46.00
Crit W.S. (m)	456.69	Flow Area (m2)		2.32	
E.G. Slope (m/m)	0.093703	Area (m2)		2.32	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	3.81	Top Width (m)		3.81	
Vel Total (m/s)	5.61	Avg. Vel. (m/s)		5.61	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	42.6	Conv. (m3/s)		42.6	
Length Wtd. (m)	46.00	Wetted Per. (m)		4.94	
Min Ch El (m)	455.53	Shear (N/m2)		432.02	
Alpha	1.00	Stream Power (N/m s)		2423.00	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	1.52	6.14	1.41
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.58	6.68	3.13

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40.5 BR U Profile: TR 500

E.G. Elev (m)	457.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.		0.033	
W.S. Elev (m)	457.54	Reach Len. (m)	46.00	46.00	46.00
Crit W.S. (m)	456.76	Flow Area (m2)		5.65	
E.G. Slope (m/m)	0.015368	Area (m2)		5.65	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.56	Avg. Vel. (m/s)		2.56	
Max Chl Dpth (m)	2.01	Hydr. Depth (m)			
Conv. Total (m3/s)	116.8	Conv. (m3/s)		116.8	
Length Wtd. (m)	46.00	Wetted Per. (m)		10.03	
Min Ch El (m)	455.53	Shear (N/m2)		84.92	
Alpha	1.00	Stream Power (N/m s)		217.64	
Frctn Loss (m)	1.07	Cum Volume (1000 m3)	1.97	6.85	2.12
C & E Loss (m)	0.01	Cum SA (1000 m2)	5.19	6.71	4.05

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40.5 BR D Profile: TR 20

E.G. Elev (m)	455.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.87	Wt. n-Val.		0.033	
W.S. Elev (m)	454.94	Reach Len. (m)	0.54	0.54	0.54
Crit W.S. (m)	455.18	Flow Area (m2)		2.26	
E.G. Slope (m/m)	0.029904	Area (m2)		2.28	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	3.02	Top Width (m)		3.02	
Vel Total (m/s)	4.13	Avg. Vel. (m/s)		4.13	
Max Chl Dpth (m)	0.95	Hydr. Depth (m)		0.76	
Conv. Total (m3/s)	54.1	Conv. (m3/s)		54.1	
Length Wtd. (m)	0.54	Wetted Per. (m)		3.24	
Min Ch El (m)	453.99	Shear (N/m2)		205.14	
Alpha	1.00	Stream Power (N/m s)		847.11	
Frctn Loss (m)	1.53	Cum Volume (1000 m3)	0.58	4.83	0.70
C & E Loss (m)	0.22	Cum SA (1000 m2)	2.74	6.29	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40.5 BR D Profile: TR 100

E.G. Elev (m)	456.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.98	Wt. n-Val.		0.033	
W.S. Elev (m)	455.09	Reach Len. (m)	0.54	0.54	0.54
Crit W.S. (m)	455.36	Flow Area (m2)		2.72	
E.G. Slope (m/m)	0.026568	Area (m2)		2.73	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	3.02	Top Width (m)		3.02	
Vel Total (m/s)	4.39	Avg. Vel. (m/s)		4.39	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.91	
Conv. Total (m3/s)	73.2	Conv. (m3/s)		73.2	
Length Wtd. (m)	0.54	Wetted Per. (m)		3.24	
Min Ch El (m)	453.99	Shear (N/m2)		218.49	
Alpha	1.00	Stream Power (N/m s)		959.74	
Frctn Loss (m)	1.52	Cum Volume (1000 m3)	1.32	5.76	1.26
C & E Loss (m)	0.23	Cum SA (1000 m2)	4.22	6.51	3.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40.5 BR D Profile: TR 200

E.G. Elev (m)	456.18	Element	Left OB	Channel	Right OB
Vel Head (m)	1.03	Wt. n-Val.		0.033	
W.S. Elev (m)	455.15	Reach Len. (m)	0.54	0.54	0.54
Crit W.S. (m)	455.43	Flow Area (m2)		2.90	
E.G. Slope (m/m)	0.025405	Area (m2)		2.92	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	3.02	Top Width (m)		3.02	
Vel Total (m/s)	4.49	Avg. Vel. (m/s)		4.49	
Max Chl Dpth (m)	1.17	Hydr. Depth (m)		0.97	
Conv. Total (m3/s)	81.8	Conv. (m3/s)		81.8	
Length Wtd. (m)	0.54	Wetted Per. (m)		3.24	
Min Ch El (m)	453.99	Shear (N/m2)		223.31	
Alpha	1.00	Stream Power (N/m s)		1002.68	
Frctn Loss (m)	1.52	Cum Volume (1000 m3)	1.52	6.02	1.41
C & E Loss (m)	0.24	Cum SA (1000 m2)	4.58	6.52	3.13

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40.5 BR D Profile: TR 500

E.G. Elev (m)	456.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.46	Wt. n-Val.		0.033	
W.S. Elev (m)	456.32	Reach Len. (m)	0.54	0.54	0.54
Crit W.S. (m)	456.32	Flow Area (m2)		4.82	
E.G. Slope (m/m)	0.039738	Area (m2)		4.82	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40.5 BR D Profile: TR 500 (Continued)

Top Width (m)	5.21	Top Width (m)		5.21	
Vel Total (m/s)	3.01	Avg. Vel. (m/s)		3.01	
Max Chl Dpth (m)	2.34	Hydr. Depth (m)		0.92	
Conv. Total (m3/s)	72.6	Conv. (m3/s)		72.6	
Length Wtd. (m)	0.54	Wetted Per. (m)		13.72	
Min Ch El (m)	453.99	Shear (N/m2)		136.83	
Alpha	1.00	Stream Power (N/m s)		411.37	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	1.97	6.61	2.12
C & E Loss (m)	0.02	Cum SA (1000 m2)	5.19	6.59	4.05

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40 Profile: TR 20

E.G. Elev (m)	455.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.81	Wt. n-Val.		0.033	
W.S. Elev (m)	454.97	Reach Len. (m)	38.25	38.20	38.20
Crit W.S. (m)	455.18	Flow Area (m2)		2.35	
E.G. Slope (m/m)	0.026530	Area (m2)		2.46	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	3.45	Top Width (m)		3.45	
Vel Total (m/s)	3.98	Avg. Vel. (m/s)		3.98	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	57.4	Conv. (m3/s)		57.4	
Length Wtd. (m)	38.20	Wetted Per. (m)		3.24	
Min Ch El (m)	453.99	Shear (N/m2)		188.65	
Alpha	1.00	Stream Power (N/m s)		751.51	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.58	4.83	0.70
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.74	6.29	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40 Profile: TR 100

E.G. Elev (m)	456.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.92	Wt. n-Val.		0.033	
W.S. Elev (m)	455.12	Reach Len. (m)	38.25	38.20	38.20
Crit W.S. (m)	455.36	Flow Area (m2)		2.80	
E.G. Slope (m/m)	0.023928	Area (m2)		2.99	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	3.63	Top Width (m)		3.63	
Vel Total (m/s)	4.26	Avg. Vel. (m/s)		4.26	
Max Chl Dpth (m)	1.13	Hydr. Depth (m)		0.94	
Conv. Total (m3/s)	77.1	Conv. (m3/s)		77.1	
Length Wtd. (m)	38.20	Wetted Per. (m)		3.24	
Min Ch El (m)	453.99	Shear (N/m2)		203.06	
Alpha	1.00	Stream Power (N/m s)		864.34	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	1.32	5.76	1.26
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.22	6.50	3.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40 Profile: TR 200

E.G. Elev (m)	456.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.97	Wt. n-Val.		0.033	
W.S. Elev (m)	455.18	Reach Len. (m)	38.25	38.20	38.20
Crit W.S. (m)	455.43	Flow Area (m2)		2.99	
E.G. Slope (m/m)	0.022959	Area (m2)		3.23	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	3.70	Top Width (m)		3.70	
Vel Total (m/s)	4.36	Avg. Vel. (m/s)		4.36	
Max Chl Dpth (m)	1.20	Hydr. Depth (m)		1.00	
Conv. Total (m3/s)	86.0	Conv. (m3/s)		86.0	
Length Wtd. (m)	38.20	Wetted Per. (m)		3.24	
Min Ch El (m)	453.99	Shear (N/m2)		208.03	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		906.11	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	1.52	6.02	1.41
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.58	6.52	3.13

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 40 Profile: TR 500

E.G. Elev (m)	456.65	Element	Left OB	Channel	Right OB
Vel Head (m)	1.60	Wt. n-Val.		0.033	
W.S. Elev (m)	455.05	Reach Len. (m)	38.25	38.20	38.20
Crit W.S. (m)	455.52	Flow Area (m2)		2.58	
E.G. Slope (m/m)	0.046299	Area (m2)		2.73	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)	3.54	Top Width (m)		3.54	
Vel Total (m/s)	5.61	Avg. Vel. (m/s)		5.61	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.86	
Conv. Total (m3/s)	67.3	Conv. (m3/s)		67.3	
Length Wtd. (m)	38.20	Wetted Per. (m)		3.24	
Min Ch El (m)	453.99	Shear (N/m2)		362.07	
Alpha	1.00	Stream Power (N/m s)		2030.16	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	1.97	6.61	2.12
C & E Loss (m)	0.11	Cum SA (1000 m2)	5.19	6.59	4.05

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 39 Profile: TR 20

E.G. Elev (m)	455.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.47	Wt. n-Val.		0.033	
W.S. Elev (m)	454.57	Reach Len. (m)	10.11	10.11	10.11
Crit W.S. (m)	454.66	Flow Area (m2)		3.09	
E.G. Slope (m/m)	0.020141	Area (m2)		3.09	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	4.68	Top Width (m)		4.68	
Vel Total (m/s)	3.02	Avg. Vel. (m/s)		3.02	
Max Chl Dpth (m)	1.09	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	65.9	Conv. (m3/s)		65.9	
Length Wtd. (m)	10.11	Wetted Per. (m)		5.25	
Min Ch El (m)	453.48	Shear (N/m2)		116.40	
Alpha	1.00	Stream Power (N/m s)		351.89	
Frctn Loss (m)	0.77	Cum Volume (1000 m3)	0.58	4.72	0.70
C & E Loss (m)	0.13	Cum SA (1000 m2)	2.74	6.14	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 39 Profile: TR 100

E.G. Elev (m)	455.21	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.		0.033	
W.S. Elev (m)	454.88	Reach Len. (m)	10.11	10.11	10.11
Crit W.S. (m)	454.80	Flow Area (m2)		4.69	
E.G. Slope (m/m)	0.010399	Area (m2)		4.69	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	5.37	Top Width (m)		5.37	
Vel Total (m/s)	2.54	Avg. Vel. (m/s)		2.54	
Max Chl Dpth (m)	1.40	Hydr. Depth (m)		0.87	
Conv. Total (m3/s)	117.0	Conv. (m3/s)		117.0	
Length Wtd. (m)	10.11	Wetted Per. (m)		6.28	
Min Ch El (m)	453.48	Shear (N/m2)		76.14	
Alpha	1.00	Stream Power (N/m s)		193.66	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	1.32	5.62	1.26
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.22	6.33	3.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 39 Profile: TR 200

E.G. Elev (m)	455.30	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.		0.033	
W.S. Elev (m)	454.97	Reach Len. (m)	10.11	10.11	10.11
Crit W.S. (m)	454.85	Flow Area (m2)		5.15	
E.G. Slope (m/m)	0.009593	Area (m2)		5.15	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	5.52	Top Width (m)		5.52	
Vel Total (m/s)	2.53	Avg. Vel. (m/s)		2.53	
Max Chl Dpth (m)	1.49	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	133.1	Conv. (m3/s)		133.1	
Length Wtd. (m)	10.11	Wetted Per. (m)		6.54	
Min Ch El (m)	453.48	Shear (N/m2)		74.06	
Alpha	1.00	Stream Power (N/m s)		187.41	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	1.52	5.86	1.41
C & E Loss (m)	0.02	Cum SA (1000 m2)	4.58	6.34	3.13

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 39 Profile: TR 500

E.G. Elev (m)	455.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.		0.033	
W.S. Elev (m)	455.08	Reach Len. (m)	10.11	10.11	10.11
Crit W.S. (m)	454.92	Flow Area (m2)		5.79	
E.G. Slope (m/m)	0.008586	Area (m2)		5.79	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)	5.73	Top Width (m)		5.73	
Vel Total (m/s)	2.50	Avg. Vel. (m/s)		2.50	
Max Chl Dpth (m)	1.60	Hydr. Depth (m)		1.01	
Conv. Total (m3/s)	156.2	Conv. (m3/s)		156.2	
Length Wtd. (m)	10.11	Wetted Per. (m)		6.89	
Min Ch El (m)	453.48	Shear (N/m2)		70.74	
Alpha	1.00	Stream Power (N/m s)		176.88	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	1.97	6.44	2.12
C & E Loss (m)	0.02	Cum SA (1000 m2)	5.19	6.41	4.05

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 38 Profile: TR 20

E.G. Elev (m)	454.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.		0.033	
W.S. Elev (m)	454.44	Reach Len. (m)	58.35	58.38	59.64
Crit W.S. (m)	454.47	Flow Area (m2)		3.24	
E.G. Slope (m/m)	0.017367	Area (m2)		3.24	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	4.21	Top Width (m)		4.21	
Vel Total (m/s)	2.89	Avg. Vel. (m/s)		2.89	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.77	
Conv. Total (m3/s)	71.0	Conv. (m3/s)		71.0	
Length Wtd. (m)	58.38	Wetted Per. (m)		5.25	
Min Ch El (m)	453.42	Shear (N/m2)		104.91	
Alpha	1.00	Stream Power (N/m s)		303.29	
Frctn Loss (m)	0.39	Cum Volume (1000 m3)	0.58	4.69	0.70
C & E Loss (m)	0.09	Cum SA (1000 m2)	2.74	6.09	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 38 Profile: TR 100

E.G. Elev (m)	455.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.46	Wt. n-Val.		0.033	
W.S. Elev (m)	454.61	Reach Len. (m)	58.35	58.38	59.64
Crit W.S. (m)	454.61	Flow Area (m2)		3.95	
E.G. Slope (m/m)	0.015755	Area (m2)		3.95	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 38 Profile: TR 100 (Continued)

Top Width (m)	4.23	Top Width (m)		4.23	
Vel Total (m/s)	3.02	Avg. Vel. (m/s)		3.02	
Max Chl Dpth (m)	1.19	Hydr. Depth (m)		0.93	
Conv. Total (m3/s)	95.0	Conv. (m3/s)		95.0	
Length Wtd. (m)	58.38	Wetted Per. (m)		5.59	
Min Ch El (m)	453.42	Shear (N/m2)		109.16	
Alpha	1.00	Stream Power (N/m s)		329.39	
Frctn Loss (m)	0.87	Cum Volume (1000 m3)	1.32	5.57	1.26
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.22	6.28	3.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 38 Profile: TR 200

E.G. Elev (m)	455.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.		0.033	
W.S. Elev (m)	454.67	Reach Len. (m)	58.35	58.38	59.64
Crit W.S. (m)	454.67	Flow Area (m2)		4.20	
E.G. Slope (m/m)	0.015744	Area (m2)		4.20	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	4.24	Top Width (m)		4.24	
Vel Total (m/s)	3.10	Avg. Vel. (m/s)		3.10	
Max Chl Dpth (m)	1.25	Hydr. Depth (m)		0.99	
Conv. Total (m3/s)	103.9	Conv. (m3/s)		103.9	
Length Wtd. (m)	58.38	Wetted Per. (m)		5.71	
Min Ch El (m)	453.42	Shear (N/m2)		113.62	
Alpha	1.00	Stream Power (N/m s)		352.12	
Frctn Loss (m)	0.88	Cum Volume (1000 m3)	1.52	5.81	1.41
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.58	6.30	3.13

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 38 Profile: TR 500

E.G. Elev (m)	455.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.		0.033	
W.S. Elev (m)	454.74	Reach Len. (m)	58.35	58.38	59.64
Crit W.S. (m)	454.74	Flow Area (m2)		4.50	
E.G. Slope (m/m)	0.016015	Area (m2)		4.50	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)	4.25	Top Width (m)		4.25	
Vel Total (m/s)	3.22	Avg. Vel. (m/s)		3.22	
Max Chl Dpth (m)	1.32	Hydr. Depth (m)		1.06	
Conv. Total (m3/s)	114.4	Conv. (m3/s)		114.4	
Length Wtd. (m)	58.38	Wetted Per. (m)		5.85	
Min Ch El (m)	453.42	Shear (N/m2)		120.72	
Alpha	1.00	Stream Power (N/m s)		388.47	
Frctn Loss (m)	0.80	Cum Volume (1000 m3)	1.97	6.39	2.12
C & E Loss (m)	0.04	Cum SA (1000 m2)	5.19	6.36	4.05

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 37 Profile: TR 20

E.G. Elev (m)	453.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.63	Wt. n-Val.		0.033	
W.S. Elev (m)	452.92	Reach Len. (m)	40.32	38.55	38.23
Crit W.S. (m)	453.10	Flow Area (m2)		2.65	
E.G. Slope (m/m)	0.030006	Area (m2)		2.65	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	4.19	Top Width (m)		4.19	
Vel Total (m/s)	3.52	Avg. Vel. (m/s)		3.52	
Max Chl Dpth (m)	0.86	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	54.0	Conv. (m3/s)		54.0	
Length Wtd. (m)	38.55	Wetted Per. (m)		4.82	
Min Ch El (m)	452.05	Shear (N/m2)		161.91	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 37 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		570.66	
Frctn Loss (m)	1.30	Cum Volume (1000 m3)	0.58	4.52	0.70
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.74	5.85	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 37 Profile: TR 100

E.G. Elev (m)	453.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.75	Wt. n-Val.		0.033	
W.S. Elev (m)	453.02	Reach Len. (m)	40.32	38.55	38.23
Crit W.S. (m)	453.24	Flow Area (m2)		3.11	
E.G. Slope (m/m)	0.031243	Area (m2)		3.11	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	4.42	Top Width (m)		4.42	
Vel Total (m/s)	3.83	Avg. Vel. (m/s)		3.83	
Max Chl Dpth (m)	0.97	Hydr. Depth (m)		0.70	
Conv. Total (m3/s)	67.5	Conv. (m3/s)		67.5	
Length Wtd. (m)	38.55	Wetted Per. (m)		5.14	
Min Ch El (m)	452.05	Shear (N/m2)		185.40	
Alpha	1.00	Stream Power (N/m s)		710.46	
Frctn Loss (m)	1.27	Cum Volume (1000 m3)	1.32	5.37	1.26
C & E Loss (m)	0.03	Cum SA (1000 m2)	4.22	6.03	3.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 37 Profile: TR 200

E.G. Elev (m)	453.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.78	Wt. n-Val.		0.033	
W.S. Elev (m)	453.07	Reach Len. (m)	40.32	38.55	38.23
Crit W.S. (m)	453.29	Flow Area (m2)		3.32	
E.G. Slope (m/m)	0.031170	Area (m2)		3.32	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	4.52	Top Width (m)		4.52	
Vel Total (m/s)	3.93	Avg. Vel. (m/s)		3.93	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.74	
Conv. Total (m3/s)	73.8	Conv. (m3/s)		73.8	
Length Wtd. (m)	38.54	Wetted Per. (m)		5.28	
Min Ch El (m)	452.05	Shear (N/m2)		192.09	
Alpha	1.00	Stream Power (N/m s)		753.95	
Frctn Loss (m)	1.28	Cum Volume (1000 m3)	1.52	5.59	1.41
C & E Loss (m)	0.03	Cum SA (1000 m2)	4.58	6.04	3.13

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 37 Profile: TR 500

E.G. Elev (m)	453.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.83	Wt. n-Val.		0.033	
W.S. Elev (m)	453.13	Reach Len. (m)	40.32	38.55	38.23
Crit W.S. (m)	453.41	Flow Area (m2)		3.58	
E.G. Slope (m/m)	0.031272	Area (m2)		3.58	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)	4.64	Top Width (m)		4.64	
Vel Total (m/s)	4.05	Avg. Vel. (m/s)		4.05	
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.77	
Conv. Total (m3/s)	81.9	Conv. (m3/s)		81.9	
Length Wtd. (m)	38.53	Wetted Per. (m)		5.45	
Min Ch El (m)	452.05	Shear (N/m2)		201.23	
Alpha	1.00	Stream Power (N/m s)		814.29	
Frctn Loss (m)	1.27	Cum Volume (1000 m3)	1.97	6.15	2.12
C & E Loss (m)	0.03	Cum SA (1000 m2)	5.19	6.10	4.05

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 36 Profile: TR 20

E.G. Elev (m)	452.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.		0.033	
W.S. Elev (m)	452.49	Reach Len. (m)	20.95	16.35	13.39
Crit W.S. (m)	452.49	Flow Area (m2)		3.49	
E.G. Slope (m/m)	0.014142	Area (m2)		3.49	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	4.72	Top Width (m)		4.72	
Vel Total (m/s)	2.68	Avg. Vel. (m/s)		2.68	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.74	
Conv. Total (m3/s)	78.6	Conv. (m3/s)		78.6	
Length Wtd. (m)	16.23	Wetted Per. (m)		5.45	
Min Ch El (m)	451.48	Shear (N/m2)		88.89	
Alpha	1.00	Stream Power (N/m s)		238.12	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.58	4.40	0.70
C & E Loss (m)	0.06	Cum SA (1000 m2)	2.74	5.67	2.18

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 36 Profile: TR 100

E.G. Elev (m)	453.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.41	Wt. n-Val.		0.033	
W.S. Elev (m)	452.63	Reach Len. (m)	20.95	16.35	13.39
Crit W.S. (m)	452.63	Flow Area (m2)		4.18	
E.G. Slope (m/m)	0.013906	Area (m2)		4.18	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	5.00	Top Width (m)		5.00	
Vel Total (m/s)	2.85	Avg. Vel. (m/s)		2.85	
Max Chl Dpth (m)	1.16	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	101.1	Conv. (m3/s)		101.1	
Length Wtd. (m)	16.28	Wetted Per. (m)		5.86	
Min Ch El (m)	451.48	Shear (N/m2)		97.27	
Alpha	1.00	Stream Power (N/m s)		277.50	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	1.32	5.23	1.26
C & E Loss (m)	0.10	Cum SA (1000 m2)	4.22	5.85	3.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 36 Profile: TR 200

E.G. Elev (m)	453.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.29	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	452.81	Reach Len. (m)	20.95	16.35	13.39
Crit W.S. (m)	452.69	Flow Area (m2)		5.08	0.95
E.G. Slope (m/m)	0.008583	Area (m2)		5.08	0.95
Q Total (m3/s)	13.03	Flow (m3/s)		12.47	0.56
Top Width (m)	8.63	Top Width (m)		5.14	3.48
Vel Total (m/s)	2.16	Avg. Vel. (m/s)		2.45	0.59
Max Chl Dpth (m)	1.33	Hydr. Depth (m)		0.99	0.27
Conv. Total (m3/s)	140.7	Conv. (m3/s)		134.6	6.1
Length Wtd. (m)	16.25	Wetted Per. (m)		6.21	3.98
Min Ch El (m)	451.48	Shear (N/m2)		68.82	20.08
Alpha	1.24	Stream Power (N/m s)		168.92	11.93
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	1.52	5.43	1.39
C & E Loss (m)	0.06	Cum SA (1000 m2)	4.58	5.85	3.06

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 36 Profile: TR 500

E.G. Elev (m)	453.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	453.36	Reach Len. (m)	20.95	16.35	13.39
Crit W.S. (m)	452.79	Flow Area (m2)		7.91	2.87
E.G. Slope (m/m)	0.002307	Area (m2)		7.91	2.87
Q Total (m3/s)	14.48	Flow (m3/s)		12.78	1.69

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 36 Profile: TR 500 (Continued)

Top Width (m)	8.63	Top Width (m)		5.14	3.48
Vel Total (m/s)	1.34	Avg. Vel. (m/s)		1.62	0.59
Max Chl Dpth (m)	1.88	Hydr. Depth (m)		1.54	0.82
Conv. Total (m3/s)	301.4	Conv. (m3/s)		266.2	35.3
Length Wtd. (m)	16.21	Wetted Per. (m)		6.76	4.53
Min Ch El (m)	451.48	Shear (N/m2)		26.47	14.33
Alpha	1.30	Stream Power (N/m s)		42.77	8.46
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	1.97	5.93	2.07
C & E Loss (m)	0.02	Cum SA (1000 m2)	5.19	5.91	3.98

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 35 Profile: TR 20

E.G. Elev (m)	452.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	452.38	Reach Len. (m)	21.33	21.62	21.73
Crit W.S. (m)	452.19	Flow Area (m2)	0.28	4.52	1.53
E.G. Slope (m/m)	0.004536	Area (m2)	0.28	4.52	1.53
Q Total (m3/s)	9.35	Flow (m3/s)	0.07	8.44	0.85
Top Width (m)	11.70	Top Width (m)	2.87	4.62	4.21
Vel Total (m/s)	1.48	Avg. Vel. (m/s)	0.24	1.87	0.55
Max Chl Dpth (m)	1.27	Hydr. Depth (m)	0.10	0.98	0.36
Conv. Total (m3/s)	138.9	Conv. (m3/s)	1.0	125.3	12.6
Length Wtd. (m)	21.62	Wetted Per. (m)	2.88	5.16	4.45
Min Ch El (m)	451.10	Shear (N/m2)	4.33	38.96	15.33
Alpha	1.46	Stream Power (N/m s)	1.03	72.80	8.46
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.57	4.33	0.69
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.71	5.60	2.16

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 35 Profile: TR 100

E.G. Elev (m)	452.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	452.77	Reach Len. (m)	21.33	21.62	21.73
Crit W.S. (m)	452.31	Flow Area (m2)	1.96	6.33	3.18
E.G. Slope (m/m)	0.001839	Area (m2)	1.96	6.33	3.18
Q Total (m3/s)	11.93	Flow (m3/s)	0.77	9.44	1.72
Top Width (m)	13.36	Top Width (m)	4.53	4.62	4.21
Vel Total (m/s)	1.04	Avg. Vel. (m/s)	0.39	1.49	0.54
Max Chl Dpth (m)	1.67	Hydr. Depth (m)	0.43	1.37	0.76
Conv. Total (m3/s)	278.1	Conv. (m3/s)	18.0	220.0	40.1
Length Wtd. (m)	21.62	Wetted Per. (m)	4.82	5.16	4.84
Min Ch El (m)	451.10	Shear (N/m2)	7.35	22.14	11.86
Alpha	1.67	Stream Power (N/m s)	2.89	33.00	6.41
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	1.30	5.14	1.24
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.17	5.77	2.97

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 35 Profile: TR 200

E.G. Elev (m)	452.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	452.91	Reach Len. (m)	21.33	21.62	21.73
Crit W.S. (m)	452.35	Flow Area (m2)	2.61	6.99	3.78
E.G. Slope (m/m)	0.001466	Area (m2)	2.61	6.99	3.78
Q Total (m3/s)	13.03	Flow (m3/s)	1.08	9.94	2.01
Top Width (m)	13.36	Top Width (m)	4.53	4.62	4.21
Vel Total (m/s)	0.97	Avg. Vel. (m/s)	0.42	1.42	0.53
Max Chl Dpth (m)	1.81	Hydr. Depth (m)	0.58	1.51	0.90
Conv. Total (m3/s)	340.4	Conv. (m3/s)	28.3	259.5	52.5
Length Wtd. (m)	21.62	Wetted Per. (m)	4.96	5.16	4.98
Min Ch El (m)	451.10	Shear (N/m2)	7.56	19.49	10.92

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 35 Profile: TR 200 (Continued)

Alpha	1.69	Stream Power (N/m s)	3.14	27.69	5.80
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	1.49	5.33	1.36
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.53	5.77	3.01

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 35 Profile: TR 500

E.G. Elev (m)	453.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	453.39	Reach Len. (m)	21.33	21.62	21.73
Crit W.S. (m)	452.41	Flow Area (m2)	4.80	9.23	5.82
E.G. Slope (m/m)	0.000609	Area (m2)	4.80	9.23	5.82
Q Total (m3/s)	14.48	Flow (m3/s)	1.81	10.17	2.49
Top Width (m)	13.36	Top Width (m)	4.53	4.62	4.21
Vel Total (m/s)	0.73	Avg. Vel. (m/s)	0.38	1.10	0.43
Max Chl Dpth (m)	2.29	Hydr. Depth (m)	1.06	2.00	1.38
Conv. Total (m3/s)	586.9	Conv. (m3/s)	73.5	412.2	101.1
Length Wtd. (m)	21.61	Wetted Per. (m)	5.44	5.16	5.47
Min Ch El (m)	451.10	Shear (N/m2)	5.26	10.68	6.35
Alpha	1.70	Stream Power (N/m s)	1.99	11.77	2.72
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	1.92	5.79	2.01
C & E Loss (m)	0.00	Cum SA (1000 m2)	5.14	5.83	3.93

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 34 Profile: TR 20

E.G. Elev (m)	452.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.033	
W.S. Elev (m)	452.25	Reach Len. (m)	0.25	0.25	0.25
Crit W.S. (m)	451.79	Flow Area (m2)		4.68	
E.G. Slope (m/m)	0.003036	Area (m2)	0.04	5.83	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	6.13	Top Width (m)	0.81	5.32	
Vel Total (m/s)	2.00	Avg. Vel. (m/s)		2.00	
Max Chl Dpth (m)	1.48	Hydr. Depth (m)		1.37	
Conv. Total (m3/s)	169.7	Conv. (m3/s)		169.7	
Length Wtd. (m)	0.25	Wetted Per. (m)		3.58	
Min Ch El (m)	450.77	Shear (N/m2)		38.96	
Alpha	1.00	Stream Power (N/m s)		77.83	
Frctn Loss (m)		Cum Volume (1000 m3)	0.57	4.22	0.67
C & E Loss (m)		Cum SA (1000 m2)	2.67	5.49	2.11

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 34 Profile: TR 100

E.G. Elev (m)	452.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.033	
W.S. Elev (m)	452.59	Reach Len. (m)	0.25	0.25	0.25
Crit W.S. (m)	451.95	Flow Area (m2)		5.85	
E.G. Slope (m/m)	0.002354	Area (m2)	0.67	7.70	0.02
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	9.79	Top Width (m)	2.16	5.61	2.02
Vel Total (m/s)	2.04	Avg. Vel. (m/s)		2.04	
Max Chl Dpth (m)	1.82	Hydr. Depth (m)		1.71	
Conv. Total (m3/s)	245.8	Conv. (m3/s)		245.8	
Length Wtd. (m)	0.25	Wetted Per. (m)		3.58	
Min Ch El (m)	450.77	Shear (N/m2)		37.72	
Alpha	1.00	Stream Power (N/m s)		76.93	
Frctn Loss (m)		Cum Volume (1000 m3)	1.27	4.99	1.21
C & E Loss (m)		Cum SA (1000 m2)	4.10	5.66	2.90

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 34 Profile: TR 200

E.G. Elev (m)	452.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.033	
W.S. Elev (m)	452.72	Reach Len. (m)	0.25	0.25	0.25
Crit W.S. (m)	452.02	Flow Area (m2)		6.29	
E.G. Slope (m/m)	0.002199	Area (m2)	0.95	8.43	0.59
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	12.36	Top Width (m)	2.16	5.61	4.59
Vel Total (m/s)	2.07	Avg. Vel. (m/s)		2.07	
Max Chl Dpth (m)	1.96	Hydr. Depth (m)		1.84	
Conv. Total (m3/s)	277.9	Conv. (m3/s)		277.9	
Length Wtd. (m)	0.25	Wetted Per. (m)		3.58	
Min Ch El (m)	450.77	Shear (N/m2)		37.93	
Alpha	1.00	Stream Power (N/m s)		78.53	
Frctn Loss (m)		Cum Volume (1000 m3)	1.45	5.16	1.31
C & E Loss (m)		Cum SA (1000 m2)	4.46	5.66	2.91

