

TORRE GIULIA WIND S.r.l.

Corso Venezia 37 – 20121 Milano (MI)

PROGETTO DEFINITIVO PER LA REALIZZAZIONE DI UN PARCO EOLICO NEL COMUNE DI CERIGNOLA (FG) IN LOCALITA' "TORRE GIULIA"



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AZIENDA CON SISTEMA GESTIONE
UNI EN ISO 9001:2015
UNI EN ISO 14001:2015
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V23	RELAZIONE IDRAULICA	19045	P		
		CODICE ELABORATO			
		DC19045D-V23			
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REV	DATA	MODIFICA	Elaborato	Controllato	Approvato
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1. PREMESSA

La presente relazione tecnica è relativa alla redazione del: *"Progetto definitivo per la realizzazione di un parco eolico nel comune di Cerignola (FG) In Località "Torre Giulia"*.

La proposta progettuale è finalizzata alla realizzazione di un impianto eolico per la produzione di energia elettrica da fonte rinnovabile eolica, costituito da 13 aerogeneratori, ciascuno di potenza nominale pari a 4,2 MW per una potenza complessiva di 54,60 MW, da realizzarsi nella Provincia di Foggia, nel territorio comunale di Cerignola, mentre le parte delle opere di connessione e la Sottostazione Elettrica ricadono nel territorio di Stornara, nel rispetto della normativa tecnica delle costruzioni ovvero il D.M. 17/01/2018.

La relazione idraulica è redatta in conformità ai criteri dettati dall'Autorità di Bacino della Regione Puglia, istituita con L. R. n. 19 del 9 dicembre 2002, la quale ha approvato il Piano di Bacino per l'Assetto Idrogeologico (PAI), di cui alla Legge 183/89, il 30 novembre 2005.

Sulla base dello studio idrologico riportato nell'elaborato **V-22** in allegato, che ha portato alla definizione delle portate di piena transitori nei canali, per un tempo di ritorno di 200 anni, è stato condotto uno studio idraulico consistente nella modellazione e valutazione idraulica della rete idrografica potenzialmente soggette a criticità, ed il tutto è stato svolto in condizioni di moto stazionario. Per lo svolgimento della modellazione idraulica è stato utilizzato il software HEC- RAS River Analysis System.

Dai risultati dell'analisi monodimensionale si osserva come gli alvei attualmente esistenti risultano adeguati al trasporto della portata avente tempo di ritorno 200 anni. A questo fanno eccezione alcuni tratti lungo "Torrente Marana Castello" ed "Affluente minore Torrente Marana Castello" dove si osservano esondazioni da entrambe le direzioni. Tale aspetto è stato oggetto di una analisi in condizioni di moto non stazionario e bidimensionale mediante il medesimo software HEC – RAS utilizzato per la modellazione in moto stazionario.

Dall'analisi emerge come l'esondazione non interessa i cavidotti e gli aerogeneratori. La posa in opera dei cavidotti verrà realizzata con particolare attenzione attraverso una perforazione teleguidata ("Trivellazione Orizzontale Teleguidata" T.O.C.) fino ad una profondità pari a 2 metri al di sotto del fondo alveo.

2. METODOLOGIA APPLICATA PER LE MODELLAZIONI E VALUTAZIONI IDRAULICHE

Come innanzi accennato, la modellazione e valutazione idraulica dell'asta interessata dal presente studio, sono state condotte con il software HEC – RAS River Analysis System,

dell'US Army Corps of Engineers, Hydrologic Engineering Center.

Sono stati effettuati gli studi modellando le situazioni attualmente esistenti ritenute valida anche per lo stato futuro non essendo previste opere di sistemazione dei corsi d'acqua. Per ciascuno studio il lavoro è stato articolato nelle seguenti fasi:

- Inserimento dei dati della geometria;
- Inserimento dei dati della portata;
- Svolgimento dei calcoli idraulici;
- Controllo dei risultati, conseguente integrazione dei dati di input ove necessario, correzione di questi ultimi e, ricalcolo del modello.

La prima fase, inserimento dati geometrici, ha riguardato innanzitutto il disegno dell'asta in esame tramite l'inserimento delle coordinate dei vertici. Si è quindi passati all'inserimento dei dati delle sezioni trasversali, con numerazione crescente da valle verso monte. Per le varie sezioni sono stati inseriti tutti i dati necessari al programma per l'elaborazione del modello. Per i coefficienti di Manning's si è tenuto conto di una situazione abbastanza sfavorevole.

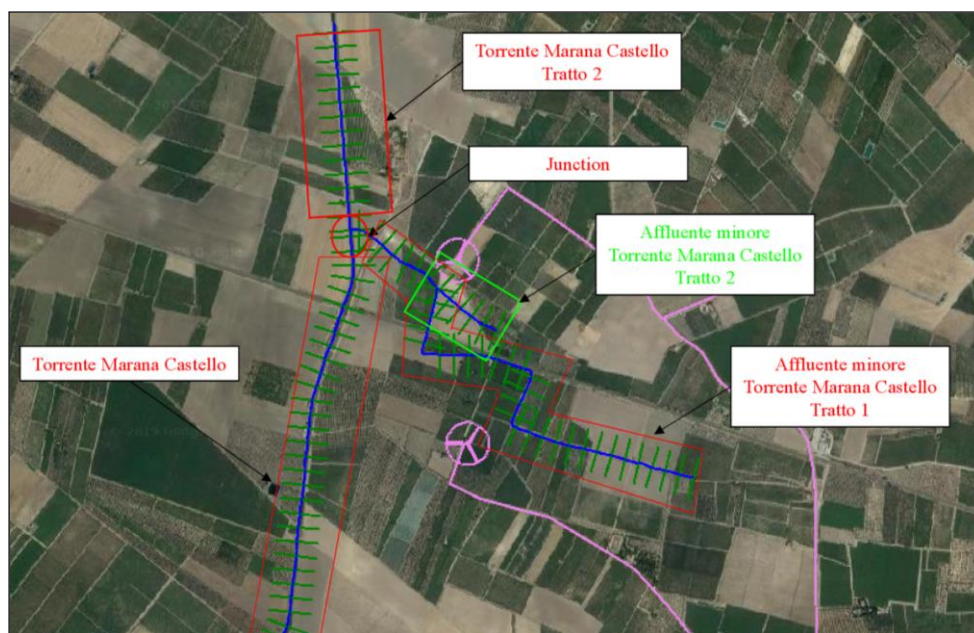
Non è stato necessario inserire le aree a flusso nullo (Ineffective Flow Areas), finalizzate a poter definire aree, all'interno delle sezioni trasversali, che contengono acqua non attivamente convogliata, quindi zone in cui l'acqua "ristagna" e quindi la sua velocità, nella direzione del flusso, è relativamente bassa. Non sono stati inseriti nel modello ponti e sottopassi. Terminato l'inserimento dei dati geometrici si è passati alla definizione dei dati relativi al moto permanente. È stato scelto un unico profilo da calcolare, quello relativo ad un tempo di ritorno di 200 anni, corrispondente al valore di portata ottenuto dallo studio idrologico. Il passaggio successivo è quello che riguarda le condizioni al contorno. Queste sono necessarie per stabilire il livello del pelo libero dell'acqua all'estremità del sistema (A monte e/o a valle). In un regime di corrente lenta, la condizione al contorno necessaria è quella di valle (Non risente di ciò che accade a monte), in caso di corrente veloce la condizione necessaria quella di monte (Non risente di ciò che accade a valle). Se invece viene effettuato il caso in regime di flusso misto, come nel nostro caso, allora le condizioni al contorno devono essere immesse per entrambe le estremità del sistema.

In particolare, in assenza di confluenze con altri tratti, si è considerata l'altezza critica, in questo caso non è necessario immettere nessuna ulteriore informazione, il programma calcolerà automaticamente l'altezza critica per ogni profilo e la userà come condizione al contorno. In presenza di confluenze con altri tratti, la condizione al contorno è rappresentata dall'inserimento delle "junction", ovvero elementi di connessione tra i tratti.

Per il calcolo del profilo di moto permanente è stata utilizzata l'opzione mixed. Per il calcolo

delle perdite di carico (friction Slope methods) è stato scelto "average convenience" impostato come metodo di default per il moto permanente.

Effettuato il calcolo vengono visualizzati i risultati, sia in modo grafico che sotto forma tabellare, riportati in allegato alla presente relazione.



Schema del modello in HEC-RAS del Torrente Marana Castello con indicazione del punto di giunzione

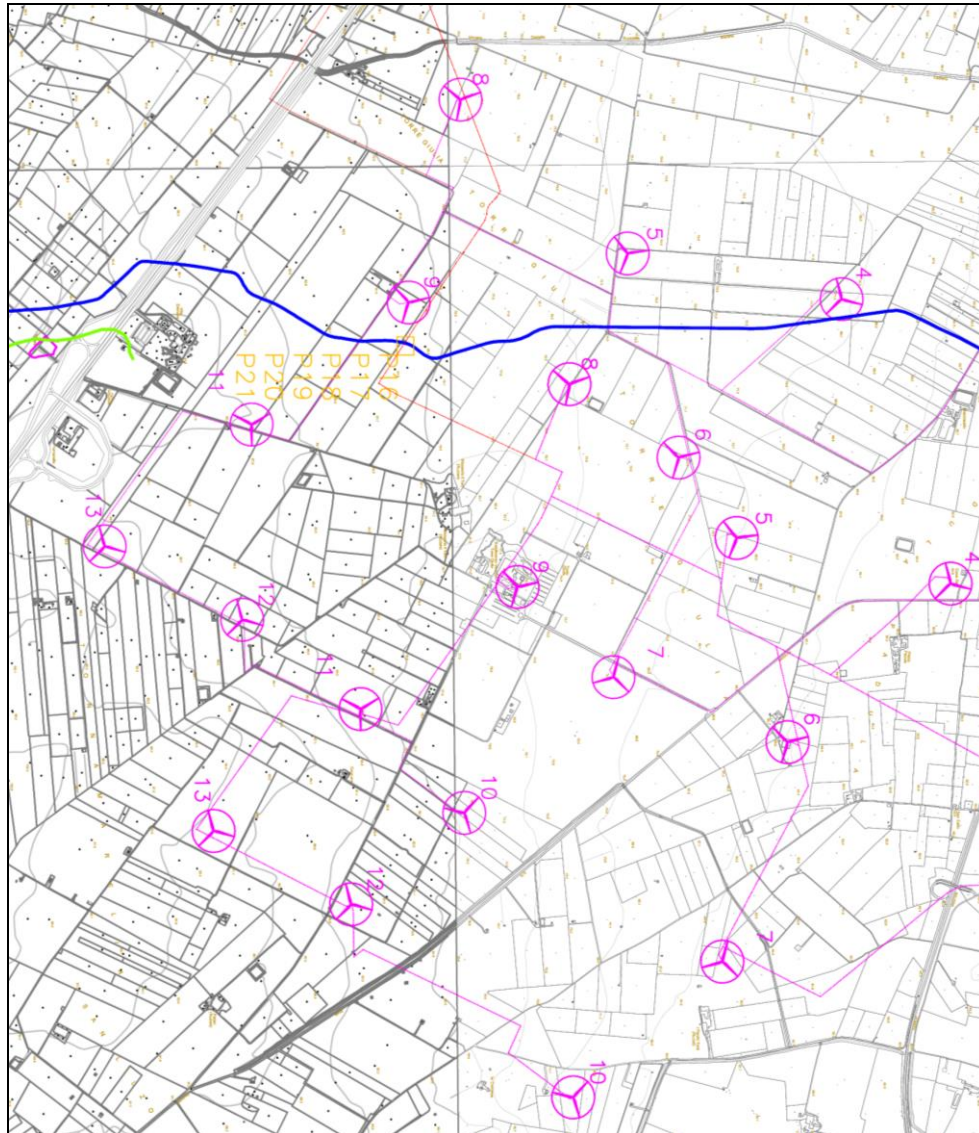
3. PLANIMETRIE CON INDICAZIONE DELLE AREE INTERESSATE DALLA PORTATA DUECENTENNALE E RILIEVI FOTOGRAFICI

Nel presente paragrafo si riportano i rilievi topografici con una rappresentazione planimetrica dei tratti investigati con le aree interessate dalla portata avente tempo di ritorno 200 anni. Tali mappe sono il risultato della modellazione in moto permanente condotta mediante il software HEC – RAS River Analysis System, dell'US Army Corps of Engineers, Hydrologic Engineering Center, riportate nella parte terminale del presente documento.

Dai risultati dell'analisi monodimensionale si osserva come gli alvei attualmente esistenti risultano adeguati al trasporto della portata avente tempo di ritorno 200 anni. A questo fanno eccezione alcuni tratti lungo il "Torrente Marana Castello" ed "Affluente minore Torrente Marana Castello" dove si osservano esondazioni da entrambe le direzioni. Tale aspetto è stato oggetto di una analisi in condizioni di moto non stazionario e bidimensionale mediante il medesimo software HEC – RAS utilizzato per la modellazione in moto stazionario.

La modellazione 2D dei tratti caratterizzati da esondazione è riportata nel capitolo 4 della presente relazione.

Torrente Marana Castello



Indicazione dei punti fotografati



P16



P17



P18



P19



P20



P21

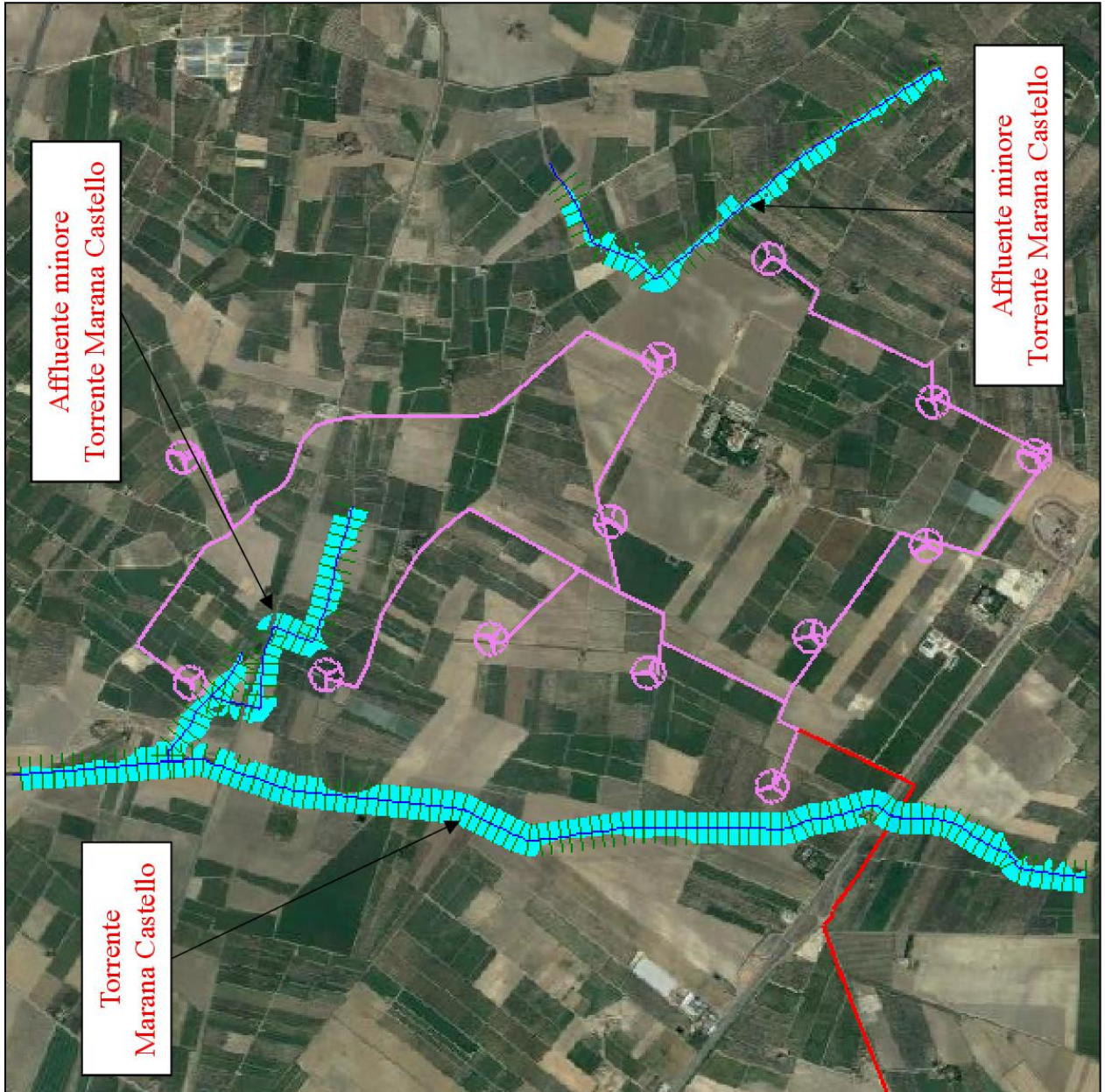
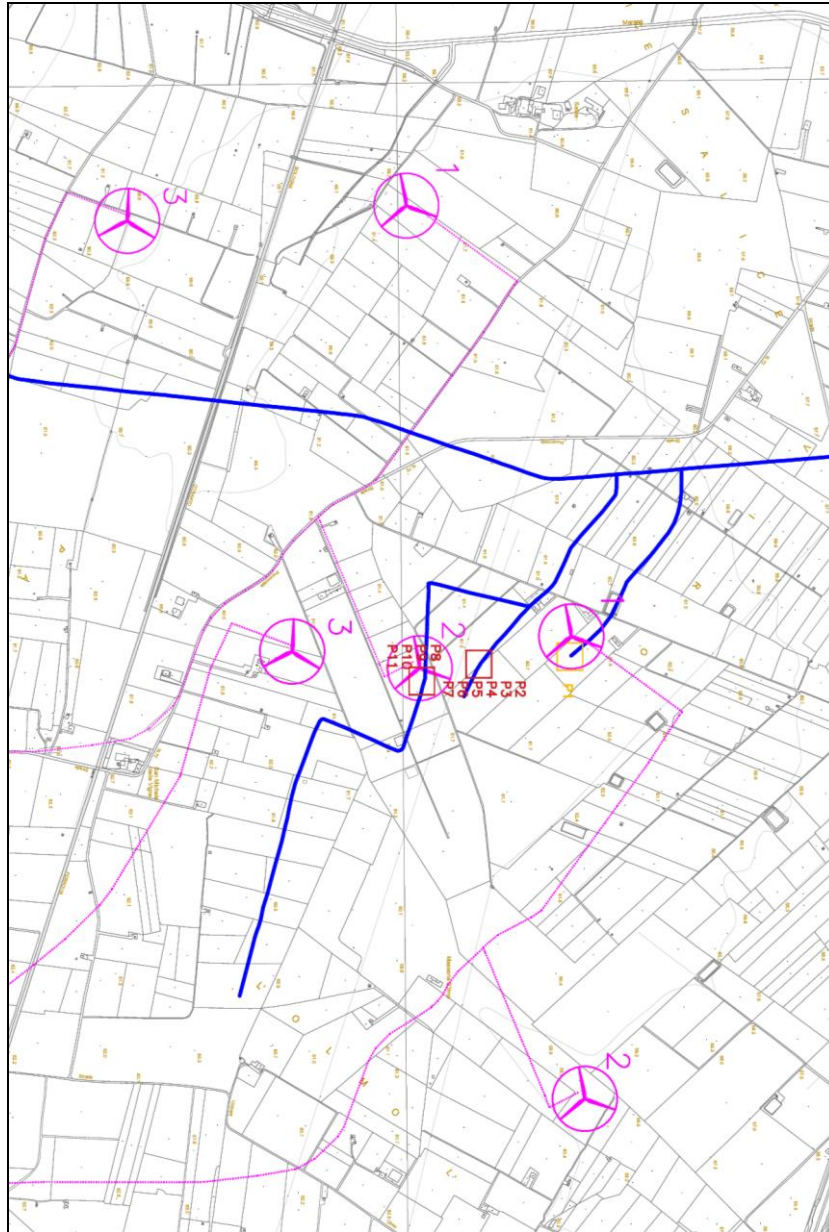