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 34 Profile: TR 500

E.G. Elev (m)	453.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	453.38	Reach Len. (m)	0.25	0.25	0.25
Crit W.S. (m)	452.11	Flow Area (m2)	2.37	12.12	3.61
E.G. Slope (m/m)	0.000563	Area (m2)	2.37	12.12	3.61
Q Total (m3/s)	14.48	Flow (m3/s)	0.77	12.61	1.10
Top Width (m)	12.36	Top Width (m)	2.16	5.61	4.59
Vel Total (m/s)	0.80	Avg. Vel. (m/s)	0.33	1.04	0.30
Max Chl Dpth (m)	2.61	Hydr. Depth (m)	1.10	2.16	0.79
Conv. Total (m3/s)	610.3	Conv. (m3/s)	32.6	531.4	46.2
Length Wtd. (m)	0.25	Wetted Per. (m)	3.14	6.96	5.36
Min Ch El (m)	450.77	Shear (N/m2)	4.16	9.61	3.72
Alpha	1.49	Stream Power (N/m s)	1.36	10.00	1.13
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.84	5.56	1.91
C & E Loss (m)	0.08	Cum SA (1000 m2)	5.07	5.72	3.84

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33.5 BR U Profile: TR 20

E.G. Elev (m)	452.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.		0.033	
W.S. Elev (m)	452.03	Reach Len. (m)	3.26	3.26	3.26
Crit W.S. (m)	451.73	Flow Area (m2)		3.37	
E.G. Slope (m/m)	0.019419	Area (m2)		3.37	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	1.34	Top Width (m)		1.34	
Vel Total (m/s)	2.78	Avg. Vel. (m/s)		2.78	
Max Chl Dpth (m)	1.27	Hydr. Depth (m)		2.50	
Conv. Total (m3/s)	67.1	Conv. (m3/s)		67.1	
Length Wtd. (m)	3.26	Wetted Per. (m)		6.31	
Min Ch El (m)	450.77	Shear (N/m2)		101.64	
Alpha	1.00	Stream Power (N/m s)		282.41	
Frctn Loss (m)		Cum Volume (1000 m3)	0.57	4.22	0.67
C & E Loss (m)		Cum SA (1000 m2)	2.67	5.49	2.11

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33.5 BR U Profile: TR 100

E.G. Elev (m)	452.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.57	Wt. n-Val.		0.033	
W.S. Elev (m)	452.26	Reach Len. (m)	3.26	3.26	3.26
Crit W.S. (m)	451.86	Flow Area (m2)		3.57	
E.G. Slope (m/m)	0.031264	Area (m2)		3.58	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33.5 BR U Profile: TR 100 (Continued)

Top Width (m)	0.50	Top Width (m)		0.50	
Vel Total (m/s)	3.34	Avg. Vel. (m/s)		3.34	
Max Chl Dpth (m)	1.49	Hydr. Depth (m)		7.11	
Conv. Total (m3/s)	67.5	Conv. (m3/s)		67.5	
Length Wtd. (m)	3.26	Wetted Per. (m)		7.26	
Min Ch El (m)	450.77	Shear (N/m2)		150.84	
Alpha	1.00	Stream Power (N/m s)		503.70	
Frctn Loss (m)		Cum Volume (1000 m3)	1.27	4.99	1.21
C & E Loss (m)		Cum SA (1000 m2)	4.10	5.66	2.90

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33.5 BR U Profile: TR 200

E.G. Elev (m)	453.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.67	Wt. n-Val.		0.033	
W.S. Elev (m)	452.35	Reach Len. (m)	3.26	3.26	3.26
Crit W.S. (m)	451.90	Flow Area (m2)		3.60	
E.G. Slope (m/m)	0.038839	Area (m2)		3.61	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	0.17	Top Width (m)		0.17	
Vel Total (m/s)	3.62	Avg. Vel. (m/s)		3.62	
Max Chl Dpth (m)	1.58	Hydr. Depth (m)		21.18	
Conv. Total (m3/s)	66.1	Conv. (m3/s)		66.1	
Length Wtd. (m)	3.26	Wetted Per. (m)		7.64	
Min Ch El (m)	450.77	Shear (N/m2)		179.64	
Alpha	1.00	Stream Power (N/m s)		650.05	
Frctn Loss (m)		Cum Volume (1000 m3)	1.45	5.16	1.31
C & E Loss (m)		Cum SA (1000 m2)	4.46	5.66	2.91

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33.5 BR U Profile: TR 500

E.G. Elev (m)	453.35	Element	Left OB	Channel	Right OB
Vel Head (m)	0.82	Wt. n-Val.		0.033	
W.S. Elev (m)	452.53	Reach Len. (m)	3.26	3.26	3.26
Crit W.S. (m)	451.96	Flow Area (m2)		3.61	
E.G. Slope (m/m)	0.049385	Area (m2)		3.61	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	4.02	Avg. Vel. (m/s)		4.02	
Max Chl Dpth (m)	1.76	Hydr. Depth (m)			
Conv. Total (m3/s)	65.2	Conv. (m3/s)		65.2	
Length Wtd. (m)	3.26	Wetted Per. (m)		7.83	
Min Ch El (m)	450.77	Shear (N/m2)		223.05	
Alpha	1.00	Stream Power (N/m s)		895.78	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)	1.84	5.56	1.91
C & E Loss (m)	0.04	Cum SA (1000 m2)	5.07	5.72	3.84

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33.5 BR D Profile: TR 20

E.G. Elev (m)	452.35	Element	Left OB	Channel	Right OB
Vel Head (m)	0.64	Wt. n-Val.		0.033	
W.S. Elev (m)	451.71	Reach Len. (m)	0.14	0.14	0.14
Crit W.S. (m)	451.71	Flow Area (m2)		2.64	
E.G. Slope (m/m)	0.039371	Area (m2)		2.64	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	2.07	Top Width (m)		2.07	
Vel Total (m/s)	3.55	Avg. Vel. (m/s)		3.55	
Max Chl Dpth (m)	0.88	Hydr. Depth (m)		1.27	
Conv. Total (m3/s)	47.1	Conv. (m3/s)		47.1	
Length Wtd. (m)	0.14	Wetted Per. (m)		5.82	
Min Ch El (m)	450.83	Shear (N/m2)		174.97	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33.5 BR D Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		620.73	
Frctn Loss (m)		Cum Volume (1000 m3)	0.57	4.21	0.67
C & E Loss (m)		Cum SA (1000 m2)	2.67	5.48	2.11

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33.5 BR D Profile: TR 100

E.G. Elev (m)	452.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.89	Wt. n-Val.		0.033	
W.S. Elev (m)	451.83	Reach Len. (m)	0.14	0.14	0.14
Crit W.S. (m)	451.83	Flow Area (m2)		2.86	
E.G. Slope (m/m)	0.054781	Area (m2)		2.86	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	1.62	Top Width (m)		1.62	
Vel Total (m/s)	4.17	Avg. Vel. (m/s)		4.17	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		1.76	
Conv. Total (m3/s)	51.0	Conv. (m3/s)		51.0	
Length Wtd. (m)	0.14	Wetted Per. (m)		6.33	
Min Ch El (m)	450.83	Shear (N/m2)		242.54	
Alpha	1.00	Stream Power (N/m s)		1012.37	
Frctn Loss (m)		Cum Volume (1000 m3)	1.27	4.98	1.21
C & E Loss (m)		Cum SA (1000 m2)	4.10	5.66	2.90

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33.5 BR D Profile: TR 200

E.G. Elev (m)	452.89	Element	Left OB	Channel	Right OB
Vel Head (m)	1.01	Wt. n-Val.		0.033	
W.S. Elev (m)	451.88	Reach Len. (m)	0.14	0.14	0.14
Crit W.S. (m)	451.88	Flow Area (m2)		2.93	
E.G. Slope (m/m)	0.062722	Area (m2)		2.93	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	1.44	Top Width (m)		1.44	
Vel Total (m/s)	4.45	Avg. Vel. (m/s)		4.45	
Max Chl Dpth (m)	1.05	Hydr. Depth (m)		2.03	
Conv. Total (m3/s)	52.0	Conv. (m3/s)		52.0	
Length Wtd. (m)	0.14	Wetted Per. (m)		6.53	
Min Ch El (m)	450.83	Shear (N/m2)		275.91	
Alpha	1.00	Stream Power (N/m s)		1227.00	
Frctn Loss (m)		Cum Volume (1000 m3)	1.45	5.15	1.31
C & E Loss (m)		Cum SA (1000 m2)	4.46	5.66	2.91

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33.5 BR D Profile: TR 500

E.G. Elev (m)	453.12	Element	Left OB	Channel	Right OB
Vel Head (m)	1.19	Wt. n-Val.		0.033	
W.S. Elev (m)	451.93	Reach Len. (m)	0.14	0.14	0.14
Crit W.S. (m)	451.93	Flow Area (m2)		3.00	
E.G. Slope (m/m)	0.074945	Area (m2)		3.00	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)	1.25	Top Width (m)		1.25	
Vel Total (m/s)	4.83	Avg. Vel. (m/s)		4.83	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		2.39	
Conv. Total (m3/s)	52.9	Conv. (m3/s)		52.9	
Length Wtd. (m)	0.14	Wetted Per. (m)		6.74	
Min Ch El (m)	450.83	Shear (N/m2)		326.59	
Alpha	1.00	Stream Power (N/m s)		1577.73	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.84	5.55	1.91
C & E Loss (m)	0.18	Cum SA (1000 m2)	5.07	5.72	3.84

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33 Profile: TR 20

E.G. Elev (m)	452.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.79	Wt. n-Val.		0.033	
W.S. Elev (m)	451.56	Reach Len. (m)	0.00	4.59	7.20
Crit W.S. (m)	451.77	Flow Area (m2)		2.38	
E.G. Slope (m/m)	0.027737	Area (m2)		2.64	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	3.93	Top Width (m)		3.93	
Vel Total (m/s)	3.93	Avg. Vel. (m/s)		3.93	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.69	
Conv. Total (m3/s)	56.2	Conv. (m3/s)		56.2	
Length Wtd. (m)	4.59	Wetted Per. (m)		3.47	
Min Ch El (m)	450.83	Shear (N/m2)		186.85	
Alpha	1.00	Stream Power (N/m s)		734.18	
Frctn Loss (m)		Cum Volume (1000 m3)	0.57	4.21	0.67
C & E Loss (m)		Cum SA (1000 m2)	2.67	5.48	2.11

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33 Profile: TR 100

E.G. Elev (m)	452.71	Element	Left OB	Channel	Right OB
Vel Head (m)	1.09	Wt. n-Val.		0.033	
W.S. Elev (m)	451.61	Reach Len. (m)	0.00	4.59	7.20
Crit W.S. (m)	451.93	Flow Area (m2)		2.57	
E.G. Slope (m/m)	0.034738	Area (m2)		2.86	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	3.95	Top Width (m)		3.95	
Vel Total (m/s)	4.63	Avg. Vel. (m/s)		4.63	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.74	
Conv. Total (m3/s)	64.0	Conv. (m3/s)		64.0	
Length Wtd. (m)	4.59	Wetted Per. (m)		3.47	
Min Ch El (m)	450.83	Shear (N/m2)		253.09	
Alpha	1.00	Stream Power (N/m s)		1172.56	
Frctn Loss (m)		Cum Volume (1000 m3)	1.27	4.98	1.21
C & E Loss (m)		Cum SA (1000 m2)	4.10	5.66	2.90

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33 Profile: TR 200

E.G. Elev (m)	452.87	Element	Left OB	Channel	Right OB
Vel Head (m)	1.24	Wt. n-Val.		0.033	
W.S. Elev (m)	451.63	Reach Len. (m)	0.00	4.59	7.20
Crit W.S. (m)	452.00	Flow Area (m2)		2.64	
E.G. Slope (m/m)	0.038124	Area (m2)		2.93	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	3.95	Top Width (m)		3.95	
Vel Total (m/s)	4.94	Avg. Vel. (m/s)		4.94	
Max Chl Dpth (m)	0.81	Hydr. Depth (m)		0.76	
Conv. Total (m3/s)	66.7	Conv. (m3/s)		66.7	
Length Wtd. (m)	4.59	Wetted Per. (m)		3.47	
Min Ch El (m)	450.83	Shear (N/m2)		284.86	
Alpha	1.00	Stream Power (N/m s)		1406.01	
Frctn Loss (m)		Cum Volume (1000 m3)	1.45	5.15	1.31
C & E Loss (m)		Cum SA (1000 m2)	4.46	5.66	2.91

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33 Profile: TR 500

E.G. Elev (m)	453.08	Element	Left OB	Channel	Right OB
Vel Head (m)	1.42	Wt. n-Val.		0.033	
W.S. Elev (m)	451.66	Reach Len. (m)	0.00	4.59	7.20
Crit W.S. (m)	452.08	Flow Area (m2)		2.74	
E.G. Slope (m/m)	0.041387	Area (m2)		3.05	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 33 Profile: TR 500 (Continued)

Top Width (m)	3.96	Top Width (m)		3.96	
Vel Total (m/s)	5.28	Avg. Vel. (m/s)		5.28	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	71.2	Conv. (m3/s)		71.2	
Length Wtd. (m)	4.59	Wetted Per. (m)		3.47	
Min Ch El (m)	450.83	Shear (N/m2)		321.39	
Alpha	1.00	Stream Power (N/m s)		1695.82	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	1.84	5.55	1.91
C & E Loss (m)	0.02	Cum SA (1000 m2)	5.07	5.72	3.84

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 32 Profile: TR 20

E.G. Elev (m)	452.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.87	Wt. n-Val.		0.033	
W.S. Elev (m)	451.30	Reach Len. (m)	37.73	37.64	38.00
Crit W.S. (m)	451.55	Flow Area (m2)		2.27	
E.G. Slope (m/m)	0.053097	Area (m2)		2.27	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	4.02	Top Width (m)		4.02	
Vel Total (m/s)	4.13	Avg. Vel. (m/s)		4.13	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	40.6	Conv. (m3/s)		40.6	
Length Wtd. (m)	37.64	Wetted Per. (m)		4.99	
Min Ch El (m)	450.51	Shear (N/m2)		236.62	
Alpha	1.00	Stream Power (N/m s)		976.63	
Frctn Loss (m)	0.17	Cum Volume (1000 m3)	0.57	4.20	0.67
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.67	5.47	2.11

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 32 Profile: TR 100

E.G. Elev (m)	452.50	Element	Left OB	Channel	Right OB
Vel Head (m)	1.14	Wt. n-Val.		0.033	
W.S. Elev (m)	451.36	Reach Len. (m)	37.73	37.64	38.00
Crit W.S. (m)	451.70	Flow Area (m2)		2.53	
E.G. Slope (m/m)	0.062180	Area (m2)		2.53	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	4.04	Top Width (m)		4.04	
Vel Total (m/s)	4.72	Avg. Vel. (m/s)		4.72	
Max Chl Dpth (m)	0.86	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	47.8	Conv. (m3/s)		47.8	
Length Wtd. (m)	37.64	Wetted Per. (m)		5.12	
Min Ch El (m)	450.51	Shear (N/m2)		301.08	
Alpha	1.00	Stream Power (N/m s)		1421.22	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)	1.27	4.96	1.21
C & E Loss (m)	0.00	Cum SA (1000 m2)	4.10	5.64	2.90

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 32 Profile: TR 200

E.G. Elev (m)	452.65	Element	Left OB	Channel	Right OB
Vel Head (m)	1.27	Wt. n-Val.		0.033	
W.S. Elev (m)	451.38	Reach Len. (m)	37.73	37.64	38.00
Crit W.S. (m)	451.76	Flow Area (m2)		2.61	
E.G. Slope (m/m)	0.066967	Area (m2)		2.61	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	4.04	Top Width (m)		4.04	
Vel Total (m/s)	4.98	Avg. Vel. (m/s)		4.98	
Max Chl Dpth (m)	0.88	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	50.4	Conv. (m3/s)		50.4	
Length Wtd. (m)	37.64	Wetted Per. (m)		5.16	
Min Ch El (m)	450.51	Shear (N/m2)		332.71	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 32 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		1658.09	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)	1.45	5.14	1.31
C & E Loss (m)	0.00	Cum SA (1000 m2)	4.46	5.64	2.91

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 32 Profile: TR 500

E.G. Elev (m)	452.84	Element	Left OB	Channel	Right OB
Vel Head (m)	1.43	Wt. n-Val.		0.033	
W.S. Elev (m)	451.41	Reach Len. (m)	37.73	37.64	38.00
Crit W.S. (m)	451.83	Flow Area (m2)		2.73	
E.G. Slope (m/m)	0.072360	Area (m2)		2.73	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)	4.05	Top Width (m)		4.05	
Vel Total (m/s)	5.30	Avg. Vel. (m/s)		5.30	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	53.8	Conv. (m3/s)		53.8	
Length Wtd. (m)	37.64	Wetted Per. (m)		5.22	
Min Ch El (m)	450.51	Shear (N/m2)		371.59	
Alpha	1.00	Stream Power (N/m s)		1967.90	
Frctn Loss (m)	0.25	Cum Volume (1000 m3)	1.84	5.54	1.91
C & E Loss (m)	0.00	Cum SA (1000 m2)	5.07	5.70	3.84

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 31 Profile: TR 20

E.G. Elev (m)	451.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.44	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	451.25	Reach Len. (m)	94.65	93.33	92.16
Crit W.S. (m)	451.25	Flow Area (m2)		3.20	0.02
E.G. Slope (m/m)	0.015175	Area (m2)		3.20	0.02
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	0.01
Top Width (m)	3.74	Top Width (m)		3.63	0.11
Vel Total (m/s)	2.91	Avg. Vel. (m/s)		2.92	0.29
Max Chl Dpth (m)	1.24	Hydr. Depth (m)		0.88	0.16
Conv. Total (m3/s)	75.9	Conv. (m3/s)		75.9	0.0
Length Wtd. (m)	93.31	Wetted Per. (m)		4.61	0.34
Min Ch El (m)	450.00	Shear (N/m2)		103.17	7.72
Alpha	1.01	Stream Power (N/m s)		301.69	2.20
Frctn Loss (m)	1.19	Cum Volume (1000 m3)	0.57	4.10	0.67
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.67	5.32	2.11

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 31 Profile: TR 100

E.G. Elev (m)	451.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.51	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	451.40	Reach Len. (m)	94.65	93.33	92.16
Crit W.S. (m)	451.40	Flow Area (m2)		3.77	0.04
E.G. Slope (m/m)	0.014921	Area (m2)		3.77	0.04
Q Total (m3/s)	11.93	Flow (m3/s)		11.91	0.01
Top Width (m)	3.85	Top Width (m)		3.68	0.16
Vel Total (m/s)	3.13	Avg. Vel. (m/s)		3.16	0.37
Max Chl Dpth (m)	1.40	Hydr. Depth (m)		1.02	0.24
Conv. Total (m3/s)	97.6	Conv. (m3/s)		97.5	0.1
Length Wtd. (m)	93.39	Wetted Per. (m)		4.78	0.51
Min Ch El (m)	450.00	Shear (N/m2)		115.44	11.26
Alpha	1.02	Stream Power (N/m s)		364.85	4.14
Frctn Loss (m)	0.28	Cum Volume (1000 m3)	1.27	4.85	1.21
C & E Loss (m)	0.14	Cum SA (1000 m2)	4.10	5.49	2.90

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 31 Profile: TR 200

E.G. Elev (m)	452.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	451.47	Reach Len. (m)	94.65	93.33	92.16
Crit W.S. (m)	451.47	Flow Area (m2)		4.01	0.05
E.G. Slope (m/m)	0.014711	Area (m2)		4.01	0.05
Q Total (m3/s)	13.03	Flow (m3/s)		13.01	0.02
Top Width (m)	3.89	Top Width (m)		3.71	0.18
Vel Total (m/s)	3.21	Avg. Vel. (m/s)		3.24	0.40
Max Chl Dpth (m)	1.47	Hydr. Depth (m)		1.08	0.27
Conv. Total (m3/s)	107.4	Conv. (m3/s)		107.3	0.2
Length Wtd. (m)	93.42	Wetted Per. (m)		4.85	0.58
Min Ch El (m)	450.00	Shear (N/m2)		119.46	12.63
Alpha	1.02	Stream Power (N/m s)		387.15	5.03
Frctn Loss (m)	0.25	Cum Volume (1000 m3)	1.45	5.01	1.31
C & E Loss (m)	0.15	Cum SA (1000 m2)	4.46	5.50	2.91

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 31 Profile: TR 500

E.G. Elev (m)	452.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.45	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	451.65	Reach Len. (m)	94.65	93.33	92.16
Crit W.S. (m)	451.65	Flow Area (m2)	0.65	4.69	0.09
E.G. Slope (m/m)	0.010733	Area (m2)	0.65	4.69	0.09
Q Total (m3/s)	14.48	Flow (m3/s)	0.32	14.12	0.04
Top Width (m)	8.07	Top Width (m)	4.07	3.76	0.25
Vel Total (m/s)	2.67	Avg. Vel. (m/s)	0.49	3.01	0.41
Max Chl Dpth (m)	1.65	Hydr. Depth (m)	0.16	1.25	0.36
Conv. Total (m3/s)	139.8	Conv. (m3/s)	3.1	136.3	0.4
Length Wtd. (m)	93.44	Wetted Per. (m)	4.34	4.99	0.77
Min Ch El (m)	450.00	Shear (N/m2)	15.78	98.96	12.25
Alpha	1.25	Stream Power (N/m s)	7.69	298.15	5.04
Frctn Loss (m)	0.24	Cum Volume (1000 m3)	1.83	5.40	1.91
C & E Loss (m)	0.12	Cum SA (1000 m2)	5.00	5.56	3.83

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 30 Profile: TR 20

E.G. Elev (m)	450.12	Element	Left OB	Channel	Right OB
Vel Head (m)	0.50	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	449.62	Reach Len. (m)	5.78	4.40	3.23
Crit W.S. (m)	449.76	Flow Area (m2)		2.83	0.48
E.G. Slope (m/m)	0.018309	Area (m2)		2.83	0.48
Q Total (m3/s)	9.35	Flow (m3/s)		9.03	0.32
Top Width (m)	6.15	Top Width (m)		3.18	2.97
Vel Total (m/s)	2.82	Avg. Vel. (m/s)		3.19	0.67
Max Chl Dpth (m)	1.08	Hydr. Depth (m)		0.89	0.16
Conv. Total (m3/s)	69.1	Conv. (m3/s)		66.7	2.4
Length Wtd. (m)	4.36	Wetted Per. (m)		4.13	2.99
Min Ch El (m)	448.54	Shear (N/m2)		123.10	28.92
Alpha	1.23	Stream Power (N/m s)		392.46	19.31
Frctn Loss (m)	1.55	Cum Volume (1000 m3)	0.57	3.82	0.65
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.67	5.00	1.97

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 30 Profile: TR 100

E.G. Elev (m)	450.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	450.49	Reach Len. (m)	5.78	4.40	3.23
Crit W.S. (m)	449.89	Flow Area (m2)	7.91	5.76	3.78
E.G. Slope (m/m)	0.001273	Area (m2)	7.91	5.76	3.78
Q Total (m3/s)	11.93	Flow (m3/s)	2.83	7.13	1.97

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 30 Profile: TR 100 (Continued)

Top Width (m)	23.43	Top Width (m)	16.18	3.42	3.83
Vel Total (m/s)	0.68	Avg. Vel. (m/s)	0.36	1.24	0.52
Max Chl Dpth (m)	1.95	Hydr. Depth (m)	0.49	1.68	0.99
Conv. Total (m3/s)	334.2	Conv. (m3/s)	79.4	199.7	55.1
Length Wtd. (m)	4.39	Wetted Per. (m)	16.92	4.70	4.63
Min Ch El (m)	448.54	Shear (N/m2)	5.84	15.30	10.20
Alpha	2.12	Stream Power (N/m s)	2.09	18.94	5.30
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.89	4.40	1.03
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.33	5.16	2.72

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 30 Profile: TR 200

E.G. Elev (m)	450.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	450.60	Reach Len. (m)	5.78	4.40	3.23
Crit W.S. (m)	449.94	Flow Area (m2)	9.57	6.11	4.18
E.G. Slope (m/m)	0.001098	Area (m2)	9.57	6.11	4.18
Q Total (m3/s)	13.03	Flow (m3/s)	3.60	7.31	2.12
Top Width (m)	23.43	Top Width (m)	16.18	3.42	3.83
Vel Total (m/s)	0.66	Avg. Vel. (m/s)	0.38	1.20	0.51
Max Chl Dpth (m)	2.05	Hydr. Depth (m)	0.59	1.78	1.09
Conv. Total (m3/s)	393.2	Conv. (m3/s)	108.7	220.5	64.0
Length Wtd. (m)	4.42	Wetted Per. (m)	17.02	4.70	4.73
Min Ch El (m)	448.54	Shear (N/m2)	6.06	14.00	9.50
Alpha	2.05	Stream Power (N/m s)	2.28	16.74	4.83
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	1.00	4.54	1.12
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.70	5.16	2.72

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 30 Profile: TR 500

E.G. Elev (m)	450.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	450.66	Reach Len. (m)	5.78	4.40	3.23
Crit W.S. (m)	450.01	Flow Area (m2)	10.53	6.31	4.40
E.G. Slope (m/m)	0.001137	Area (m2)	10.53	6.31	4.40
Q Total (m3/s)	14.48	Flow (m3/s)	4.29	7.85	2.34
Top Width (m)	23.43	Top Width (m)	16.18	3.42	3.83
Vel Total (m/s)	0.68	Avg. Vel. (m/s)	0.41	1.24	0.53
Max Chl Dpth (m)	2.11	Hydr. Depth (m)	0.65	1.84	1.15
Conv. Total (m3/s)	429.3	Conv. (m3/s)	127.2	232.8	69.3
Length Wtd. (m)	4.43	Wetted Per. (m)	17.08	4.70	4.79
Min Ch El (m)	448.54	Shear (N/m2)	6.88	14.98	10.25
Alpha	2.01	Stream Power (N/m s)	2.80	18.63	5.44
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	1.30	4.88	1.70
C & E Loss (m)	0.00	Cum SA (1000 m2)	4.04	5.22	3.64

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 29 Profile: TR 20

E.G. Elev (m)	449.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.22	Wt. n-Val.		0.033	
W.S. Elev (m)	449.76	Reach Len. (m)	0.12	0.12	0.12
Crit W.S. (m)	449.48	Flow Area (m2)		4.50	
E.G. Slope (m/m)	0.006117	Area (m2)		4.51	0.69
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	9.34	Top Width (m)		4.25	5.09
Vel Total (m/s)	2.08	Avg. Vel. (m/s)		2.08	
Max Chl Dpth (m)	1.57	Hydr. Depth (m)		1.08	
Conv. Total (m3/s)	119.6	Conv. (m3/s)		119.6	
Length Wtd. (m)	0.12	Wetted Per. (m)		5.47	
Min Ch El (m)	448.19	Shear (N/m2)		49.30	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 29 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		102.51	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.57	3.80	0.65
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.67	4.99	1.95

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 29 Profile: TR 100

E.G. Elev (m)	450.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	450.47	Reach Len. (m)	0.12	0.12	0.12
Crit W.S. (m)	449.62	Flow Area (m2)	1.31	7.59	4.30
E.G. Slope (m/m)	0.001254	Area (m2)	1.31	7.59	4.30
Q Total (m3/s)	11.93	Flow (m3/s)	0.37	9.49	2.07
Top Width (m)	13.07	Top Width (m)	3.60	4.37	5.09
Vel Total (m/s)	0.90	Avg. Vel. (m/s)	0.28	1.25	0.48
Max Chl Dpth (m)	2.28	Hydr. Depth (m)	0.36	1.74	0.84
Conv. Total (m3/s)	336.8	Conv. (m3/s)	10.5	268.0	58.4
Length Wtd. (m)	0.12	Wetted Per. (m)	3.96	6.03	5.84
Min Ch El (m)	448.19	Shear (N/m2)	4.07	15.47	9.05
Alpha	1.58	Stream Power (N/m s)	1.15	19.35	4.36
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.87	4.37	1.02
C & E Loss (m)	0.02	Cum SA (1000 m2)	3.27	5.14	2.70

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 29 Profile: TR 200

E.G. Elev (m)	450.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	450.57	Reach Len. (m)	0.12	0.12	0.12
Crit W.S. (m)	449.68	Flow Area (m2)	1.66	8.01	4.79
E.G. Slope (m/m)	0.001188	Area (m2)	1.66	8.01	4.79
Q Total (m3/s)	13.03	Flow (m3/s)	0.53	10.12	2.39
Top Width (m)	13.07	Top Width (m)	3.60	4.37	5.09
Vel Total (m/s)	0.90	Avg. Vel. (m/s)	0.32	1.26	0.50
Max Chl Dpth (m)	2.38	Hydr. Depth (m)	0.46	1.83	0.94
Conv. Total (m3/s)	378.0	Conv. (m3/s)	15.3	293.5	69.3
Length Wtd. (m)	0.12	Wetted Per. (m)	4.06	6.03	5.93
Min Ch El (m)	448.19	Shear (N/m2)	4.77	15.48	9.41
Alpha	1.59	Stream Power (N/m s)	1.51	19.55	4.69
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.97	4.51	1.10
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.64	5.15	2.71

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 29 Profile: TR 500

E.G. Elev (m)	450.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	450.62	Reach Len. (m)	0.12	0.12	0.12
Crit W.S. (m)	449.75	Flow Area (m2)	1.85	8.24	5.06
E.G. Slope (m/m)	0.001303	Area (m2)	1.85	8.24	5.06
Q Total (m3/s)	14.48	Flow (m3/s)	0.65	11.10	2.72
Top Width (m)	13.07	Top Width (m)	3.60	4.37	5.09
Vel Total (m/s)	0.96	Avg. Vel. (m/s)	0.35	1.35	0.54
Max Chl Dpth (m)	2.43	Hydr. Depth (m)	0.51	1.89	0.99
Conv. Total (m3/s)	401.1	Conv. (m3/s)	18.1	307.6	75.4
Length Wtd. (m)	0.12	Wetted Per. (m)	4.11	6.03	5.99
Min Ch El (m)	448.19	Shear (N/m2)	5.75	17.46	10.80
Alpha	1.59	Stream Power (N/m s)	2.03	23.52	5.81
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.26	4.85	1.68
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.98	5.20	3.63

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28.5 BR U Profile: TR 20

E.G. Elev (m)	449.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.		0.033	
W.S. Elev (m)	449.65	Reach Len. (m)	2.33	2.33	2.33
Crit W.S. (m)	449.48	Flow Area (m2)		3.74	
E.G. Slope (m/m)	0.023981	Area (m2)		3.74	0.00
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.50	Avg. Vel. (m/s)		2.50	
Max Chl Dpth (m)	1.47	Hydr. Depth (m)			
Conv. Total (m3/s)	60.4	Conv. (m3/s)		60.4	
Length Wtd. (m)	2.33	Wetted Per. (m)		9.61	
Min Ch El (m)	448.19	Shear (N/m2)		91.51	
Alpha	1.00	Stream Power (N/m s)		228.89	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.57	3.80	0.65
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.67	4.99	1.95

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28.5 BR U Profile: TR 100

E.G. Elev (m)	450.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	450.28	Reach Len. (m)	2.33	2.33	2.33
Crit W.S. (m)	450.28	Flow Area (m2)	0.62	4.62	1.02
E.G. Slope (m/m)	0.025018	Area (m2)	0.62	4.62	1.02
Q Total (m3/s)	11.93	Flow (m3/s)	0.49	10.54	0.90
Top Width (m)	13.07	Top Width (m)	3.60	4.37	5.09
Vel Total (m/s)	1.91	Avg. Vel. (m/s)	0.79	2.28	0.88
Max Chl Dpth (m)	2.09	Hydr. Depth (m)	0.17	1.06	0.20
Conv. Total (m3/s)	75.4	Conv. (m3/s)	3.1	66.6	5.7
Length Wtd. (m)	2.33	Wetted Per. (m)	3.77	14.05	5.38
Min Ch El (m)	448.19	Shear (N/m2)	40.54	80.62	46.55
Alpha	1.29	Stream Power (N/m s)	32.18	184.00	40.84
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	0.87	4.37	1.02
C & E Loss (m)	0.02	Cum SA (1000 m2)	3.27	5.14	2.70

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28.5 BR U Profile: TR 200

E.G. Elev (m)	450.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	450.50	Reach Len. (m)	2.33	2.33	2.33
Crit W.S. (m)	450.31	Flow Area (m2)	1.41	5.58	2.14
E.G. Slope (m/m)	0.011401	Area (m2)	1.41	5.58	2.14
Q Total (m3/s)	13.03	Flow (m3/s)	1.26	9.75	2.02
Top Width (m)	13.07	Top Width (m)	3.60	4.37	5.09
Vel Total (m/s)	1.43	Avg. Vel. (m/s)	0.89	1.75	0.94
Max Chl Dpth (m)	2.31	Hydr. Depth (m)	0.39	1.28	0.42
Conv. Total (m3/s)	122.0	Conv. (m3/s)	11.8	91.3	18.9
Length Wtd. (m)	2.33	Wetted Per. (m)	3.99	14.05	5.60
Min Ch El (m)	448.19	Shear (N/m2)	39.65	44.39	42.73
Alpha	1.23	Stream Power (N/m s)	35.36	77.58	40.36
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.97	4.51	1.10
C & E Loss (m)	0.02	Cum SA (1000 m2)	3.64	5.14	2.71

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28.5 BR U Profile: TR 500

E.G. Elev (m)	450.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	450.56	Reach Len. (m)	2.33	2.33	2.33
Crit W.S. (m)	450.36	Flow Area (m2)	1.62	5.82	2.43
E.G. Slope (m/m)	0.011361	Area (m2)	1.62	5.82	2.43
Q Total (m3/s)	14.48	Flow (m3/s)	1.56	10.45	2.47

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28.5 BR U Profile: TR 500 (Continued)

Top Width (m)	13.07	Top Width (m)	3.60	4.37	5.09
Vel Total (m/s)	1.47	Avg. Vel. (m/s)	0.96	1.80	1.02
Max Chl Dpth (m)	2.37	Hydr. Depth (m)	0.45	1.33	0.48
Conv. Total (m3/s)	135.8	Conv. (m3/s)	14.6	98.1	23.2
Length Wtd. (m)	2.33	Wetted Per. (m)	4.05	14.05	5.66
Min Ch El (m)	448.19	Shear (N/m2)	44.52	46.17	47.77
Alpha	1.21	Stream Power (N/m s)	42.90	82.88	48.62
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	1.26	4.85	1.68
C & E Loss (m)	0.02	Cum SA (1000 m2)	3.98	5.20	3.63

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28.5 BR D Profile: TR 20

E.G. Elev (m)	449.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.		0.033	
W.S. Elev (m)	449.61	Reach Len. (m)	3.11	3.11	3.11
Crit W.S. (m)	449.42	Flow Area (m2)		3.85	
E.G. Slope (m/m)	0.021191	Area (m2)		3.85	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)		Top Width (m)			
Vel Total (m/s)	2.43	Avg. Vel. (m/s)		2.43	
Max Chl Dpth (m)	1.21	Hydr. Depth (m)			
Conv. Total (m3/s)	64.3	Conv. (m3/s)		64.3	
Length Wtd. (m)	3.11	Wetted Per. (m)		9.43	
Min Ch El (m)	448.40	Shear (N/m2)		84.88	
Alpha	1.00	Stream Power (N/m s)		206.11	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.57	3.79	0.65
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.67	4.99	1.95

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28.5 BR D Profile: TR 100

E.G. Elev (m)	450.35	Element	Left OB	Channel	Right OB
Vel Head (m)	1.11	Wt. n-Val.		0.033	
W.S. Elev (m)	449.24	Reach Len. (m)	2.33	2.33	2.33
Crit W.S. (m)	449.58	Flow Area (m2)		2.55	
E.G. Slope (m/m)	0.054067	Area (m2)		2.55	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	3.68	Top Width (m)		3.68	
Vel Total (m/s)	4.68	Avg. Vel. (m/s)		4.68	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.69	
Conv. Total (m3/s)	51.3	Conv. (m3/s)		51.3	
Length Wtd. (m)	2.33	Wetted Per. (m)		4.72	
Min Ch El (m)	448.40	Shear (N/m2)		286.61	
Alpha	1.00	Stream Power (N/m s)		1340.13	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.87	4.36	1.01
C & E Loss (m)	0.09	Cum SA (1000 m2)	3.27	5.13	2.70

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28.5 BR D Profile: TR 200

E.G. Elev (m)	450.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.28	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	450.29	Reach Len. (m)	3.11	3.11	3.11
Crit W.S. (m)	450.29	Flow Area (m2)	1.05	4.72	0.45
E.G. Slope (m/m)	0.026848	Area (m2)	1.05	4.72	0.45
Q Total (m3/s)	13.03	Flow (m3/s)	1.00	11.62	0.41
Top Width (m)	11.15	Top Width (m)	4.96	4.07	2.12
Vel Total (m/s)	2.09	Avg. Vel. (m/s)	0.95	2.46	0.91
Max Chl Dpth (m)	1.89	Hydr. Depth (m)	0.21	1.16	0.21
Conv. Total (m3/s)	79.5	Conv. (m3/s)	6.1	70.9	2.5
Length Wtd. (m)	3.11	Wetted Per. (m)	5.17	13.50	2.33
Min Ch El (m)	448.40	Shear (N/m2)	53.72	92.01	50.92

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28.5 BR D Profile: TR 200 (Continued)

Alpha	1.26	Stream Power (N/m s)	50.84	226.65	46.50
Frctn Loss (m)	0.06	Cum Volume (1000 m3)	0.97	4.50	1.10
C & E Loss (m)	0.02	Cum SA (1000 m2)	3.63	5.14	2.70

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28.5 BR D Profile: TR 500

E.G. Elev (m)	450.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	450.34	Reach Len. (m)	3.11	3.11	3.11
Crit W.S. (m)	450.34	Flow Area (m2)	1.28	4.90	0.55
E.G. Slope (m/m)	0.027380	Area (m2)	1.28	4.90	0.55
Q Total (m3/s)	14.48	Flow (m3/s)	1.39	12.52	0.57
Top Width (m)	11.15	Top Width (m)	4.96	4.07	2.12
Vel Total (m/s)	2.15	Avg. Vel. (m/s)	1.08	2.55	1.04
Max Chl Dpth (m)	1.94	Hydr. Depth (m)	0.26	1.21	0.26
Conv. Total (m3/s)	87.5	Conv. (m3/s)	8.4	75.7	3.4
Length Wtd. (m)	3.11	Wetted Per. (m)	5.21	13.50	2.38
Min Ch El (m)	448.40	Shear (N/m2)	66.02	97.55	61.92
Alpha	1.25	Stream Power (N/m s)	71.47	249.05	64.22
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	1.26	4.84	1.68
C & E Loss (m)	0.02	Cum SA (1000 m2)	3.97	5.19	3.62

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28 Profile: TR 20

E.G. Elev (m)	449.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.		0.033	
W.S. Elev (m)	449.51	Reach Len. (m)	30.85	30.97	31.25
Crit W.S. (m)	449.42	Flow Area (m2)		3.58	
E.G. Slope (m/m)	0.012545	Area (m2)		3.58	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	3.91	Top Width (m)		3.91	
Vel Total (m/s)	2.61	Avg. Vel. (m/s)		2.61	
Max Chl Dpth (m)	1.11	Hydr. Depth (m)		0.92	
Conv. Total (m3/s)	83.5	Conv. (m3/s)		83.5	
Length Wtd. (m)	30.99	Wetted Per. (m)		5.31	
Min Ch El (m)	448.40	Shear (N/m2)		82.99	
Alpha	1.00	Stream Power (N/m s)		216.66	
Frctn Loss (m)	0.41	Cum Volume (1000 m3)	0.57	3.78	0.65
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.67	4.98	1.95

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28 Profile: TR 100

E.G. Elev (m)	450.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.69	Wt. n-Val.		0.033	
W.S. Elev (m)	449.42	Reach Len. (m)	30.85	30.97	31.25
Crit W.S. (m)	449.58	Flow Area (m2)		3.24	
E.G. Slope (m/m)	0.027061	Area (m2)		3.24	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	3.84	Top Width (m)		3.84	
Vel Total (m/s)	3.68	Avg. Vel. (m/s)		3.68	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	72.5	Conv. (m3/s)		72.5	
Length Wtd. (m)	30.99	Wetted Per. (m)		5.12	
Min Ch El (m)	448.40	Shear (N/m2)		168.12	
Alpha	1.00	Stream Power (N/m s)		618.18	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.87	4.36	1.01
C & E Loss (m)	0.13	Cum SA (1000 m2)	3.27	5.13	2.70

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28 Profile: TR 200

E.G. Elev (m)	450.39	Element	Left OB	Channel	Right OB
Vel Head (m)	1.07	Wt. n-Val.		0.033	
W.S. Elev (m)	449.32	Reach Len. (m)	30.85	30.97	31.25
Crit W.S. (m)	449.68	Flow Area (m2)		2.84	
E.G. Slope (m/m)	0.047430	Area (m2)		2.84	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	3.75	Top Width (m)		3.75	
Vel Total (m/s)	4.59	Avg. Vel. (m/s)		4.59	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.76	
Conv. Total (m3/s)	59.8	Conv. (m3/s)		59.8	
Length Wtd. (m)	30.99	Wetted Per. (m)		4.89	
Min Ch El (m)	448.40	Shear (N/m2)		270.05	
Alpha	1.00	Stream Power (N/m s)		1240.35	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)	0.96	4.49	1.10
C & E Loss (m)	0.08	Cum SA (1000 m2)	3.62	5.12	2.70

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 28 Profile: TR 500

E.G. Elev (m)	450.45	Element	Left OB	Channel	Right OB
Vel Head (m)	1.04	Wt. n-Val.		0.033	
W.S. Elev (m)	449.42	Reach Len. (m)	30.85	30.97	31.25
Crit W.S. (m)	449.72	Flow Area (m2)		3.21	
E.G. Slope (m/m)	0.041062	Area (m2)		3.21	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)	3.83	Top Width (m)		3.83	
Vel Total (m/s)	4.51	Avg. Vel. (m/s)		4.51	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	71.4	Conv. (m3/s)		71.4	
Length Wtd. (m)	30.99	Wetted Per. (m)		5.10	
Min Ch El (m)	448.40	Shear (N/m2)		253.43	
Alpha	1.00	Stream Power (N/m s)		1142.86	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	1.26	4.82	1.68
C & E Loss (m)	0.07	Cum SA (1000 m2)	3.96	5.18	3.62

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 27 Profile: TR 20

E.G. Elev (m)	449.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	449.01	Reach Len. (m)	22.13	22.50	22.34
Crit W.S. (m)	449.01	Flow Area (m2)		2.75	0.82
E.G. Slope (m/m)	0.014051	Area (m2)		2.75	0.82
Q Total (m3/s)	9.35	Flow (m3/s)		8.38	0.97
Top Width (m)	4.19	Top Width (m)		2.85	1.34
Vel Total (m/s)	2.62	Avg. Vel. (m/s)		3.05	1.19
Max Chl Dpth (m)	1.33	Hydr. Depth (m)		0.96	0.61
Conv. Total (m3/s)	78.9	Conv. (m3/s)		70.7	8.2
Length Wtd. (m)	22.49	Wetted Per. (m)		3.51	1.75
Min Ch El (m)	447.68	Shear (N/m2)		107.83	64.17
Alpha	1.23	Stream Power (N/m s)		328.95	76.16
Frctn Loss (m)	0.27	Cum Volume (1000 m3)	0.57	3.68	0.64
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.67	4.88	1.93

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 27 Profile: TR 100

E.G. Elev (m)	449.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	449.41	Reach Len. (m)	22.13	22.50	22.34
Crit W.S. (m)	449.16	Flow Area (m2)		3.89	1.35
E.G. Slope (m/m)	0.007911	Area (m2)		3.89	1.35
Q Total (m3/s)	11.93	Flow (m3/s)		10.46	1.47

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 27 Profile: TR 100 (Continued)

Top Width (m)	4.19	Top Width (m)		2.85	1.34
Vel Total (m/s)	2.27	Avg. Vel. (m/s)		2.69	1.09
Max Chl Dpth (m)	1.73	Hydr. Depth (m)		1.36	1.01
Conv. Total (m3/s)	134.1	Conv. (m3/s)		117.6	16.5
Length Wtd. (m)	22.47	Wetted Per. (m)		3.91	2.15
Min Ch El (m)	447.68	Shear (N/m2)		77.18	48.73
Alpha	1.25	Stream Power (N/m s)		207.30	52.99
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.87	4.25	0.99
C & E Loss (m)	0.05	Cum SA (1000 m2)	3.27	5.02	2.68

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 27 Profile: TR 200

E.G. Elev (m)	449.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.36	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	449.47	Reach Len. (m)	22.13	22.50	22.34
Crit W.S. (m)	449.22	Flow Area (m2)		4.08	1.44
E.G. Slope (m/m)	0.008205	Area (m2)		4.08	1.44
Q Total (m3/s)	13.03	Flow (m3/s)		11.40	1.63
Top Width (m)	4.19	Top Width (m)		2.85	1.34
Vel Total (m/s)	2.36	Avg. Vel. (m/s)		2.79	1.13
Max Chl Dpth (m)	1.80	Hydr. Depth (m)		1.43	1.08
Conv. Total (m3/s)	143.9	Conv. (m3/s)		125.8	18.0
Length Wtd. (m)	22.47	Wetted Per. (m)		3.98	2.22
Min Ch El (m)	447.68	Shear (N/m2)		82.54	52.25
Alpha	1.25	Stream Power (N/m s)		230.46	59.16
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	0.96	4.38	1.07
C & E Loss (m)	0.05	Cum SA (1000 m2)	3.62	5.02	2.68

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 27 Profile: TR 500

E.G. Elev (m)	449.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.54	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	449.34	Reach Len. (m)	22.13	22.50	22.34
Crit W.S. (m)	449.30	Flow Area (m2)		3.70	1.26
E.G. Slope (m/m)	0.013545	Area (m2)		3.70	1.26
Q Total (m3/s)	14.48	Flow (m3/s)		12.73	1.75
Top Width (m)	4.19	Top Width (m)		2.85	1.34
Vel Total (m/s)	2.92	Avg. Vel. (m/s)		3.44	1.39
Max Chl Dpth (m)	1.66	Hydr. Depth (m)		1.30	0.94
Conv. Total (m3/s)	124.4	Conv. (m3/s)		109.3	15.1
Length Wtd. (m)	22.48	Wetted Per. (m)		3.85	2.09
Min Ch El (m)	447.68	Shear (N/m2)		127.83	80.40
Alpha	1.25	Stream Power (N/m s)		439.47	111.60
Frctn Loss (m)	0.23	Cum Volume (1000 m3)	1.26	4.72	1.66
C & E Loss (m)	0.06	Cum SA (1000 m2)	3.96	5.08	3.60

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 26 Profile: TR 20

E.G. Elev (m)	449.12	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.		0.033	
W.S. Elev (m)	448.80	Reach Len. (m)	2.30	2.30	2.30
Crit W.S. (m)	448.61	Flow Area (m2)		3.71	
E.G. Slope (m/m)	0.010569	Area (m2)		3.71	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	3.33	Top Width (m)		3.33	
Vel Total (m/s)	2.52	Avg. Vel. (m/s)		2.52	
Max Chl Dpth (m)	1.40	Hydr. Depth (m)		1.11	
Conv. Total (m3/s)	91.0	Conv. (m3/s)		91.0	
Length Wtd. (m)	2.30	Wetted Per. (m)		5.08	
Min Ch El (m)	447.40	Shear (N/m2)		75.58	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 26 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		190.75	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.57	3.61	0.63
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.67	4.81	1.92

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 26 Profile: TR 100

E.G. Elev (m)	449.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	449.40	Reach Len. (m)	2.30	2.30	2.30
Crit W.S. (m)	448.78	Flow Area (m2)	1.80	5.71	
E.G. Slope (m/m)	0.004101	Area (m2)	1.80	5.71	
Q Total (m3/s)	11.93	Flow (m3/s)	1.05	10.87	
Top Width (m)	7.28	Top Width (m)	3.92	3.36	
Vel Total (m/s)	1.59	Avg. Vel. (m/s)	0.59	1.90	
Max Chl Dpth (m)	1.99	Hydr. Depth (m)	0.46	1.70	
Conv. Total (m3/s)	186.2	Conv. (m3/s)	16.5	169.8	
Length Wtd. (m)	2.30	Wetted Per. (m)	4.44	5.88	
Min Ch El (m)	447.40	Shear (N/m2)	16.33	39.07	
Alpha	1.32	Stream Power (N/m s)	9.55	74.37	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.85	4.14	0.98
C & E Loss (m)	0.02	Cum SA (1000 m2)	3.23	4.95	2.66

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 26 Profile: TR 200

E.G. Elev (m)	449.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	449.47	Reach Len. (m)	2.30	2.30	2.30
Crit W.S. (m)	448.84	Flow Area (m2)	2.11	5.97	
E.G. Slope (m/m)	0.004147	Area (m2)	2.11	5.97	
Q Total (m3/s)	13.03	Flow (m3/s)	1.36	11.67	
Top Width (m)	7.28	Top Width (m)	3.92	3.36	
Vel Total (m/s)	1.61	Avg. Vel. (m/s)	0.65	1.95	
Max Chl Dpth (m)	2.07	Hydr. Depth (m)	0.54	1.77	
Conv. Total (m3/s)	202.3	Conv. (m3/s)	21.1	181.3	
Length Wtd. (m)	2.30	Wetted Per. (m)	4.52	5.96	
Min Ch El (m)	447.40	Shear (N/m2)	18.95	40.77	
Alpha	1.33	Stream Power (N/m s)	12.23	79.70	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.94	4.27	1.06
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.58	4.95	2.66

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 26 Profile: TR 500

E.G. Elev (m)	449.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	449.26	Reach Len. (m)	2.30	2.30	2.30
Crit W.S. (m)	449.05	Flow Area (m2)	1.26	5.25	
E.G. Slope (m/m)	0.008286	Area (m2)	1.26	5.25	
Q Total (m3/s)	14.48	Flow (m3/s)	0.85	13.63	
Top Width (m)	7.28	Top Width (m)	3.92	3.36	
Vel Total (m/s)	2.22	Avg. Vel. (m/s)	0.67	2.60	
Max Chl Dpth (m)	1.86	Hydr. Depth (m)	0.32	1.56	
Conv. Total (m3/s)	159.1	Conv. (m3/s)	9.3	149.8	
Length Wtd. (m)	2.30	Wetted Per. (m)	4.30	5.74	
Min Ch El (m)	447.40	Shear (N/m2)	23.84	74.26	
Alpha	1.29	Stream Power (N/m s)	15.97	192.92	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	1.24	4.62	1.64
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.92	5.01	3.58

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.7 BR U Profile: TR 20

E.G. Elev (m)	449.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.46	Wt. n-Val.		0.033	
W.S. Elev (m)	448.62	Reach Len. (m)	6.50	6.50	6.50
Crit W.S. (m)	448.62	Flow Area (m2)		3.13	
E.G. Slope (m/m)	0.016886	Area (m2)		3.13	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	3.29	Top Width (m)		3.29	
Vel Total (m/s)	2.99	Avg. Vel. (m/s)		2.99	
Max Chl Dpth (m)	1.22	Hydr. Depth (m)		0.95	
Conv. Total (m3/s)	72.0	Conv. (m3/s)		72.0	
Length Wtd. (m)	6.50	Wetted Per. (m)		4.73	
Min Ch El (m)	447.40	Shear (N/m2)		109.53	
Alpha	1.00	Stream Power (N/m s)		327.41	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.57	3.60	0.63
C & E Loss (m)	0.04	Cum SA (1000 m2)	2.67	4.80	1.92

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.7 BR U Profile: TR 100

E.G. Elev (m)	449.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	449.19	Reach Len. (m)	6.50	6.50	6.50
Crit W.S. (m)	449.19	Flow Area (m2)	1.01	4.03	
E.G. Slope (m/m)	0.032384	Area (m2)	1.01	4.03	
Q Total (m3/s)	11.93	Flow (m3/s)	1.17	10.76	
Top Width (m)	7.28	Top Width (m)	3.92	3.36	
Vel Total (m/s)	2.37	Avg. Vel. (m/s)	1.15	2.67	
Max Chl Dpth (m)	1.79	Hydr. Depth (m)	0.26	1.20	
Conv. Total (m3/s)	66.3	Conv. (m3/s)	6.5	59.8	
Length Wtd. (m)	6.50	Wetted Per. (m)	4.25	11.75	
Min Ch El (m)	447.40	Shear (N/m2)	75.82	108.86	
Alpha	1.17	Stream Power (N/m s)	87.52	290.78	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)	0.84	4.13	0.98
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.22	4.94	2.66

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.7 BR U Profile: TR 200

E.G. Elev (m)	449.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	449.39	Reach Len. (m)	6.50	6.50	6.50
Crit W.S. (m)	449.24	Flow Area (m2)	1.77	4.68	
E.G. Slope (m/m)	0.020129	Area (m2)	1.77	4.68	
Q Total (m3/s)	13.03	Flow (m3/s)	2.27	10.76	
Top Width (m)	7.28	Top Width (m)	3.92	3.36	
Vel Total (m/s)	2.02	Avg. Vel. (m/s)	1.28	2.30	
Max Chl Dpth (m)	1.99	Hydr. Depth (m)	0.45	1.39	
Conv. Total (m3/s)	91.9	Conv. (m3/s)	16.0	75.9	
Length Wtd. (m)	6.50	Wetted Per. (m)	4.44	11.94	
Min Ch El (m)	447.40	Shear (N/m2)	78.73	77.31	
Alpha	1.14	Stream Power (N/m s)	100.86	177.92	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)	0.94	4.25	1.06
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.57	4.94	2.66

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.7 BR U Profile: TR 500

E.G. Elev (m)	449.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	449.29	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)	449.29	Flow Area (m2)	1.41	4.36	
E.G. Slope (m/m)	0.033613	Area (m2)	1.41	4.36	
Q Total (m3/s)	14.48	Flow (m3/s)	2.02	12.46	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.7 BR U Profile: TR 500 (Continued)

Top Width (m)	7.28	Top Width (m)	3.92	3.36	
Vel Total (m/s)	2.51	Avg. Vel. (m/s)	1.44	2.85	
Max Chl Dpth (m)	1.89	Hydr. Depth (m)	0.36	1.30	
Conv. Total (m3/s)	79.0	Conv. (m3/s)	11.0	67.9	
Length Wtd. (m)	0.00	Wetted Per. (m)	4.35	11.85	
Min Ch El (m)	447.40	Shear (N/m2)	106.59	121.40	
Alpha	1.16	Stream Power (N/m s)	153.45	346.52	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.24	4.61	1.64
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.91	5.00	3.58

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.7 BR D Profile: TR 20

E.G. Elev (m)	448.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.		0.033	0.000
W.S. Elev (m)	448.63	Reach Len. (m)	1.36	1.36	1.36
Crit W.S. (m)	448.50	Flow Area (m2)		3.71	0.00
E.G. Slope (m/m)	0.009877	Area (m2)	0.00	3.71	0.00
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	0.00
Top Width (m)	3.75	Top Width (m)	0.01	3.75	
Vel Total (m/s)	2.52	Avg. Vel. (m/s)		2.52	0.02
Max Chl Dpth (m)	1.18	Hydr. Depth (m)		0.99	0.29
Conv. Total (m3/s)	94.1	Conv. (m3/s)		94.1	0.0
Length Wtd. (m)	1.36	Wetted Per. (m)		4.85	0.14
Min Ch El (m)	447.46	Shear (N/m2)		74.11	
Alpha	1.00	Stream Power (N/m s)		186.72	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.57	3.58	0.63
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.67	4.78	1.92

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.7 BR D Profile: TR 100

E.G. Elev (m)	449.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.84	Wt. n-Val.		0.033	
W.S. Elev (m)	448.42	Reach Len. (m)	6.50	6.50	6.50
Crit W.S. (m)	448.65	Flow Area (m2)		2.93	
E.G. Slope (m/m)	0.034478	Area (m2)		2.93	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	3.69	Top Width (m)		3.69	
Vel Total (m/s)	4.07	Avg. Vel. (m/s)		4.07	
Max Chl Dpth (m)	0.97	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	64.2	Conv. (m3/s)		64.2	
Length Wtd. (m)	6.50	Wetted Per. (m)		4.77	
Min Ch El (m)	447.46	Shear (N/m2)		207.90	
Alpha	1.00	Stream Power (N/m s)		845.89	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)	0.84	4.10	0.98
C & E Loss (m)	0.05	Cum SA (1000 m2)	3.20	4.92	2.66

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.7 BR D Profile: TR 200

E.G. Elev (m)	449.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	449.21	Reach Len. (m)	1.36	1.36	1.36
Crit W.S. (m)	449.21	Flow Area (m2)	0.63	4.75	1.27
E.G. Slope (m/m)	0.023098	Area (m2)	0.63	4.75	1.27
Q Total (m3/s)	13.03	Flow (m3/s)	0.54	11.55	0.95
Top Width (m)	12.82	Top Width (m)	3.01	3.75	6.07
Vel Total (m/s)	1.96	Avg. Vel. (m/s)	0.85	2.43	0.74
Max Chl Dpth (m)	1.75	Hydr. Depth (m)	0.21	1.27	0.21
Conv. Total (m3/s)	85.7	Conv. (m3/s)	3.5	76.0	6.2
Length Wtd. (m)	1.36	Wetted Per. (m)	3.48	12.37	8.21
Min Ch El (m)	447.46	Shear (N/m2)	41.02	86.95	35.13

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.7 BR D Profile: TR 200 (Continued)

Alpha	1.38	Stream Power (N/m s)	34.87	211.51	26.12
Frctn Loss (m)	0.02	Cum Volume (1000 m3)	0.93	4.22	1.05
C & E Loss (m)	0.03	Cum SA (1000 m2)	3.55	4.92	2.64

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.7 BR D Profile: TR 500

E.G. Elev (m)	449.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.28	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	449.26	Reach Len. (m)	6.50	6.50	6.50
Crit W.S. (m)	449.26	Flow Area (m2)	0.77	4.92	1.55
E.G. Slope (m/m)	0.023668	Area (m2)	0.77	4.92	1.55
Q Total (m3/s)	14.48	Flow (m3/s)	0.75	12.40	1.33
Top Width (m)	12.82	Top Width (m)	3.01	3.75	6.07
Vel Total (m/s)	2.00	Avg. Vel. (m/s)	0.97	2.52	0.86
Max Chl Dpth (m)	1.80	Hydr. Depth (m)	0.26	1.31	0.26
Conv. Total (m3/s)	94.1	Conv. (m3/s)	4.9	80.6	8.6
Length Wtd. (m)	6.50	Wetted Per. (m)	3.53	12.37	8.26
Min Ch El (m)	447.46	Shear (N/m2)	50.54	92.32	43.62
Alpha	1.39	Stream Power (N/m s)	49.18	232.77	37.30
Frctn Loss (m)	0.24	Cum Volume (1000 m3)	1.24	4.61	1.64
C & E Loss (m)	0.03	Cum SA (1000 m2)	3.91	5.00	3.58

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.5 Profile: TR 20

E.G. Elev (m)	448.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.		0.033	0.000
W.S. Elev (m)	448.50	Reach Len. (m)	53.57	53.57	53.57
Crit W.S. (m)	448.50	Flow Area (m2)		3.23	0.00
E.G. Slope (m/m)	0.015637	Area (m2)	0.24	3.23	1.15
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	0.00
Top Width (m)	12.82	Top Width (m)	3.01	3.75	6.07
Vel Total (m/s)	2.89	Avg. Vel. (m/s)		2.89	0.12
Max Chl Dpth (m)	1.05	Hydr. Depth (m)		0.86	0.01
Conv. Total (m3/s)	74.8	Conv. (m3/s)		74.8	0.0
Length Wtd. (m)	53.57	Wetted Per. (m)		4.85	0.01
Min Ch El (m)	447.46	Shear (N/m2)		102.22	
Alpha	1.00	Stream Power (N/m s)		295.60	
Frctn Loss (m)	0.63	Cum Volume (1000 m3)	0.57	3.57	0.63
C & E Loss (m)	0.05	Cum SA (1000 m2)	2.67	4.77	1.91

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.5 Profile: TR 100

E.G. Elev (m)	449.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.63	Wt. n-Val.		0.033	0.000
W.S. Elev (m)	448.55	Reach Len. (m)	53.57	53.57	53.57
Crit W.S. (m)	448.65	Flow Area (m2)		3.40	0.00
E.G. Slope (m/m)	0.021614	Area (m2)	0.37	3.40	1.41
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	0.00
Top Width (m)	12.82	Top Width (m)	3.01	3.75	6.07
Vel Total (m/s)	3.51	Avg. Vel. (m/s)		3.51	0.36
Max Chl Dpth (m)	1.09	Hydr. Depth (m)		0.91	0.06
Conv. Total (m3/s)	81.1	Conv. (m3/s)		81.1	0.0
Length Wtd. (m)	53.57	Wetted Per. (m)		4.85	0.01
Min Ch El (m)	447.46	Shear (N/m2)		148.36	11.92
Alpha	1.00	Stream Power (N/m s)		521.04	4.29
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.84	4.08	0.97
C & E Loss (m)	0.03	Cum SA (1000 m2)	3.19	4.90	2.64

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.5 Profile: TR 200

E.G. Elev (m)	449.38	Element	Left OB	Channel	Right OB
Vel Head (m)	0.92	Wt. n-Val.		0.033	
W.S. Elev (m)	448.46	Reach Len. (m)	53.57	53.57	53.57
Crit W.S. (m)	448.71	Flow Area (m2)		3.07	
E.G. Slope (m/m)	0.035636	Area (m2)	0.11	3.07	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	6.73	Top Width (m)	3.01	3.72	
Vel Total (m/s)	4.24	Avg. Vel. (m/s)		4.24	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		0.83	
Conv. Total (m3/s)	69.0	Conv. (m3/s)		69.0	
Length Wtd. (m)	53.57	Wetted Per. (m)		4.81	
Min Ch El (m)	447.46	Shear (N/m2)		223.06	
Alpha	1.00	Stream Power (N/m s)		945.91	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.93	4.22	1.05
C & E Loss (m)	0.06	Cum SA (1000 m2)	3.54	4.91	2.64

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25.5 Profile: TR 500

E.G. Elev (m)	449.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.71	Wt. n-Val.		0.033	0.000
W.S. Elev (m)	448.68	Reach Len. (m)	53.57	53.57	53.57
Crit W.S. (m)	448.79	Flow Area (m2)		3.88	0.00
E.G. Slope (m/m)	0.020475	Area (m2)	0.76	3.88	2.19
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	0.00
Top Width (m)	12.82	Top Width (m)	3.01	3.75	6.07
Vel Total (m/s)	3.73	Avg. Vel. (m/s)		3.73	0.77
Max Chl Dpth (m)	1.22	Hydr. Depth (m)		1.04	0.18
Conv. Total (m3/s)	101.2	Conv. (m3/s)		101.2	0.0
Length Wtd. (m)	53.57	Wetted Per. (m)		4.85	0.01
Min Ch El (m)	447.46	Shear (N/m2)		160.45	37.08
Alpha	1.00	Stream Power (N/m s)		599.11	28.68
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	1.23	4.58	1.63
C & E Loss (m)	0.03	Cum SA (1000 m2)	3.89	4.97	3.54

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25 Profile: TR 20

E.G. Elev (m)	447.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.65	Wt. n-Val.		0.033	
W.S. Elev (m)	447.14	Reach Len. (m)	15.88	16.02	16.26
Crit W.S. (m)	447.38	Flow Area (m2)		2.61	
E.G. Slope (m/m)	0.029486	Area (m2)		2.61	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	3.60	Top Width (m)		3.60	
Vel Total (m/s)	3.58	Avg. Vel. (m/s)		3.58	
Max Chl Dpth (m)	0.88	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	54.5	Conv. (m3/s)		54.5	
Length Wtd. (m)	16.03	Wetted Per. (m)		4.57	
Min Ch El (m)	446.26	Shear (N/m2)		165.13	
Alpha	1.00	Stream Power (N/m s)		591.45	
Frctn Loss (m)	1.12	Cum Volume (1000 m3)	0.56	3.42	0.60
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.59	4.57	1.75

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25 Profile: TR 100

E.G. Elev (m)	447.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	447.47	Reach Len. (m)	15.88	16.02	16.26
Crit W.S. (m)	447.47	Flow Area (m2)	0.75	3.86	2.18
E.G. Slope (m/m)	0.009530	Area (m2)	0.75	3.86	2.18
Q Total (m3/s)	11.93	Flow (m3/s)	0.45	9.79	1.69

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25 Profile: TR 100 (Continued)