Figura 1. Planimetria con individuazione delle sezioni e delle aree potenzialmente interessate dalla portata avente $tr = 200$ anni

Affluente minore Torrente Marana Castello



Indicazione dei punti fotografati



P1



P2



P3



P4



P5



P6



P7

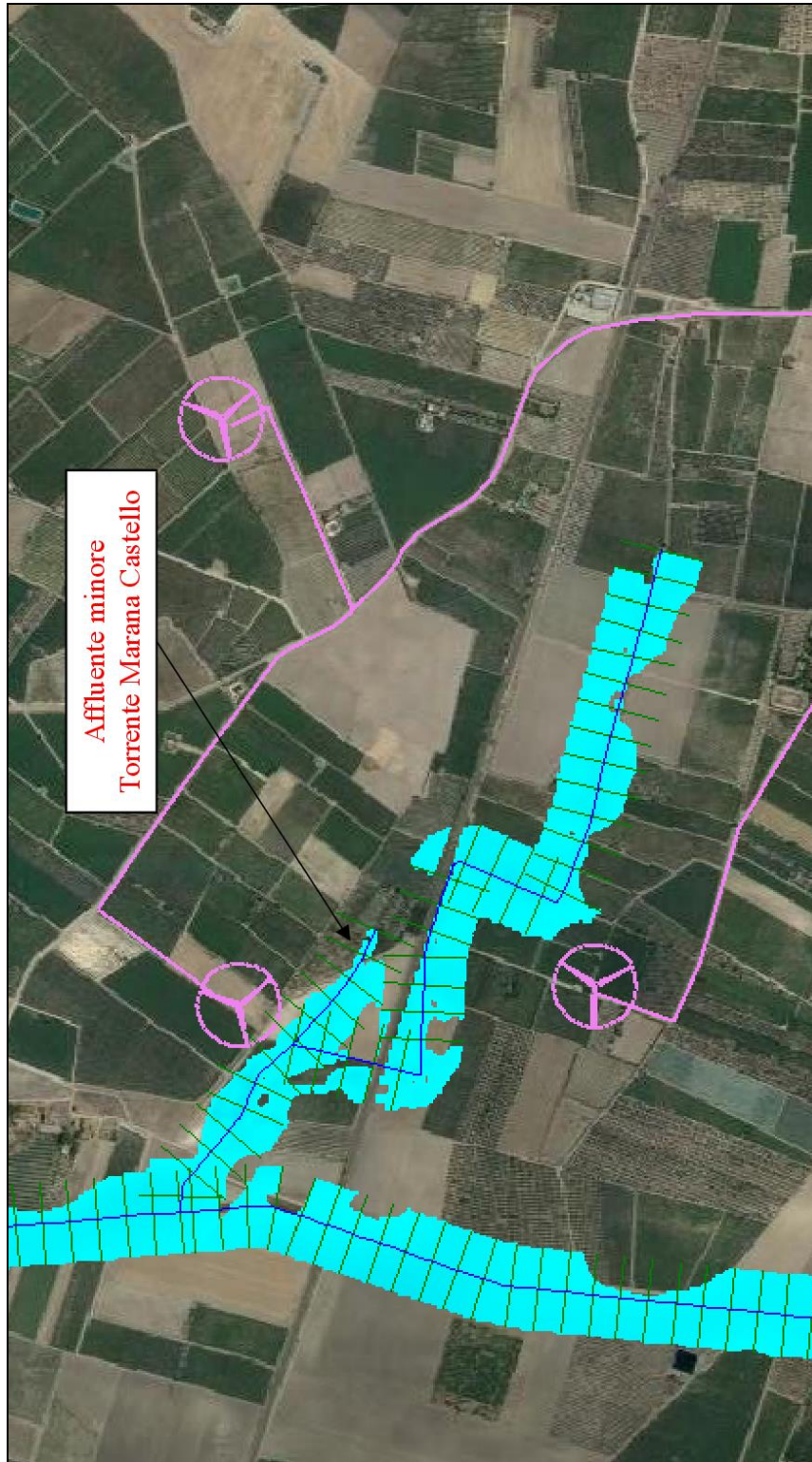


Figura 2. Planimetria con individuazione delle sezioni e delle aree potenzialmente interessate dalla portata avente $tr = 200$ anni



P12



P13



P14



P15

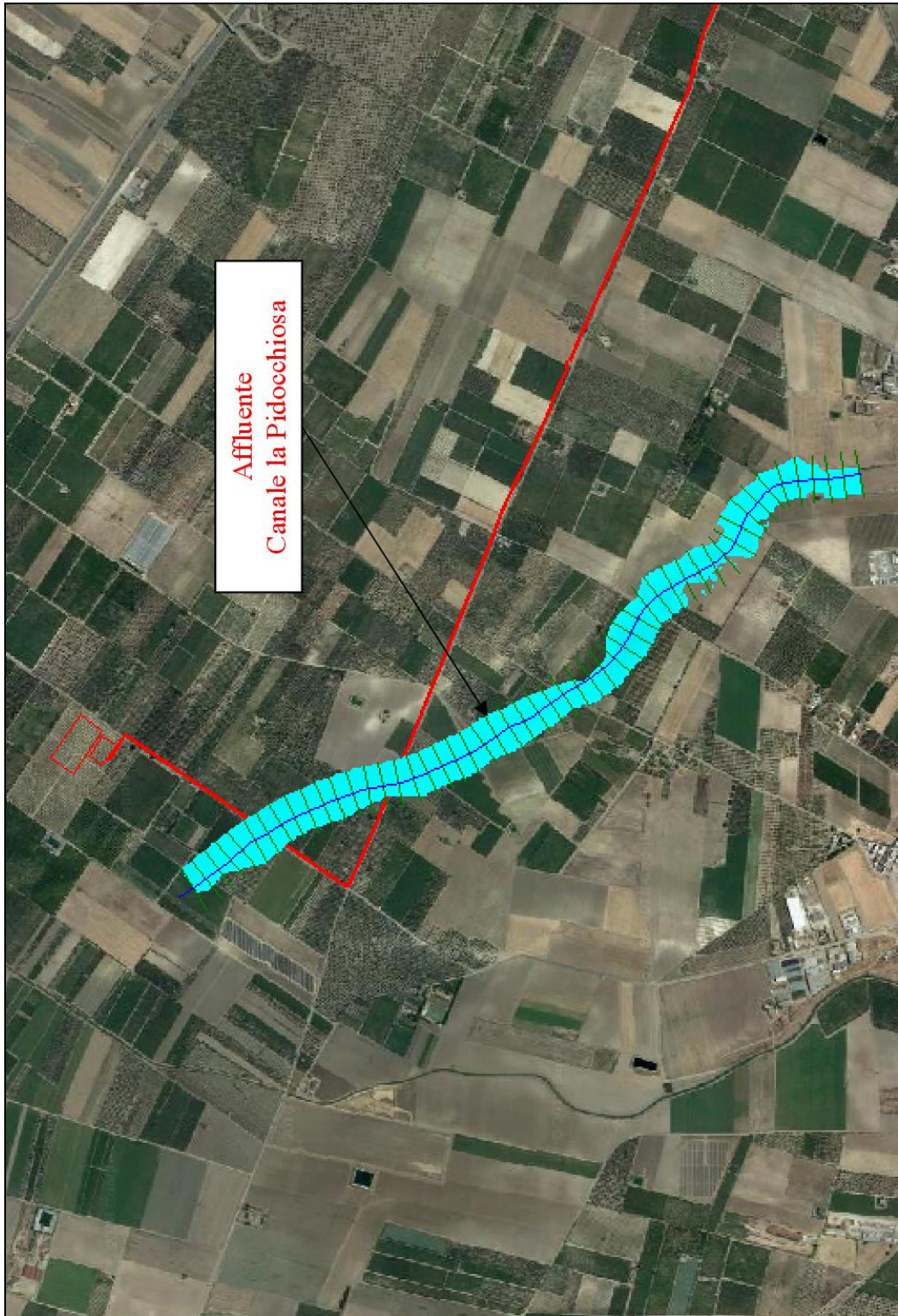


Figura 3. Planimetria con individuazione delle sezioni e delle aree potenzialmente interessate dalla portata avente $tr = 200$ anni

Affluente minore Fossa della Pila



Figura 4. Planimetria con individuazione delle sezioni e delle aree potenzialmente interessate dalla portata avente $tr = 200$ anni

4. MODELLAZIONE 2D DEL “TORRENTE MARANA CASTELLO”

Dai risultati dell'analisi monodimensionale si osserva come gli alvei attualmente esistenti risultano adeguati al trasporto della portata avente tempo di ritorno 200 anni. A questo fanno eccezione alcuni tratti lungo “Torrente Marana Castello” ed “Affluente minore Torrente Marana Castello” dove si osservano esondazioni da entrambe le direzioni. Tale aspetto è stato oggetto di una analisi in condizioni di moto non stazionario e bidimensionale mediante il medesimo software HEC – RAS utilizzato per la modellazione in moto stazionario. La superficie adiacente a questi tratti sarà inoltre interessata dalla presenza dei cavidotti e degli aerogeneratori previsti nel presente progetto, richiedendo una verifica di dettaglio. L'analisi è stata condotta in condizioni di moto non stazionario e bidimensionale mediante il medesimo software HEC – RAS utilizzato per la modellazione in moto stazionario. Lo schema del modello 2D è mostrato in Figura 5.

Lungo i tratti oggetto di esondazione viene introdotta la portata sfiorata in sinistra (“left”) e destra (“right”) idraulica stimata sulla base della modellazione monodimensionale precedentemente condotta, rispettivamente pari a:

- Torrente Marana Castello - primo segmento: 19.38 m³/s;
- Torrente Marana Castello - secondo segmento: 13.84 m³/s;
- Torrente Marana Castello - terzo segmento: 5.54 m³/s;
- Affluente minore Torrente Marana Castello: 2.10 m³/s;

Essendo un'analisi condotta in condizioni non stazionarie le portate vengono introdotte secondo idrogrammi di piena triangolari con tempo di esaurimento pari al tempo di corrivazione stimato nell'analisi idrologica, pertanto la durata complessiva dell'evento simulato è pari a due volte il tempo di corrivazione.

Come è possibile osservare nelle Figure 6 e 7, l'esondazione non coinvolge direttamente nessun cavidotto. Anche gli aerogeneratori non sono direttamente interessati, con la piena che si avvicina agli stessi senza coinvolgerli.

La posa in opera dei cavidotti verrà realizzata con particolare attenzione attraverso una perforazione teleguidata (Trivellazione Orizzontale Teleguidata” T.O.C.) fino ad una profondità pari a 2 metri al di sotto del fondo alveo.

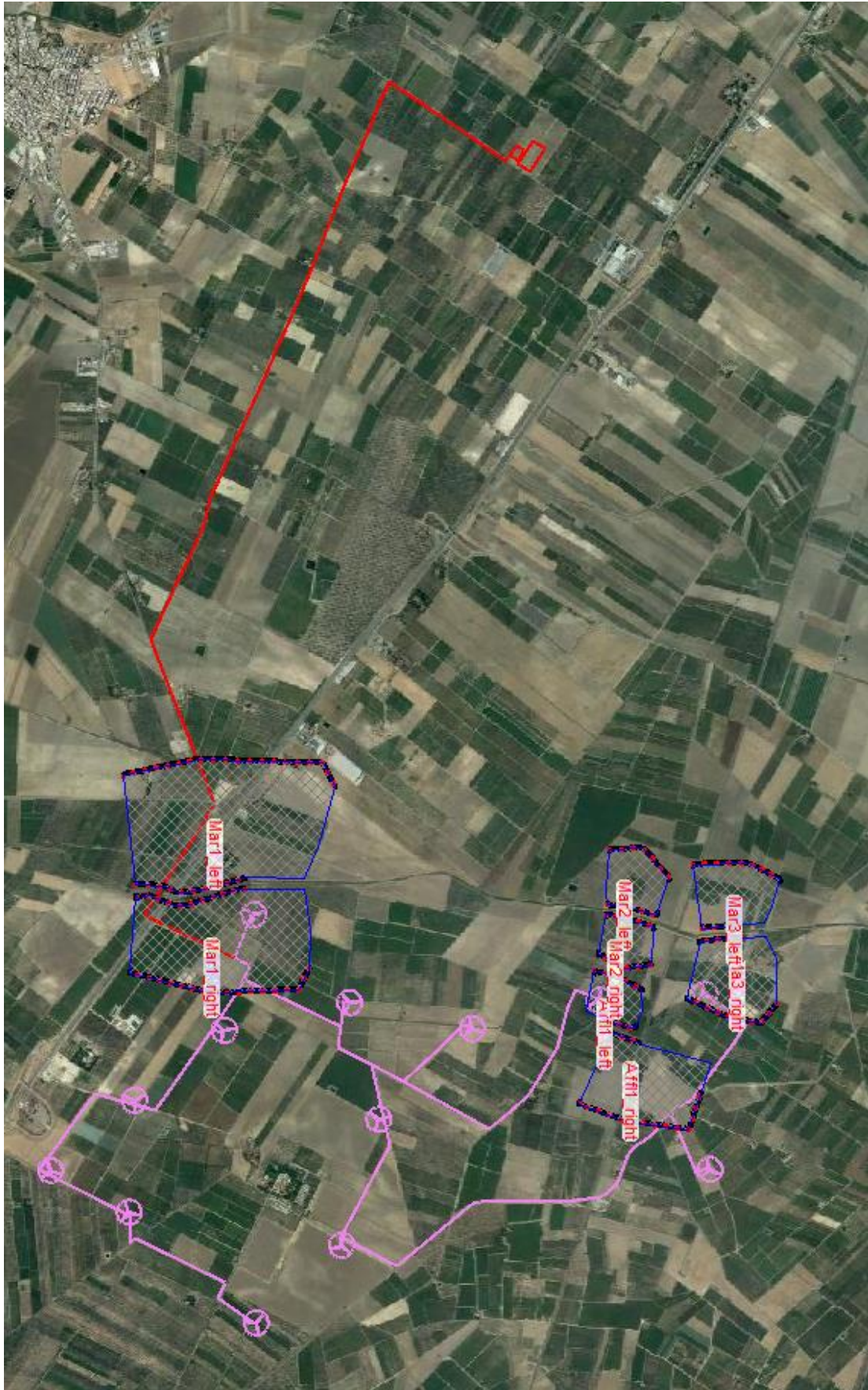


Figura 5. Superfici oggetto della modellazione bidimensionale

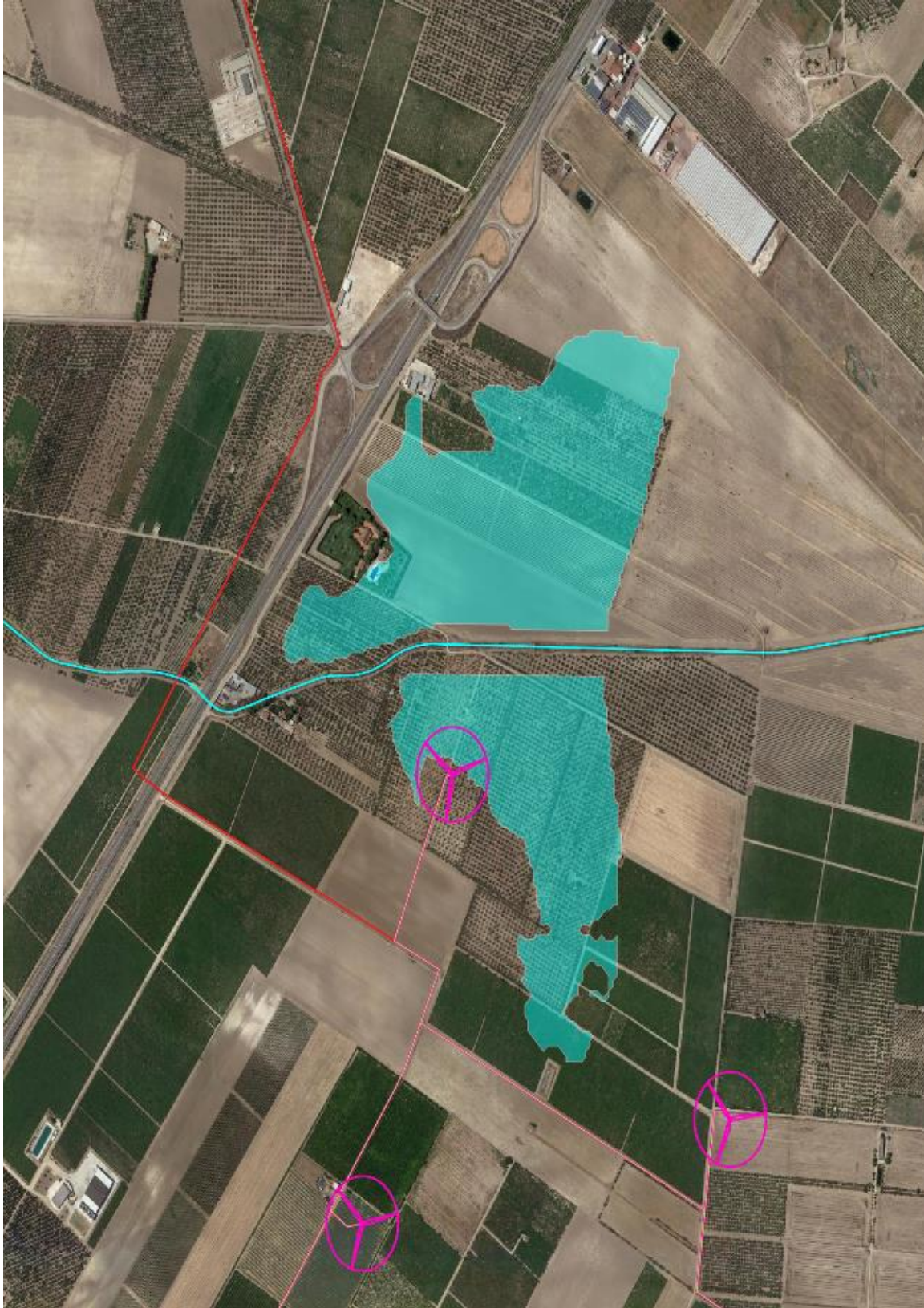


Figura 6. Planimetria Torrente Marana Castello - primo segmento con individuazione delle sezioni e delle aree potenzialmente interessate dalla portata avente $tr = 200$ anni e con il risultato della modellazione bidimensionale (tratteggio verde)