Top Width (m)	12.82	Top Width (m)	3.01	3.75	6.07
Vel Total (m/s)	1.76	Avg. Vel. (m/s)	0.61	2.53	0.78
Max Chl Dpth (m)	1.21	Hydr. Depth (m)	0.25	1.03	0.36
Conv. Total (m3/s)	122.2	Conv. (m3/s)	4.7	100.2	17.3
Length Wtd. (m)	16.03	Wetted Per. (m)	3.27	4.87	6.62
Min Ch El (m)	446.26	Shear (N/m2)	21.35	74.06	30.74
Alpha	1.74	Stream Power (N/m s)	12.98	187.62	23.83
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.81	3.89	0.88
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.03	4.70	2.32

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25 Profile: TR 200

E.G. Elev (m)	447.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	447.56	Reach Len. (m)	15.88	16.02	16.26
Crit W.S. (m)	447.51	Flow Area (m2)	1.00	4.18	2.70
E.G. Slope (m/m)	0.007917	Area (m2)	1.00	4.18	2.70
Q Total (m3/s)	13.03	Flow (m3/s)	0.67	10.19	2.18
Top Width (m)	12.82	Top Width (m)	3.01	3.75	6.07
Vel Total (m/s)	1.65	Avg. Vel. (m/s)	0.66	2.44	0.81
Max Chl Dpth (m)	1.30	Hydr. Depth (m)	0.33	1.12	0.44
Conv. Total (m3/s)	146.5	Conv. (m3/s)	7.5	114.5	24.5
Length Wtd. (m)	16.04	Wetted Per. (m)	3.36	4.87	6.70
Min Ch El (m)	446.26	Shear (N/m2)	23.23	66.63	31.23
Alpha	1.74	Stream Power (N/m s)	15.41	162.26	25.23
Frctn Loss (m)	0.16	Cum Volume (1000 m3)	0.90	4.02	0.98
C & E Loss (m)	0.02	Cum SA (1000 m2)	3.38	4.71	2.48

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 25 Profile: TR 500

E.G. Elev (m)	447.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	447.77	Reach Len. (m)	15.88	16.02	16.26
Crit W.S. (m)	447.55	Flow Area (m2)	1.65	4.99	4.00
E.G. Slope (m/m)	0.004496	Area (m2)	1.65	4.99	4.00
Q Total (m3/s)	14.48	Flow (m3/s)	1.10	10.28	3.10
Top Width (m)	12.82	Top Width (m)	3.01	3.75	6.07
Vel Total (m/s)	1.36	Avg. Vel. (m/s)	0.67	2.06	0.78
Max Chl Dpth (m)	1.51	Hydr. Depth (m)	0.55	1.33	0.66
Conv. Total (m3/s)	215.9	Conv. (m3/s)	16.4	153.3	46.2
Length Wtd. (m)	16.03	Wetted Per. (m)	3.57	4.87	6.92
Min Ch El (m)	446.26	Shear (N/m2)	20.34	45.09	25.47
Alpha	1.72	Stream Power (N/m s)	13.57	93.00	19.74
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	1.17	4.34	1.47
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.73	4.77	3.22

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 24 Profile: TR 20

E.G. Elev (m)	447.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	447.24	Reach Len. (m)	0.18	0.18	0.18
Crit W.S. (m)	446.69	Flow Area (m2)	0.83	4.60	
E.G. Slope (m/m)	0.005603	Area (m2)	0.83	4.60	
Q Total (m3/s)	9.35	Flow (m3/s)	0.33	9.02	
Top Width (m)	7.23	Top Width (m)	4.27	2.96	
Vel Total (m/s)	1.72	Avg. Vel. (m/s)	0.40	1.96	
Max Chl Dpth (m)	1.76	Hydr. Depth (m)	0.19	1.56	
Conv. Total (m3/s)	124.9	Conv. (m3/s)	4.4	120.6	
Length Wtd. (m)	0.18	Wetted Per. (m)	4.66	5.72	
Min Ch El (m)	445.48	Shear (N/m2)	9.80	44.19	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 24 Profile: TR 20 (Continued)

Alpha	1.25	Stream Power (N/m s)	3.87	86.70	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.56	3.36	0.60
C & E Loss (m)	0.04	Cum SA (1000 m2)	2.56	4.52	1.75

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 24 Profile: TR 100

E.G. Elev (m)	447.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.		0.033	
W.S. Elev (m)	447.18	Reach Len. (m)	0.18	0.18	0.18
Crit W.S. (m)	446.87	Flow Area (m2)		4.42	
E.G. Slope (m/m)	0.010902	Area (m2)		4.42	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	2.95	Top Width (m)		2.95	
Vel Total (m/s)	2.70	Avg. Vel. (m/s)		2.70	
Max Chl Dpth (m)	1.70	Hydr. Depth (m)		1.50	
Conv. Total (m3/s)	114.2	Conv. (m3/s)		114.2	
Length Wtd. (m)	0.18	Wetted Per. (m)		5.61	
Min Ch El (m)	445.48	Shear (N/m2)		84.20	
Alpha	1.00	Stream Power (N/m s)		227.20	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.80	3.82	0.86
C & E Loss (m)	0.04	Cum SA (1000 m2)	3.01	4.64	2.27

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 24 Profile: TR 200

E.G. Elev (m)	447.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.45	Wt. n-Val.		0.033	
W.S. Elev (m)	447.17	Reach Len. (m)	0.18	0.18	0.18
Crit W.S. (m)	446.95	Flow Area (m2)		4.38	
E.G. Slope (m/m)	0.013339	Area (m2)		4.38	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	2.95	Top Width (m)		2.95	
Vel Total (m/s)	2.98	Avg. Vel. (m/s)		2.98	
Max Chl Dpth (m)	1.69	Hydr. Depth (m)		1.48	
Conv. Total (m3/s)	112.8	Conv. (m3/s)		112.8	
Length Wtd. (m)	0.18	Wetted Per. (m)		5.58	
Min Ch El (m)	445.48	Shear (N/m2)		102.57	
Alpha	1.00	Stream Power (N/m s)		305.25	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.89	3.95	0.96
C & E Loss (m)	0.06	Cum SA (1000 m2)	3.36	4.66	2.43

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 24 Profile: TR 500

E.G. Elev (m)	447.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	447.64	Reach Len. (m)	0.18	0.18	0.18
Crit W.S. (m)	447.03	Flow Area (m2)	2.53	5.78	
E.G. Slope (m/m)	0.005509	Area (m2)	2.53	5.78	
Q Total (m3/s)	14.48	Flow (m3/s)	1.97	12.50	
Top Width (m)	7.23	Top Width (m)	4.27	2.96	
Vel Total (m/s)	1.74	Avg. Vel. (m/s)	0.78	2.16	
Max Chl Dpth (m)	2.16	Hydr. Depth (m)	0.59	1.95	
Conv. Total (m3/s)	195.1	Conv. (m3/s)	26.6	168.5	
Length Wtd. (m)	0.18	Wetted Per. (m)	5.06	6.12	
Min Ch El (m)	445.48	Shear (N/m2)	27.02	51.01	
Alpha	1.36	Stream Power (N/m s)	21.07	110.42	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	1.14	4.25	1.43
C & E Loss (m)	0.02	Cum SA (1000 m2)	3.67	4.72	3.17

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23.5 BR U Profile: TR 20

E.G. Elev (m)	447.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.62	Wt. n-Val.		0.033	
W.S. Elev (m)	446.77	Reach Len. (m)	3.86	3.86	3.86
Crit W.S. (m)	446.55	Flow Area (m2)		2.68	
E.G. Slope (m/m)	0.036809	Area (m2)		2.69	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	0.24	Top Width (m)		0.24	
Vel Total (m/s)	3.49	Avg. Vel. (m/s)		3.49	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)		11.38	
Conv. Total (m3/s)	48.8	Conv. (m3/s)		48.8	
Length Wtd. (m)	3.86	Wetted Per. (m)		5.77	
Min Ch El (m)	445.48	Shear (N/m2)		167.77	
Alpha	1.00	Stream Power (N/m s)		585.24	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.56	3.36	0.60
C & E Loss (m)	0.04	Cum SA (1000 m2)	2.56	4.52	1.75

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23.5 BR U Profile: TR 100

E.G. Elev (m)	447.72	Element	Left OB	Channel	Right OB
Vel Head (m)	1.09	Wt. n-Val.		0.033	
W.S. Elev (m)	446.63	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)	446.63	Flow Area (m2)		2.58	
E.G. Slope (m/m)	0.052522	Area (m2)		2.59	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	1.22	Top Width (m)		1.22	
Vel Total (m/s)	4.62	Avg. Vel. (m/s)		4.62	
Max Chl Dpth (m)	1.15	Hydr. Depth (m)		2.12	
Conv. Total (m3/s)	52.0	Conv. (m3/s)		52.0	
Length Wtd. (m)	0.00	Wetted Per. (m)		4.75	
Min Ch El (m)	445.48	Shear (N/m2)		279.77	
Alpha	1.00	Stream Power (N/m s)		1293.46	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.80	3.82	0.86
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.01	4.64	2.27

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23.5 BR U Profile: TR 200

E.G. Elev (m)	447.92	Element	Left OB	Channel	Right OB
Vel Head (m)	1.27	Wt. n-Val.		0.033	
W.S. Elev (m)	446.65	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)	446.65	Flow Area (m2)		2.61	
E.G. Slope (m/m)	0.063533	Area (m2)		2.62	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	1.05	Top Width (m)		1.05	
Vel Total (m/s)	5.00	Avg. Vel. (m/s)		5.00	
Max Chl Dpth (m)	1.17	Hydr. Depth (m)		2.48	
Conv. Total (m3/s)	51.7	Conv. (m3/s)		51.7	
Length Wtd. (m)	0.00	Wetted Per. (m)		4.92	
Min Ch El (m)	445.48	Shear (N/m2)		329.90	
Alpha	1.00	Stream Power (N/m s)		1649.20	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.89	3.95	0.96
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.36	4.66	2.43

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23.5 BR U Profile: TR 500

E.G. Elev (m)	447.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.38	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	447.46	Reach Len. (m)	3.86	3.86	3.86
Crit W.S. (m)	447.46	Flow Area (m2)	1.75	4.04	
E.G. Slope (m/m)	0.033119	Area (m2)	1.75	4.04	
Q Total (m3/s)	14.48	Flow (m3/s)	2.69	11.79	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23.5 BR U Profile: TR 500 (Continued)

Top Width (m)	7.23	Top Width (m)	4.27	2.96	
Vel Total (m/s)	2.50	Avg. Vel. (m/s)	1.53	2.92	
Max Chl Dpth (m)	1.98	Hydr. Depth (m)	0.41	1.37	
Conv. Total (m3/s)	79.6	Conv. (m3/s)	14.8	64.8	
Length Wtd. (m)	3.86	Wetted Per. (m)	4.88	10.51	
Min Ch El (m)	445.48	Shear (N/m2)	116.65	124.92	
Alpha	1.18	Stream Power (N/m s)	178.77	364.35	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	1.14	4.25	1.43
C & E Loss (m)	0.06	Cum SA (1000 m2)	3.67	4.72	3.17

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23.5 BR D Profile: TR 20

E.G. Elev (m)	447.23	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.		0.033	
W.S. Elev (m)	446.73	Reach Len. (m)	1.35	1.35	1.35
Crit W.S. (m)	446.49	Flow Area (m2)		3.00	
E.G. Slope (m/m)	0.027019	Area (m2)		3.01	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	0.47	Top Width (m)		0.47	
Vel Total (m/s)	3.12	Avg. Vel. (m/s)		3.12	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)		6.33	
Conv. Total (m3/s)	56.9	Conv. (m3/s)		56.9	
Length Wtd. (m)	1.35	Wetted Per. (m)		6.06	
Min Ch El (m)	445.44	Shear (N/m2)		131.12	
Alpha	1.00	Stream Power (N/m s)		408.61	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.56	3.35	0.60
C & E Loss (m)	0.12	Cum SA (1000 m2)	2.56	4.52	1.75

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23.5 BR D Profile: TR 100

E.G. Elev (m)	447.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.88	Wt. n-Val.		0.033	
W.S. Elev (m)	446.60	Reach Len. (m)	3.86	3.86	3.86
Crit W.S. (m)	447.26	Flow Area (m2)		2.87	
E.G. Slope (m/m)	0.040063	Area (m2)		2.88	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	1.44	Top Width (m)		1.44	
Vel Total (m/s)	4.16	Avg. Vel. (m/s)		4.16	
Max Chl Dpth (m)	1.15	Hydr. Depth (m)		1.99	
Conv. Total (m3/s)	59.6	Conv. (m3/s)		59.6	
Length Wtd. (m)	3.86	Wetted Per. (m)		5.06	
Min Ch El (m)	445.44	Shear (N/m2)		222.87	
Alpha	1.00	Stream Power (N/m s)		926.35	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)	0.80	3.82	0.86
C & E Loss (m)	0.06	Cum SA (1000 m2)	3.01	4.64	2.27

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23.5 BR D Profile: TR 200

E.G. Elev (m)	447.69	Element	Left OB	Channel	Right OB
Vel Head (m)	1.20	Wt. n-Val.		0.033	
W.S. Elev (m)	446.49	Reach Len. (m)	3.86	3.86	3.86
Crit W.S. (m)	447.30	Flow Area (m2)		2.69	
E.G. Slope (m/m)	0.048170	Area (m2)		2.70	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	2.15	Top Width (m)		2.15	
Vel Total (m/s)	4.85	Avg. Vel. (m/s)		4.85	
Max Chl Dpth (m)	1.05	Hydr. Depth (m)		1.25	
Conv. Total (m3/s)	59.4	Conv. (m3/s)		59.4	
Length Wtd. (m)	3.86	Wetted Per. (m)		4.32	
Min Ch El (m)	445.44	Shear (N/m2)		293.89	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23.5 BR D Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		1424.44	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)	0.89	3.95	0.96
C & E Loss (m)	0.02	Cum SA (1000 m2)	3.36	4.66	2.43

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23.5 BR D Profile: TR 500

E.G. Elev (m)	447.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	447.50	Reach Len. (m)	3.86	3.86	3.86
Crit W.S. (m)	447.33	Flow Area (m2)	1.70	5.33	2.05
E.G. Slope (m/m)	0.012960	Area (m2)	1.70	5.33	2.05
Q Total (m3/s)	14.48	Flow (m3/s)	1.84	10.71	1.93
Top Width (m)	12.23	Top Width (m)	3.44	4.65	4.14
Vel Total (m/s)	1.60	Avg. Vel. (m/s)	1.08	2.01	0.94
Max Chl Dpth (m)	2.05	Hydr. Depth (m)	0.49	1.15	0.49
Conv. Total (m3/s)	127.2	Conv. (m3/s)	16.2	94.1	16.9
Length Wtd. (m)	3.86	Wetted Per. (m)	3.93	11.97	5.86
Min Ch El (m)	445.44	Shear (N/m2)	54.89	56.55	44.41
Alpha	1.28	Stream Power (N/m s)	59.51	113.71	41.80
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	1.13	4.23	1.43
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.66	4.71	3.16

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23 Profile: TR 20

E.G. Elev (m)	447.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	447.00	Reach Len. (m)	63.84	61.16	52.95
Crit W.S. (m)	447.00	Flow Area (m2)	0.83	5.61	1.83
E.G. Slope (m/m)	0.002498	Area (m2)	0.83	5.61	1.83
Q Total (m3/s)	9.35	Flow (m3/s)	0.25	8.30	0.81
Top Width (m)	12.23	Top Width (m)	3.44	4.65	4.14
Vel Total (m/s)	1.13	Avg. Vel. (m/s)	0.30	1.48	0.44
Max Chl Dpth (m)	1.56	Hydr. Depth (m)	0.24	1.21	0.44
Conv. Total (m3/s)	187.1	Conv. (m3/s)	5.0	166.0	16.1
Length Wtd. (m)	61.16	Wetted Per. (m)	3.75	5.82	4.77
Min Ch El (m)	445.44	Shear (N/m2)	5.41	23.62	9.41
Alpha	1.53	Stream Power (N/m s)	1.65	34.92	4.14
Frctn Loss (m)	0.29	Cum Volume (1000 m3)	0.56	3.34	0.59
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.55	4.52	1.75

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23 Profile: TR 100

E.G. Elev (m)	447.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.93	Wt. n-Val.		0.033	
W.S. Elev (m)	446.50	Reach Len. (m)	63.84	61.16	52.95
Crit W.S. (m)	446.74	Flow Area (m2)		2.79	
E.G. Slope (m/m)	0.021482	Area (m2)		3.36	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	4.22	Top Width (m)		4.22	
Vel Total (m/s)	4.27	Avg. Vel. (m/s)		4.27	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.98	
Conv. Total (m3/s)	81.4	Conv. (m3/s)		81.4	
Length Wtd. (m)	61.16	Wetted Per. (m)		2.96	
Min Ch El (m)	445.44	Shear (N/m2)		198.52	
Alpha	1.00	Stream Power (N/m s)		847.49	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)	0.80	3.81	0.86
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.01	4.63	2.27

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23 Profile: TR 200

E.G. Elev (m)	447.63	Element	Left OB	Channel	Right OB
Vel Head (m)	1.14	Wt. n-Val.		0.033	
W.S. Elev (m)	446.49	Reach Len. (m)	63.84	61.16	52.95
Crit W.S. (m)	446.81	Flow Area (m2)		2.76	
E.G. Slope (m/m)	0.026690	Area (m2)		3.31	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	4.20	Top Width (m)		4.20	
Vel Total (m/s)	4.72	Avg. Vel. (m/s)		4.72	
Max Chl Dpth (m)	1.05	Hydr. Depth (m)		0.97	
Conv. Total (m3/s)	79.8	Conv. (m3/s)		79.8	
Length Wtd. (m)	61.14	Wetted Per. (m)		2.96	
Min Ch El (m)	445.44	Shear (N/m2)		243.71	
Alpha	1.00	Stream Power (N/m s)		1150.45	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.89	3.94	0.96
C & E Loss (m)	0.02	Cum SA (1000 m2)	3.36	4.65	2.43

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 23 Profile: TR 500

E.G. Elev (m)	447.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.69	Wt. n-Val.		0.033	
W.S. Elev (m)	446.90	Reach Len. (m)	63.84	61.16	52.95
Crit W.S. (m)	446.90	Flow Area (m2)		3.94	
E.G. Slope (m/m)	0.010084	Area (m2)	0.50	5.16	1.43
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)	12.23	Top Width (m)	3.44	4.65	4.14
Vel Total (m/s)	3.68	Avg. Vel. (m/s)		3.68	
Max Chl Dpth (m)	1.46	Hydr. Depth (m)		1.38	
Conv. Total (m3/s)	144.2	Conv. (m3/s)		144.2	
Length Wtd. (m)	61.16	Wetted Per. (m)		2.96	
Min Ch El (m)	445.44	Shear (N/m2)		131.34	
Alpha	1.00	Stream Power (N/m s)		482.94	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	1.13	4.21	1.42
C & E Loss (m)	0.03	Cum SA (1000 m2)	3.64	4.69	3.14

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 22 Profile: TR 20

E.G. Elev (m)	445.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.96	Wt. n-Val.		0.033	
W.S. Elev (m)	444.81	Reach Len. (m)	33.15	32.23	31.51
Crit W.S. (m)	445.15	Flow Area (m2)		2.15	
E.G. Slope (m/m)	0.048266	Area (m2)		2.15	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	3.42	Top Width (m)		3.42	
Vel Total (m/s)	4.35	Avg. Vel. (m/s)		4.35	
Max Chl Dpth (m)	0.89	Hydr. Depth (m)		0.63	
Conv. Total (m3/s)	42.6	Conv. (m3/s)		42.6	
Length Wtd. (m)	32.22	Wetted Per. (m)		4.07	
Min Ch El (m)	443.92	Shear (N/m2)		249.86	
Alpha	1.00	Stream Power (N/m s)		1086.47	
Frctn Loss (m)	1.25	Cum Volume (1000 m3)	0.53	3.10	0.55
C & E Loss (m)	0.04	Cum SA (1000 m2)	2.44	4.27	1.64

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 22 Profile: TR 100

E.G. Elev (m)	445.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.80	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	445.05	Reach Len. (m)	33.15	32.23	31.51
Crit W.S. (m)	445.32	Flow Area (m2)		3.01	0.03
E.G. Slope (m/m)	0.030598	Area (m2)		3.01	0.03
Q Total (m3/s)	11.93	Flow (m3/s)		11.92	0.01

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 22 Profile: TR 100 (Continued)

Top Width (m)	4.82	Top Width (m)		3.84	0.98
Vel Total (m/s)	3.92	Avg. Vel. (m/s)		3.96	0.30
Max Chl Dpth (m)	1.13	Hydr. Depth (m)		0.78	0.03
Conv. Total (m3/s)	68.2	Conv. (m3/s)		68.1	0.1
Length Wtd. (m)	32.21	Wetted Per. (m)		4.66	0.98
Min Ch El (m)	443.92	Shear (N/m2)		193.87	9.69
Alpha	1.02	Stream Power (N/m s)		768.01	2.86
Frctn Loss (m)	1.55	Cum Volume (1000 m3)	0.80	3.61	0.86
C & E Loss (m)	0.04	Cum SA (1000 m2)	3.01	4.38	2.24

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 22 Profile: TR 200

E.G. Elev (m)	445.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.76	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	445.13	Reach Len. (m)	33.15	32.23	31.51
Crit W.S. (m)	445.40	Flow Area (m2)		3.34	0.17
E.G. Slope (m/m)	0.026475	Area (m2)		3.34	0.17
Q Total (m3/s)	13.03	Flow (m3/s)		12.95	0.08
Top Width (m)	6.20	Top Width (m)		3.93	2.27
Vel Total (m/s)	3.72	Avg. Vel. (m/s)		3.88	0.48
Max Chl Dpth (m)	1.21	Hydr. Depth (m)		0.85	0.07
Conv. Total (m3/s)	80.1	Conv. (m3/s)		79.6	0.5
Length Wtd. (m)	32.21	Wetted Per. (m)		4.78	2.27
Min Ch El (m)	443.92	Shear (N/m2)		181.21	19.38
Alpha	1.08	Stream Power (N/m s)		703.00	9.32
Frctn Loss (m)	1.62	Cum Volume (1000 m3)	0.89	3.74	0.95
C & E Loss (m)	0.11	Cum SA (1000 m2)	3.36	4.40	2.37

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 22 Profile: TR 500

E.G. Elev (m)	446.33	Element	Left OB	Channel	Right OB
Vel Head (m)	1.33	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	445.00	Reach Len. (m)	33.15	32.23	31.51
Crit W.S. (m)	445.48	Flow Area (m2)		2.84	0.00
E.G. Slope (m/m)	0.053778	Area (m2)		2.84	0.00
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	0.00
Top Width (m)	4.09	Top Width (m)		3.79	0.30
Vel Total (m/s)	5.10	Avg. Vel. (m/s)		5.10	0.18
Max Chl Dpth (m)	1.08	Hydr. Depth (m)		0.75	0.01
Conv. Total (m3/s)	62.4	Conv. (m3/s)		62.4	0.0
Length Wtd. (m)	32.20	Wetted Per. (m)		4.59	0.31
Min Ch El (m)	443.92	Shear (N/m2)		326.13	5.29
Alpha	1.00	Stream Power (N/m s)		1663.52	0.95
Frctn Loss (m)	1.20	Cum Volume (1000 m3)	1.11	3.97	1.39
C & E Loss (m)	0.06	Cum SA (1000 m2)	3.53	4.43	3.03

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 21 Profile: TR 20

E.G. Elev (m)	444.95	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	444.56	Reach Len. (m)	66.54	65.99	66.16
Crit W.S. (m)	444.60	Flow Area (m2)		3.32	0.30
E.G. Slope (m/m)	0.013799	Area (m2)		3.32	0.30
Q Total (m3/s)	9.35	Flow (m3/s)		9.23	0.12
Top Width (m)	7.20	Top Width (m)		3.98	3.22
Vel Total (m/s)	2.59	Avg. Vel. (m/s)		2.78	0.40
Max Chl Dpth (m)	1.13	Hydr. Depth (m)		0.83	0.09
Conv. Total (m3/s)	79.6	Conv. (m3/s)		78.6	1.0
Length Wtd. (m)	66.00	Wetted Per. (m)		4.80	3.22
Min Ch El (m)	443.44	Shear (N/m2)		93.57	12.48

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 21 Profile: TR 20 (Continued)

Alpha	1.14	Stream Power (N/m s)		260.46	4.99
Frctn Loss (m)	0.68	Cum Volume (1000 m3)	0.53	3.02	0.54
C & E Loss (m)	0.19	Cum SA (1000 m2)	2.44	4.15	1.59

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 21 Profile: TR 100

E.G. Elev (m)	445.12	Element	Left OB	Channel	Right OB
Vel Head (m)	0.41	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	444.71	Reach Len. (m)	66.54	65.99	66.16
Crit W.S. (m)	444.82	Flow Area (m2)		3.92	0.96
E.G. Slope (m/m)	0.012797	Area (m2)		3.92	0.96
Q Total (m3/s)	11.93	Flow (m3/s)		11.38	0.55
Top Width (m)	9.93	Top Width (m)		4.14	5.78
Vel Total (m/s)	2.45	Avg. Vel. (m/s)		2.91	0.57
Max Chl Dpth (m)	1.27	Hydr. Depth (m)		0.95	0.17
Conv. Total (m3/s)	105.4	Conv. (m3/s)		100.6	4.8
Length Wtd. (m)	66.01	Wetted Per. (m)		5.02	5.79
Min Ch El (m)	443.44	Shear (N/m2)		97.95	20.81
Alpha	1.35	Stream Power (N/m s)		284.63	11.84
Frctn Loss (m)	0.61	Cum Volume (1000 m3)	0.80	3.50	0.84
C & E Loss (m)	0.12	Cum SA (1000 m2)	3.01	4.26	2.13

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 21 Profile: TR 200

E.G. Elev (m)	445.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.46	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	444.73	Reach Len. (m)	66.54	65.99	66.16
Crit W.S. (m)	444.87	Flow Area (m2)		3.99	1.07
E.G. Slope (m/m)	0.014261	Area (m2)		3.99	1.07
Q Total (m3/s)	13.03	Flow (m3/s)		12.36	0.67
Top Width (m)	10.27	Top Width (m)		4.16	6.11
Vel Total (m/s)	2.57	Avg. Vel. (m/s)		3.10	0.62
Max Chl Dpth (m)	1.29	Hydr. Depth (m)		0.96	0.18
Conv. Total (m3/s)	109.1	Conv. (m3/s)		103.5	5.6
Length Wtd. (m)	66.02	Wetted Per. (m)		5.05	6.12
Min Ch El (m)	443.44	Shear (N/m2)		110.69	24.49
Alpha	1.38	Stream Power (N/m s)		342.73	15.25
Frctn Loss (m)	0.61	Cum Volume (1000 m3)	0.89	3.62	0.93
C & E Loss (m)	0.09	Cum SA (1000 m2)	3.36	4.27	2.23

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 21 Profile: TR 500

E.G. Elev (m)	445.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	444.78	Reach Len. (m)	66.54	65.99	66.16
Crit W.S. (m)	444.92	Flow Area (m2)		4.22	1.43
E.G. Slope (m/m)	0.014374	Area (m2)		4.22	1.43
Q Total (m3/s)	14.48	Flow (m3/s)		13.48	1.00
Top Width (m)	11.18	Top Width (m)		4.22	6.95
Vel Total (m/s)	2.56	Avg. Vel. (m/s)		3.19	0.70
Max Chl Dpth (m)	1.35	Hydr. Depth (m)		1.00	0.21
Conv. Total (m3/s)	120.8	Conv. (m3/s)		112.5	8.3
Length Wtd. (m)	66.02	Wetted Per. (m)		5.13	6.97
Min Ch El (m)	443.44	Shear (N/m2)		116.11	28.96
Alpha	1.45	Stream Power (N/m s)		370.67	20.15
Frctn Loss (m)	0.81	Cum Volume (1000 m3)	1.11	3.86	1.36
C & E Loss (m)	0.25	Cum SA (1000 m2)	3.53	4.30	2.91

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 20 Profile: TR 20

E.G. Elev (m)	443.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.42	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	443.08	Reach Len. (m)	0.70	0.70	0.70
Crit W.S. (m)	443.21	Flow Area (m2)	0.63	3.04	
E.G. Slope (m/m)	0.042006	Area (m2)	0.63	3.04	
Q Total (m3/s)	9.35	Flow (m3/s)	0.43	8.93	
Top Width (m)	16.30	Top Width (m)	6.99	9.31	
Vel Total (m/s)	2.55	Avg. Vel. (m/s)	0.68	2.93	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)	0.09	0.33	
Conv. Total (m3/s)	45.6	Conv. (m3/s)	2.1	43.6	
Length Wtd. (m)	0.70	Wetted Per. (m)	7.08	9.37	
Min Ch El (m)	442.63	Shear (N/m2)	36.48	133.77	
Alpha	1.27	Stream Power (N/m s)	24.75	392.51	
Frctn Loss (m)	1.46	Cum Volume (1000 m3)	0.51	2.81	0.53
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.21	3.71	1.48

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 20 Profile: TR 100

E.G. Elev (m)	443.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.52	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	443.12	Reach Len. (m)	0.70	0.70	0.70
Crit W.S. (m)	443.27	Flow Area (m2)	0.87	3.37	
E.G. Slope (m/m)	0.047690	Area (m2)	0.87	3.37	
Q Total (m3/s)	11.93	Flow (m3/s)	0.78	11.14	
Top Width (m)	16.50	Top Width (m)	6.99	9.51	
Vel Total (m/s)	2.81	Avg. Vel. (m/s)	0.90	3.30	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)	0.12	0.35	
Conv. Total (m3/s)	54.6	Conv. (m3/s)	3.6	51.0	
Length Wtd. (m)	0.70	Wetted Per. (m)	7.12	9.57	
Min Ch El (m)	442.63	Shear (N/m2)	57.39	164.86	
Alpha	1.30	Stream Power (N/m s)	51.59	544.41	
Frctn Loss (m)	1.47	Cum Volume (1000 m3)	0.77	3.26	0.81
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.78	3.81	1.94

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 20 Profile: TR 200

E.G. Elev (m)	443.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.51	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	443.15	Reach Len. (m)	0.70	0.70	0.70
Crit W.S. (m)	443.30	Flow Area (m2)	1.07	3.64	
E.G. Slope (m/m)	0.043675	Area (m2)	1.07	3.64	
Q Total (m3/s)	13.03	Flow (m3/s)	1.05	11.99	
Top Width (m)	16.63	Top Width (m)	6.99	9.64	
Vel Total (m/s)	2.77	Avg. Vel. (m/s)	0.98	3.29	
Max Chl Dpth (m)	0.51	Hydr. Depth (m)	0.15	0.38	
Conv. Total (m3/s)	62.4	Conv. (m3/s)	5.0	57.3	
Length Wtd. (m)	0.70	Wetted Per. (m)	7.14	9.71	
Min Ch El (m)	442.63	Shear (N/m2)	63.97	160.58	
Alpha	1.31	Stream Power (N/m s)	62.73	528.78	
Frctn Loss (m)	1.53	Cum Volume (1000 m3)	0.85	3.37	0.90
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.12	3.81	2.03

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 20 Profile: TR 500

E.G. Elev (m)	443.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.55	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	443.17	Reach Len. (m)	0.70	0.70	0.70
Crit W.S. (m)	443.33	Flow Area (m2)	1.22	3.85	
E.G. Slope (m/m)	0.044041	Area (m2)	1.22	3.85	
Q Total (m3/s)	14.48	Flow (m3/s)	1.30	13.17	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 20 Profile: TR 500 (Continued)

Top Width (m)	16.63	Top Width (m)	6.99	9.64	
Vel Total (m/s)	2.86	Avg. Vel. (m/s)	1.07	3.43	
Max Chl Dpth (m)	0.54	Hydr. Depth (m)	0.17	0.40	
Conv. Total (m3/s)	69.0	Conv. (m3/s)	6.2	62.8	
Length Wtd. (m)	0.70	Wetted Per. (m)	7.16	9.73	
Min Ch El (m)	442.63	Shear (N/m2)	73.33	170.73	
Alpha	1.32	Stream Power (N/m s)	78.64	584.81	
Frctn Loss (m)	1.54	Cum Volume (1000 m3)	1.07	3.59	1.32
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.30	3.84	2.68