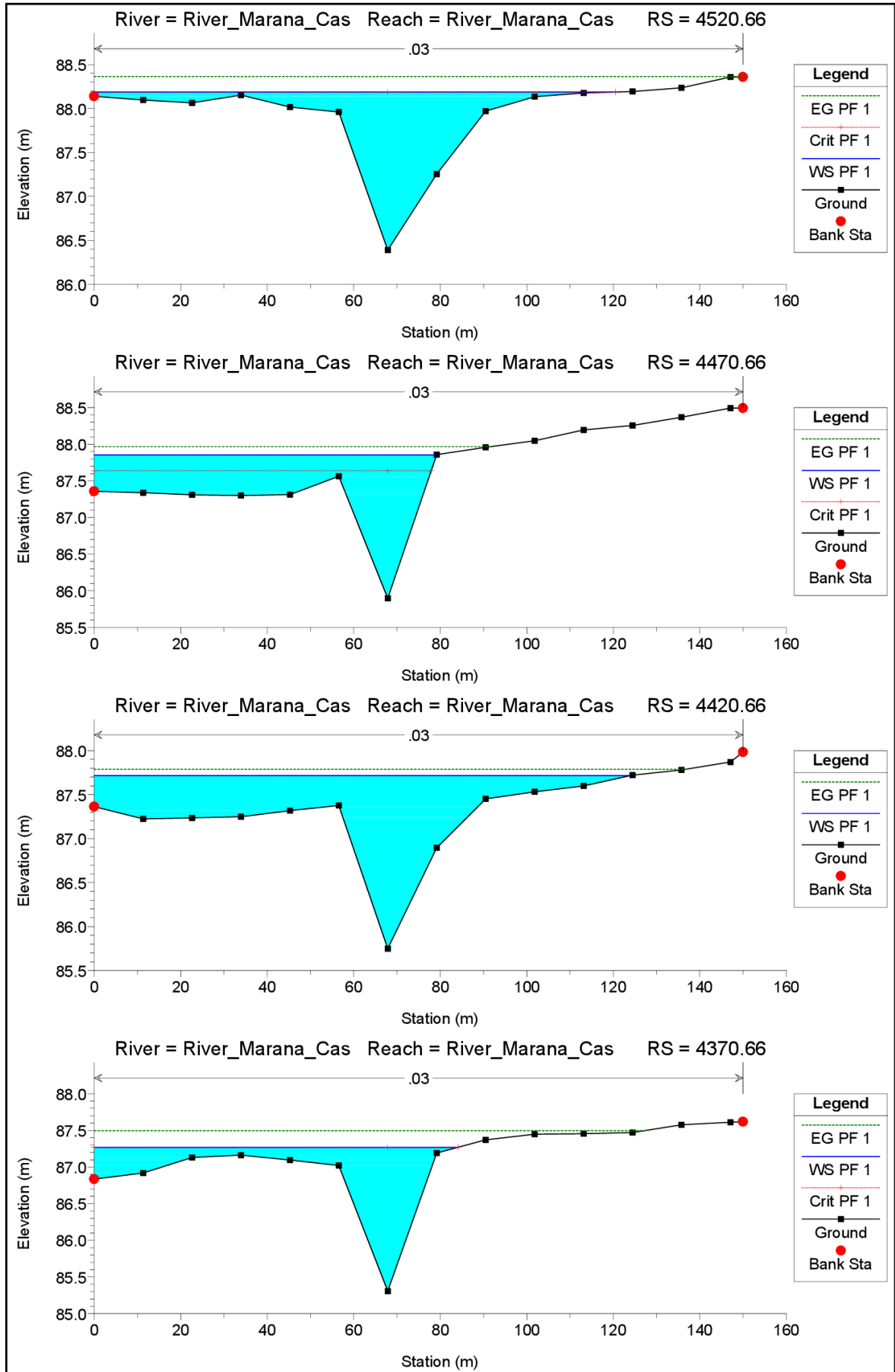


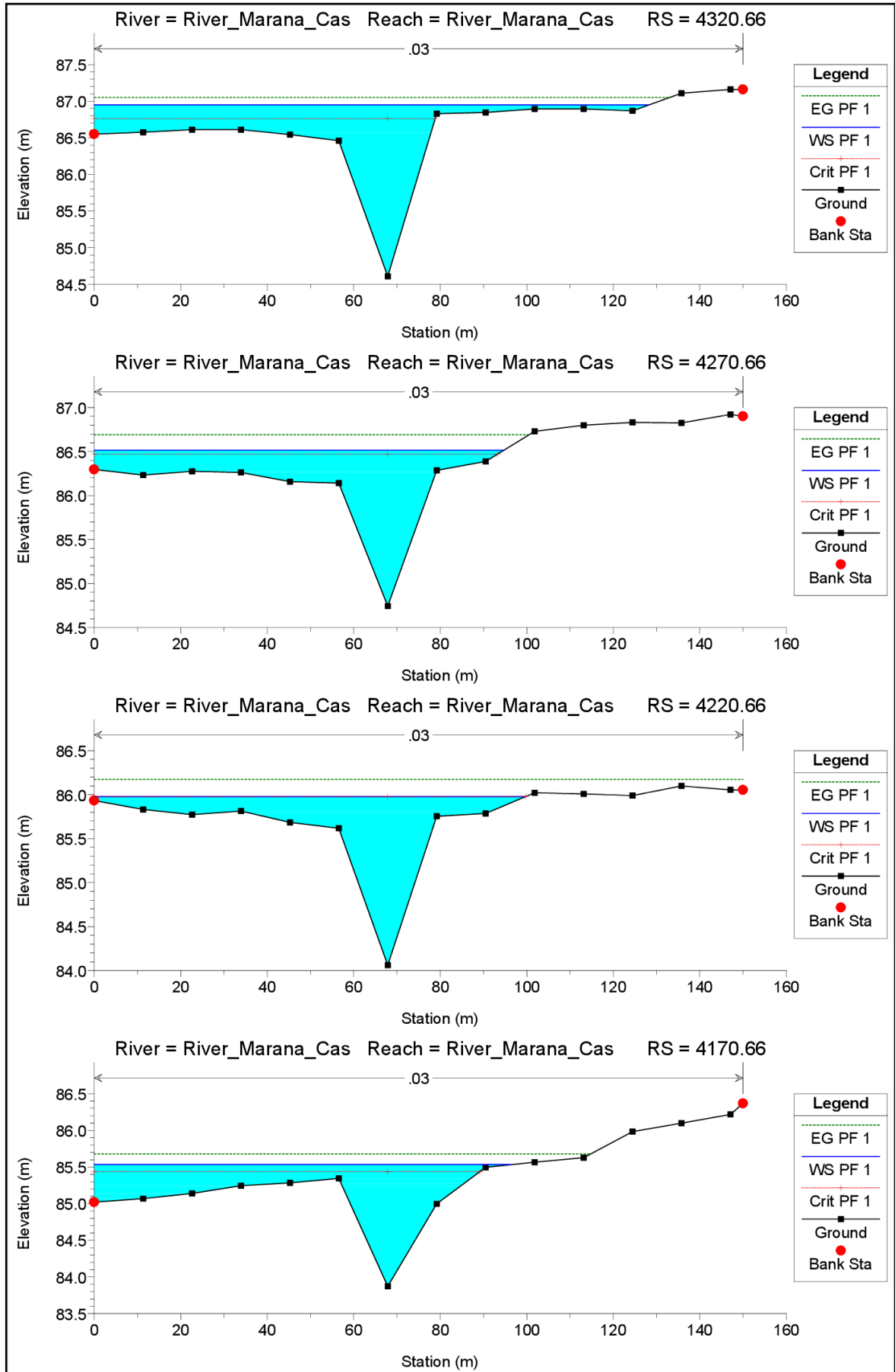
Figura 7. Planimetria Torrente Marana Castello – secondo e terzo segmento e Affluente minore Torrente Marana Castello con individuazione delle sezioni e delle aree potenzialmente interessate dalla portata avente $tr = 200$ anni e con il risultato della modellazione bidimensionale (tratteggio verde)

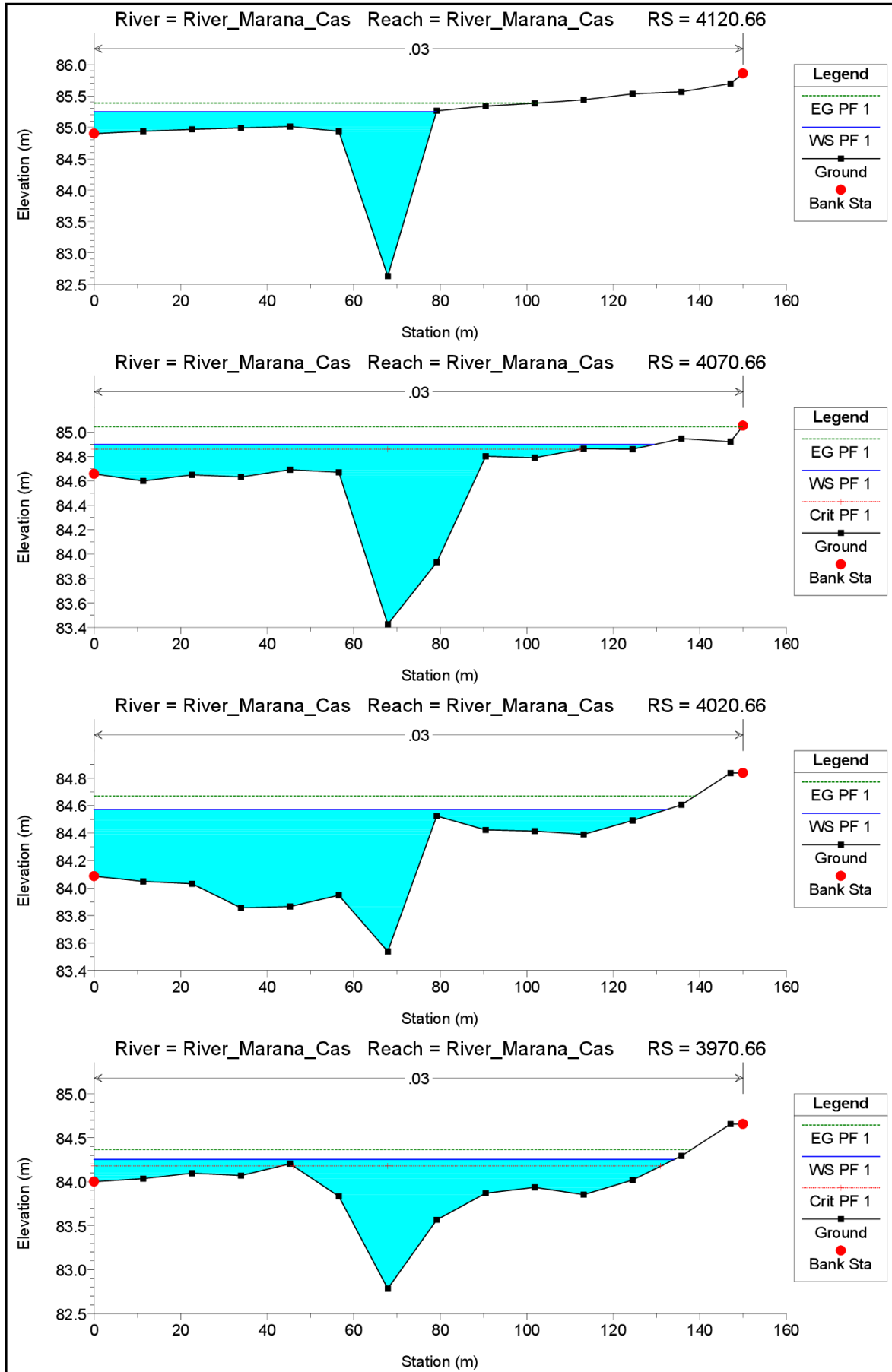
5. CONCLUSIONI

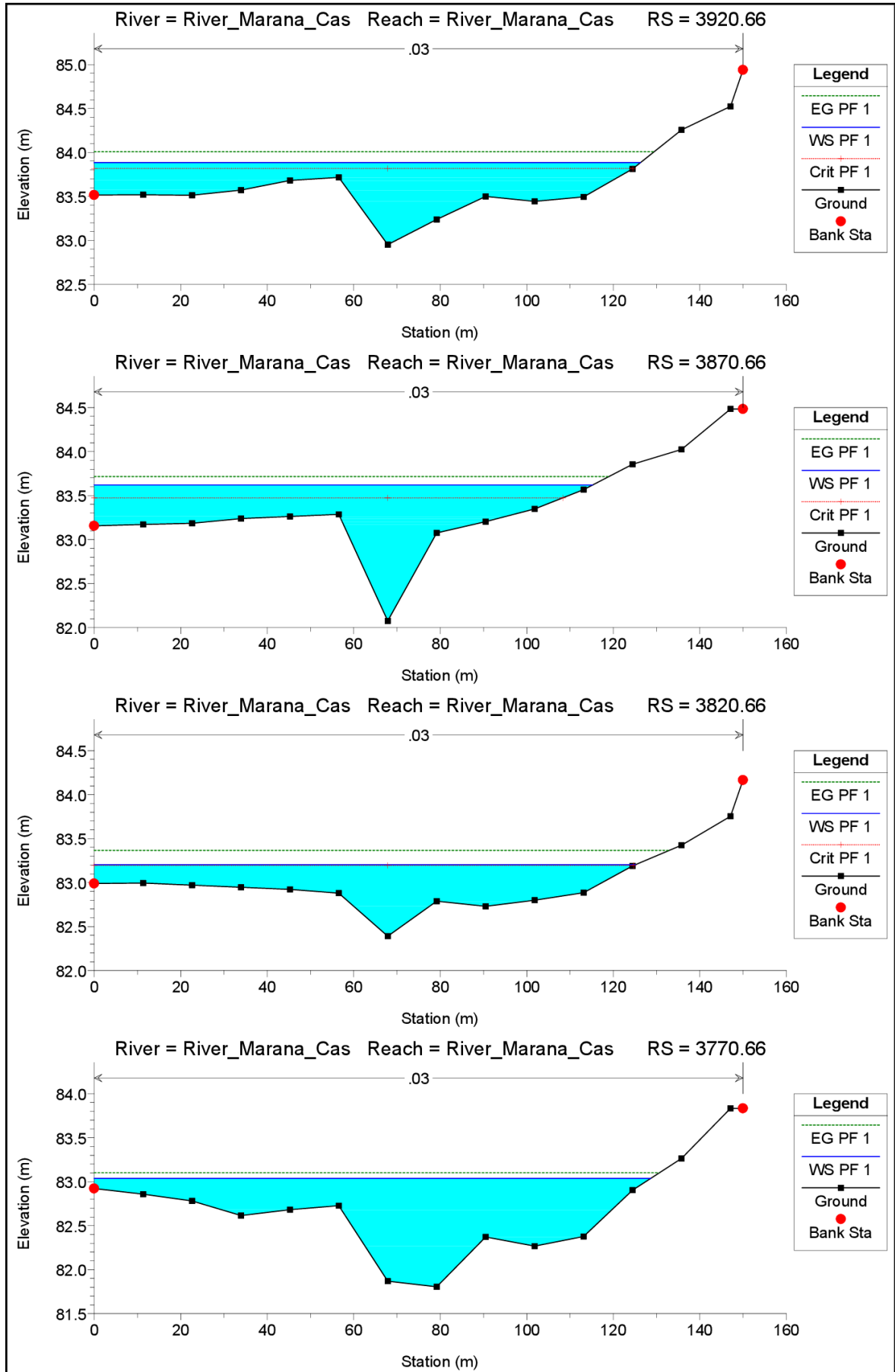
Sulla base dello studio idrologico riportato nell'elaborato **V-22** in allegato, che ha portato alla definizione delle portate di piena transitanti nei canali, per un tempo di ritorno di 200 anni, è stato condotto uno studio idraulico consistente nella modellazione e valutazione idraulica della rete idrografica potenzialmente soggette a criticità, ed il tutto è stato svolto in condizioni di moto permanente. Per lo svolgimento della modellazione idraulica è stato utilizzato il software HEC- RAS River Analysis System. Dai risultati dell'analisi monodimensionale si osserva come gli alvei attualmente esistenti risultano adeguati al trasporto della portata avente tempo di ritorno 200 anni. A questo fanno eccezione alcuni tratti lungo il "Torrente Marana Castello" ed "Affluente minore Torrente Marana Castello" dove si osservano esondazioni da entrambe le direzioni. La superficie adiacente a questo tratto sarà inoltre interessata dalla presenza dei cavidotti e degli aerogeneratori previsti nel presente progetto, richiedendo una verifica di dettaglio. L'analisi è stata condotta in condizioni di moto non stazionario e bidimensionale mediante il medesimo software HEC – RAS utilizzato per la modellazione in moto stazionario. L'esondazione non coinvolge direttamente nessun aerogeneratore e cavidotto, garantendo la sicurezza di questi ultimi. La posa in opera dei cavidotti verrà realizzata con particolare attenzione attraverso una perforazione teleguidata ("Trivellazione Orizzontale Teleguidata" T.O.C.) fino ad una profondità pari a 2 metri al di sotto del fondo alveo.

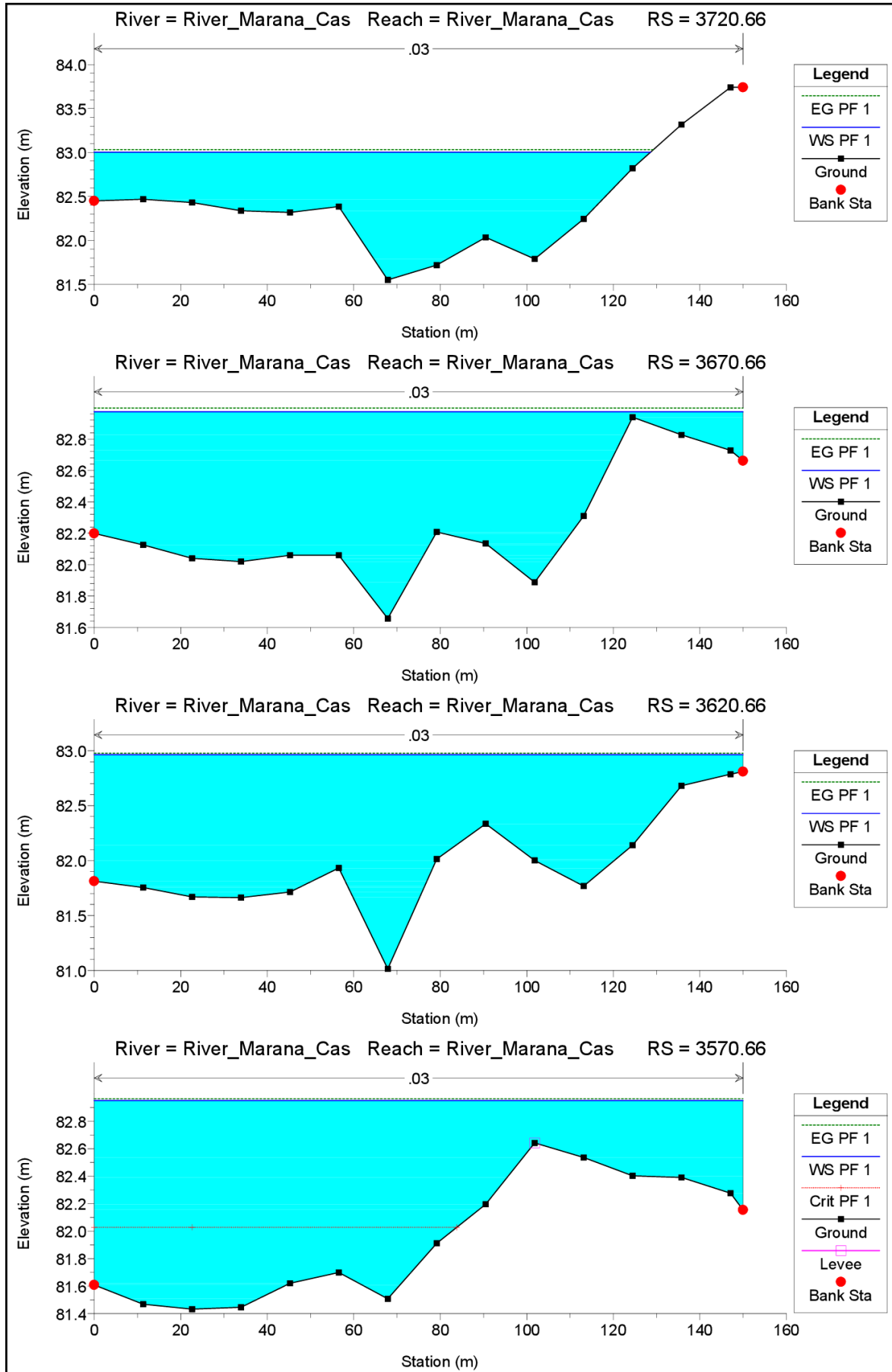
OUTPUT MODELLAZIONE MONODIMENSIONALE

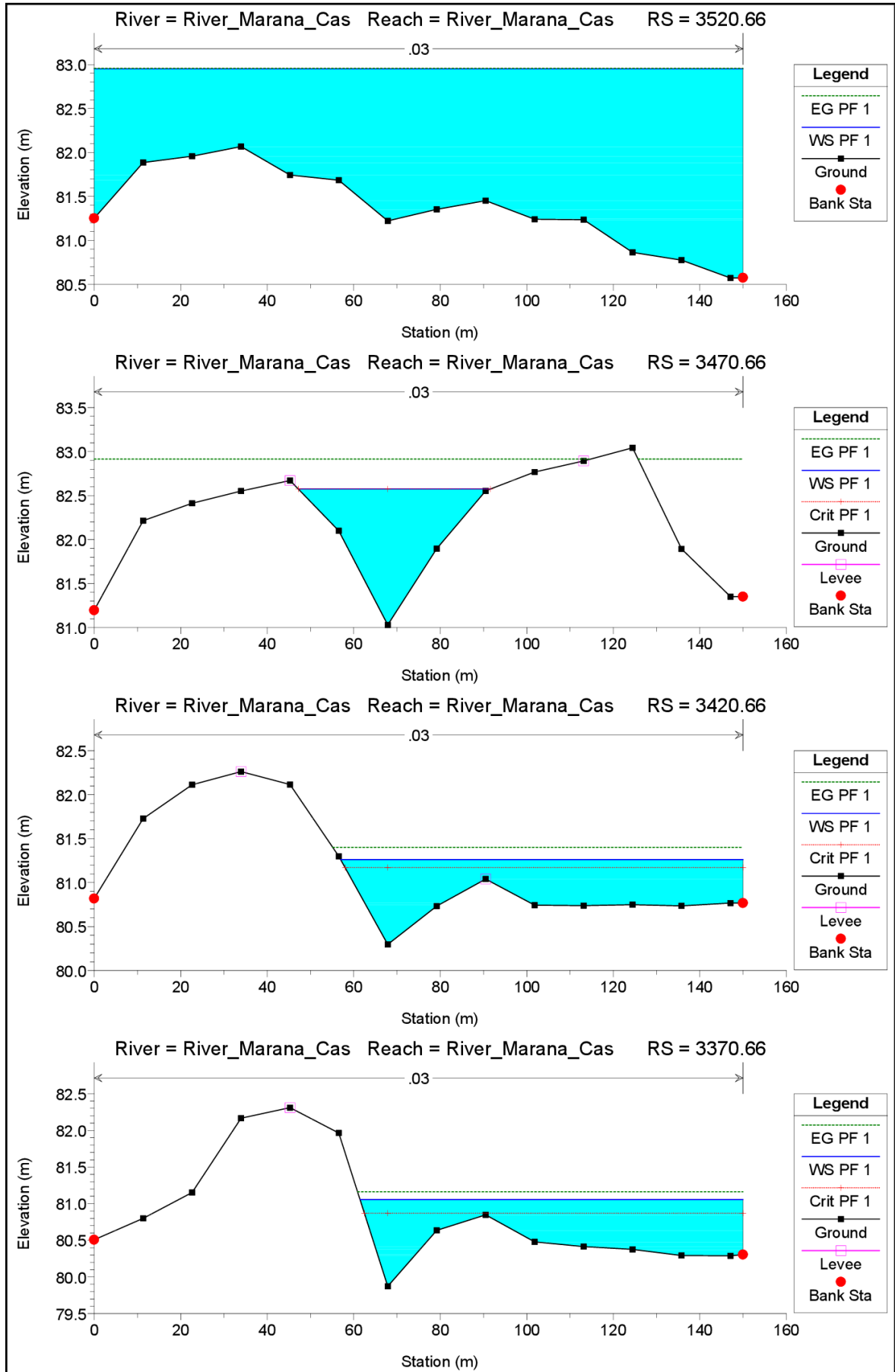


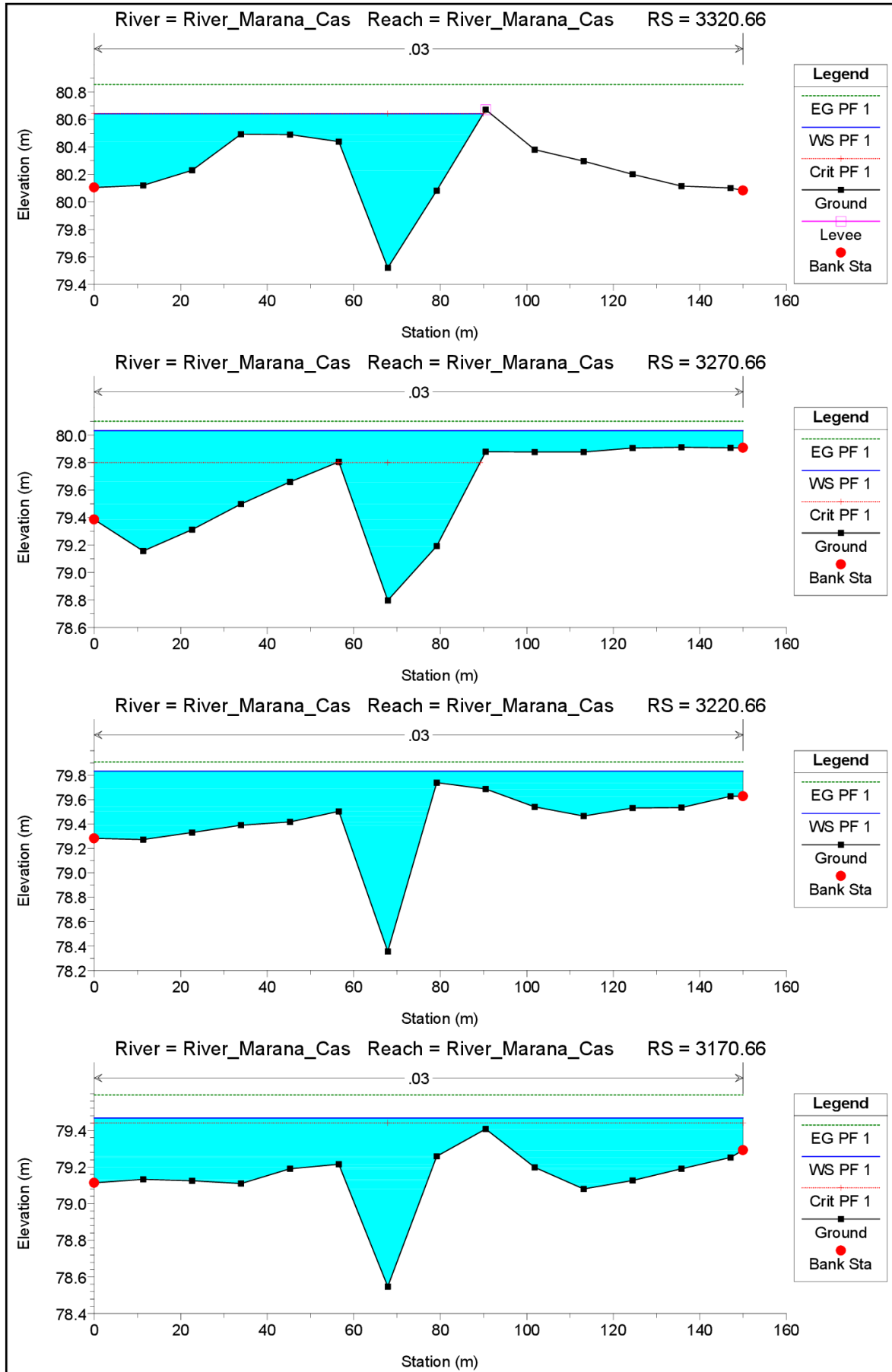


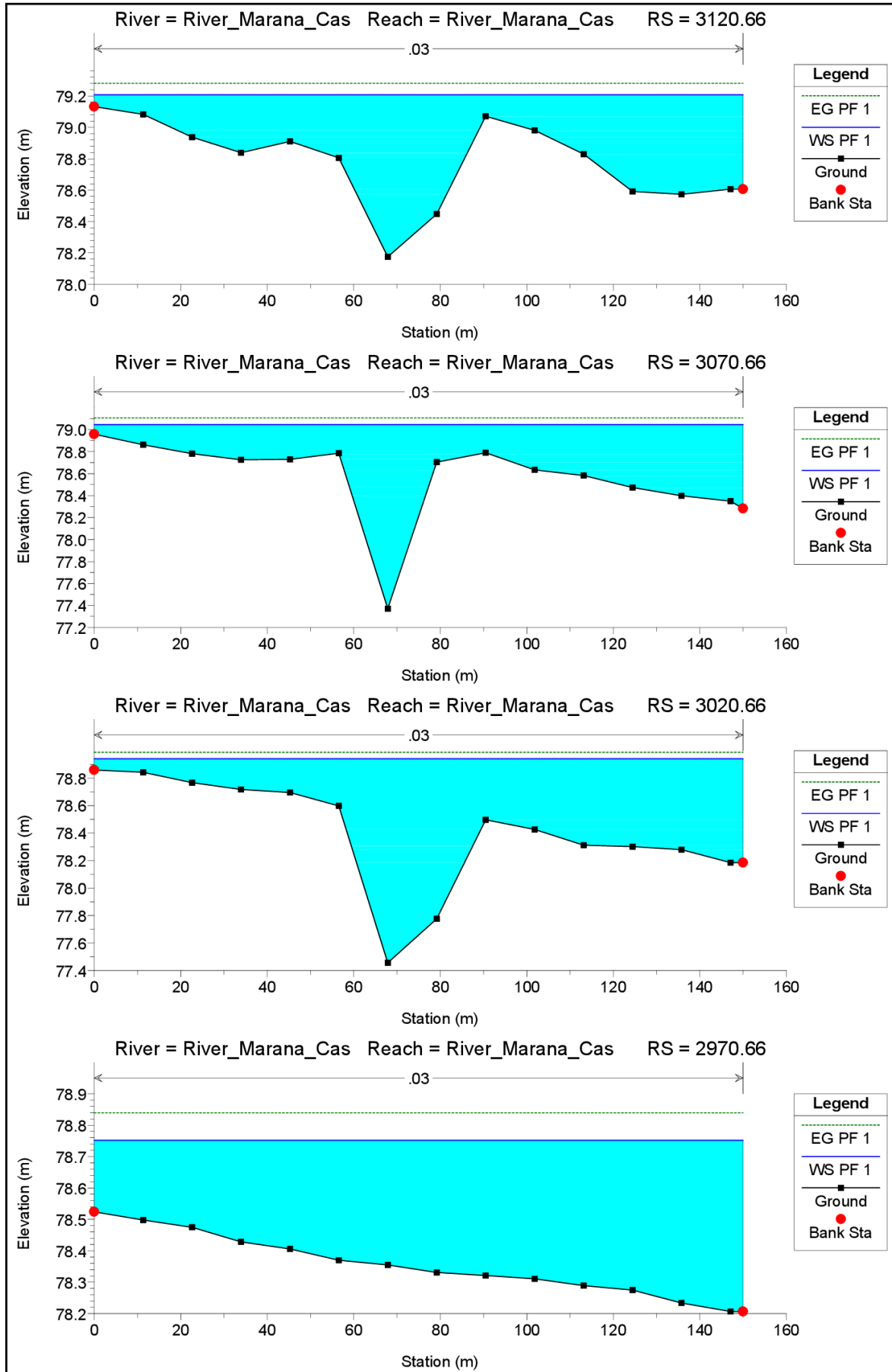