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 19.5 Profile: TR 20

E.G. Elev (m)	443.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.61	Wt. n-Val.		0.033	
W.S. Elev (m)	442.85	Reach Len. (m)	49.86	51.96	52.22
Crit W.S. (m)	443.07	Flow Area (m2)		2.69	
E.G. Slope (m/m)	0.042391	Area (m2)		2.69	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	6.27	Top Width (m)		6.27	
Vel Total (m/s)	3.47	Avg. Vel. (m/s)		3.47	
Max Chl Dpth (m)	0.56	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	45.4	Conv. (m3/s)		45.4	
Length Wtd. (m)	51.96	Wetted Per. (m)		6.49	
Min Ch El (m)	442.29	Shear (N/m2)		172.53	
Alpha	1.00	Stream Power (N/m s)		598.93	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.51	2.80	0.53
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.21	3.71	1.48

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 19.5 Profile: TR 100

E.G. Elev (m)	443.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.65	Wt. n-Val.		0.033	
W.S. Elev (m)	442.95	Reach Len. (m)	49.86	51.96	52.22
Crit W.S. (m)	443.17	Flow Area (m2)		3.33	
E.G. Slope (m/m)	0.037377	Area (m2)		3.33	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	6.69	Top Width (m)		6.69	
Vel Total (m/s)	3.58	Avg. Vel. (m/s)		3.58	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	61.7	Conv. (m3/s)		61.7	
Length Wtd. (m)	51.97	Wetted Per. (m)		6.95	
Min Ch El (m)	442.29	Shear (N/m2)		175.43	
Alpha	1.00	Stream Power (N/m s)		628.83	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.77	3.26	0.81
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.77	3.80	1.94

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 19.5 Profile: TR 200

E.G. Elev (m)	443.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.56	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	443.01	Reach Len. (m)	49.86	51.96	52.22
Crit W.S. (m)	443.20	Flow Area (m2)	0.75	3.75	
E.G. Slope (m/m)	0.029508	Area (m2)	0.75	3.75	
Q Total (m3/s)	13.03	Flow (m3/s)	0.41	12.62	
Top Width (m)	15.69	Top Width (m)	8.78	6.91	
Vel Total (m/s)	2.90	Avg. Vel. (m/s)	0.55	3.37	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)	0.08	0.54	
Conv. Total (m3/s)	75.9	Conv. (m3/s)	2.4	73.5	
Length Wtd. (m)	51.93	Wetted Per. (m)	8.93	7.20	
Min Ch El (m)	442.29	Shear (N/m2)	24.17	150.63	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 19.5 Profile: TR 200 (Continued)

Alpha	1.31	Stream Power (N/m s)	13.23	507.37	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	0.85	3.37	0.90
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.12	3.81	2.03

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 19.5 Profile: TR 500

E.G. Elev (m)	443.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.66	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	443.02	Reach Len. (m)	49.86	51.96	52.22
Crit W.S. (m)	443.23	Flow Area (m2)	0.82	3.81	
E.G. Slope (m/m)	0.034435	Area (m2)	0.82	3.81	
Q Total (m3/s)	14.48	Flow (m3/s)	0.52	13.96	
Top Width (m)	15.71	Top Width (m)	8.78	6.93	
Vel Total (m/s)	3.13	Avg. Vel. (m/s)	0.63	3.67	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)	0.09	0.55	
Conv. Total (m3/s)	78.0	Conv. (m3/s)	2.8	75.2	
Length Wtd. (m)	51.93	Wetted Per. (m)	8.94	7.22	
Min Ch El (m)	442.29	Shear (N/m2)	30.95	178.01	
Alpha	1.33	Stream Power (N/m s)	19.46	653.21	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	1.07	3.59	1.32
C & E Loss (m)	0.01	Cum SA (1000 m2)	3.30	3.84	2.68

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 19 Profile: TR 20

E.G. Elev (m)	441.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.99	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	440.12	Reach Len. (m)	38.76	40.63	41.86
Crit W.S. (m)	440.44	Flow Area (m2)		2.04	0.25
E.G. Slope (m/m)	0.046864	Area (m2)		2.04	0.25
Q Total (m3/s)	9.35	Flow (m3/s)		9.11	0.24
Top Width (m)	4.86	Top Width (m)		3.10	1.76
Vel Total (m/s)	4.09	Avg. Vel. (m/s)		4.47	0.98
Max Chl Dpth (m)	0.88	Hydr. Depth (m)		0.66	0.14
Conv. Total (m3/s)	43.2	Conv. (m3/s)		42.1	1.1
Length Wtd. (m)	40.65	Wetted Per. (m)		3.62	1.78
Min Ch El (m)	439.24	Shear (N/m2)		258.81	64.61
Alpha	1.17	Stream Power (N/m s)		1157.80	63.03
Frctn Loss (m)	2.31	Cum Volume (1000 m3)	0.51	2.68	0.52
C & E Loss (m)	0.04	Cum SA (1000 m2)	2.21	3.46	1.43

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 19 Profile: TR 100

E.G. Elev (m)	441.36	Element	Left OB	Channel	Right OB
Vel Head (m)	1.15	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	440.22	Reach Len. (m)	38.76	40.63	41.86
Crit W.S. (m)	440.61	Flow Area (m2)		2.35	0.45
E.G. Slope (m/m)	0.047808	Area (m2)		2.35	0.45
Q Total (m3/s)	11.93	Flow (m3/s)		11.38	0.54
Top Width (m)	5.54	Top Width (m)		3.18	2.37
Vel Total (m/s)	4.26	Avg. Vel. (m/s)		4.85	1.20
Max Chl Dpth (m)	0.98	Hydr. Depth (m)		0.74	0.19
Conv. Total (m3/s)	54.5	Conv. (m3/s)		52.1	2.5
Length Wtd. (m)	40.66	Wetted Per. (m)		3.74	2.40
Min Ch El (m)	439.24	Shear (N/m2)		293.95	88.70
Alpha	1.24	Stream Power (N/m s)		1426.78	106.54
Frctn Loss (m)	2.19	Cum Volume (1000 m3)	0.77	3.11	0.80
C & E Loss (m)	0.05	Cum SA (1000 m2)	2.77	3.54	1.88

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 19 Profile: TR 200

E.G. Elev (m)	441.51	Element	Left OB	Channel	Right OB
Vel Head (m)	1.28	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	440.24	Reach Len. (m)	38.76	40.63	41.86
Crit W.S. (m)	440.69	Flow Area (m2)		2.41	0.51
E.G. Slope (m/m)	0.051843	Area (m2)		2.41	0.51
Q Total (m3/s)	13.03	Flow (m3/s)		12.38	0.66
Top Width (m)	5.69	Top Width (m)		3.19	2.50
Vel Total (m/s)	4.46	Avg. Vel. (m/s)		5.13	1.30
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.76	0.20
Conv. Total (m3/s)	57.2	Conv. (m3/s)		54.4	2.9
Length Wtd. (m)	40.66	Wetted Per. (m)		3.77	2.53
Min Ch El (m)	439.24	Shear (N/m2)		325.70	101.59
Alpha	1.26	Stream Power (N/m s)		1670.03	131.76
Frctn Loss (m)	1.99	Cum Volume (1000 m3)	0.83	3.21	0.89
C & E Loss (m)	0.07	Cum SA (1000 m2)	2.90	3.55	1.97

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 19 Profile: TR 500

E.G. Elev (m)	441.55	Element	Left OB	Channel	Right OB
Vel Head (m)	1.25	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	440.31	Reach Len. (m)	38.76	40.63	41.86
Crit W.S. (m)	440.74	Flow Area (m2)		2.64	0.70
E.G. Slope (m/m)	0.046978	Area (m2)		2.64	0.70
Q Total (m3/s)	14.48	Flow (m3/s)		13.50	0.98
Top Width (m)	6.12	Top Width (m)		3.25	2.88
Vel Total (m/s)	4.33	Avg. Vel. (m/s)		5.11	1.39
Max Chl Dpth (m)	1.07	Hydr. Depth (m)		0.81	0.24
Conv. Total (m3/s)	66.8	Conv. (m3/s)		62.3	4.5
Length Wtd. (m)	40.68	Wetted Per. (m)		3.86	2.93
Min Ch El (m)	439.24	Shear (N/m2)		315.77	110.30
Alpha	1.30	Stream Power (N/m s)		1612.34	153.64
Frctn Loss (m)	2.07	Cum Volume (1000 m3)	1.05	3.42	1.30
C & E Loss (m)	0.06	Cum SA (1000 m2)	3.08	3.57	2.61

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 18 Profile: TR 20

E.G. Elev (m)	439.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.72	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	438.56	Reach Len. (m)	99.31	103.40	103.65
Crit W.S. (m)	438.81	Flow Area (m2)		2.49	0.00
E.G. Slope (m/m)	0.039815	Area (m2)		2.49	0.00
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	0.00
Top Width (m)	4.85	Top Width (m)		4.71	0.14
Vel Total (m/s)	3.75	Avg. Vel. (m/s)		3.75	0.10
Max Chl Dpth (m)	0.86	Hydr. Depth (m)		0.53	0.01
Conv. Total (m3/s)	46.9	Conv. (m3/s)		46.9	0.0
Length Wtd. (m)	103.40	Wetted Per. (m)		5.09	0.14
Min Ch El (m)	437.70	Shear (N/m2)		190.99	2.17
Alpha	1.00	Stream Power (N/m s)		716.96	0.23
Frctn Loss (m)	1.75	Cum Volume (1000 m3)	0.51	2.59	0.52
C & E Loss (m)	0.08	Cum SA (1000 m2)	2.21	3.31	1.39

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 18 Profile: TR 100

E.G. Elev (m)	439.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.85	Wt. n-Val.	0.000	0.033	0.060
W.S. Elev (m)	438.64	Reach Len. (m)	99.31	103.40	103.65
Crit W.S. (m)	438.96	Flow Area (m2)	0.00	2.90	0.06
E.G. Slope (m/m)	0.040189	Area (m2)	0.00	2.90	0.06
Q Total (m3/s)	11.93	Flow (m3/s)	0.00	11.90	0.03

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 18 Profile: TR 100 (Continued)

Top Width (m)	6.18	Top Width (m)	0.09	4.83	1.26
Vel Total (m/s)	4.02	Avg. Vel. (m/s)	0.07	4.10	0.45
Max Chl Dpth (m)	0.94	Hydr. Depth (m)	0.00	0.60	0.05
Conv. Total (m3/s)	59.5	Conv. (m3/s)	0.0	59.4	0.1
Length Wtd. (m)	103.40	Wetted Per. (m)	0.09	5.24	1.27
Min Ch El (m)	437.70	Shear (N/m2)		218.38	19.16
Alpha	1.04	Stream Power (N/m s)		894.99	8.53
Frctn Loss (m)	1.78	Cum Volume (1000 m3)	0.77	3.01	0.79
C & E Loss (m)	0.09	Cum SA (1000 m2)	2.77	3.38	1.80

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 18 Profile: TR 200

E.G. Elev (m)	439.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.90	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	438.68	Reach Len. (m)	99.31	103.40	103.65
Crit W.S. (m)	439.01	Flow Area (m2)	0.01	3.08	0.12
E.G. Slope (m/m)	0.039089	Area (m2)	0.01	3.08	0.12
Q Total (m3/s)	13.03	Flow (m3/s)	0.00	12.96	0.06
Top Width (m)	7.18	Top Width (m)	0.61	4.83	1.74
Vel Total (m/s)	4.06	Avg. Vel. (m/s)	0.25	4.21	0.54
Max Chl Dpth (m)	0.98	Hydr. Depth (m)	0.02	0.64	0.07
Conv. Total (m3/s)	65.9	Conv. (m3/s)	0.0	65.6	0.3
Length Wtd. (m)	103.40	Wetted Per. (m)	0.62	5.24	1.75
Min Ch El (m)	437.70	Shear (N/m2)	8.24	225.48	25.71
Alpha	1.07	Stream Power (N/m s)	2.10	948.39	13.99
Frctn Loss (m)	1.82	Cum Volume (1000 m3)	0.83	3.09	0.87
C & E Loss (m)	0.11	Cum SA (1000 m2)	2.89	3.38	1.88

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 18 Profile: TR 500

E.G. Elev (m)	439.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.99	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	438.71	Reach Len. (m)	99.31	103.40	103.65
Crit W.S. (m)	439.05	Flow Area (m2)	0.04	3.24	0.18
E.G. Slope (m/m)	0.040671	Area (m2)	0.04	3.24	0.18
Q Total (m3/s)	14.48	Flow (m3/s)	0.02	14.35	0.11
Top Width (m)	8.05	Top Width (m)	1.07	4.83	2.16
Vel Total (m/s)	4.19	Avg. Vel. (m/s)	0.38	4.43	0.64
Max Chl Dpth (m)	1.01	Hydr. Depth (m)	0.04	0.67	0.08
Conv. Total (m3/s)	71.8	Conv. (m3/s)	0.1	71.1	0.6
Length Wtd. (m)	103.40	Wetted Per. (m)	1.07	5.24	2.16
Min Ch El (m)	437.70	Shear (N/m2)	14.95	246.38	33.12
Alpha	1.11	Stream Power (N/m s)	5.63	1092.12	21.19
Frctn Loss (m)	1.77	Cum Volume (1000 m3)	1.05	3.30	1.28
C & E Loss (m)	0.08	Cum SA (1000 m2)	3.06	3.41	2.50

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 17 Profile: TR 20

E.G. Elev (m)	434.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.78	Wt. n-Val.		0.033	
W.S. Elev (m)	433.90	Reach Len. (m)	49.56	50.15	50.56
Crit W.S. (m)	434.16	Flow Area (m2)		2.38	
E.G. Slope (m/m)	0.049671	Area (m2)		2.38	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	5.12	Top Width (m)		5.12	
Vel Total (m/s)	3.92	Avg. Vel. (m/s)		3.92	
Max Chl Dpth (m)	0.75	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	42.0	Conv. (m3/s)		42.0	
Length Wtd. (m)	50.14	Wetted Per. (m)		5.39	
Min Ch El (m)	433.15	Shear (N/m2)		215.58	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 17 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		845.56	
Frctn Loss (m)	4.58	Cum Volume (1000 m3)	0.51	2.34	0.52
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.21	2.80	1.39

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 17 Profile: TR 100

E.G. Elev (m)	434.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.89	Wt. n-Val.		0.033	
W.S. Elev (m)	433.99	Reach Len. (m)	49.56	50.15	50.56
Crit W.S. (m)	434.28	Flow Area (m2)		2.85	
E.G. Slope (m/m)	0.049763	Area (m2)		2.85	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	5.55	Top Width (m)		5.55	
Vel Total (m/s)	4.18	Avg. Vel. (m/s)		4.18	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	53.5	Conv. (m3/s)		53.5	
Length Wtd. (m)	50.13	Wetted Per. (m)		5.86	
Min Ch El (m)	433.15	Shear (N/m2)		237.59	
Alpha	1.00	Stream Power (N/m s)		993.95	
Frctn Loss (m)	4.61	Cum Volume (1000 m3)	0.77	2.71	0.79
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.77	2.84	1.74

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 17 Profile: TR 200

E.G. Elev (m)	434.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.95	Wt. n-Val.		0.033	
W.S. Elev (m)	434.02	Reach Len. (m)	49.56	50.15	50.56
Crit W.S. (m)	434.33	Flow Area (m2)		3.01	
E.G. Slope (m/m)	0.051121	Area (m2)		3.01	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	5.70	Top Width (m)		5.70	
Vel Total (m/s)	4.32	Avg. Vel. (m/s)		4.32	
Max Chl Dpth (m)	0.87	Hydr. Depth (m)		0.53	
Conv. Total (m3/s)	57.6	Conv. (m3/s)		57.6	
Length Wtd. (m)	50.13	Wetted Per. (m)		6.01	
Min Ch El (m)	433.15	Shear (N/m2)		251.36	
Alpha	1.00	Stream Power (N/m s)		1086.90	
Frctn Loss (m)	4.60	Cum Volume (1000 m3)	0.83	2.78	0.87
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.86	2.84	1.79

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 17 Profile: TR 500

E.G. Elev (m)	435.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.99	Wt. n-Val.		0.033	
W.S. Elev (m)	434.07	Reach Len. (m)	49.56	50.15	50.56
Crit W.S. (m)	434.39	Flow Area (m2)		3.28	
E.G. Slope (m/m)	0.049988	Area (m2)		3.28	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)	5.93	Top Width (m)		5.93	
Vel Total (m/s)	4.41	Avg. Vel. (m/s)		4.41	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	64.8	Conv. (m3/s)		64.8	
Length Wtd. (m)	50.18	Wetted Per. (m)		6.26	
Min Ch El (m)	433.15	Shear (N/m2)		257.21	
Alpha	1.00	Stream Power (N/m s)		1133.69	
Frctn Loss (m)	4.65	Cum Volume (1000 m3)	1.05	2.96	1.27
C & E Loss (m)	0.00	Cum SA (1000 m2)	3.00	2.85	2.39

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 16 Profile: TR 20

E.G. Elev (m)	433.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	433.31	Reach Len. (m)	45.08	44.96	44.79
Crit W.S. (m)	433.35	Flow Area (m2)	0.52	3.61	
E.G. Slope (m/m)	0.012512	Area (m2)	0.52	3.61	
Q Total (m3/s)	9.35	Flow (m3/s)	0.20	9.15	
Top Width (m)	10.38	Top Width (m)	5.42	4.97	
Vel Total (m/s)	2.27	Avg. Vel. (m/s)	0.38	2.54	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)	0.10	0.73	
Conv. Total (m3/s)	83.6	Conv. (m3/s)	1.8	81.8	
Length Wtd. (m)	44.97	Wetted Per. (m)	5.55	5.58	
Min Ch El (m)	432.21	Shear (N/m2)	11.44	79.37	
Alpha	1.23	Stream Power (N/m s)	4.39	201.22	
Frctn Loss (m)	0.96	Cum Volume (1000 m3)	0.50	2.19	0.52
C & E Loss (m)	0.15	Cum SA (1000 m2)	2.08	2.54	1.39

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 16 Profile: TR 100

E.G. Elev (m)	433.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.29	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	433.47	Reach Len. (m)	45.08	44.96	44.79
Crit W.S. (m)	433.49	Flow Area (m2)	1.39	4.43	
E.G. Slope (m/m)	0.009779	Area (m2)	1.39	4.43	
Q Total (m3/s)	11.93	Flow (m3/s)	0.89	11.04	
Top Width (m)	10.57	Top Width (m)	5.42	5.15	
Vel Total (m/s)	2.05	Avg. Vel. (m/s)	0.64	2.49	
Max Chl Dpth (m)	1.26	Hydr. Depth (m)	0.26	0.86	
Conv. Total (m3/s)	120.6	Conv. (m3/s)	9.0	111.6	
Length Wtd. (m)	44.95	Wetted Per. (m)	5.71	5.83	
Min Ch El (m)	432.21	Shear (N/m2)	23.32	72.80	
Alpha	1.37	Stream Power (N/m s)	14.97	181.55	
Frctn Loss (m)	0.94	Cum Volume (1000 m3)	0.74	2.53	0.79
C & E Loss (m)	0.18	Cum SA (1000 m2)	2.63	2.58	1.74

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 16 Profile: TR 200

E.G. Elev (m)	433.83	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	433.44	Reach Len. (m)	45.08	44.96	44.79
Crit W.S. (m)	433.49	Flow Area (m2)	1.21	4.26	
E.G. Slope (m/m)	0.013432	Area (m2)	1.21	4.26	
Q Total (m3/s)	13.03	Flow (m3/s)	0.84	12.20	
Top Width (m)	10.53	Top Width (m)	5.42	5.12	
Vel Total (m/s)	2.38	Avg. Vel. (m/s)	0.69	2.86	
Max Chl Dpth (m)	1.23	Hydr. Depth (m)	0.22	0.83	
Conv. Total (m3/s)	112.4	Conv. (m3/s)	7.2	105.2	
Length Wtd. (m)	44.95	Wetted Per. (m)	5.68	5.78	
Min Ch El (m)	432.21	Shear (N/m2)	28.10	97.04	
Alpha	1.36	Stream Power (N/m s)	19.38	277.98	
Frctn Loss (m)	1.04	Cum Volume (1000 m3)	0.80	2.60	0.87
C & E Loss (m)	0.18	Cum SA (1000 m2)	2.72	2.57	1.79

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 16 Profile: TR 500

E.G. Elev (m)	433.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	433.54	Reach Len. (m)	45.08	44.96	44.79
Crit W.S. (m)	433.49	Flow Area (m2)	1.78	4.80	4.96
E.G. Slope (m/m)	0.006073	Area (m2)	1.78	4.80	4.96
Q Total (m3/s)	14.48	Flow (m3/s)	1.05	9.92	3.51

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 16 Profile: TR 500 (Continued)

Top Width (m)	22.14	Top Width (m)	5.42	5.18	11.55
Vel Total (m/s)	1.26	Avg. Vel. (m/s)	0.59	2.07	0.71
Max Chl Dpth (m)	1.33	Hydr. Depth (m)	0.33	0.93	0.43
Conv. Total (m3/s)	185.8	Conv. (m3/s)	13.5	127.2	45.0
Length Wtd. (m)	44.95	Wetted Per. (m)	5.78	5.86	12.32
Min Ch El (m)	432.21	Shear (N/m2)	18.31	48.78	23.97
Alpha	1.95	Stream Power (N/m s)	10.83	100.84	16.98
Frctn Loss (m)	0.34	Cum Volume (1000 m3)	1.00	2.76	1.14
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.87	2.57	2.10

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 15 Profile: TR 20

E.G. Elev (m)	433.21	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	433.10	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	432.61	Flow Area (m2)	1.76	5.06	1.08
E.G. Slope (m/m)	0.002530	Area (m2)	1.76	5.06	1.08
Q Total (m3/s)	9.35	Flow (m3/s)	0.94	8.01	0.39
Top Width (m)	10.36	Top Width (m)	3.10	3.81	3.45
Vel Total (m/s)	1.18	Avg. Vel. (m/s)	0.54	1.58	0.36
Max Chl Dpth (m)	1.57	Hydr. Depth (m)	0.57	1.33	0.31
Conv. Total (m3/s)	185.9	Conv. (m3/s)	18.8	159.3	7.8
Length Wtd. (m)	0.16	Wetted Per. (m)	3.45	4.79	3.78
Min Ch El (m)	431.53	Shear (N/m2)	12.68	26.25	7.11
Alpha	1.56	Stream Power (N/m s)	6.80	41.54	2.59
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.45	1.99	0.50
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.88	2.35	1.31

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 15 Profile: TR 100

E.G. Elev (m)	433.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	433.19	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	432.84	Flow Area (m2)	2.03	5.39	1.38
E.G. Slope (m/m)	0.003171	Area (m2)	2.03	5.39	1.38
Q Total (m3/s)	11.93	Flow (m3/s)	1.31	9.96	0.65
Top Width (m)	10.36	Top Width (m)	3.10	3.81	3.45
Vel Total (m/s)	1.36	Avg. Vel. (m/s)	0.65	1.85	0.47
Max Chl Dpth (m)	1.66	Hydr. Depth (m)	0.65	1.42	0.40
Conv. Total (m3/s)	211.8	Conv. (m3/s)	23.3	176.9	11.6
Length Wtd. (m)	0.16	Wetted Per. (m)	3.53	4.79	3.87
Min Ch El (m)	431.53	Shear (N/m2)	17.85	35.03	11.10
Alpha	1.58	Stream Power (N/m s)	11.57	64.71	5.24
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.66	2.31	0.75
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.44	2.37	1.66

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 15 Profile: TR 200

E.G. Elev (m)	433.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	432.95	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	432.91	Flow Area (m2)	1.31	4.51	0.58
E.G. Slope (m/m)	0.007944	Area (m2)	1.31	4.51	0.58
Q Total (m3/s)	13.03	Flow (m3/s)	1.06	11.72	0.26
Top Width (m)	10.36	Top Width (m)	3.10	3.81	3.45
Vel Total (m/s)	2.03	Avg. Vel. (m/s)	0.80	2.60	0.44
Max Chl Dpth (m)	1.43	Hydr. Depth (m)	0.42	1.18	0.17
Conv. Total (m3/s)	146.2	Conv. (m3/s)	11.8	131.5	2.9
Length Wtd. (m)	0.16	Wetted Per. (m)	3.30	4.79	3.64
Min Ch El (m)	431.53	Shear (N/m2)	30.98	73.44	12.51

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 15 Profile: TR 200 (Continued)

Alpha	1.48	Stream Power (N/m s)	24.89	190.72	5.49
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.75	2.40	0.85
C & E Loss (m)	0.02	Cum SA (1000 m2)	2.53	2.37	1.71

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 15 Profile: TR 500

E.G. Elev (m)	433.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	432.97	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	432.97	Flow Area (m2)	1.35	4.56	0.62
E.G. Slope (m/m)	0.009432	Area (m2)	1.35	4.56	0.62
Q Total (m3/s)	14.48	Flow (m3/s)	1.20	12.97	0.31
Top Width (m)	10.36	Top Width (m)	3.10	3.81	3.45
Vel Total (m/s)	2.22	Avg. Vel. (m/s)	0.89	2.85	0.50
Max Chl Dpth (m)	1.44	Hydr. Depth (m)	0.43	1.20	0.18
Conv. Total (m3/s)	149.1	Conv. (m3/s)	12.3	133.6	3.2
Length Wtd. (m)		Wetted Per. (m)	3.31	4.79	3.65
Min Ch El (m)	431.53	Shear (N/m2)	37.62	88.02	15.78
Alpha	1.49	Stream Power (N/m s)	33.43	250.63	7.86
Frctn Loss (m)		Cum Volume (1000 m3)	0.93	2.55	1.02
C & E Loss (m)		Cum SA (1000 m2)	2.68	2.37	1.76

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14.5 BR U Profile: TR 20

E.G. Elev (m)	433.20	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	432.95	Reach Len. (m)	2.85	2.85	2.85
Crit W.S. (m)	432.95	Flow Area (m2)	0.47	3.75	0.58
E.G. Slope (m/m)	0.026813	Area (m2)	0.47	3.75	0.58
Q Total (m3/s)	9.35	Flow (m3/s)	0.36	8.53	0.46
Top Width (m)	10.36	Top Width (m)	3.10	3.81	3.45
Vel Total (m/s)	1.95	Avg. Vel. (m/s)	0.75	2.27	0.80
Max Chl Dpth (m)	1.43	Hydr. Depth (m)	0.15	0.98	0.17
Conv. Total (m3/s)	57.1	Conv. (m3/s)	2.2	52.1	2.8
Length Wtd. (m)	2.85	Wetted Per. (m)	3.59	12.08	3.64
Min Ch El (m)	431.53	Shear (N/m2)	34.63	81.62	41.86
Alpha	1.26	Stream Power (N/m s)	26.09	185.69	33.56
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.44	1.99	0.50
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.88	2.35	1.31

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14.5 BR U Profile: TR 100

E.G. Elev (m)	433.32	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	433.05	Reach Len. (m)	2.85	2.85	2.85
Crit W.S. (m)	433.05	Flow Area (m2)	0.77	4.12	0.91
E.G. Slope (m/m)	0.027664	Area (m2)	0.77	4.12	0.91
Q Total (m3/s)	11.93	Flow (m3/s)	0.80	10.13	0.99
Top Width (m)	10.36	Top Width (m)	3.10	3.81	3.45
Vel Total (m/s)	2.05	Avg. Vel. (m/s)	1.04	2.46	1.08
Max Chl Dpth (m)	1.52	Hydr. Depth (m)	0.25	1.08	0.26
Conv. Total (m3/s)	71.7	Conv. (m3/s)	4.8	60.9	6.0
Length Wtd. (m)	2.85	Wetted Per. (m)	3.69	12.08	3.73
Min Ch El (m)	431.53	Shear (N/m2)	56.87	92.49	66.35
Alpha	1.26	Stream Power (N/m s)	59.23	227.50	71.93
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.66	2.30	0.75
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.44	2.37	1.66

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14.5 BR U Profile: TR 200

E.G. Elev (m)	433.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.28	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	433.09	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)	433.09	Flow Area (m2)	0.89	4.26	1.04
E.G. Slope (m/m)	0.027922	Area (m2)	0.89	4.26	1.04
Q Total (m3/s)	13.03	Flow (m3/s)	1.02	10.78	1.23
Top Width (m)	10.36	Top Width (m)	3.10	3.81	3.45
Vel Total (m/s)	2.10	Avg. Vel. (m/s)	1.14	2.53	1.18
Max Chl Dpth (m)	1.56	Hydr. Depth (m)	0.29	1.12	0.30
Conv. Total (m3/s)	78.0	Conv. (m3/s)	6.1	64.5	7.4
Length Wtd. (m)	0.00	Wetted Per. (m)	3.72	12.08	3.77
Min Ch El (m)	431.53	Shear (N/m2)	65.45	96.62	75.79
Alpha	1.25	Stream Power (N/m s)	74.71	244.31	89.65
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.75	2.40	0.85
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.53	2.37	1.71

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14.5 BR U Profile: TR 500

E.G. Elev (m)	433.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	433.13	Reach Len. (m)	0.16	0.16	0.16
Crit W.S. (m)	433.13	Flow Area (m2)	1.03	4.44	1.20
E.G. Slope (m/m)	0.028389	Area (m2)	1.03	4.44	1.20
Q Total (m3/s)	14.48	Flow (m3/s)	1.30	11.62	1.56
Top Width (m)	10.36	Top Width (m)	3.10	3.81	3.45
Vel Total (m/s)	2.17	Avg. Vel. (m/s)	1.26	2.62	1.30
Max Chl Dpth (m)	1.61	Hydr. Depth (m)	0.33	1.16	0.35
Conv. Total (m3/s)	85.9	Conv. (m3/s)	7.7	69.0	9.3
Length Wtd. (m)		Wetted Per. (m)	3.77	12.08	3.82
Min Ch El (m)	431.53	Shear (N/m2)	76.18	102.24	87.63
Alpha	1.24	Stream Power (N/m s)	95.89	267.71	113.86
Frctn Loss (m)		Cum Volume (1000 m3)	0.93	2.55	1.02
C & E Loss (m)		Cum SA (1000 m2)	2.68	2.37	1.76

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14.5 BR D Profile: TR 20

E.G. Elev (m)	433.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.79	Wt. n-Val.		0.033	
W.S. Elev (m)	432.26	Reach Len. (m)	2.85	2.85	2.85
Crit W.S. (m)	432.49	Flow Area (m2)		2.38	
E.G. Slope (m/m)	0.044386	Area (m2)	0.00	2.38	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	4.44	Top Width (m)	0.01	4.43	
Vel Total (m/s)	3.93	Avg. Vel. (m/s)		3.93	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.54	
Conv. Total (m3/s)	44.4	Conv. (m3/s)		44.4	
Length Wtd. (m)	2.85	Wetted Per. (m)		4.94	
Min Ch El (m)	431.46	Shear (N/m2)		209.87	
Alpha	1.00	Stream Power (N/m s)		823.83	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	0.44	1.98	0.49
C & E Loss (m)	0.05	Cum SA (1000 m2)	1.88	2.33	1.30

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14.5 BR D Profile: TR 100

E.G. Elev (m)	433.20	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	432.96	Reach Len. (m)	2.85	2.85	2.85
Crit W.S. (m)	432.96	Flow Area (m2)	0.97	4.72	0.52
E.G. Slope (m/m)	0.025893	Area (m2)	0.97	4.72	0.52
Q Total (m3/s)	11.93	Flow (m3/s)	0.76	10.70	0.46

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14.5 BR D Profile: TR 100 (Continued)

Top Width (m)	13.28	Top Width (m)	5.99	4.80	2.49
Vel Total (m/s)	1.92	Avg. Vel. (m/s)	0.78	2.27	0.89
Max Chl Dpth (m)	1.50	Hydr. Depth (m)	0.16	0.98	0.21
Conv. Total (m3/s)	74.1	Conv. (m3/s)	4.7	66.5	2.9
Length Wtd. (m)	2.85	Wetted Per. (m)	6.52	14.88	2.73
Min Ch El (m)	431.46	Shear (N/m2)	37.98	80.53	48.56
Alpha	1.27	Stream Power (N/m s)	29.68	182.62	43.23
Frctn Loss (m)	0.09	Cum Volume (1000 m3)	0.66	2.29	0.75
C & E Loss (m)	0.05	Cum SA (1000 m2)	2.43	2.36	1.65

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14.5 BR D Profile: TR 200

E.G. Elev (m)	433.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	433.00	Reach Len. (m)	2.85	2.85	2.85
Crit W.S. (m)	433.00	Flow Area (m2)	1.19	4.89	0.61
E.G. Slope (m/m)	0.025955	Area (m2)	1.19	4.89	0.61
Q Total (m3/s)	13.03	Flow (m3/s)	1.06	11.37	0.60
Top Width (m)	13.28	Top Width (m)	5.99	4.80	2.49
Vel Total (m/s)	1.95	Avg. Vel. (m/s)	0.89	2.33	0.98
Max Chl Dpth (m)	1.54	Hydr. Depth (m)	0.20	1.02	0.25
Conv. Total (m3/s)	80.9	Conv. (m3/s)	6.6	70.6	3.7
Length Wtd. (m)	2.85	Wetted Per. (m)	6.55	14.88	2.76
Min Ch El (m)	431.46	Shear (N/m2)	46.20	83.67	56.26
Alpha	1.27	Stream Power (N/m s)	41.14	194.55	55.22
Frctn Loss (m)	0.08	Cum Volume (1000 m3)	0.75	2.40	0.85
C & E Loss (m)	0.05	Cum SA (1000 m2)	2.53	2.37	1.71

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14.5 BR D Profile: TR 500

E.G. Elev (m)	433.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.38	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	432.94	Reach Len. (m)	2.85	2.85	2.85
Crit W.S. (m)	433.04	Flow Area (m2)	0.86	4.63	0.47
E.G. Slope (m/m)	0.041984	Area (m2)	0.86	4.63	0.47
Q Total (m3/s)	14.48	Flow (m3/s)	0.79	13.18	0.51
Top Width (m)	13.28	Top Width (m)	5.99	4.80	2.49
Vel Total (m/s)	2.43	Avg. Vel. (m/s)	0.92	2.85	1.07
Max Chl Dpth (m)	1.48	Hydr. Depth (m)	0.14	0.96	0.19
Conv. Total (m3/s)	70.7	Conv. (m3/s)	3.8	64.3	2.5
Length Wtd. (m)	2.85	Wetted Per. (m)	6.50	14.88	2.71
Min Ch El (m)	431.46	Shear (N/m2)	54.47	128.02	72.02
Alpha	1.27	Stream Power (N/m s)	49.93	364.83	76.93
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	0.93	2.55	1.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.68	2.37	1.76

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14 Profile: TR 20

E.G. Elev (m)	433.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.79	Wt. n-Val.		0.033	
W.S. Elev (m)	432.26	Reach Len. (m)	35.19	34.82	34.64
Crit W.S. (m)	432.49	Flow Area (m2)		2.38	
E.G. Slope (m/m)	0.044425	Area (m2)	0.00	2.38	
Q Total (m3/s)	9.35	Flow (m3/s)		9.35	
Top Width (m)	4.92	Top Width (m)	0.48	4.43	
Vel Total (m/s)	3.93	Avg. Vel. (m/s)		3.93	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.54	
Conv. Total (m3/s)	44.4	Conv. (m3/s)		44.4	
Length Wtd. (m)	34.84	Wetted Per. (m)		4.94	
Min Ch El (m)	431.46	Shear (N/m2)		210.00	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		824.58	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.44	1.97	0.49
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.88	2.32	1.30

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14 Profile: TR 100

E.G. Elev (m)	433.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.78	Wt. n-Val.		0.033	
W.S. Elev (m)	432.41	Reach Len. (m)	35.19	34.82	34.64
Crit W.S. (m)	432.80	Flow Area (m2)		3.05	
E.G. Slope (m/m)	0.033337	Area (m2)	0.52	3.05	
Q Total (m3/s)	11.93	Flow (m3/s)		11.93	
Top Width (m)	10.52	Top Width (m)	5.99	4.54	
Vel Total (m/s)	3.91	Avg. Vel. (m/s)		3.91	
Max Chl Dpth (m)	0.95	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	65.3	Conv. (m3/s)		65.3	
Length Wtd. (m)	34.84	Wetted Per. (m)		5.12	
Min Ch El (m)	431.46	Shear (N/m2)		194.48	
Alpha	1.00	Stream Power (N/m s)		761.09	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.66	2.28	0.75
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.41	2.35	1.65

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14 Profile: TR 200

E.G. Elev (m)	433.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.77	Wt. n-Val.		0.033	
W.S. Elev (m)	432.48	Reach Len. (m)	35.19	34.82	34.64
Crit W.S. (m)	432.80	Flow Area (m2)		3.36	
E.G. Slope (m/m)	0.029336	Area (m2)	0.93	3.36	
Q Total (m3/s)	13.03	Flow (m3/s)		13.03	
Top Width (m)	10.57	Top Width (m)	5.99	4.59	
Vel Total (m/s)	3.88	Avg. Vel. (m/s)		3.88	
Max Chl Dpth (m)	1.02	Hydr. Depth (m)		0.73	
Conv. Total (m3/s)	76.1	Conv. (m3/s)		76.1	
Length Wtd. (m)	34.84	Wetted Per. (m)		5.21	
Min Ch El (m)	431.46	Shear (N/m2)		185.70	
Alpha	1.00	Stream Power (N/m s)		719.91	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.74	2.39	0.85
C & E Loss (m)	0.00	Cum SA (1000 m2)	2.51	2.35	1.71

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 14 Profile: TR 500

E.G. Elev (m)	433.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.70	Wt. n-Val.		0.033	
W.S. Elev (m)	432.59	Reach Len. (m)	35.19	34.82	34.64
Crit W.S. (m)	432.80	Flow Area (m2)		3.90	
E.G. Slope (m/m)	0.022874	Area (m2)	1.63	3.90	
Q Total (m3/s)	14.48	Flow (m3/s)		14.48	
Top Width (m)	10.66	Top Width (m)	5.99	4.67	
Vel Total (m/s)	3.71	Avg. Vel. (m/s)		3.71	
Max Chl Dpth (m)	1.13	Hydr. Depth (m)		0.84	
Conv. Total (m3/s)	95.7	Conv. (m3/s)		95.7	
Length Wtd. (m)	34.84	Wetted Per. (m)		5.35	
Min Ch El (m)	431.46	Shear (N/m2)		163.53	
Alpha	1.00	Stream Power (N/m s)		607.06	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.93	2.54	1.02
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.66	2.36	1.76

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 13 Profile: TR 20

E.G. Elev (m)	432.09	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	431.72	Reach Len. (m)	64.59	64.90	64.93
Crit W.S. (m)	431.80	Flow Area (m2)	1.20	3.03	0.02
E.G. Slope (m/m)	0.014793	Area (m2)	1.20	3.03	0.02
Q Total (m3/s)	9.35	Flow (m3/s)	0.79	8.56	0.01
Top Width (m)	10.73	Top Width (m)	6.34	3.94	0.44
Vel Total (m/s)	2.20	Avg. Vel. (m/s)	0.66	2.82	0.28
Max Chl Dpth (m)	1.05	Hydr. Depth (m)	0.19	0.77	0.05
Conv. Total (m3/s)	76.9	Conv. (m3/s)	6.5	70.4	0.1
Length Wtd. (m)	64.87	Wetted Per. (m)	6.46	4.53	0.45
Min Ch El (m)	430.67	Shear (N/m2)	26.91	97.16	7.31
Alpha	1.51	Stream Power (N/m s)	17.74	274.14	2.02
Frctn Loss (m)	0.83	Cum Volume (1000 m3)	0.42	1.88	0.49
C & E Loss (m)	0.12	Cum SA (1000 m2)	1.76	2.18	1.30

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 13 Profile: TR 100

E.G. Elev (m)	432.26	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	431.77	Reach Len. (m)	64.59	64.90	64.93
Crit W.S. (m)	431.91	Flow Area (m2)	1.53	3.24	0.05
E.G. Slope (m/m)	0.018268	Area (m2)	1.53	3.24	0.05
Q Total (m3/s)	11.93	Flow (m3/s)	1.31	10.60	0.02
Top Width (m)	10.95	Top Width (m)	6.34	3.94	0.66
Vel Total (m/s)	2.48	Avg. Vel. (m/s)	0.86	3.27	0.40
Max Chl Dpth (m)	1.10	Hydr. Depth (m)	0.24	0.82	0.08
Conv. Total (m3/s)	88.2	Conv. (m3/s)	9.7	78.4	0.2
Length Wtd. (m)	64.88	Wetted Per. (m)	6.51	4.53	0.68
Min Ch El (m)	430.67	Shear (N/m2)	42.00	128.06	13.54
Alpha	1.57	Stream Power (N/m s)	35.97	419.32	5.45
Frctn Loss (m)	0.84	Cum Volume (1000 m3)	0.62	2.17	0.75
C & E Loss (m)	0.09	Cum SA (1000 m2)	2.19	2.20	1.64

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 13 Profile: TR 200

E.G. Elev (m)	432.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.55	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	431.78	Reach Len. (m)	64.59	64.90	64.93
Crit W.S. (m)	431.94	Flow Area (m2)	1.61	3.29	0.06
E.G. Slope (m/m)	0.020314	Area (m2)	1.61	3.29	0.06
Q Total (m3/s)	13.03	Flow (m3/s)	1.51	11.49	0.03
Top Width (m)	11.01	Top Width (m)	6.34	3.94	0.72
Vel Total (m/s)	2.62	Avg. Vel. (m/s)	0.94	3.49	0.45
Max Chl Dpth (m)	1.11	Hydr. Depth (m)	0.25	0.83	0.08
Conv. Total (m3/s)	91.4	Conv. (m3/s)	10.6	80.6	0.2
Length Wtd. (m)	64.86	Wetted Per. (m)	6.52	4.53	0.74
Min Ch El (m)	430.67	Shear (N/m2)	49.28	144.81	16.40
Alpha	1.58	Stream Power (N/m s)	46.14	505.62	7.37
Frctn Loss (m)	0.84	Cum Volume (1000 m3)	0.70	2.27	0.85
C & E Loss (m)	0.06	Cum SA (1000 m2)	2.30	2.20	1.69

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 13 Profile: TR 500

E.G. Elev (m)	432.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.67	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	431.79	Reach Len. (m)	64.59	64.90	64.93
Crit W.S. (m)	431.99	Flow Area (m2)	1.65	3.31	0.06
E.G. Slope (m/m)	0.024450	Area (m2)	1.65	3.31	0.06
Q Total (m3/s)	14.48	Flow (m3/s)	1.71	12.73	0.03

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 13 Profile: TR 500 (Continued)

Top Width (m)	11.03	Top Width (m)	6.34	3.94	0.74
Vel Total (m/s)	2.88	Avg. Vel. (m/s)	1.04	3.85	0.50
Max Chl Dpth (m)	1.12	Hydr. Depth (m)	0.26	0.84	0.09
Conv. Total (m3/s)	92.6	Conv. (m3/s)	10.9	81.4	0.2
Length Wtd. (m)		Wetted Per. (m)	6.53	4.53	0.76
Min Ch El (m)	430.67	Shear (N/m2)	60.44	175.33	20.32
Alpha	1.58	Stream Power (N/m s)	62.85	674.30	10.21
Frctn Loss (m)	0.82	Cum Volume (1000 m3)	0.87	2.41	1.02
C & E Loss (m)	0.01	Cum SA (1000 m2)	2.44	2.21	1.74

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 12 Profile: TR 20

E.G. Elev (m)	431.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	430.77	Reach Len. (m)	51.19	50.10	49.60
Crit W.S. (m)	430.83	Flow Area (m2)	1.18	2.93	
E.G. Slope (m/m)	0.014407	Area (m2)	1.18	2.93	
Q Total (m3/s)	9.35	Flow (m3/s)	1.01	8.34	
Top Width (m)	7.70	Top Width (m)	4.05	3.65	
Vel Total (m/s)	2.27	Avg. Vel. (m/s)	0.86	2.84	
Max Chl Dpth (m)	1.13	Hydr. Depth (m)	0.29	0.80	
Conv. Total (m3/s)	77.9	Conv. (m3/s)	8.4	69.5	
Length Wtd. (m)	50.15	Wetted Per. (m)	4.22	4.24	
Min Ch El (m)	429.65	Shear (N/m2)	39.58	97.69	
Alpha	1.41	Stream Power (N/m s)	33.91	277.84	
Frctn Loss (m)	0.95	Cum Volume (1000 m3)	0.35	1.69	0.49
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.42	1.93	1.28

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 12 Profile: TR 100

E.G. Elev (m)	431.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	430.94	Reach Len. (m)	51.19	50.10	49.60
Crit W.S. (m)	430.95	Flow Area (m2)	1.87	3.55	
E.G. Slope (m/m)	0.011639	Area (m2)	1.87	3.55	
Q Total (m3/s)	11.93	Flow (m3/s)	1.90	10.03	
Top Width (m)	7.70	Top Width (m)	4.05	3.65	
Vel Total (m/s)	2.20	Avg. Vel. (m/s)	1.02	2.83	
Max Chl Dpth (m)	1.30	Hydr. Depth (m)	0.46	0.97	
Conv. Total (m3/s)	110.6	Conv. (m3/s)	17.6	93.0	
Length Wtd. (m)	50.18	Wetted Per. (m)	4.39	4.41	
Min Ch El (m)	429.65	Shear (N/m2)	48.51	91.81	
Alpha	1.42	Stream Power (N/m s)	49.31	259.63	
Frctn Loss (m)	2.35	Cum Volume (1000 m3)	0.51	1.95	0.75
C & E Loss (m)	0.14	Cum SA (1000 m2)	1.86	1.95	1.62

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 12 Profile: TR 200

E.G. Elev (m)	431.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	430.93	Reach Len. (m)	51.19	50.10	49.60
Crit W.S. (m)	430.99	Flow Area (m2)	1.82	3.51	
E.G. Slope (m/m)	0.014452	Area (m2)	1.82	3.51	
Q Total (m3/s)	13.03	Flow (m3/s)	2.04	10.99	
Top Width (m)	7.70	Top Width (m)	4.05	3.65	
Vel Total (m/s)	2.44	Avg. Vel. (m/s)	1.12	3.13	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)	0.45	0.96	
Conv. Total (m3/s)	108.4	Conv. (m3/s)	16.9	91.5	
Length Wtd. (m)	50.19	Wetted Per. (m)	4.38	4.40	
Min Ch El (m)	429.65	Shear (N/m2)	59.01	113.05	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 12 Profile: TR 200 (Continued)

Alpha	1.42	Stream Power (N/m s)	65.92	354.20	
Frctn Loss (m)	0.98	Cum Volume (1000 m3)	0.59	2.05	0.85
C & E Loss (m)	0.06	Cum SA (1000 m2)	1.96	1.96	1.67

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 12 Profile: TR 500

E.G. Elev (m)	431.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	431.05	Reach Len. (m)	51.19	50.10	49.60
Crit W.S. (m)	431.05	Flow Area (m2)	2.30	3.93	
E.G. Slope (m/m)	0.011822	Area (m2)	2.30	3.93	
Q Total (m3/s)	14.48	Flow (m3/s)	2.66	11.82	
Top Width (m)	7.70	Top Width (m)	4.05	3.65	
Vel Total (m/s)	2.32	Avg. Vel. (m/s)	1.16	3.01	
Max Chl Dpth (m)	1.40	Hydr. Depth (m)	0.57	1.08	
Conv. Total (m3/s)	133.2	Conv. (m3/s)	24.4	108.7	
Length Wtd. (m)	50.20	Wetted Per. (m)	4.50	4.52	
Min Ch El (m)	429.65	Shear (N/m2)	59.18	100.99	
Alpha	1.41	Stream Power (N/m s)	68.51	303.50	
Frctn Loss (m)	0.52	Cum Volume (1000 m3)	0.74	2.18	1.02
C & E Loss (m)	0.03	Cum SA (1000 m2)	2.11	1.96	1.72

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 11 Profile: TR 20

E.G. Elev (m)	430.22	Element	Left OB	Channel	Right OB
Vel Head (m)	0.54	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	429.67	Reach Len. (m)	40.85	40.80	40.75
Crit W.S. (m)	429.87	Flow Area (m2)	0.45	2.39	0.96
E.G. Slope (m/m)	0.023514	Area (m2)	0.45	2.39	0.96
Q Total (m3/s)	9.35	Flow (m3/s)	0.25	8.27	0.84
Top Width (m)	12.25	Top Width (m)	4.38	3.22	4.65
Vel Total (m/s)	2.46	Avg. Vel. (m/s)	0.56	3.45	0.87
Max Chl Dpth (m)	0.98	Hydr. Depth (m)	0.10	0.74	0.21
Conv. Total (m3/s)	61.0	Conv. (m3/s)	1.6	53.9	5.5
Length Wtd. (m)	40.80	Wetted Per. (m)	4.39	3.73	4.85
Min Ch El (m)	428.70	Shear (N/m2)	23.62	147.84	45.75
Alpha	1.76	Stream Power (N/m s)	13.22	510.77	39.77
Frctn Loss (m)	0.91	Cum Volume (1000 m3)	0.30	1.55	0.47
C & E Loss (m)	0.02	Cum SA (1000 m2)	1.21	1.76	1.17

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 11 Profile: TR 100

E.G. Elev (m)	430.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.67	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	429.73	Reach Len. (m)	40.85	40.80	40.75
Crit W.S. (m)	429.95	Flow Area (m2)	0.72	2.57	1.22
E.G. Slope (m/m)	0.027620	Area (m2)	0.72	2.57	1.22
Q Total (m3/s)	11.93	Flow (m3/s)	0.51	10.08	1.33
Top Width (m)	13.42	Top Width (m)	5.55	3.22	4.65
Vel Total (m/s)	2.65	Avg. Vel. (m/s)	0.71	3.93	1.09
Max Chl Dpth (m)	1.03	Hydr. Depth (m)	0.13	0.80	0.26
Conv. Total (m3/s)	71.8	Conv. (m3/s)	3.1	60.7	8.0
Length Wtd. (m)	40.80	Wetted Per. (m)	5.56	3.73	4.90
Min Ch El (m)	428.70	Shear (N/m2)	35.15	186.43	67.22
Alpha	1.88	Stream Power (N/m s)	24.96	731.95	73.53
Frctn Loss (m)	0.86	Cum Volume (1000 m3)	0.44	1.80	0.72
C & E Loss (m)	0.03	Cum SA (1000 m2)	1.61	1.78	1.50

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 11 Profile: TR 200

E.G. Elev (m)	430.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.63	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	429.78	Reach Len. (m)	40.85	40.80	40.75
Crit W.S. (m)	429.98	Flow Area (m2)	1.03	2.73	1.45
E.G. Slope (m/m)	0.024816	Area (m2)	1.03	2.73	1.45
Q Total (m3/s)	13.03	Flow (m3/s)	0.78	10.58	1.68
Top Width (m)	14.49	Top Width (m)	6.62	3.22	4.65
Vel Total (m/s)	2.50	Avg. Vel. (m/s)	0.76	3.88	1.16
Max Chl Dpth (m)	1.08	Hydr. Depth (m)	0.15	0.85	0.31
Conv. Total (m3/s)	82.7	Conv. (m3/s)	4.9	67.1	10.6
Length Wtd. (m)	40.80	Wetted Per. (m)	6.63	3.73	4.95
Min Ch El (m)	428.70	Shear (N/m2)	37.67	178.00	71.23
Alpha	1.98	Stream Power (N/m s)	28.51	689.80	82.44
Frctn Loss (m)	0.93	Cum Volume (1000 m3)	0.52	1.90	0.81
C & E Loss (m)	0.02	Cum SA (1000 m2)	1.69	1.79	1.56

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 11 Profile: TR 500

E.G. Elev (m)	430.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.73	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	429.79	Reach Len. (m)	40.85	40.80	40.75
Crit W.S. (m)	430.02	Flow Area (m2)	1.12	2.77	1.51
E.G. Slope (m/m)	0.028379	Area (m2)	1.12	2.77	1.51
Q Total (m3/s)	14.48	Flow (m3/s)	0.93	11.62	1.93
Top Width (m)	14.79	Top Width (m)	6.92	3.22	4.65
Vel Total (m/s)	2.68	Avg. Vel. (m/s)	0.83	4.19	1.27
Max Chl Dpth (m)	1.09	Hydr. Depth (m)	0.16	0.86	0.33
Conv. Total (m3/s)	85.9	Conv. (m3/s)	5.5	69.0	11.4
Length Wtd. (m)	40.80	Wetted Per. (m)	6.92	3.73	4.97
Min Ch El (m)	428.70	Shear (N/m2)	45.00	206.87	84.84
Alpha	2.00	Stream Power (N/m s)	37.50	866.61	107.90
Frctn Loss (m)	0.88	Cum Volume (1000 m3)	0.65	2.01	0.98
C & E Loss (m)	0.03	Cum SA (1000 m2)	1.83	1.79	1.60

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 10 Profile: TR 20

E.G. Elev (m)	429.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.49	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	428.85	Reach Len. (m)	64.95	66.28	66.82
Crit W.S. (m)	429.01	Flow Area (m2)	0.61	2.59	0.84
E.G. Slope (m/m)	0.018899	Area (m2)	0.61	2.59	0.84
Q Total (m3/s)	9.35	Flow (m3/s)	0.28	8.43	0.64
Top Width (m)	13.98	Top Width (m)	6.77	2.89	4.32
Vel Total (m/s)	2.32	Avg. Vel. (m/s)	0.46	3.26	0.76
Max Chl Dpth (m)	1.07	Hydr. Depth (m)	0.09	0.89	0.19
Conv. Total (m3/s)	68.0	Conv. (m3/s)	2.0	61.4	4.7
Length Wtd. (m)	66.13	Wetted Per. (m)	6.78	3.73	4.41
Min Ch El (m)	427.78	Shear (N/m2)	16.63	128.42	35.40
Alpha	1.79	Stream Power (N/m s)	7.63	418.91	26.90
Frctn Loss (m)	0.86	Cum Volume (1000 m3)	0.28	1.45	0.43
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.98	1.63	0.98

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 10 Profile: TR 100

E.G. Elev (m)	429.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.50	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	428.95	Reach Len. (m)	64.95	66.28	66.82
Crit W.S. (m)	429.10	Flow Area (m2)	1.26	2.86	1.26
E.G. Slope (m/m)	0.018170	Area (m2)	1.26	2.86	1.26
Q Total (m3/s)	11.93	Flow (m3/s)	0.91	9.81	1.21

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 10 Profile: TR 100 (Continued)

Top Width (m)	13.98	Top Width (m)	6.77	2.89	4.32
Vel Total (m/s)	2.22	Avg. Vel. (m/s)	0.73	3.42	0.96
Max Chl Dpth (m)	1.17	Hydr. Depth (m)	0.19	0.99	0.29
Conv. Total (m3/s)	88.5	Conv. (m3/s)	6.8	72.8	9.0
Length Wtd. (m)	66.10	Wetted Per. (m)	6.87	3.73	4.50
Min Ch El (m)	427.78	Shear (N/m2)	32.67	136.76	49.76
Alpha	1.99	Stream Power (N/m s)	23.69	468.28	47.77
Frctn Loss (m)	0.90	Cum Volume (1000 m3)	0.40	1.69	0.67
C & E Loss (m)	0.05	Cum SA (1000 m2)	1.36	1.66	1.32

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 10 Profile: TR 200

E.G. Elev (m)	429.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.53	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	428.97	Reach Len. (m)	64.95	66.28	66.82
Crit W.S. (m)	429.13	Flow Area (m2)	1.42	2.93	1.36
E.G. Slope (m/m)	0.019235	Area (m2)	1.42	2.93	1.36
Q Total (m3/s)	13.03	Flow (m3/s)	1.14	10.49	1.41
Top Width (m)	13.98	Top Width (m)	6.77	2.89	4.32
Vel Total (m/s)	2.28	Avg. Vel. (m/s)	0.80	3.58	1.04
Max Chl Dpth (m)	1.19	Hydr. Depth (m)	0.21	1.01	0.31
Conv. Total (m3/s)	94.0	Conv. (m3/s)	8.2	75.6	10.1
Length Wtd. (m)	66.09	Wetted Per. (m)	6.90	3.73	4.52
Min Ch El (m)	427.78	Shear (N/m2)	38.75	148.15	56.57
Alpha	2.01	Stream Power (N/m s)	31.19	530.05	58.59
Frctn Loss (m)	0.88	Cum Volume (1000 m3)	0.47	1.78	0.76
C & E Loss (m)	0.03	Cum SA (1000 m2)	1.41	1.66	1.37

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 10 Profile: TR 500

E.G. Elev (m)	429.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.52	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	429.02	Reach Len. (m)	64.95	66.28	66.82
Crit W.S. (m)	429.18	Flow Area (m2)	1.77	3.08	1.59
E.G. Slope (m/m)	0.018237	Area (m2)	1.77	3.08	1.59
Q Total (m3/s)	14.48	Flow (m3/s)	1.61	11.11	1.76
Top Width (m)	13.98	Top Width (m)	6.77	2.89	4.32
Vel Total (m/s)	2.25	Avg. Vel. (m/s)	0.91	3.60	1.11
Max Chl Dpth (m)	1.25	Hydr. Depth (m)	0.26	1.07	0.37
Conv. Total (m3/s)	107.2	Conv. (m3/s)	11.9	82.3	13.0
Length Wtd. (m)	66.08	Wetted Per. (m)	6.95	3.73	4.58
Min Ch El (m)	427.78	Shear (N/m2)	45.67	147.78	61.93
Alpha	2.02	Stream Power (N/m s)	41.37	532.55	68.73
Frctn Loss (m)	0.92	Cum Volume (1000 m3)	0.60	1.89	0.91
C & E Loss (m)	0.06	Cum SA (1000 m2)	1.55	1.66	1.42

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 9 Profile: TR 20

E.G. Elev (m)	428.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	427.79	Reach Len. (m)	43.68	44.09	44.46
Crit W.S. (m)	427.79	Flow Area (m2)	2.05	2.29	1.44
E.G. Slope (m/m)	0.011075	Area (m2)	2.05	2.29	1.44
Q Total (m3/s)	9.35	Flow (m3/s)	2.09	6.08	1.19
Top Width (m)	10.78	Top Width (m)	4.38	2.42	3.98
Vel Total (m/s)	1.62	Avg. Vel. (m/s)	1.02	2.66	0.83
Max Chl Dpth (m)	1.16	Hydr. Depth (m)	0.47	0.94	0.36
Conv. Total (m3/s)	88.9	Conv. (m3/s)	19.8	57.8	11.3
Length Wtd. (m)	44.06	Wetted Per. (m)	4.65	3.00	4.45
Min Ch El (m)	426.63	Shear (N/m2)	47.92	82.69	35.09

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 9 Profile: TR 20 (Continued)

Alpha	1.87	Stream Power (N/m s)	48.71	219.90	28.98
Frctn Loss (m)	0.47	Cum Volume (1000 m3)	0.20	1.29	0.36
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.62	1.46	0.71

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 9 Profile: TR 100

E.G. Elev (m)	428.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	427.93	Reach Len. (m)	43.68	44.09	44.46
Crit W.S. (m)	427.88	Flow Area (m2)	2.66	2.62	1.99
E.G. Slope (m/m)	0.009632	Area (m2)	2.66	2.62	1.99
Q Total (m3/s)	11.93	Flow (m3/s)	2.94	7.12	1.86
Top Width (m)	10.78	Top Width (m)	4.38	2.42	3.98
Vel Total (m/s)	1.64	Avg. Vel. (m/s)	1.10	2.72	0.94
Max Chl Dpth (m)	1.30	Hydr. Depth (m)	0.61	1.08	0.50
Conv. Total (m3/s)	121.5	Conv. (m3/s)	29.9	72.6	19.0
Length Wtd. (m)	44.06	Wetted Per. (m)	4.79	3.00	4.59
Min Ch El (m)	426.63	Shear (N/m2)	52.42	82.49	40.96
Alpha	1.80	Stream Power (N/m s)	57.91	224.13	38.39
Frctn Loss (m)	0.44	Cum Volume (1000 m3)	0.28	1.51	0.56
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.00	1.48	1.04

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 9 Profile: TR 200

E.G. Elev (m)	428.23	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	427.99	Reach Len. (m)	43.68	44.09	44.46
Crit W.S. (m)	427.92	Flow Area (m2)	2.91	2.76	2.22
E.G. Slope (m/m)	0.009171	Area (m2)	2.91	2.76	2.22
Q Total (m3/s)	13.03	Flow (m3/s)	3.30	7.57	2.16
Top Width (m)	10.78	Top Width (m)	4.38	2.42	3.98
Vel Total (m/s)	1.65	Avg. Vel. (m/s)	1.14	2.74	0.97
Max Chl Dpth (m)	1.36	Hydr. Depth (m)	0.66	1.14	0.56
Conv. Total (m3/s)	136.1	Conv. (m3/s)	34.5	79.1	22.5
Length Wtd. (m)	44.06	Wetted Per. (m)	4.85	3.00	4.64
Min Ch El (m)	426.63	Shear (N/m2)	53.94	82.66	42.91
Alpha	1.78	Stream Power (N/m s)	61.23	226.78	41.81
Frctn Loss (m)	0.43	Cum Volume (1000 m3)	0.32	1.59	0.64
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.05	1.49	1.10

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 9 Profile: TR 500

E.G. Elev (m)	428.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.25	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	428.06	Reach Len. (m)	43.68	44.09	44.46
Crit W.S. (m)	427.96	Flow Area (m2)	3.23	2.94	2.51
E.G. Slope (m/m)	0.008647	Area (m2)	3.23	2.94	2.51
Q Total (m3/s)	14.48	Flow (m3/s)	3.78	8.15	2.55
Top Width (m)	10.78	Top Width (m)	4.38	2.42	3.98
Vel Total (m/s)	1.67	Avg. Vel. (m/s)	1.17	2.78	1.02
Max Chl Dpth (m)	1.43	Hydr. Depth (m)	0.74	1.21	0.63
Conv. Total (m3/s)	155.7	Conv. (m3/s)	40.6	87.7	27.4
Length Wtd. (m)	44.06	Wetted Per. (m)	4.92	3.00	4.72
Min Ch El (m)	426.63	Shear (N/m2)	55.61	82.94	45.06
Alpha	1.75	Stream Power (N/m s)	65.06	230.28	45.81
Frctn Loss (m)	0.42	Cum Volume (1000 m3)	0.43	1.69	0.78
C & E Loss (m)	0.01	Cum SA (1000 m2)	1.18	1.49	1.14

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 8 Profile: TR 20

E.G. Elev (m)	427.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.30	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	427.27	Reach Len. (m)	55.94	55.69	55.69
Crit W.S. (m)	427.27	Flow Area (m2)	1.17	2.89	0.92
E.G. Slope (m/m)	0.010124	Area (m2)	1.17	2.89	0.92
Q Total (m3/s)	9.35	Flow (m3/s)	0.89	7.68	0.78
Top Width (m)	8.67	Top Width (m)	3.50	3.00	2.17
Vel Total (m/s)	1.88	Avg. Vel. (m/s)	0.77	2.66	0.85
Max Chl Dpth (m)	1.20	Hydr. Depth (m)	0.33	0.96	0.42
Conv. Total (m3/s)	93.0	Conv. (m3/s)	8.9	76.4	7.7
Length Wtd. (m)	55.70	Wetted Per. (m)	3.78	3.55	2.54
Min Ch El (m)	426.06	Shear (N/m2)	30.64	80.81	35.77
Alpha	1.67	Stream Power (N/m s)	23.47	214.82	30.37
Frctn Loss (m)		Cum Volume (1000 m3)	0.13	1.18	0.30
C & E Loss (m)		Cum SA (1000 m2)	0.44	1.34	0.57

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 8 Profile: TR 100

E.G. Elev (m)	427.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	427.38	Reach Len. (m)	55.94	55.69	55.69
Crit W.S. (m)	427.38	Flow Area (m2)	1.56	3.23	1.16
E.G. Slope (m/m)	0.010393	Area (m2)	1.56	3.23	1.16
Q Total (m3/s)	11.93	Flow (m3/s)	1.44	9.35	1.13
Top Width (m)	8.67	Top Width (m)	3.50	3.00	2.17
Vel Total (m/s)	2.01	Avg. Vel. (m/s)	0.92	2.90	0.98
Max Chl Dpth (m)	1.32	Hydr. Depth (m)	0.45	1.08	0.53
Conv. Total (m3/s)	117.0	Conv. (m3/s)	14.1	91.8	11.1
Length Wtd. (m)	55.71	Wetted Per. (m)	3.89	3.55	2.65
Min Ch El (m)	426.06	Shear (N/m2)	40.83	92.63	44.53
Alpha	1.69	Stream Power (N/m s)	37.71	268.49	43.56
Frctn Loss (m)	0.58	Cum Volume (1000 m3)	0.18	1.38	0.49
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.83	1.36	0.90