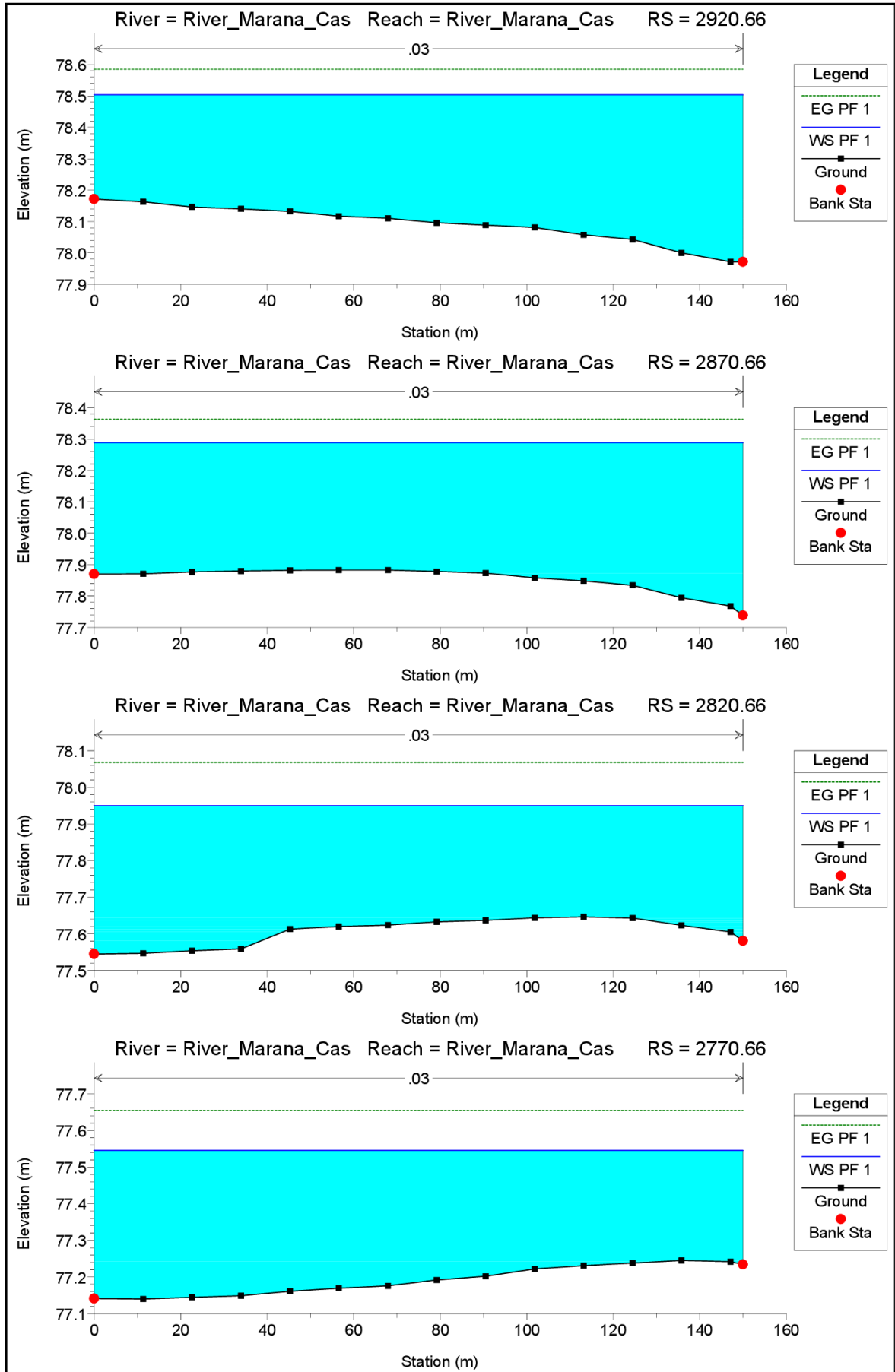


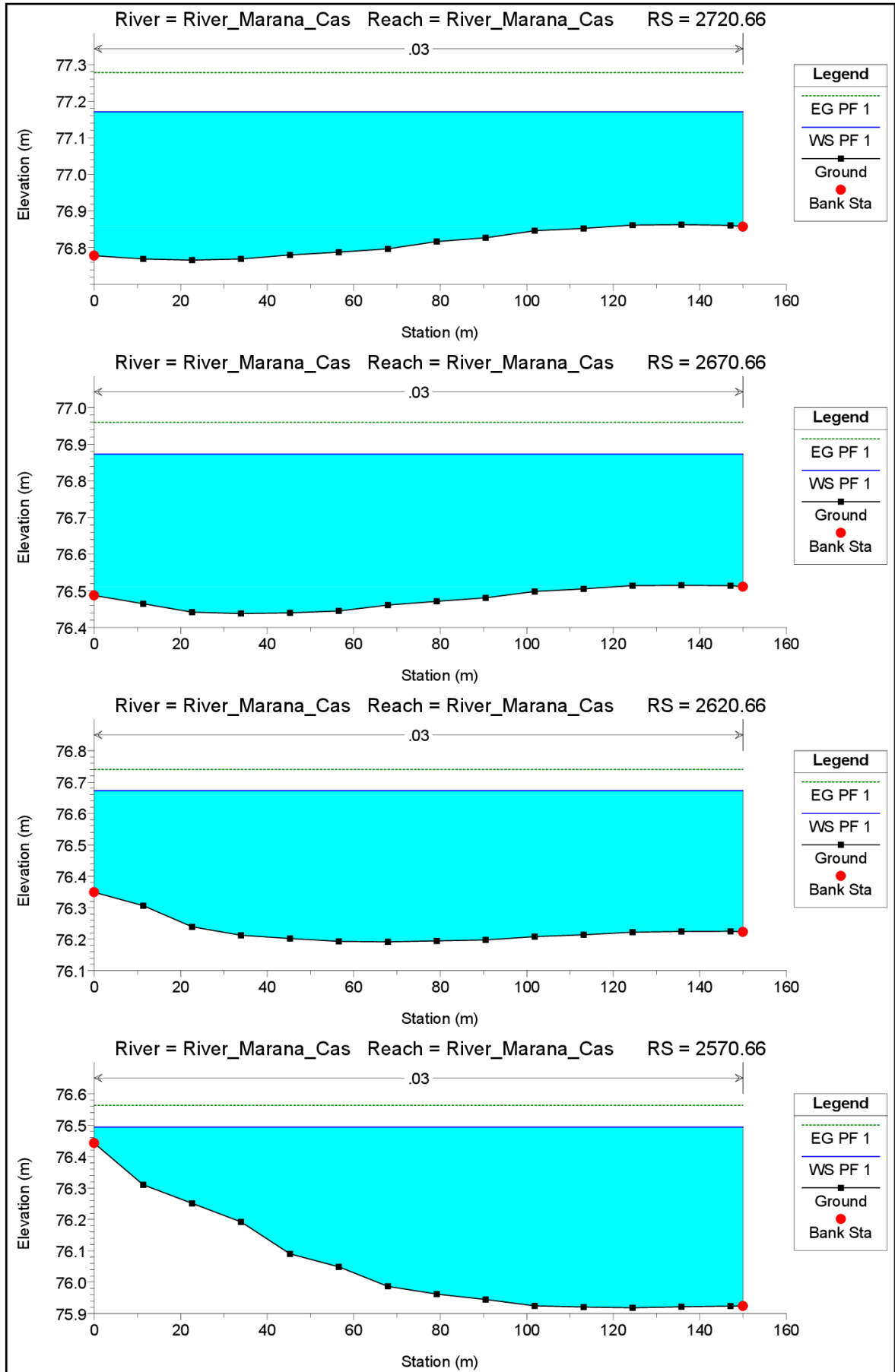


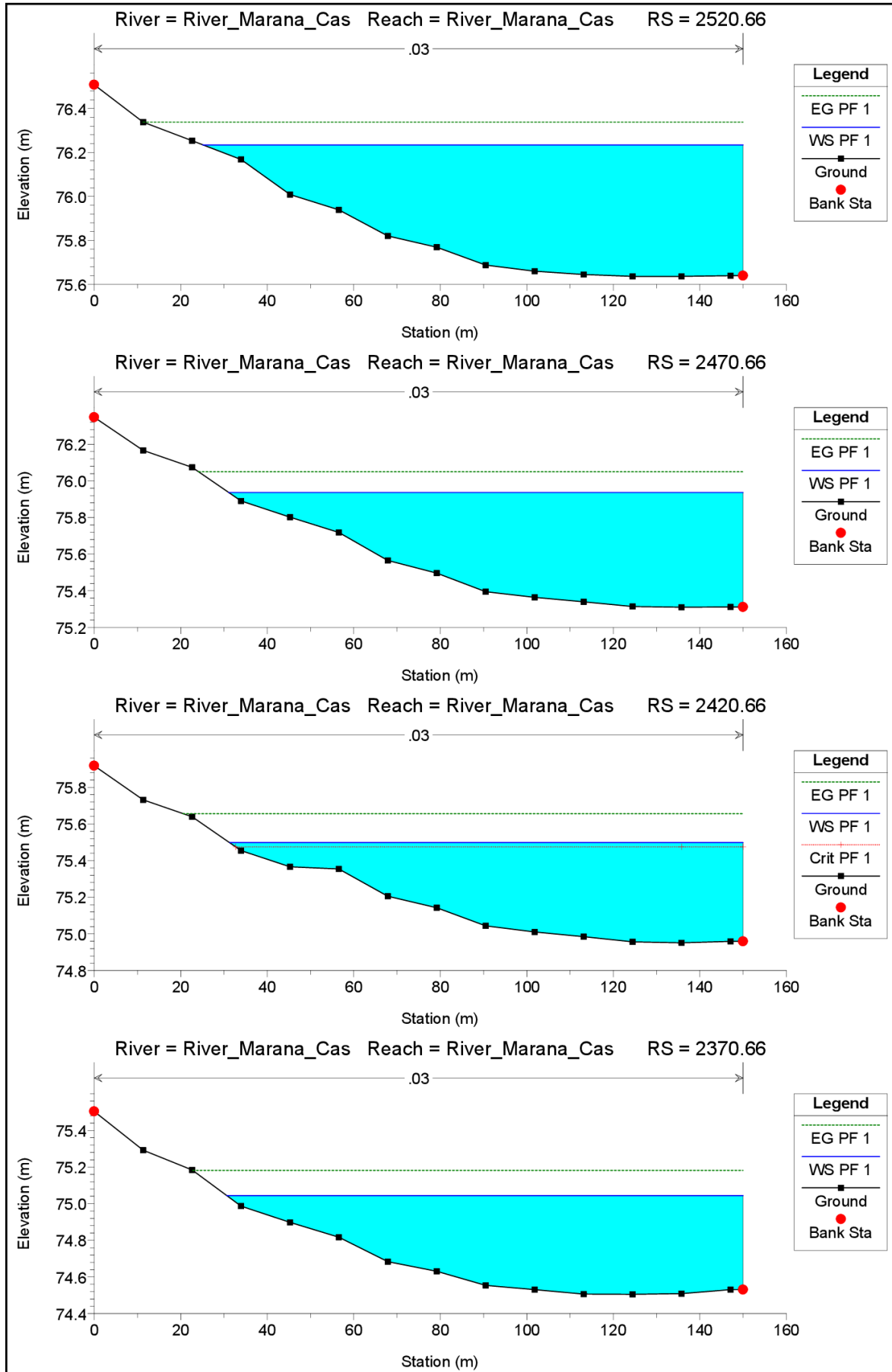


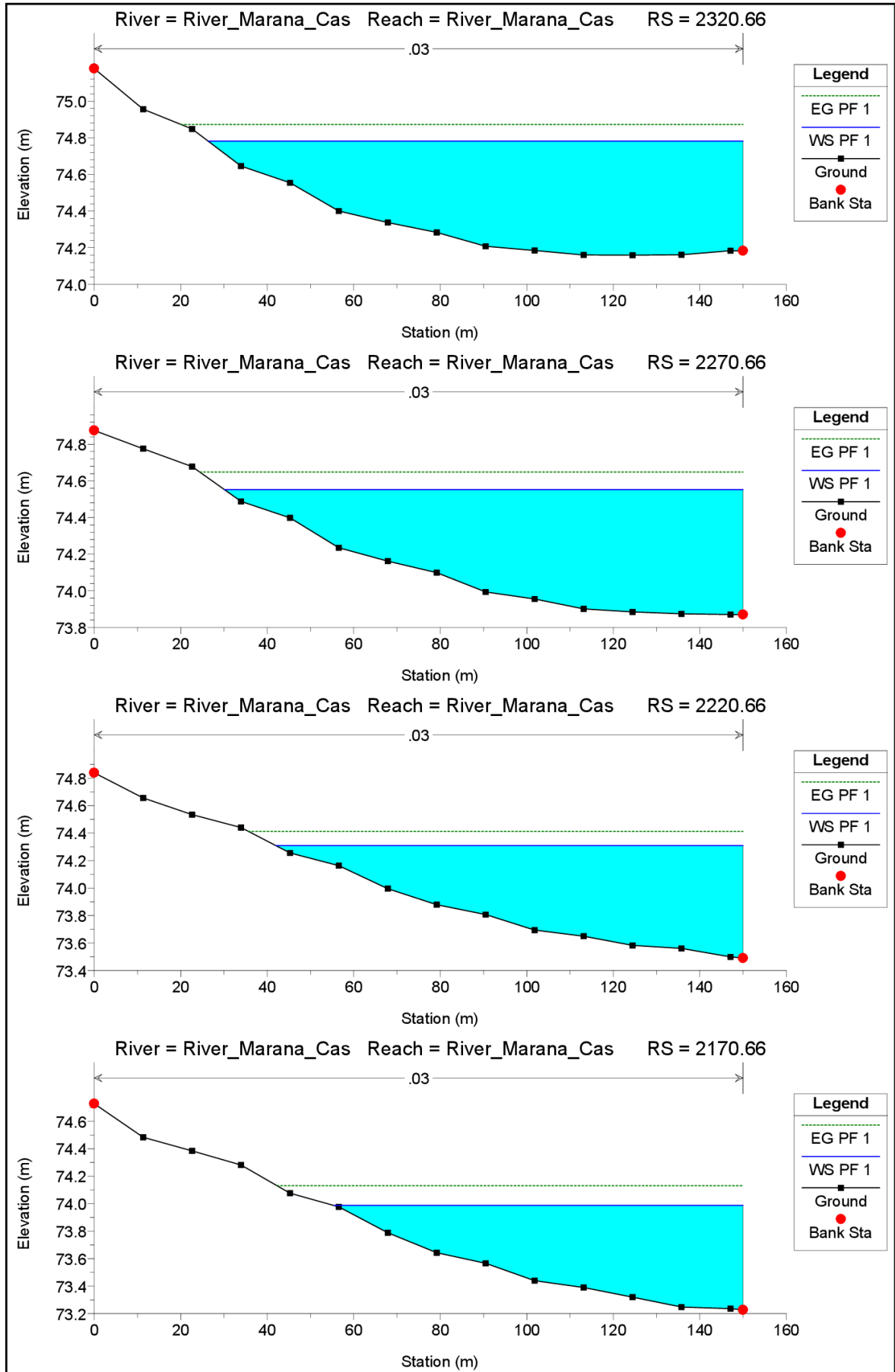


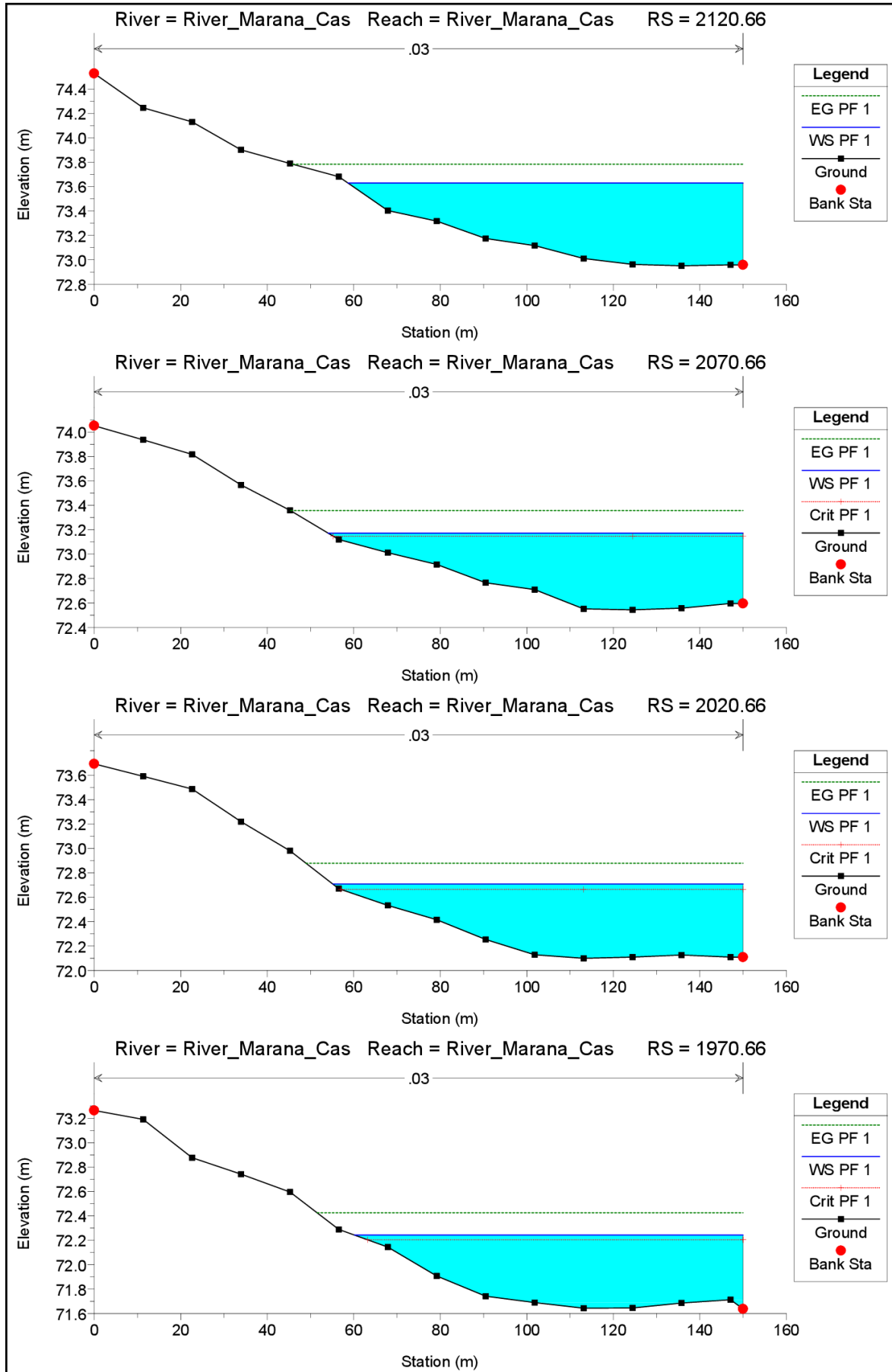