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 8 Profile: TR 200

E.G. Elev (m)	427.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	427.42	Reach Len. (m)	55.94	55.69	55.69
Crit W.S. (m)	427.42	Flow Area (m2)	1.71	3.36	1.25
E.G. Slope (m/m)	0.010555	Area (m2)	1.71	3.36	1.25
Q Total (m3/s)	13.03	Flow (m3/s)	1.68	10.06	1.29
Top Width (m)	8.67	Top Width (m)	3.50	3.00	2.17
Vel Total (m/s)	2.06	Avg. Vel. (m/s)	0.98	3.00	1.03
Max Chl Dpth (m)	1.36	Hydr. Depth (m)	0.49	1.12	0.58
Conv. Total (m3/s)	126.8	Conv. (m3/s)	16.3	98.0	12.5
Length Wtd. (m)	55.71	Wetted Per. (m)	3.93	3.55	2.70
Min Ch El (m)	426.06	Shear (N/m2)	44.99	97.85	48.09
Alpha	1.69	Stream Power (N/m s)	44.20	293.41	49.40
Frctn Loss (m)	0.58	Cum Volume (1000 m3)	0.22	1.46	0.56
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.88	1.37	0.96

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 8 Profile: TR 500

E.G. Elev (m)	427.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.39	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	427.48	Reach Len. (m)	55.94	55.69	55.69
Crit W.S. (m)	427.48	Flow Area (m2)	1.89	3.51	1.37
E.G. Slope (m/m)	0.010815	Area (m2)	1.89	3.51	1.37
Q Total (m3/s)	14.48	Flow (m3/s)	2.00	11.00	1.49

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 8 Profile: TR 500 (Continued)

Top Width (m)	8.67	Top Width (m)	3.50	3.00	2.17
Vel Total (m/s)	2.14	Avg. Vel. (m/s)	1.05	3.13	1.09
Max Chl Dpth (m)	1.41	Hydr. Depth (m)	0.54	1.17	0.63
Conv. Total (m3/s)	139.2	Conv. (m3/s)	19.2	105.7	14.3
Length Wtd. (m)	55.71	Wetted Per. (m)	3.99	3.55	2.75
Min Ch El (m)	426.06	Shear (N/m2)	50.36	104.95	52.72
Alpha	1.69	Stream Power (N/m s)	53.13	328.42	57.35
Frctn Loss (m)	0.59	Cum Volume (1000 m3)	0.32	1.55	0.69
C & E Loss (m)	0.00	Cum SA (1000 m2)	1.01	1.37	1.01

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 7 Profile: TR 20

E.G. Elev (m)	426.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.57	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	426.16	Reach Len. (m)	116.90	116.40	115.74
Crit W.S. (m)	426.32	Flow Area (m2)		2.35	0.86
E.G. Slope (m/m)	0.022494	Area (m2)		2.35	0.86
Q Total (m3/s)	9.35	Flow (m3/s)		8.27	1.08
Top Width (m)	5.24	Top Width (m)		2.97	2.27
Vel Total (m/s)	2.92	Avg. Vel. (m/s)		3.53	1.25
Max Chl Dpth (m)	1.03	Hydr. Depth (m)		0.79	0.38
Conv. Total (m3/s)	62.4	Conv. (m3/s)		55.2	7.2
Length Wtd. (m)	116.39	Wetted Per. (m)		3.43	2.43
Min Ch El (m)	425.13	Shear (N/m2)		150.80	78.24
Alpha	1.32	Stream Power (N/m s)		531.84	98.00
Frctn Loss (m)	0.81	Cum Volume (1000 m3)	0.09	1.03	0.25
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.35	1.17	0.45

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 7 Profile: TR 100

E.G. Elev (m)	426.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.60	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	426.31	Reach Len. (m)	116.90	116.40	115.74
Crit W.S. (m)	426.48	Flow Area (m2)	0.07	2.80	1.20
E.G. Slope (m/m)	0.020401	Area (m2)	0.07	2.80	1.20
Q Total (m3/s)	11.93	Flow (m3/s)	0.01	10.20	1.71
Top Width (m)	8.58	Top Width (m)	3.21	3.10	2.27
Vel Total (m/s)	2.94	Avg. Vel. (m/s)	0.19	3.65	1.43
Max Chl Dpth (m)	1.18	Hydr. Depth (m)	0.02	0.90	0.53
Conv. Total (m3/s)	83.5	Conv. (m3/s)	0.1	71.4	12.0
Length Wtd. (m)	116.38	Wetted Per. (m)	3.23	3.61	2.58
Min Ch El (m)	425.13	Shear (N/m2)	4.40	154.96	92.96
Alpha	1.36	Stream Power (N/m s)	0.82	565.65	132.76
Frctn Loss (m)	0.79	Cum Volume (1000 m3)	0.14	1.21	0.42
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.64	1.19	0.78

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 7 Profile: TR 200

E.G. Elev (m)	426.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.62	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	426.36	Reach Len. (m)	116.90	116.40	115.74
Crit W.S. (m)	426.53	Flow Area (m2)	0.23	2.95	1.31
E.G. Slope (m/m)	0.019871	Area (m2)	0.23	2.95	1.31
Q Total (m3/s)	13.03	Flow (m3/s)	0.09	11.01	1.93
Top Width (m)	8.58	Top Width (m)	3.21	3.10	2.27
Vel Total (m/s)	2.90	Avg. Vel. (m/s)	0.40	3.73	1.48
Max Chl Dpth (m)	1.23	Hydr. Depth (m)	0.07	0.95	0.58
Conv. Total (m3/s)	92.4	Conv. (m3/s)	0.6	78.1	13.7
Length Wtd. (m)	116.39	Wetted Per. (m)	3.28	3.61	2.63
Min Ch El (m)	425.13	Shear (N/m2)	13.64	159.18	97.17

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 7 Profile: TR 200 (Continued)

Alpha	1.43	Stream Power (N/m s)	5.44	594.20	143.57
Frctn Loss (m)	0.79	Cum Volume (1000 m3)	0.17	1.28	0.49
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.69	1.20	0.83

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 7 Profile: TR 500

E.G. Elev (m)	427.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.64	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	426.42	Reach Len. (m)	116.90	116.40	115.74
Crit W.S. (m)	426.59	Flow Area (m2)	0.43	3.14	1.45
E.G. Slope (m/m)	0.019150	Area (m2)	0.43	3.14	1.45
Q Total (m3/s)	14.48	Flow (m3/s)	0.25	12.01	2.22
Top Width (m)	8.58	Top Width (m)	3.21	3.10	2.27
Vel Total (m/s)	2.88	Avg. Vel. (m/s)	0.59	3.82	1.53
Max Chl Dpth (m)	1.29	Hydr. Depth (m)	0.13	1.01	0.64
Conv. Total (m3/s)	104.6	Conv. (m3/s)	1.8	86.8	16.0
Length Wtd. (m)	116.39	Wetted Per. (m)	3.34	3.61	2.69
Min Ch El (m)	425.13	Shear (N/m2)	24.14	163.44	101.37
Alpha	1.50	Stream Power (N/m s)	14.18	624.78	155.00
Frctn Loss (m)	0.79	Cum Volume (1000 m3)	0.26	1.36	0.61
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.82	1.20	0.88

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 6 Profile: TR 20

E.G. Elev (m)	424.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.34	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	424.40	Reach Len. (m)	37.70	42.10	49.10
Crit W.S. (m)	424.40	Flow Area (m2)	1.10	3.11	
E.G. Slope (m/m)	0.012909	Area (m2)	1.10	3.11	
Q Total (m3/s)	9.35	Flow (m3/s)	0.96	8.39	
Top Width (m)	6.57	Top Width (m)	3.05	3.53	
Vel Total (m/s)	2.22	Avg. Vel. (m/s)	0.88	2.69	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)	0.36	0.88	
Conv. Total (m3/s)	82.3	Conv. (m3/s)	8.5	73.8	
Length Wtd. (m)	41.85	Wetted Per. (m)	3.48	4.50	
Min Ch El (m)	423.30	Shear (N/m2)	39.91	87.65	
Alpha	1.34	Stream Power (N/m s)	35.01	236.18	
Frctn Loss (m)	1.93	Cum Volume (1000 m3)	0.03	0.71	0.20
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.17	0.79	0.31

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 6 Profile: TR 100

E.G. Elev (m)	424.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.40	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	424.50	Reach Len. (m)	37.70	42.10	49.10
Crit W.S. (m)	424.52	Flow Area (m2)	1.42	3.49	
E.G. Slope (m/m)	0.014025	Area (m2)	1.42	3.49	
Q Total (m3/s)	11.93	Flow (m3/s)	1.52	10.41	
Top Width (m)	6.57	Top Width (m)	3.05	3.53	
Vel Total (m/s)	2.43	Avg. Vel. (m/s)	1.07	2.98	
Max Chl Dpth (m)	1.20	Hydr. Depth (m)	0.47	0.99	
Conv. Total (m3/s)	100.7	Conv. (m3/s)	12.8	87.9	
Length Wtd. (m)	41.80	Wetted Per. (m)	3.59	4.60	
Min Ch El (m)	423.30	Shear (N/m2)	54.52	104.25	
Alpha	1.34	Stream Power (N/m s)	58.08	311.03	
Frctn Loss (m)	1.95	Cum Volume (1000 m3)	0.05	0.84	0.36
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.27	0.81	0.65

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 6 Profile: TR 200

E.G. Elev (m)	424.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.43	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	424.55	Reach Len. (m)	37.70	42.10	49.10
Crit W.S. (m)	424.57	Flow Area (m2)	1.56	3.65	
E.G. Slope (m/m)	0.014289	Area (m2)	1.56	3.65	
Q Total (m3/s)	13.03	Flow (m3/s)	1.77	11.26	
Top Width (m)	6.57	Top Width (m)	3.05	3.53	
Vel Total (m/s)	2.50	Avg. Vel. (m/s)	1.13	3.08	
Max Chl Dpth (m)	1.25	Hydr. Depth (m)	0.51	1.04	
Conv. Total (m3/s)	109.0	Conv. (m3/s)	14.8	94.2	
Length Wtd. (m)	41.79	Wetted Per. (m)	3.64	4.65	
Min Ch El (m)	423.30	Shear (N/m2)	60.23	110.04	
Alpha	1.34	Stream Power (N/m s)	68.35	339.28	
Frctn Loss (m)	1.95	Cum Volume (1000 m3)	0.06	0.90	0.41
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.33	0.81	0.70

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 6 Profile: TR 500

E.G. Elev (m)	425.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.46	Wt. n-Val.	0.060	0.033	
W.S. Elev (m)	424.60	Reach Len. (m)	37.70	42.10	49.10
Crit W.S. (m)	424.63	Flow Area (m2)	1.72	3.84	
E.G. Slope (m/m)	0.014823	Area (m2)	1.72	3.84	
Q Total (m3/s)	14.48	Flow (m3/s)	2.11	12.37	
Top Width (m)	6.57	Top Width (m)	3.05	3.53	
Vel Total (m/s)	2.60	Avg. Vel. (m/s)	1.22	3.22	
Max Chl Dpth (m)	1.30	Hydr. Depth (m)	0.57	1.09	
Conv. Total (m3/s)	118.9	Conv. (m3/s)	17.3	101.6	
Length Wtd. (m)	41.79	Wetted Per. (m)	3.69	4.70	
Min Ch El (m)	423.30	Shear (N/m2)	67.97	118.66	
Alpha	1.34	Stream Power (N/m s)	83.09	382.37	
Frctn Loss (m)	1.94	Cum Volume (1000 m3)	0.13	0.96	0.53
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.46	0.81	0.75

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 5 Profile: TR 20

E.G. Elev (m)	423.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.90	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	422.83	Reach Len. (m)	84.04	80.96	78.88
Crit W.S. (m)	423.13	Flow Area (m2)	0.14	2.19	0.02
E.G. Slope (m/m)	0.049651	Area (m2)	0.14	2.19	0.02
Q Total (m3/s)	9.35	Flow (m3/s)	0.10	9.25	0.01
Top Width (m)	6.95	Top Width (m)	1.77	4.15	1.03
Vel Total (m/s)	3.97	Avg. Vel. (m/s)	0.69	4.22	0.27
Max Chl Dpth (m)	0.78	Hydr. Depth (m)	0.08	0.53	0.02
Conv. Total (m3/s)	42.0	Conv. (m3/s)	0.4	41.5	0.0
Length Wtd. (m)	80.71	Wetted Per. (m)	1.78	4.43	1.03
Min Ch El (m)	422.04	Shear (N/m2)	38.93	240.62	9.40
Alpha	1.12	Stream Power (N/m s)	26.84	1015.54	2.51
Frctn Loss (m)	0.95	Cum Volume (1000 m3)	0.01	0.60	0.20
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.08	0.63	0.29

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 5 Profile: TR 100

E.G. Elev (m)	423.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.97	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	422.92	Reach Len. (m)	84.04	80.96	78.88
Crit W.S. (m)	423.22	Flow Area (m2)	0.36	2.58	0.23
E.G. Slope (m/m)	0.044376	Area (m2)	0.36	2.58	0.23
Q Total (m3/s)	11.93	Flow (m3/s)	0.32	11.48	0.13

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 5 Profile: TR 100 (Continued)

Top Width (m)	10.47	Top Width (m)	2.80	4.15	3.52
Vel Total (m/s)	3.76	Avg. Vel. (m/s)	0.89	4.45	0.57
Max Chl Dpth (m)	0.88	Hydr. Depth (m)	0.13	0.62	0.07
Conv. Total (m3/s)	56.6	Conv. (m3/s)	1.5	54.5	0.6
Length Wtd. (m)	80.68	Wetted Per. (m)	2.81	4.43	3.52
Min Ch El (m)	422.04	Shear (N/m2)	55.09	253.18	28.77
Alpha	1.35	Stream Power (N/m s)	48.77	1126.32	16.51
Frctn Loss (m)	0.96	Cum Volume (1000 m3)	0.02	0.72	0.35
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.16	0.65	0.56

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 5 Profile: TR 200

E.G. Elev (m)	423.96	Element	Left OB	Channel	Right OB
Vel Head (m)	1.01	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	422.95	Reach Len. (m)	84.04	80.96	78.88
Crit W.S. (m)	423.25	Flow Area (m2)	0.45	2.71	0.36
E.G. Slope (m/m)	0.043620	Area (m2)	0.45	2.71	0.36
Q Total (m3/s)	13.03	Flow (m3/s)	0.43	12.37	0.24
Top Width (m)	11.67	Top Width (m)	3.15	4.15	4.37
Vel Total (m/s)	3.70	Avg. Vel. (m/s)	0.95	4.56	0.66
Max Chl Dpth (m)	0.91	Hydr. Depth (m)	0.14	0.65	0.08
Conv. Total (m3/s)	62.4	Conv. (m3/s)	2.1	59.2	1.1
Length Wtd. (m)	80.67	Wetted Per. (m)	3.17	4.43	4.37
Min Ch El (m)	422.04	Shear (N/m2)	60.94	261.61	35.09
Alpha	1.44	Stream Power (N/m s)	57.86	1192.94	23.06
Frctn Loss (m)	0.96	Cum Volume (1000 m3)	0.03	0.76	0.40
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.21	0.65	0.60

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 5 Profile: TR 500

E.G. Elev (m)	424.03	Element	Left OB	Channel	Right OB
Vel Head (m)	1.04	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	422.99	Reach Len. (m)	84.04	80.96	78.88
Crit W.S. (m)	423.30	Flow Area (m2)	0.58	2.88	0.54
E.G. Slope (m/m)	0.042377	Area (m2)	0.58	2.88	0.54
Q Total (m3/s)	14.48	Flow (m3/s)	0.60	13.44	0.44
Top Width (m)	12.52	Top Width (m)	3.59	4.15	4.78
Vel Total (m/s)	3.61	Avg. Vel. (m/s)	1.02	4.67	0.80
Max Chl Dpth (m)	0.95	Hydr. Depth (m)	0.16	0.69	0.11
Conv. Total (m3/s)	70.3	Conv. (m3/s)	2.9	65.3	2.1
Length Wtd. (m)	80.67	Wetted Per. (m)	3.61	4.43	4.81
Min Ch El (m)	422.04	Shear (N/m2)	67.39	269.54	47.04
Alpha	1.56	Stream Power (N/m s)	68.76	1259.87	37.76
Frctn Loss (m)	0.98	Cum Volume (1000 m3)	0.09	0.81	0.52
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.33	0.65	0.63

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 4 Profile: TR 20

E.G. Elev (m)	422.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	422.66	Reach Len. (m)	36.88	36.59	36.59
Crit W.S. (m)	422.35	Flow Area (m2)		5.12	3.53
E.G. Slope (m/m)	0.004685	Area (m2)		5.12	3.53
Q Total (m3/s)	13.90	Flow (m3/s)		10.72	3.18
Top Width (m)	8.15	Top Width (m)		3.83	4.31
Vel Total (m/s)	1.61	Avg. Vel. (m/s)		2.09	0.90
Max Chl Dpth (m)	1.59	Hydr. Depth (m)		1.34	0.82
Conv. Total (m3/s)	203.1	Conv. (m3/s)		156.6	46.5
Length Wtd. (m)	36.59	Wetted Per. (m)		5.06	5.01
Min Ch El (m)	421.07	Shear (N/m2)		46.56	32.31

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 4 Profile: TR 20 (Continued)

Alpha	1.38	Stream Power (N/m s)		97.42	29.14
Frctn Loss (m)	0.27	Cum Volume (1000 m3)	0.00	0.31	0.06
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.00	0.31	0.08

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 4 Profile: TR 100

E.G. Elev (m)	423.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	422.93	Reach Len. (m)	36.88	36.59	36.59
Crit W.S. (m)	422.48	Flow Area (m2)		6.16	4.69
E.G. Slope (m/m)	0.004071	Area (m2)		6.16	4.69
Q Total (m3/s)	17.73	Flow (m3/s)		13.13	4.60
Top Width (m)	8.21	Top Width (m)		3.90	4.31
Vel Total (m/s)	1.63	Avg. Vel. (m/s)		2.13	0.98
Max Chl Dpth (m)	1.86	Hydr. Depth (m)		1.58	1.09
Conv. Total (m3/s)	277.8	Conv. (m3/s)		205.7	72.1
Length Wtd. (m)	36.59	Wetted Per. (m)		5.33	5.28
Min Ch El (m)	421.07	Shear (N/m2)		46.14	35.41
Alpha	1.35	Stream Power (N/m s)		98.25	34.77
Frctn Loss (m)	0.24	Cum Volume (1000 m3)	0.00	0.36	0.16
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.05	0.32	0.25

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 4 Profile: TR 200

E.G. Elev (m)	423.22	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	423.04	Reach Len. (m)	36.88	36.59	36.59
Crit W.S. (m)	422.54	Flow Area (m2)		6.59	5.16
E.G. Slope (m/m)	0.003889	Area (m2)		6.59	5.16
Q Total (m3/s)	19.36	Flow (m3/s)		14.15	5.21
Top Width (m)	8.24	Top Width (m)		3.93	4.31
Vel Total (m/s)	1.65	Avg. Vel. (m/s)		2.15	1.01
Max Chl Dpth (m)	1.97	Hydr. Depth (m)		1.68	1.20
Conv. Total (m3/s)	310.4	Conv. (m3/s)		226.9	83.5
Length Wtd. (m)	36.59	Wetted Per. (m)		5.45	5.39
Min Ch El (m)	421.07	Shear (N/m2)		46.16	36.48
Alpha	1.34	Stream Power (N/m s)		99.09	36.81
Frctn Loss (m)	0.22	Cum Volume (1000 m3)	0.01	0.39	0.19
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.08	0.32	0.25

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 4 Profile: TR 500

E.G. Elev (m)	423.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	423.00	Reach Len. (m)	36.88	36.59	36.59
Crit W.S. (m)	422.61	Flow Area (m2)		6.43	4.98
E.G. Slope (m/m)	0.005210	Area (m2)		6.43	4.98
Q Total (m3/s)	21.52	Flow (m3/s)		15.80	5.71
Top Width (m)	8.23	Top Width (m)		3.92	4.31
Vel Total (m/s)	1.88	Avg. Vel. (m/s)		2.46	1.15
Max Chl Dpth (m)	1.92	Hydr. Depth (m)		1.64	1.16
Conv. Total (m3/s)	298.1	Conv. (m3/s)		218.9	79.2
Length Wtd. (m)	36.60	Wetted Per. (m)		5.40	5.35
Min Ch El (m)	421.07	Shear (N/m2)		60.81	47.57
Alpha	1.35	Stream Power (N/m s)		149.39	54.56
Frctn Loss (m)	0.11	Cum Volume (1000 m3)	0.06	0.44	0.30
C & E Loss (m)	0.05	Cum SA (1000 m2)	0.18	0.33	0.28

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 3 Profile: TR 20

E.G. Elev (m)	422.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.45	Wt. n-Val.		0.033	
W.S. Elev (m)	422.10	Reach Len. (m)	0.27	0.27	0.27
Crit W.S. (m)	421.98	Flow Area (m2)		4.68	
E.G. Slope (m/m)	0.012892	Area (m2)		4.68	
Q Total (m3/s)	13.90	Flow (m3/s)		13.90	
Top Width (m)	3.88	Top Width (m)		3.88	
Vel Total (m/s)	2.97	Avg. Vel. (m/s)		2.97	
Max Chl Dpth (m)	1.46	Hydr. Depth (m)		1.21	
Conv. Total (m3/s)	122.4	Conv. (m3/s)		122.4	
Length Wtd. (m)	0.27	Wetted Per. (m)		5.82	
Min Ch El (m)	420.64	Shear (N/m2)		101.55	
Alpha	1.00	Stream Power (N/m s)		301.91	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.13	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.00	0.17	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 3 Profile: TR 100

E.G. Elev (m)	422.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.52	Wt. n-Val.	0.000	0.033	0.000
W.S. Elev (m)	422.32	Reach Len. (m)	0.27	0.27	0.27
Crit W.S. (m)	422.19	Flow Area (m2)	0.00	5.54	0.00
E.G. Slope (m/m)	0.012445	Area (m2)	0.05	5.54	3.79
Q Total (m3/s)	17.73	Flow (m3/s)	0.00	17.72	0.00
Top Width (m)	14.39	Top Width (m)	0.94	3.97	9.49
Vel Total (m/s)	3.20	Avg. Vel. (m/s)	0.40	3.20	0.57
Max Chl Dpth (m)	1.68	Hydr. Depth (m)	0.10	1.40	0.17
Conv. Total (m3/s)	158.9	Conv. (m3/s)	0.0	158.9	0.0
Length Wtd. (m)	0.27	Wetted Per. (m)	0.01	6.02	0.03
Min Ch El (m)	420.64	Shear (N/m2)	12.16	112.37	20.51
Alpha	1.00	Stream Power (N/m s)	4.86	359.54	11.62
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.15	0.00
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.03	0.18	0.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 3 Profile: TR 200

E.G. Elev (m)	422.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.52	Wt. n-Val.	0.000	0.033	0.000
W.S. Elev (m)	422.45	Reach Len. (m)	0.27	0.27	0.27
Crit W.S. (m)	422.26	Flow Area (m2)	0.00	6.06	0.01
E.G. Slope (m/m)	0.011016	Area (m2)	0.25	6.06	5.02
Q Total (m3/s)	19.36	Flow (m3/s)	0.00	19.35	0.01
Top Width (m)	15.60	Top Width (m)	2.15	3.97	9.49
Vel Total (m/s)	3.19	Avg. Vel. (m/s)	0.66	3.19	0.78
Max Chl Dpth (m)	1.81	Hydr. Depth (m)	0.23	1.53	0.30
Conv. Total (m3/s)	184.4	Conv. (m3/s)	0.0	184.4	0.1
Length Wtd. (m)	0.27	Wetted Per. (m)	0.01	6.02	0.03
Min Ch El (m)	420.64	Shear (N/m2)	24.77	108.76	32.23
Alpha	1.00	Stream Power (N/m s)	16.23	347.46	25.18
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.00	0.15	0.00
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.04	0.18	0.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 3 Profile: TR 500

E.G. Elev (m)	423.09	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	423.00	Reach Len. (m)	0.27	0.27	0.27
Crit W.S. (m)	422.37	Flow Area (m2)	2.75	8.25	10.26
E.G. Slope (m/m)	0.001847	Area (m2)	2.75	8.25	10.26
Q Total (m3/s)	21.52	Flow (m3/s)	1.16	13.25	7.10

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 3 Profile: TR 500 (Continued)

Top Width (m)	19.32	Top Width (m)	5.87	3.97	9.49
Vel Total (m/s)	1.01	Avg. Vel. (m/s)	0.42	1.61	0.69
Max Chl Dpth (m)	2.36	Hydr. Depth (m)	0.47	2.08	1.08
Conv. Total (m3/s)	500.6	Conv. (m3/s)	27.0	308.4	165.2
Length Wtd. (m)	0.27	Wetted Per. (m)	6.05	6.02	10.81
Min Ch El (m)	420.64	Shear (N/m2)	8.22	24.83	17.20
Alpha	1.72	Stream Power (N/m s)	3.47	39.91	11.90
Frctn Loss (m)	0.00	Cum Volume (1000 m3)	0.01	0.17	0.02
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.07	0.18	0.02

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2.5 BR U Profile: TR 20

E.G. Elev (m)	422.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.55	Wt. n-Val.		0.033	
W.S. Elev (m)	421.98	Reach Len. (m)	4.43	4.43	4.43
Crit W.S. (m)	421.98	Flow Area (m2)		4.22	
E.G. Slope (m/m)	0.017059	Area (m2)		4.22	
Q Total (m3/s)	13.90	Flow (m3/s)		13.90	
Top Width (m)	3.77	Top Width (m)		3.77	
Vel Total (m/s)	3.29	Avg. Vel. (m/s)		3.29	
Max Chl Dpth (m)	1.34	Hydr. Depth (m)		1.12	
Conv. Total (m3/s)	106.4	Conv. (m3/s)		106.4	
Length Wtd. (m)	4.43	Wetted Per. (m)		5.56	
Min Ch El (m)	420.64	Shear (N/m2)		127.05	
Alpha	1.00	Stream Power (N/m s)		418.58	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.00	0.12	
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.00	0.17	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2.5 BR U Profile: TR 100

E.G. Elev (m)	422.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.63	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	422.19	Reach Len. (m)	4.43	4.43	4.43
Crit W.S. (m)	422.19	Flow Area (m2)		5.03	0.00
E.G. Slope (m/m)	0.017052	Area (m2)		5.03	0.00
Q Total (m3/s)	17.73	Flow (m3/s)		17.73	0.00
Top Width (m)	3.96	Top Width (m)		3.95	0.02
Vel Total (m/s)	3.52	Avg. Vel. (m/s)		3.52	0.12
Max Chl Dpth (m)	1.55	Hydr. Depth (m)		1.27	0.04
Conv. Total (m3/s)	135.7	Conv. (m3/s)		135.7	0.0
Length Wtd. (m)	4.43	Wetted Per. (m)		5.98	0.06
Min Ch El (m)	420.64	Shear (N/m2)		140.58	2.07
Alpha	1.00	Stream Power (N/m s)		495.52	0.24
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.00	0.15	0.00
C & E Loss (m)	0.07	Cum SA (1000 m2)	0.03	0.17	0.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2.5 BR U Profile: TR 200

E.G. Elev (m)	422.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.75	Wt. n-Val.		0.033	0.060
W.S. Elev (m)	422.19	Reach Len. (m)	4.43	4.43	4.43
Crit W.S. (m)	422.19	Flow Area (m2)		5.04	0.00
E.G. Slope (m/m)	0.020181	Area (m2)		5.04	0.00
Q Total (m3/s)	19.36	Flow (m3/s)		19.36	0.00
Top Width (m)	3.97	Top Width (m)		3.95	0.02
Vel Total (m/s)	3.84	Avg. Vel. (m/s)		3.84	0.13
Max Chl Dpth (m)	1.55	Hydr. Depth (m)		1.28	0.04
Conv. Total (m3/s)	136.3	Conv. (m3/s)		136.3	0.0
Length Wtd. (m)	4.43	Wetted Per. (m)		5.99	0.06
Min Ch El (m)	420.64	Shear (N/m2)		166.69	2.51

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2.5 BR U Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		639.98	0.32
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.00	0.15	0.00
C & E Loss (m)	0.10	Cum SA (1000 m2)	0.04	0.18	0.00

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2.5 BR U Profile: TR 500

E.G. Elev (m)	423.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	422.94	Reach Len. (m)	4.43	4.43	4.43
Crit W.S. (m)	422.94	Flow Area (m2)	1.16	5.10	7.45
E.G. Slope (m/m)	0.014165	Area (m2)	1.16	5.10	7.45
Q Total (m3/s)	21.52	Flow (m3/s)	0.75	9.41	11.35
Top Width (m)	19.32	Top Width (m)	5.87	3.97	9.49
Vel Total (m/s)	1.57	Avg. Vel. (m/s)	0.65	1.85	1.52
Max Chl Dpth (m)	2.31	Hydr. Depth (m)	0.20	1.28	0.79
Conv. Total (m3/s)	180.8	Conv. (m3/s)	6.3	79.1	95.4
Length Wtd. (m)	4.43	Wetted Per. (m)	6.25	13.90	11.16
Min Ch El (m)	420.64	Shear (N/m2)	25.87	50.91	92.71
Alpha	1.11	Stream Power (N/m s)	16.74	94.05	141.24
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	0.01	0.17	0.02
C & E Loss (m)	0.03	Cum SA (1000 m2)	0.07	0.18	0.02

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2.5 BR D Profile: TR 20

E.G. Elev (m)	422.35	Element	Left OB	Channel	Right OB
Vel Head (m)	1.13	Wt. n-Val.		0.033	
W.S. Elev (m)	421.23	Reach Len. (m)	4.43	4.43	4.43
Crit W.S. (m)	421.57	Flow Area (m2)		2.96	
E.G. Slope (m/m)	0.048202	Area (m2)		2.96	
Q Total (m3/s)	13.90	Flow (m3/s)		13.90	
Top Width (m)	4.19	Top Width (m)		4.19	
Vel Total (m/s)	4.70	Avg. Vel. (m/s)		4.70	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.71	
Conv. Total (m3/s)	63.3	Conv. (m3/s)		63.3	
Length Wtd. (m)	4.43	Wetted Per. (m)		4.98	
Min Ch El (m)	420.17	Shear (N/m2)		280.64	
Alpha	1.00	Stream Power (N/m s)		1318.90	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.00	0.11	
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.00	0.15	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2.5 BR D Profile: TR 100

E.G. Elev (m)	422.64	Element	Left OB	Channel	Right OB
Vel Head (m)	1.27	Wt. n-Val.		0.033	
W.S. Elev (m)	421.36	Reach Len. (m)	4.43	4.43	4.43
Crit W.S. (m)	421.75	Flow Area (m2)		3.55	
E.G. Slope (m/m)	0.047959	Area (m2)		3.55	
Q Total (m3/s)	17.73	Flow (m3/s)		17.73	
Top Width (m)	4.51	Top Width (m)		4.51	
Vel Total (m/s)	5.00	Avg. Vel. (m/s)		5.00	
Max Chl Dpth (m)	1.19	Hydr. Depth (m)		0.79	
Conv. Total (m3/s)	80.9	Conv. (m3/s)		80.9	
Length Wtd. (m)	4.43	Wetted Per. (m)		5.42	
Min Ch El (m)	420.17	Shear (N/m2)		307.56	
Alpha	1.00	Stream Power (N/m s)		1537.76	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.00	0.13	
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.03	0.16	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2.5 BR D Profile: TR 200