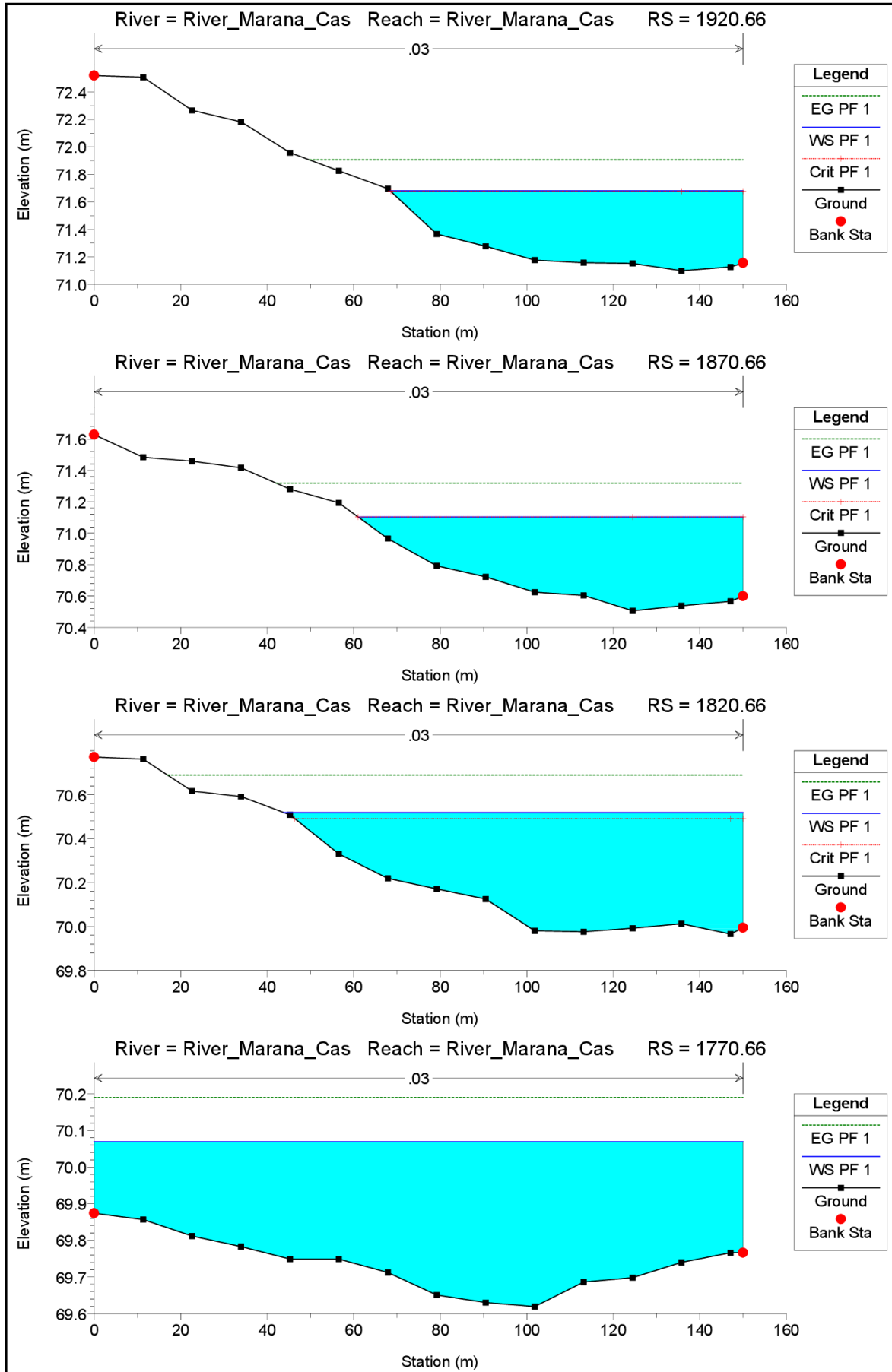


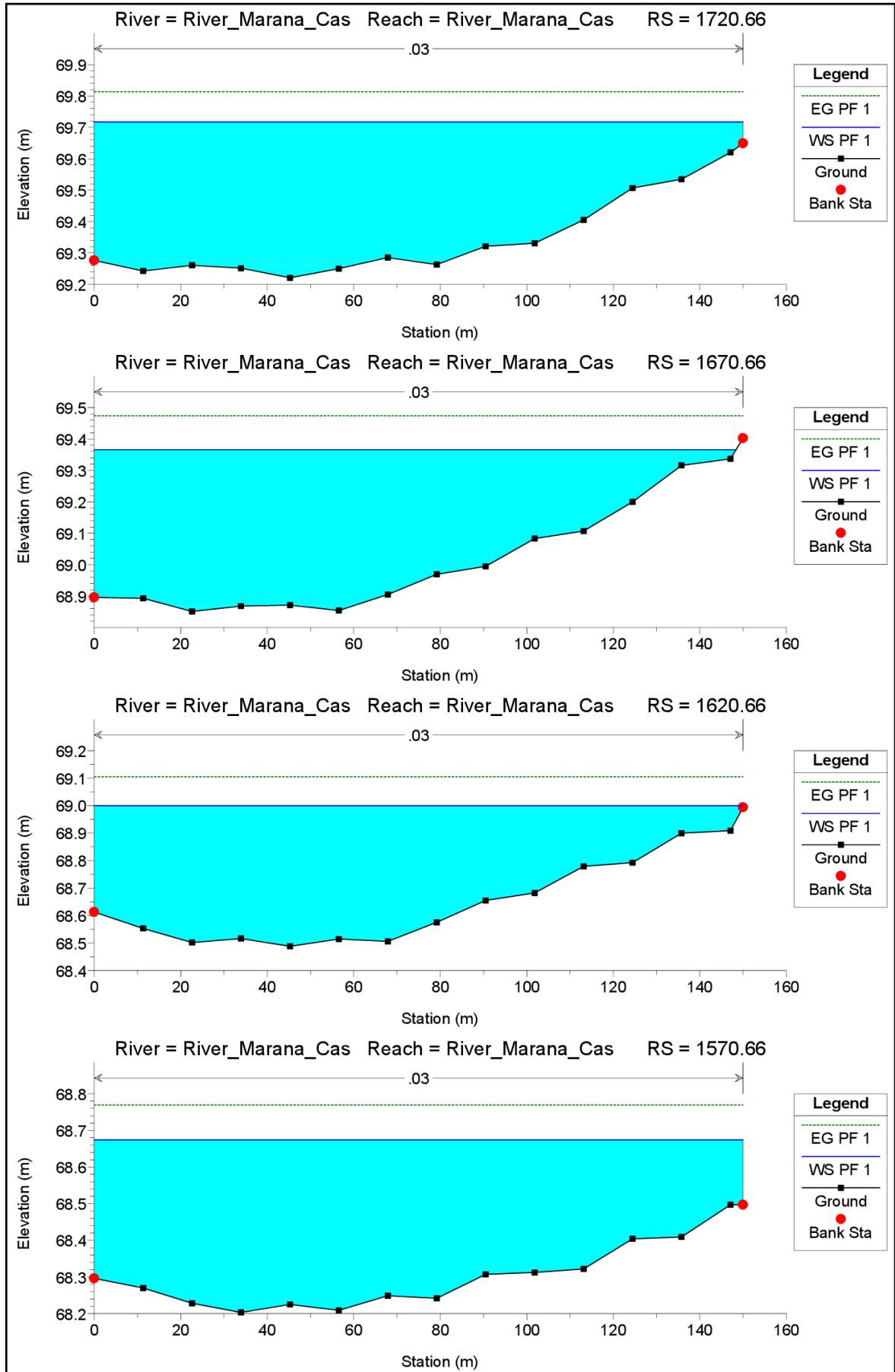


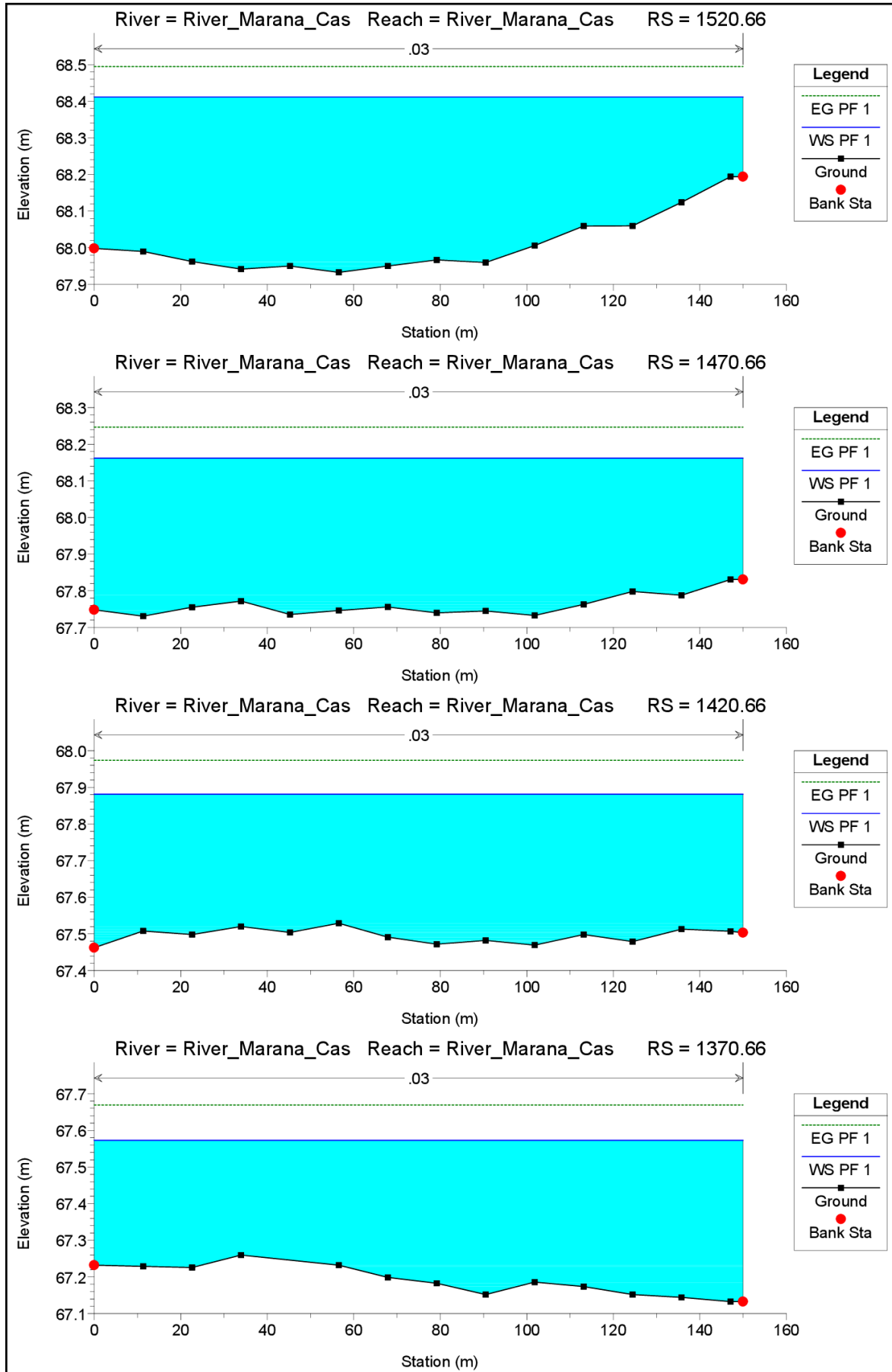


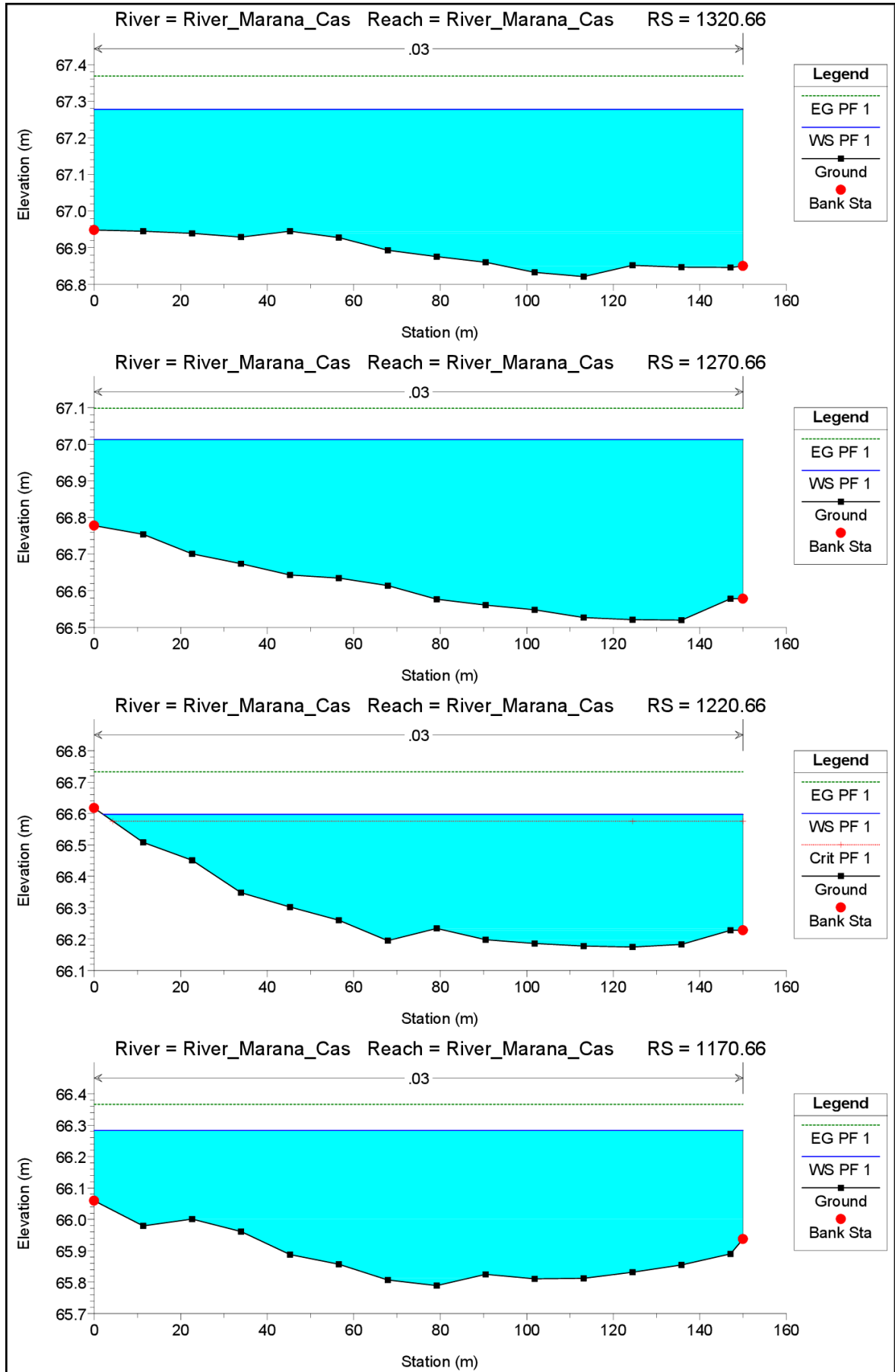


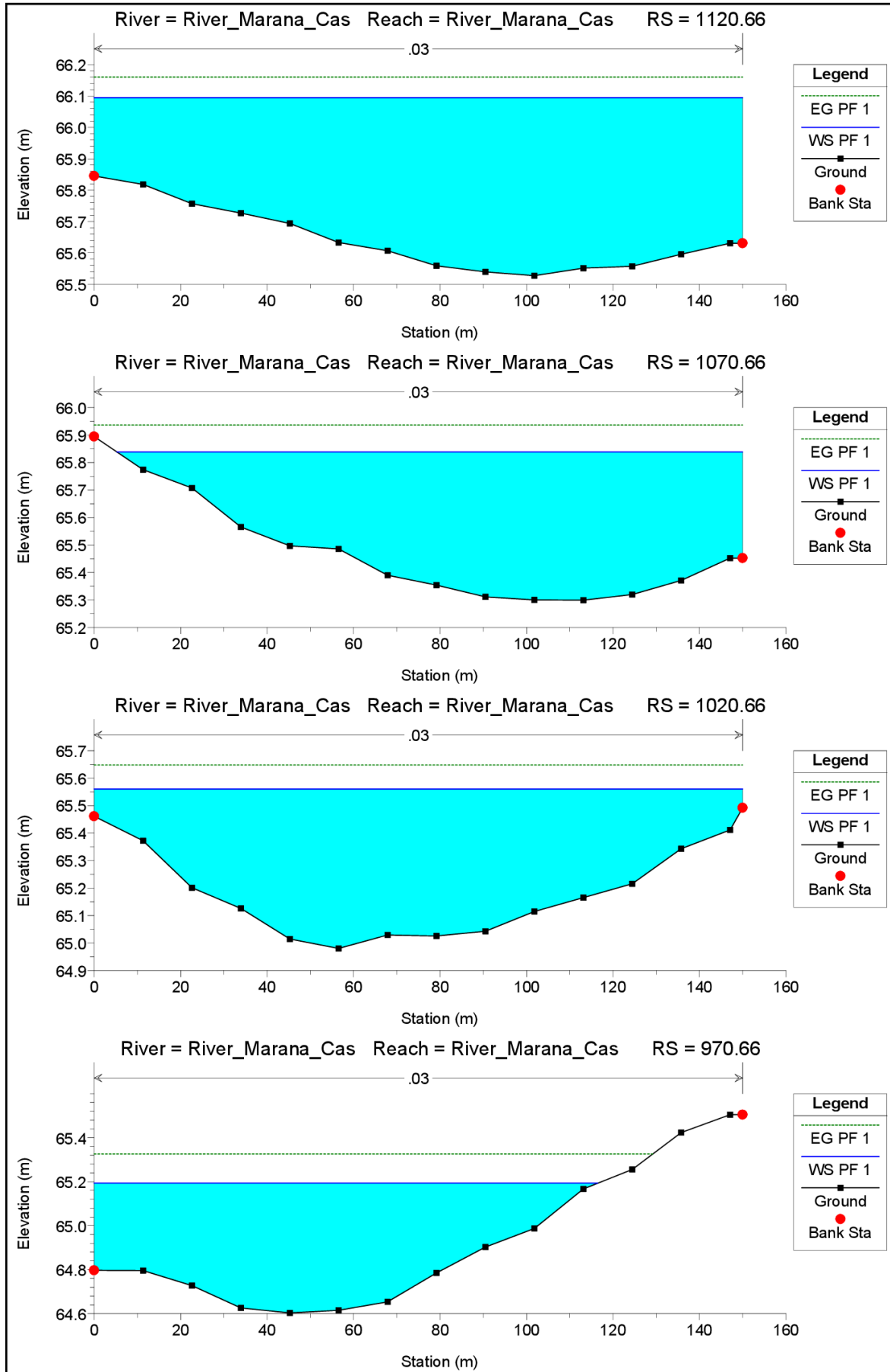