E.G. Elev (m)	422.75	Element	Left OB	Channel	Right OB
Vel Head (m)	1.34	Wt. n-Val.	0.000	0.033	
W.S. Elev (m)	421.41	Reach Len. (m)	4.43	4.43	4.43
Crit W.S. (m)	421.82	Flow Area (m2)	0.00	3.78	
E.G. Slope (m/m)	0.047100	Area (m2)	0.00	3.78	
Q Total (m3/s)	19.36	Flow (m3/s)	0.00	19.36	
Top Width (m)	4.57	Top Width (m)	0.01	4.56	
Vel Total (m/s)	5.12	Avg. Vel. (m/s)	0.45	5.12	
Max Chl Dpth (m)	1.24	Hydr. Depth (m)	0.04	0.83	
Conv. Total (m3/s)	89.2	Conv. (m3/s)	0.0	89.2	
Length Wtd. (m)	4.43	Wetted Per. (m)	0.01	5.50	
Min Ch El (m)	420.17	Shear (N/m2)	20.04	317.55	
Alpha	1.00	Stream Power (N/m s)	8.95	1626.78	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	0.00	0.13	
C & E Loss (m)	0.06	Cum SA (1000 m2)	0.04	0.16	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2.5 BR D Profile: TR 500

E.G. Elev (m)	422.85	Element	Left OB	Channel	Right OB
Vel Head (m)	1.35	Wt. n-Val.	0.000	0.033	
W.S. Elev (m)	421.50	Reach Len. (m)	4.43	4.43	4.43
Crit W.S. (m)	421.91	Flow Area (m2)	0.00	4.18	
E.G. Slope (m/m)	0.042503	Area (m2)	0.00	4.18	
Q Total (m3/s)	21.52	Flow (m3/s)	0.00	21.52	
Top Width (m)	4.62	Top Width (m)	0.01	4.61	
Vel Total (m/s)	5.14	Avg. Vel. (m/s)	0.89	5.14	
Max Chl Dpth (m)	1.33	Hydr. Depth (m)	0.13	0.91	
Conv. Total (m3/s)	104.4	Conv. (m3/s)	0.0	104.4	
Length Wtd. (m)	4.43	Wetted Per. (m)	0.01	5.60	
Min Ch El (m)	420.17	Shear (N/m2)	54.73	311.44	
Alpha	1.00	Stream Power (N/m s)	48.59	1602.17	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	0.01	0.15	
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.06	0.16	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2 Profile: TR 20

E.G. Elev (m)	422.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.74	Wt. n-Val.	0.000	0.033	
W.S. Elev (m)	421.39	Reach Len. (m)	26.48	26.15	25.72
Crit W.S. (m)	421.57	Flow Area (m2)	0.00	3.65	
E.G. Slope (m/m)	0.027112	Area (m2)	0.00	3.65	
Q Total (m3/s)	13.90	Flow (m3/s)	0.00	13.90	
Top Width (m)	4.74	Top Width (m)	0.20	4.54	
Vel Total (m/s)	3.81	Avg. Vel. (m/s)	0.16	3.81	
Max Chl Dpth (m)	1.22	Hydr. Depth (m)	0.01	0.80	
Conv. Total (m3/s)	84.4	Conv. (m3/s)	0.0	84.4	
Length Wtd. (m)	26.15	Wetted Per. (m)	0.01	5.46	
Min Ch El (m)	420.17	Shear (N/m2)		177.50	
Alpha	1.00	Stream Power (N/m s)		676.55	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)	0.00	0.09	
C & E Loss (m)	0.12	Cum SA (1000 m2)	0.00	0.13	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2 Profile: TR 100

E.G. Elev (m)	422.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.90	Wt. n-Val.	0.000	0.033	
W.S. Elev (m)	421.51	Reach Len. (m)	26.48	26.15	25.72
Crit W.S. (m)	421.75	Flow Area (m2)	0.00	4.22	
E.G. Slope (m/m)	0.028143	Area (m2)	0.13	4.22	
Q Total (m3/s)	17.73	Flow (m3/s)	0.00	17.73	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2 Profile: TR 100 (Continued)

Top Width (m)	6.46	Top Width (m)	1.85	4.61	
Vel Total (m/s)	4.20	Avg. Vel. (m/s)	0.75	4.20	
Max Chl Dpth (m)	1.34	Hydr. Depth (m)	0.14	0.91	
Conv. Total (m3/s)	105.7	Conv. (m3/s)	0.0	105.7	
Length Wtd. (m)	26.15	Wetted Per. (m)	0.01	5.61	
Min Ch El (m)	420.17	Shear (N/m2)	38.24	207.56	
Alpha	1.00	Stream Power (N/m s)	28.63	872.63	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)	0.00	0.11	
C & E Loss (m)	0.11	Cum SA (1000 m2)	0.02	0.14	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2 Profile: TR 200

E.G. Elev (m)	422.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.98	Wt. n-Val.	0.000	0.033	
W.S. Elev (m)	421.55	Reach Len. (m)	26.48	26.15	25.72
Crit W.S. (m)	421.82	Flow Area (m2)	0.00	4.41	
E.G. Slope (m/m)	0.029193	Area (m2)	0.22	4.41	
Q Total (m3/s)	19.36	Flow (m3/s)	0.00	19.36	
Top Width (m)	7.05	Top Width (m)	2.41	4.64	
Vel Total (m/s)	4.39	Avg. Vel. (m/s)	0.91	4.39	
Max Chl Dpth (m)	1.38	Hydr. Depth (m)	0.18	0.95	
Conv. Total (m3/s)	113.3	Conv. (m3/s)	0.0	113.3	
Length Wtd. (m)	26.15	Wetted Per. (m)	0.01	5.65	
Min Ch El (m)	420.17	Shear (N/m2)	51.72	223.33	
Alpha	1.00	Stream Power (N/m s)	47.06	979.91	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.00	0.12	
C & E Loss (m)	0.11	Cum SA (1000 m2)	0.03	0.14	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 2 Profile: TR 500

E.G. Elev (m)	422.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.97	Wt. n-Val.	0.000	0.033	
W.S. Elev (m)	421.66	Reach Len. (m)	26.48	26.15	25.72
Crit W.S. (m)	421.91	Flow Area (m2)	0.00	4.92	
E.G. Slope (m/m)	0.025831	Area (m2)	0.56	4.92	
Q Total (m3/s)	21.52	Flow (m3/s)	0.00	21.51	
Top Width (m)	8.56	Top Width (m)	3.86	4.70	
Vel Total (m/s)	4.37	Avg. Vel. (m/s)	1.17	4.37	
Max Chl Dpth (m)	1.49	Hydr. Depth (m)	0.29	1.05	
Conv. Total (m3/s)	133.9	Conv. (m3/s)	0.0	133.9	
Length Wtd. (m)	26.15	Wetted Per. (m)	0.01	5.78	
Min Ch El (m)	420.17	Shear (N/m2)	73.23	215.58	
Alpha	1.00	Stream Power (N/m s)	85.77	942.90	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	0.01	0.13	
C & E Loss (m)	0.11	Cum SA (1000 m2)	0.05	0.14	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 1 Profile: TR 20

E.G. Elev (m)	421.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.78	Wt. n-Val.		0.033	
W.S. Elev (m)	420.57	Reach Len. (m)			
Crit W.S. (m)	420.80	Flow Area (m2)		3.55	
E.G. Slope (m/m)	0.032832	Area (m2)		3.55	
Q Total (m3/s)	13.90	Flow (m3/s)		13.90	
Top Width (m)	5.40	Top Width (m)		5.40	
Vel Total (m/s)	3.91	Avg. Vel. (m/s)		3.91	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	76.7	Conv. (m3/s)		76.7	
Length Wtd. (m)		Wetted Per. (m)		5.91	
Min Ch El (m)	419.58	Shear (N/m2)		193.51	

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 1 Profile: TR 20 (Continued)

Alpha	1.00	Stream Power (N/m s)		756.75	
Frctn Loss (m)	0.78	Cum Volume (1000 m3)			
C & E Loss (m)	0.00	Cum SA (1000 m2)			

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 1 Profile: TR 100

E.G. Elev (m)	421.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.92	Wt. n-Val.		0.033	
W.S. Elev (m)	420.68	Reach Len. (m)			
Crit W.S. (m)	420.96	Flow Area (m2)		4.17	
E.G. Slope (m/m)	0.034424	Area (m2)		4.17	
Q Total (m3/s)	17.73	Flow (m3/s)		17.73	
Top Width (m)	5.75	Top Width (m)		5.75	
Vel Total (m/s)	4.25	Avg. Vel. (m/s)		4.25	
Max Chl Dpth (m)	1.10	Hydr. Depth (m)		0.72	
Conv. Total (m3/s)	95.5	Conv. (m3/s)		95.5	
Length Wtd. (m)		Wetted Per. (m)		6.33	
Min Ch El (m)	419.58	Shear (N/m2)		222.11	
Alpha	1.00	Stream Power (N/m s)		944.69	
Frctn Loss (m)	0.81	Cum Volume (1000 m3)			
C & E Loss (m)	0.00	Cum SA (1000 m2)			

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 1 Profile: TR 200

E.G. Elev (m)	421.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.98	Wt. n-Val.		0.033	
W.S. Elev (m)	420.72	Reach Len. (m)			
Crit W.S. (m)	421.03	Flow Area (m2)		4.41	
E.G. Slope (m/m)	0.035221	Area (m2)		4.41	
Q Total (m3/s)	19.36	Flow (m3/s)		19.36	
Top Width (m)	5.88	Top Width (m)		5.88	
Vel Total (m/s)	4.39	Avg. Vel. (m/s)		4.39	
Max Chl Dpth (m)	1.14	Hydr. Depth (m)		0.75	
Conv. Total (m3/s)	103.1	Conv. (m3/s)		103.1	
Length Wtd. (m)		Wetted Per. (m)		6.49	
Min Ch El (m)	419.58	Shear (N/m2)		234.47	
Alpha	1.00	Stream Power (N/m s)		1029.96	
Frctn Loss (m)	0.84	Cum Volume (1000 m3)			
C & E Loss (m)	0.00	Cum SA (1000 m2)			

Plan: gambrero River: Rio Gambrero Reach:Pecul Riv Sta: 1 Profile: TR 500

E.G. Elev (m)	421.83	Element	Left OB	Channel	Right OB
Vel Head (m)	1.06	Wt. n-Val.		0.033	
W.S. Elev (m)	420.77	Reach Len. (m)			
Crit W.S. (m)	421.11	Flow Area (m2)		4.71	
E.G. Slope (m/m)	0.036289	Area (m2)		4.71	
Q Total (m3/s)	21.52	Flow (m3/s)		21.52	
Top Width (m)	6.04	Top Width (m)		6.04	
Vel Total (m/s)	4.57	Avg. Vel. (m/s)		4.57	
Max Chl Dpth (m)	1.19	Hydr. Depth (m)		0.78	
Conv. Total (m3/s)	113.0	Conv. (m3/s)		113.0	
Length Wtd. (m)		Wetted Per. (m)		6.68	
Min Ch El (m)	419.58	Shear (N/m2)		250.66	
Alpha	1.00	Stream Power (N/m s)		1145.49	
Frctn Loss (m)	0.80	Cum Volume (1000 m3)			
C & E Loss (m)	0.01	Cum SA (1000 m2)			

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 3 Profile: TR 20

E.G. Elev (m)	460.71	Element	Left OB	Channel	Right OB
Vel Head (m)	0.28	Wt. n-Val.		0.033	
W.S. Elev (m)	460.43	Reach Len. (m)	26.97	26.97	26.97
Crit W.S. (m)	460.51	Flow Area (m2)		0.75	
E.G. Slope (m/m)	0.035995	Area (m2)		0.75	
Q Total (m3/s)	1.74	Flow (m3/s)		1.74	
Top Width (m)	2.71	Top Width (m)		2.71	
Vel Total (m/s)	2.33	Avg. Vel. (m/s)		2.33	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	9.2	Conv. (m3/s)		9.2	
Length Wtd. (m)	26.97	Wetted Per. (m)		2.89	
Min Ch El (m)	460.00	Shear (N/m2)		91.05	
Alpha	1.00	Stream Power (N/m s)		212.10	
Frctn Loss (m)		Cum Volume (1000 m3)	0.00	0.08	0.00
C & E Loss (m)		Cum SA (1000 m2)	0.00	0.15	0.07

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 3 Profile: TR 100

E.G. Elev (m)	460.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.32	Wt. n-Val.		0.033	
W.S. Elev (m)	460.49	Reach Len. (m)	26.97	26.97	26.97
Crit W.S. (m)	460.58	Flow Area (m2)		0.89	
E.G. Slope (m/m)	0.035991	Area (m2)		0.89	
Q Total (m3/s)	2.22	Flow (m3/s)		2.22	
Top Width (m)	2.92	Top Width (m)		2.92	
Vel Total (m/s)	2.49	Avg. Vel. (m/s)		2.49	
Max Chl Dpth (m)	0.48	Hydr. Depth (m)		0.31	
Conv. Total (m3/s)	11.7	Conv. (m3/s)		11.7	
Length Wtd. (m)	26.97	Wetted Per. (m)		3.13	
Min Ch El (m)	460.00	Shear (N/m2)		100.52	
Alpha	1.00	Stream Power (N/m s)		250.15	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.12	0.03
C & E Loss (m)		Cum SA (1000 m2)	0.05	0.17	0.07

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 3 Profile: TR 200

E.G. Elev (m)	460.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.33	Wt. n-Val.		0.033	
W.S. Elev (m)	460.51	Reach Len. (m)	26.97	26.97	26.97
Crit W.S. (m)	460.60	Flow Area (m2)		0.95	
E.G. Slope (m/m)	0.035993	Area (m2)		0.95	
Q Total (m3/s)	2.43	Flow (m3/s)		2.43	
Top Width (m)	3.01	Top Width (m)		3.01	
Vel Total (m/s)	2.55	Avg. Vel. (m/s)		2.55	
Max Chl Dpth (m)	0.50	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	12.8	Conv. (m3/s)		12.8	
Length Wtd. (m)	26.97	Wetted Per. (m)		3.23	
Min Ch El (m)	460.00	Shear (N/m2)		104.23	
Alpha	1.00	Stream Power (N/m s)		265.74	
Frctn Loss (m)		Cum Volume (1000 m3)	0.01	0.13	0.03
C & E Loss (m)		Cum SA (1000 m2)	0.05	0.17	0.07

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 3 Profile: TR 500

E.G. Elev (m)	460.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.		0.033	
W.S. Elev (m)	460.53	Reach Len. (m)	26.97	26.97	26.97
Crit W.S. (m)	460.63	Flow Area (m2)		1.03	
E.G. Slope (m/m)	0.035997	Area (m2)		1.03	
Q Total (m3/s)	2.70	Flow (m3/s)		2.70	

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 3 Profile: TR 500 (Continued)

Top Width (m)	3.11	Top Width (m)		3.11	
Vel Total (m/s)	2.62	Avg. Vel. (m/s)		2.62	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	14.2	Conv. (m3/s)		14.2	
Length Wtd. (m)	26.97	Wetted Per. (m)		3.34	
Min Ch El (m)	460.00	Shear (N/m2)		108.72	
Alpha	1.00	Stream Power (N/m s)		285.05	
Frctn Loss (m)		Cum Volume (1000 m3)	0.02	0.13	0.03
C & E Loss (m)		Cum SA (1000 m2)	0.05	0.18	0.07

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 2 Profile: TR 20

E.G. Elev (m)	459.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.26	Wt. n-Val.		0.033	
W.S. Elev (m)	459.53	Reach Len. (m)	23.47	23.47	23.47
Crit W.S. (m)	459.59	Flow Area (m2)		0.76	
E.G. Slope (m/m)	0.031447	Area (m2)		0.76	
Q Total (m3/s)	1.74	Flow (m3/s)		1.74	
Top Width (m)	2.47	Top Width (m)		2.47	
Vel Total (m/s)	2.28	Avg. Vel. (m/s)		2.28	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.31	
Conv. Total (m3/s)	9.8	Conv. (m3/s)		9.8	
Length Wtd. (m)		Wetted Per. (m)		2.76	
Min Ch El (m)	459.11	Shear (N/m2)		85.18	
Alpha	1.00	Stream Power (N/m s)		194.16	
Frctn Loss (m)	0.91	Cum Volume (1000 m3)	0.00	0.06	0.00
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.00	0.08	0.07

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 2 Profile: TR 100

E.G. Elev (m)	459.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.033	
W.S. Elev (m)	459.89	Reach Len. (m)	23.47	23.47	23.47
Crit W.S. (m)	459.66	Flow Area (m2)		1.78	
E.G. Slope (m/m)	0.004671	Area (m2)		1.78	
Q Total (m3/s)	2.22	Flow (m3/s)		2.22	
Top Width (m)	3.25	Top Width (m)		3.25	
Vel Total (m/s)	1.25	Avg. Vel. (m/s)		1.25	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	32.5	Conv. (m3/s)		32.5	
Length Wtd. (m)	23.47	Wetted Per. (m)		3.82	
Min Ch El (m)	459.11	Shear (N/m2)		21.37	
Alpha	1.00	Stream Power (N/m s)		26.61	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.01	0.09	0.03
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.05	0.09	0.07

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 2 Profile: TR 200

E.G. Elev (m)	460.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.033	
W.S. Elev (m)	459.92	Reach Len. (m)	23.47	23.47	23.47
Crit W.S. (m)	459.69	Flow Area (m2)		1.91	
E.G. Slope (m/m)	0.004643	Area (m2)		1.91	
Q Total (m3/s)	2.43	Flow (m3/s)		2.43	
Top Width (m)	3.33	Top Width (m)		3.33	
Vel Total (m/s)	1.27	Avg. Vel. (m/s)		1.27	
Max Chl Dpth (m)	0.82	Hydr. Depth (m)		0.57	
Conv. Total (m3/s)	35.7	Conv. (m3/s)		35.7	
Length Wtd. (m)	23.47	Wetted Per. (m)		3.93	
Min Ch El (m)	459.11	Shear (N/m2)		22.07	

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 2 Profile: TR 200 (Continued)

Alpha	1.00	Stream Power (N/m s)		28.12	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.01	0.09	0.03
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.05	0.09	0.07

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 2 Profile: TR 500

E.G. Elev (m)	460.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.033	
W.S. Elev (m)	459.98	Reach Len. (m)	23.47	23.47	23.47
Crit W.S. (m)	459.72	Flow Area (m2)		2.08	
E.G. Slope (m/m)	0.004487	Area (m2)		2.08	
Q Total (m3/s)	2.70	Flow (m3/s)		2.70	
Top Width (m)	3.44	Top Width (m)		3.44	
Vel Total (m/s)	1.29	Avg. Vel. (m/s)		1.29	
Max Chl Dpth (m)	0.87	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	40.3	Conv. (m3/s)		40.3	
Length Wtd. (m)	23.47	Wetted Per. (m)		4.09	
Min Ch El (m)	459.11	Shear (N/m2)		22.42	
Alpha	1.00	Stream Power (N/m s)		29.04	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	0.02	0.09	0.03
C & E Loss (m)	0.02	Cum SA (1000 m2)	0.05	0.09	0.07

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 1 Profile: TR 20

E.G. Elev (m)	459.70	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.70	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)	458.28	Flow Area (m2)	0.15	3.66	6.04
E.G. Slope (m/m)	0.000151	Area (m2)	0.15	3.66	6.04
Q Total (m3/s)	1.74	Flow (m3/s)	0.00	1.08	0.66
Top Width (m)	21.16	Top Width (m)	3.65	2.35	15.15
Vel Total (m/s)	0.18	Avg. Vel. (m/s)	0.02	0.29	0.11
Max Chl Dpth (m)	2.45	Hydr. Depth (m)	0.04	1.56	0.40
Conv. Total (m3/s)	141.4	Conv. (m3/s)	0.3	87.5	53.6
Length Wtd. (m)	0.00	Wetted Per. (m)	3.70	5.23	15.57
Min Ch El (m)	457.25	Shear (N/m2)	0.06	1.04	0.58
Alpha	1.86	Stream Power (N/m s)	0.00	0.31	0.06
Frctn Loss (m)	0.00	Cum Volume (1000 m3)			
C & E Loss (m)	0.03	Cum SA (1000 m2)			

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 1 Profile: TR 100

E.G. Elev (m)	459.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.93	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)		Flow Area (m2)	1.00	4.21	9.54
E.G. Slope (m/m)	0.000093	Area (m2)	1.00	4.21	9.54
Q Total (m3/s)	2.22	Flow (m3/s)	0.06	1.06	1.09
Top Width (m)	21.16	Top Width (m)	3.65	2.35	15.15
Vel Total (m/s)	0.15	Avg. Vel. (m/s)	0.06	0.25	0.11
Max Chl Dpth (m)	2.68	Hydr. Depth (m)	0.27	1.79	0.63
Conv. Total (m3/s)	230.5	Conv. (m3/s)	6.7	110.2	113.6
Length Wtd. (m)	0.00	Wetted Per. (m)	3.93	5.23	15.80
Min Ch El (m)	457.25	Shear (N/m2)	0.23	0.73	0.55
Alpha	1.64	Stream Power (N/m s)	0.01	0.18	0.06
Frctn Loss (m)	0.00	Cum Volume (1000 m3)			
C & E Loss (m)	0.01	Cum SA (1000 m2)			

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 1 Profile: TR 200

E.G. Elev (m)	459.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	459.97	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)		Flow Area (m2)	1.15	4.30	10.15
E.G. Slope (m/m)	0.000096	Area (m2)	1.15	4.30	10.15
Q Total (m3/s)	2.43	Flow (m3/s)	0.08	1.12	1.23
Top Width (m)	21.16	Top Width (m)	3.65	2.35	15.15
Vel Total (m/s)	0.16	Avg. Vel. (m/s)	0.07	0.26	0.12
Max Chl Dpth (m)	2.72	Hydr. Depth (m)	0.31	1.83	0.67
Conv. Total (m3/s)	248.5	Conv. (m3/s)	8.3	114.4	125.8
Length Wtd. (m)	0.00	Wetted Per. (m)	3.97	5.23	15.84
Min Ch El (m)	457.25	Shear (N/m2)	0.27	0.77	0.60
Alpha	1.60	Stream Power (N/m s)	0.02	0.20	0.07
Frctn Loss (m)	0.00	Cum Volume (1000 m3)			
C & E Loss (m)	0.02	Cum SA (1000 m2)			

Plan: gambrero River: Affluente sx Reach:Davy Riv Sta: 1 Profile: TR 500

E.G. Elev (m)	460.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.	0.060	0.033	0.060
W.S. Elev (m)	460.03	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)		Flow Area (m2)	1.34	4.43	10.96
E.G. Slope (m/m)	0.000097	Area (m2)	1.34	4.43	10.96
Q Total (m3/s)	2.70	Flow (m3/s)	0.11	1.18	1.41
Top Width (m)	21.16	Top Width (m)	3.65	2.35	15.15
Vel Total (m/s)	0.16	Avg. Vel. (m/s)	0.08	0.27	0.13
Max Chl Dpth (m)	2.78	Hydr. Depth (m)	0.37	1.88	0.72
Conv. Total (m3/s)	273.4	Conv. (m3/s)	10.7	120.0	142.6
Length Wtd. (m)	0.00	Wetted Per. (m)	4.03	5.23	15.90
Min Ch El (m)	457.25	Shear (N/m2)	0.32	0.81	0.66
Alpha	1.55	Stream Power (N/m s)	0.03	0.22	0.08
Frctn Loss (m)	0.00	Cum Volume (1000 m3)			
C & E Loss (m)	0.02	Cum SA (1000 m2)			

Legenda

Scala 1:5.000

Confini bacini idrografici

Idrografia secondaria

Boer B5 — Nome bacino idrografico

Regione: PIEMONTE

Comune: LUSERNA SAN GIOVANNI

Localita' TERRITORIO COMUNALE

Opera: STUDIO IDRAULICO RII MINORI PER L'ADEGUAMENTO DELLO STRUMENTO URBANISTICO AL P.A.I. AI SENSI DELLA CIRCOLARE 7/LAP/96 E SUCCESSIVE N.T.E./99

Oggetto: Planimetria bacini indagati

Tavola 1

scala	Riferimento	Data	Aggiornamenti:
1:5.000	03v09	Dic. 2003	

Committenza: Comune di Luserna San Giovanni

Mineraria
Idrogeologia
Idraulica

ing. Paolo Vaschetto

Dott. Ing. PAOLO VASCHETTO n° 6493 Sezione A

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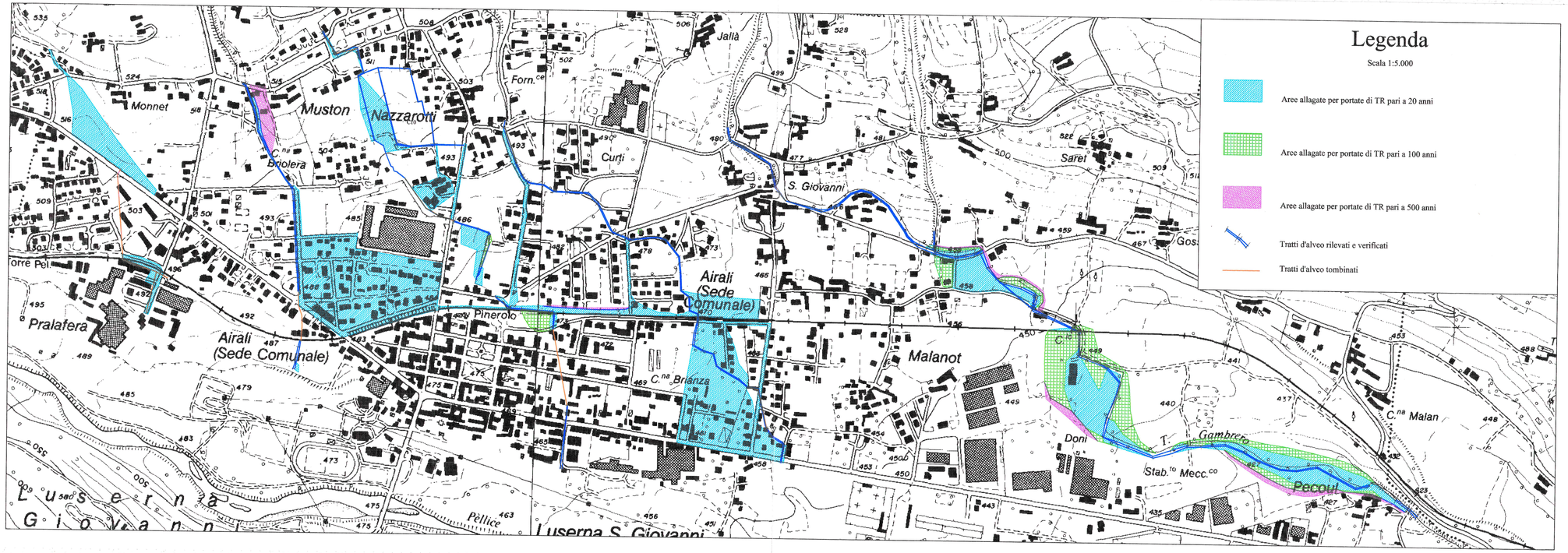

Legenda

Scala 1:5.000

- Aree allagate per portate di TR pari a 20 anni
- Aree allagate per portate di TR pari a 100 anni
- Aree allagate per portate di TR pari a 500 anni
- Tratti d'alveo rilevati e verificati
- Tratti d'alveo tombinati

Regione: PIEMONTE

Comune: LUSERNA SAN GIOVANNI

Localita' TERRITORIO COMUNALE

Opera: STUDIO IDRAULICO RII MINORI PER L'ADEGUAMENTO DELLO STRUMENTO URBANISTICO AL P.A.I. AI SENSI DELLA CIRCOLARE 7/LAP/96 E SUCCESSIVE N.T.E./99

Oggetto: Planimetria aree allagate

Tavola 2

scala	Riferimento	Data	Aggiornamenti:
1:5.000	03v09	Dic. 2003	

Committenza: Comune di Luserna San Giovanni

Mineraria
Idrogeologia
Idraulica

ing. Paolo Vaschetto

Dott. Ing. PAOLO VASCHETTO n° 6433 Y

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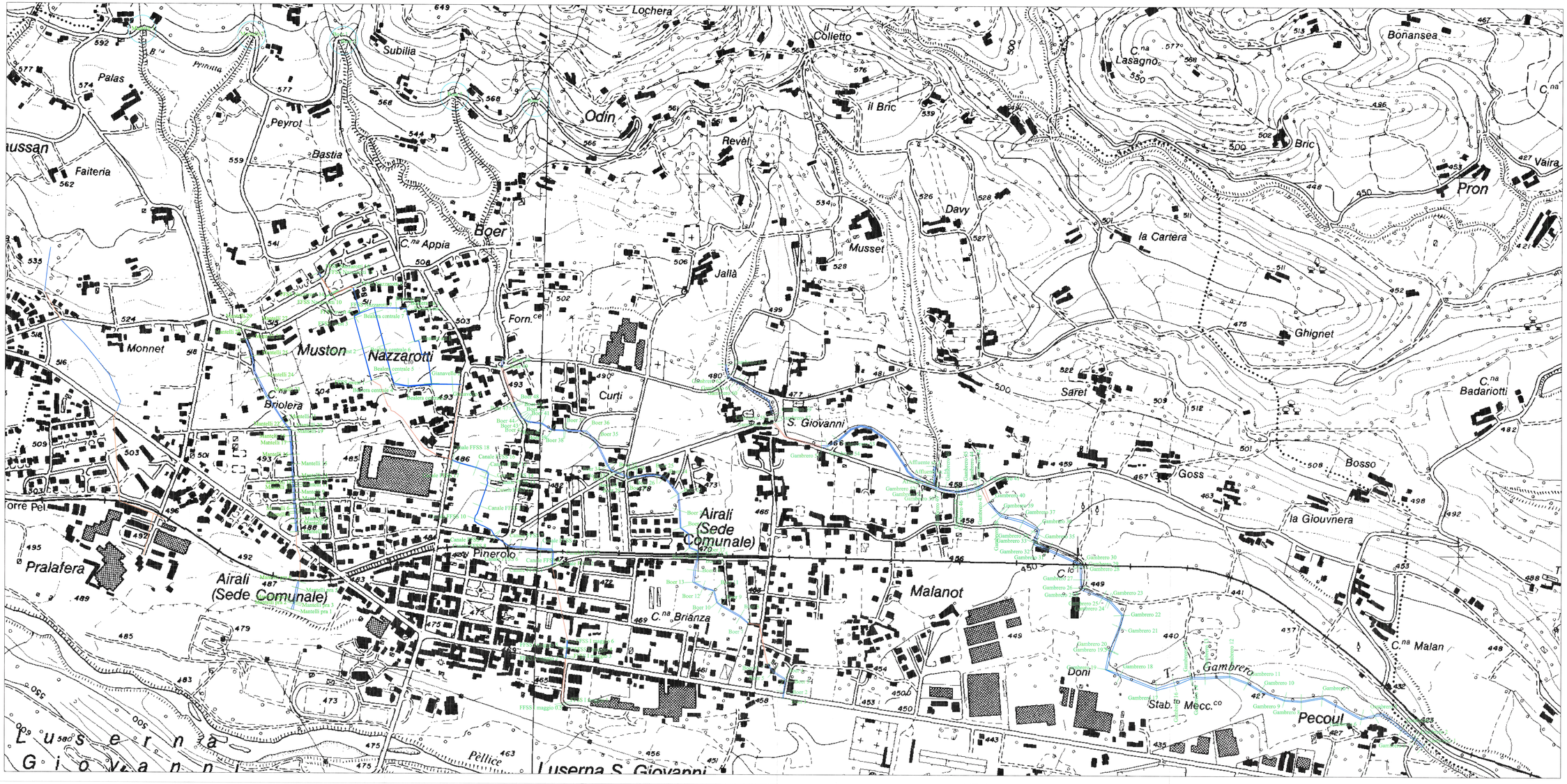

Legenda

Scala 1:2.500

Boer 12	Nome sezioni così come indicate nelle tavole specifiche
	Alveo a cielo aperto
	Tratti d'alveo tombinati
Boer 4	Verifiche attraversamenti

Regione: PIEMONTE

Comune: LUSERNA SAN GIOVANNI

Località: TERRITORIO COMUNALE

Opera: STUDIO IDRAULICO RII MINORI PER L'ADEGUAMENTO DELLO STRUMENTO URBANISTICO AL P.A.I. AI SENSI DELLA CIRCOLARE 7/LAP/96 E SUCCESSIVE N.T.E./99

Oggetto: Planimetria con indicazione delle sezioni rilevate e verificate

Tavola 3

scala	Riferimento	Data	Aggiornamenti
1:2.500	03v09	Dic. 2003	

Committenza: Comune di Luserna San Giovanni

Mineraria
Idrogeologia
Idraulica

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