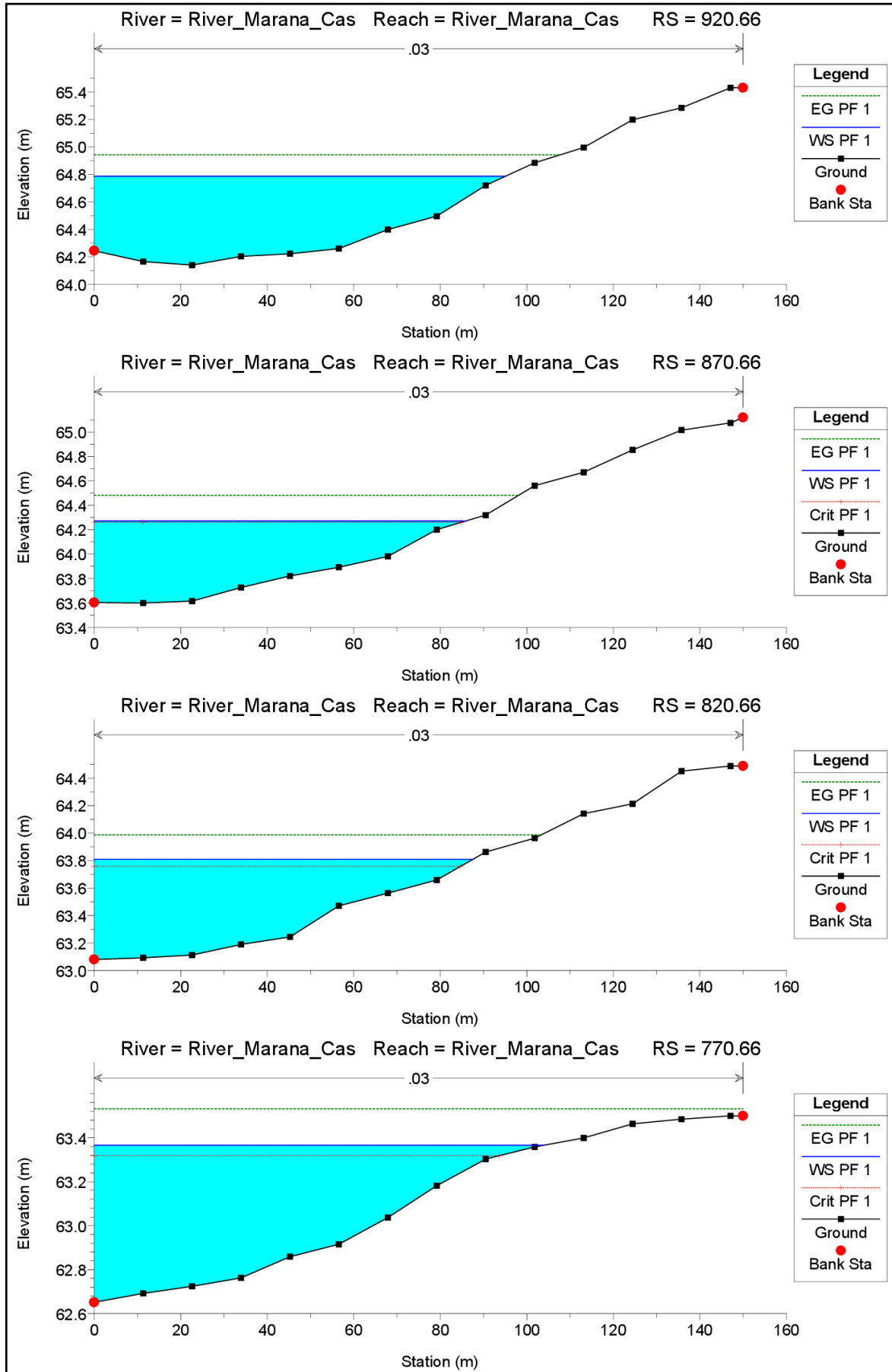


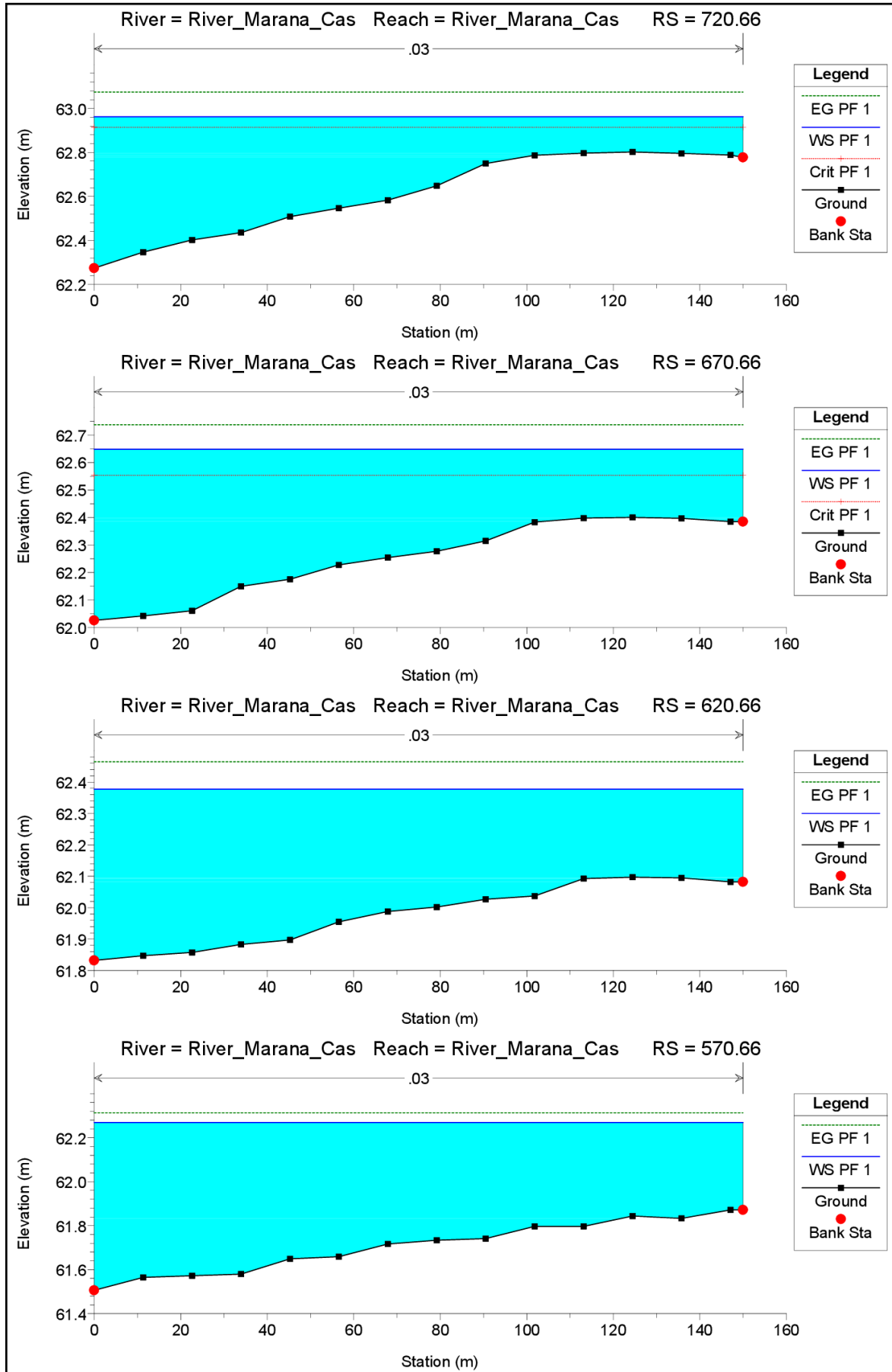


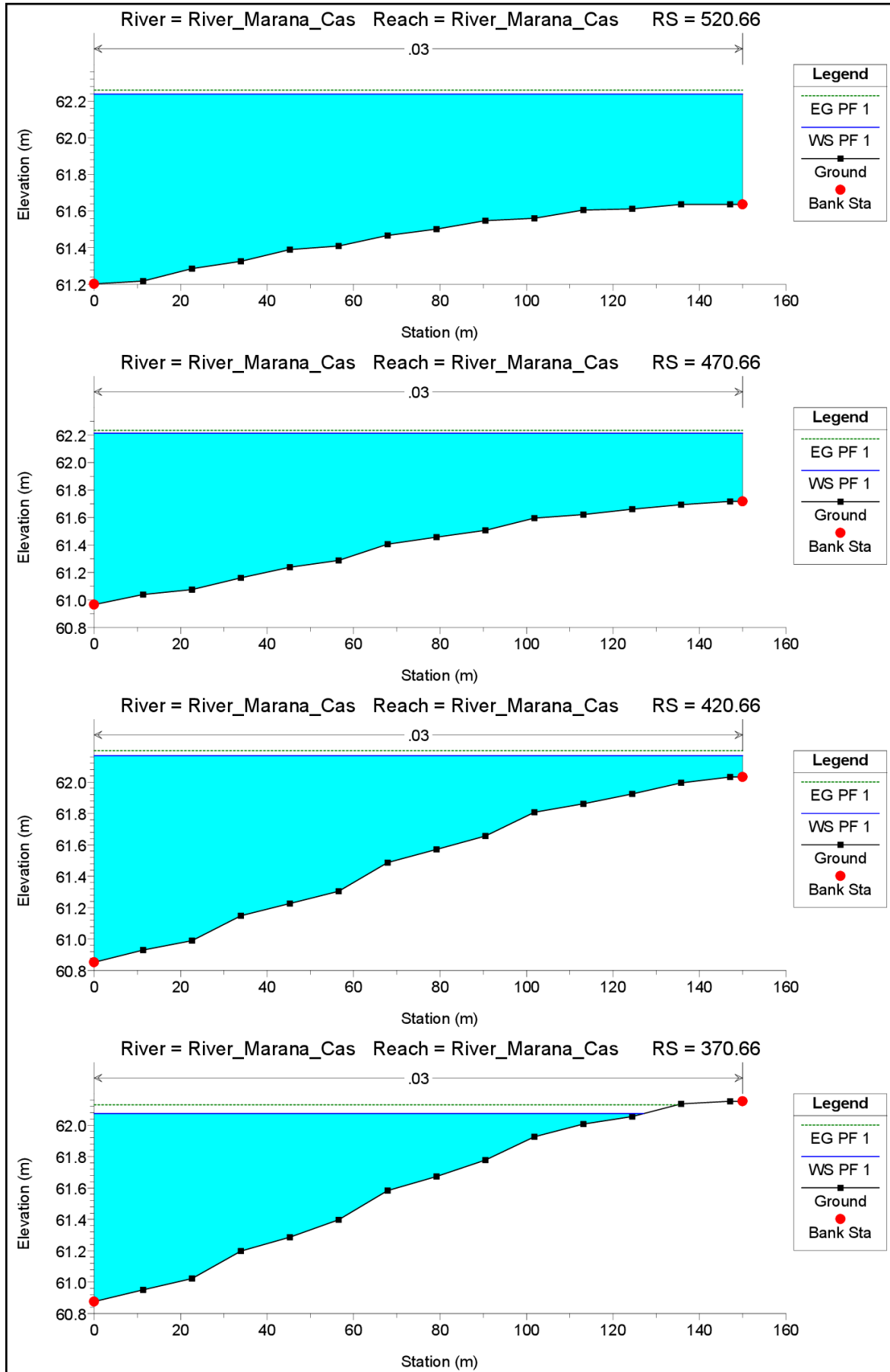


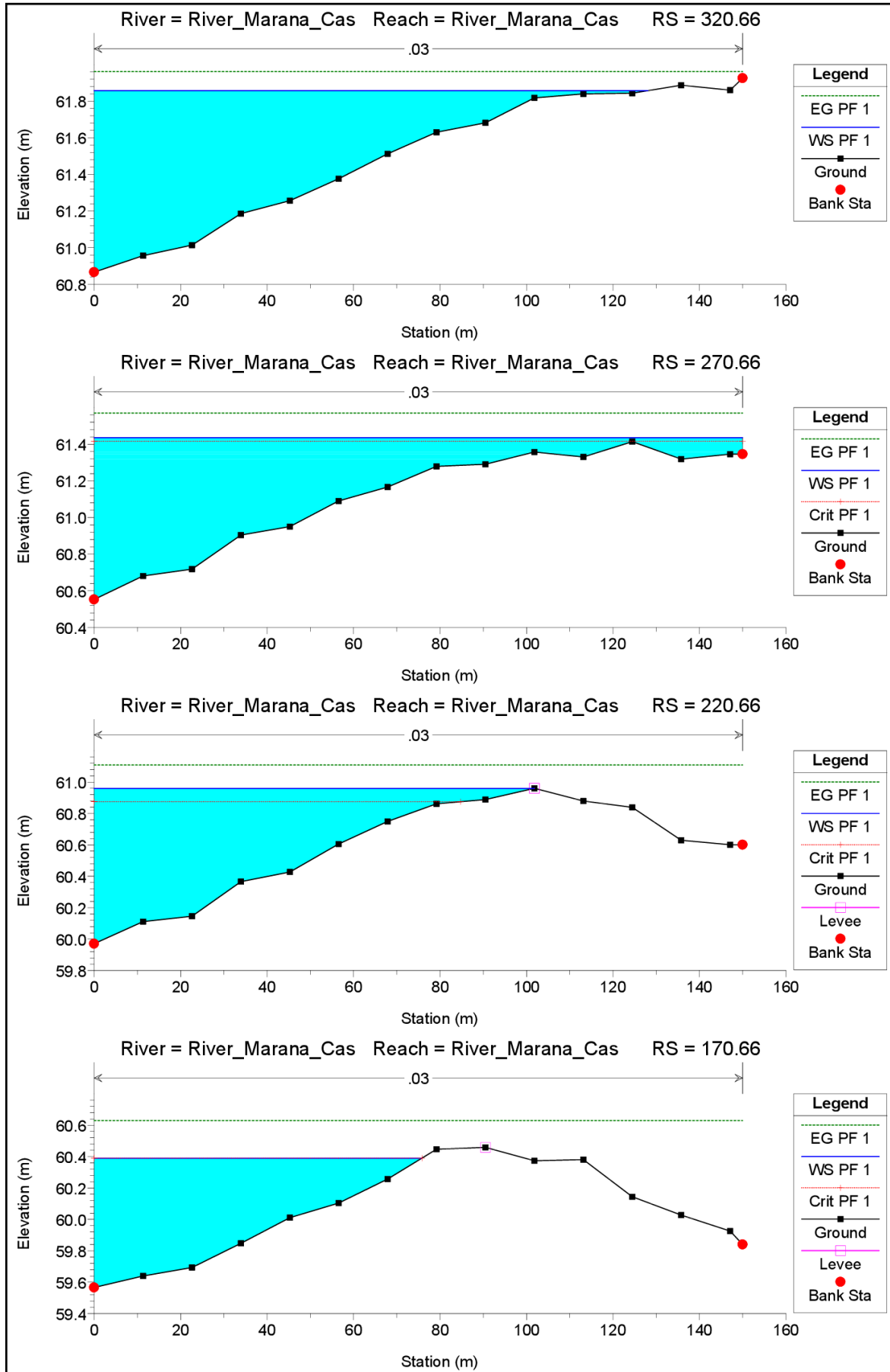


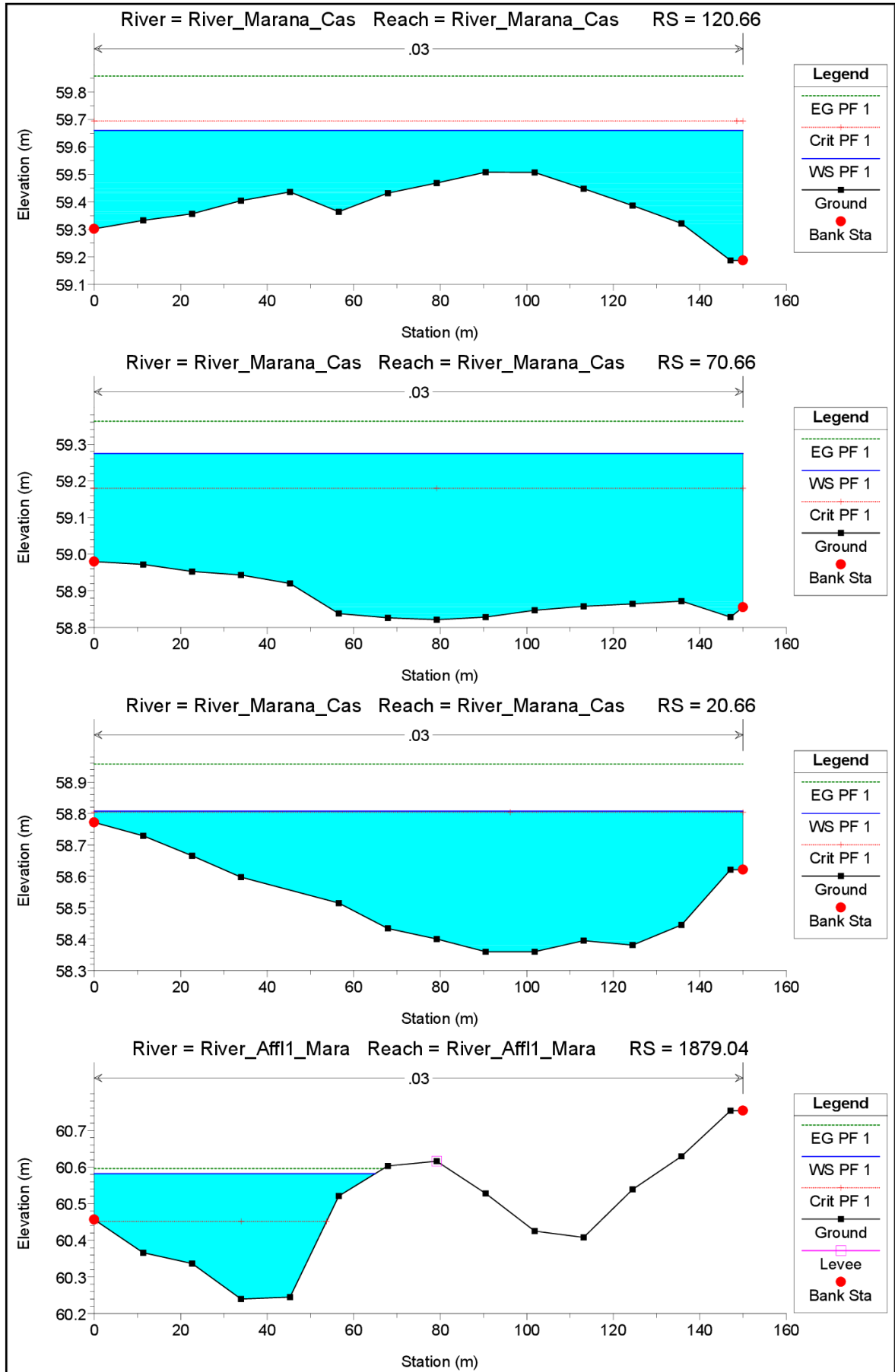


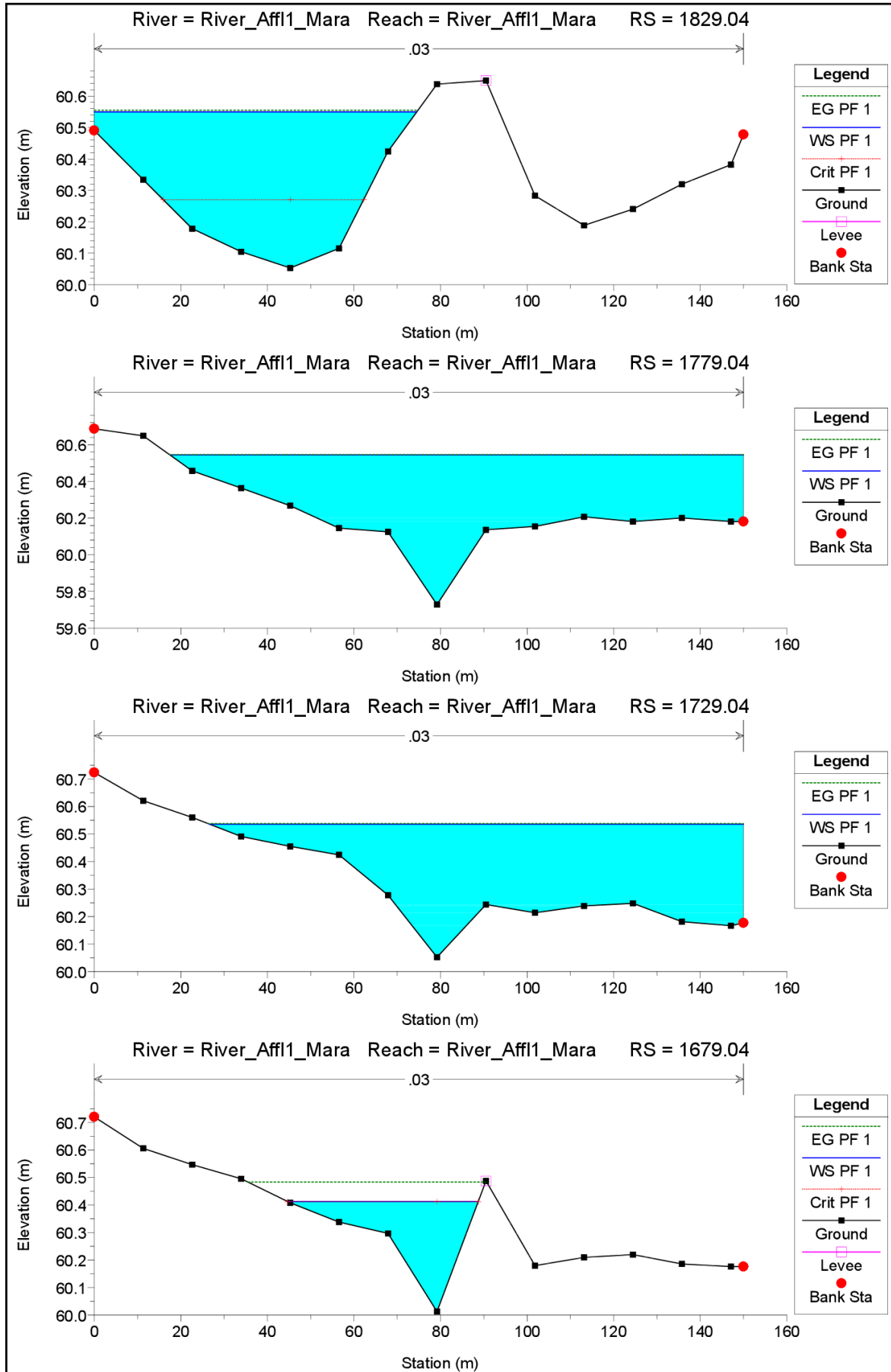


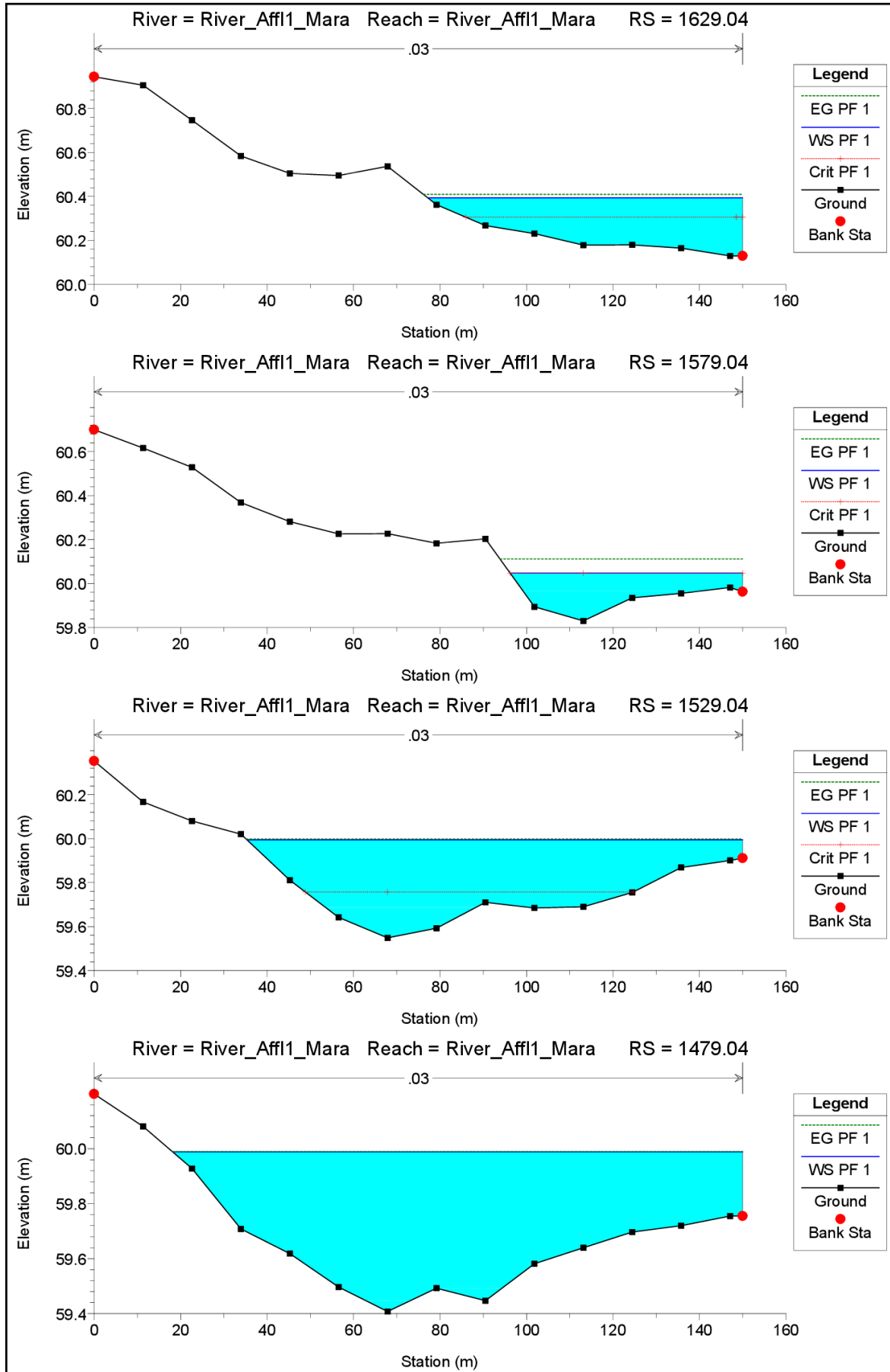


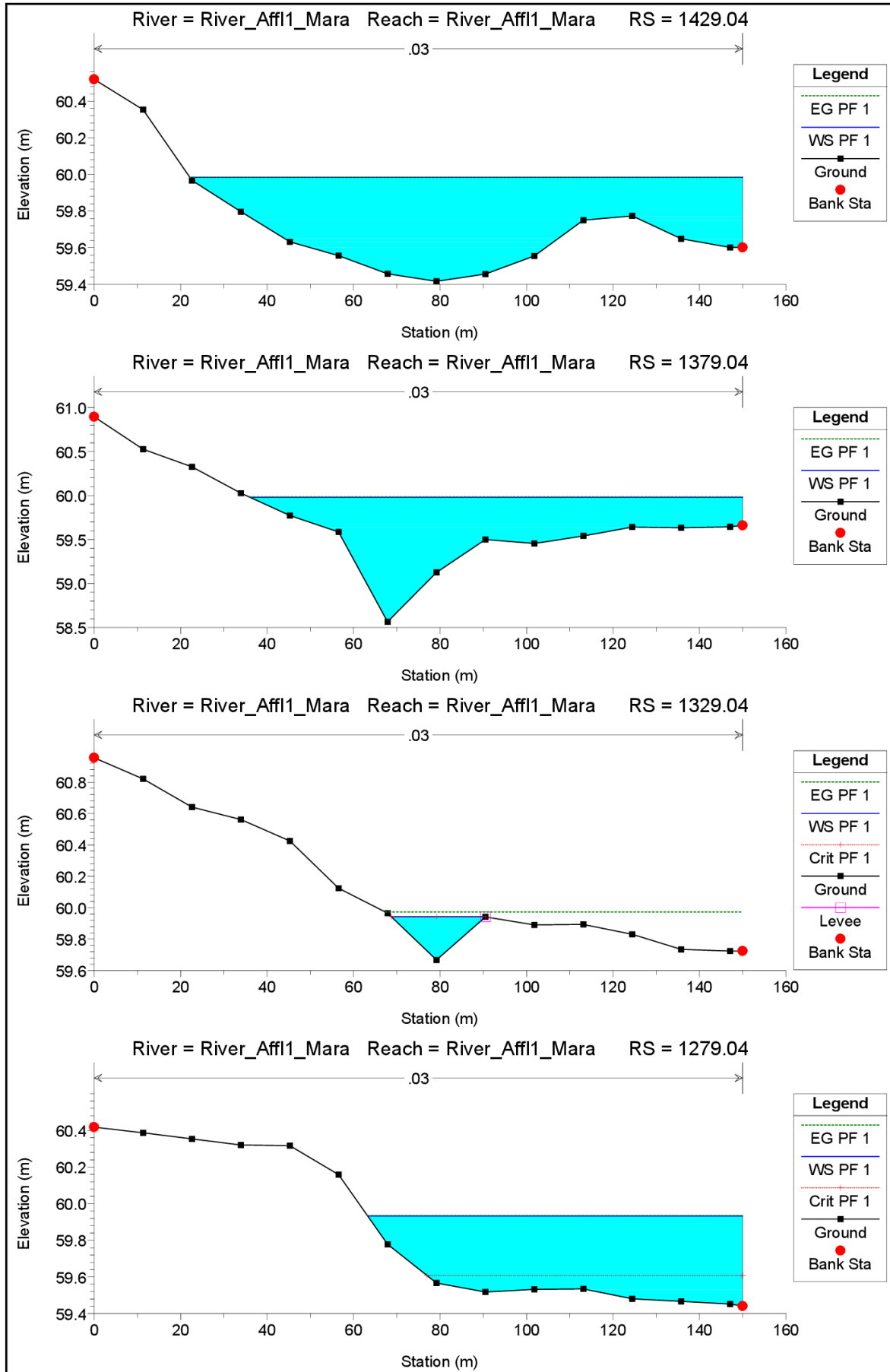


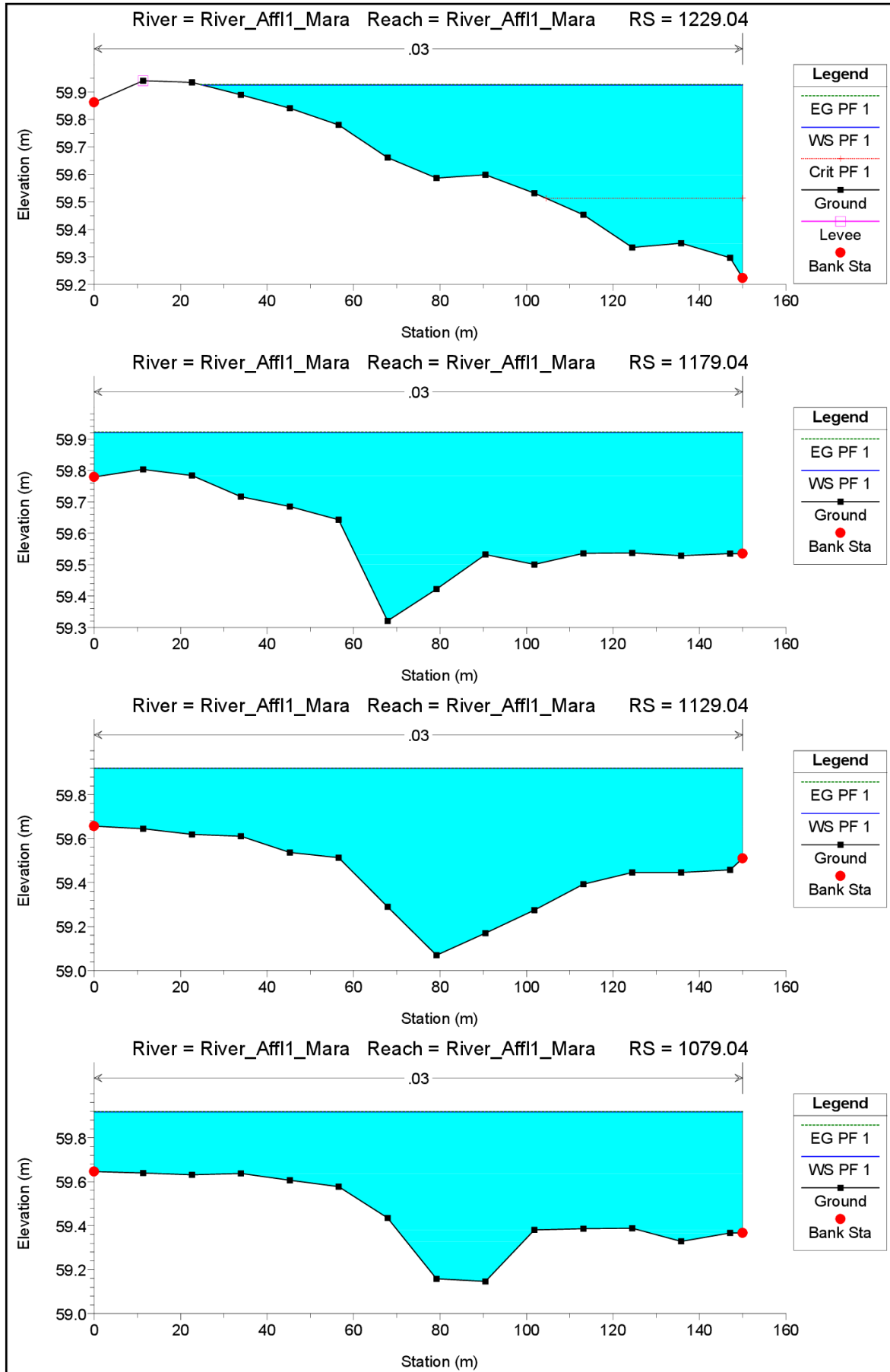


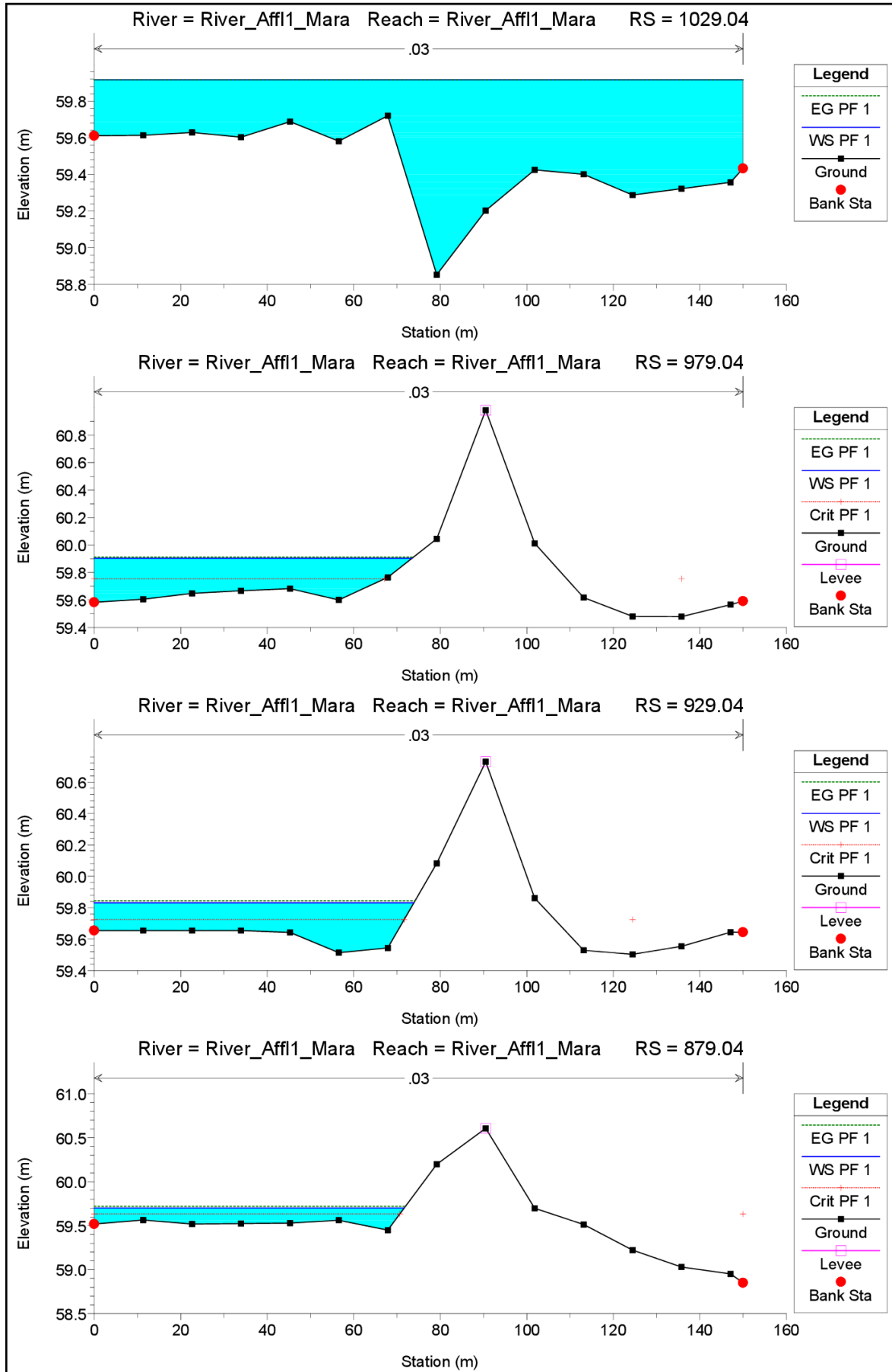


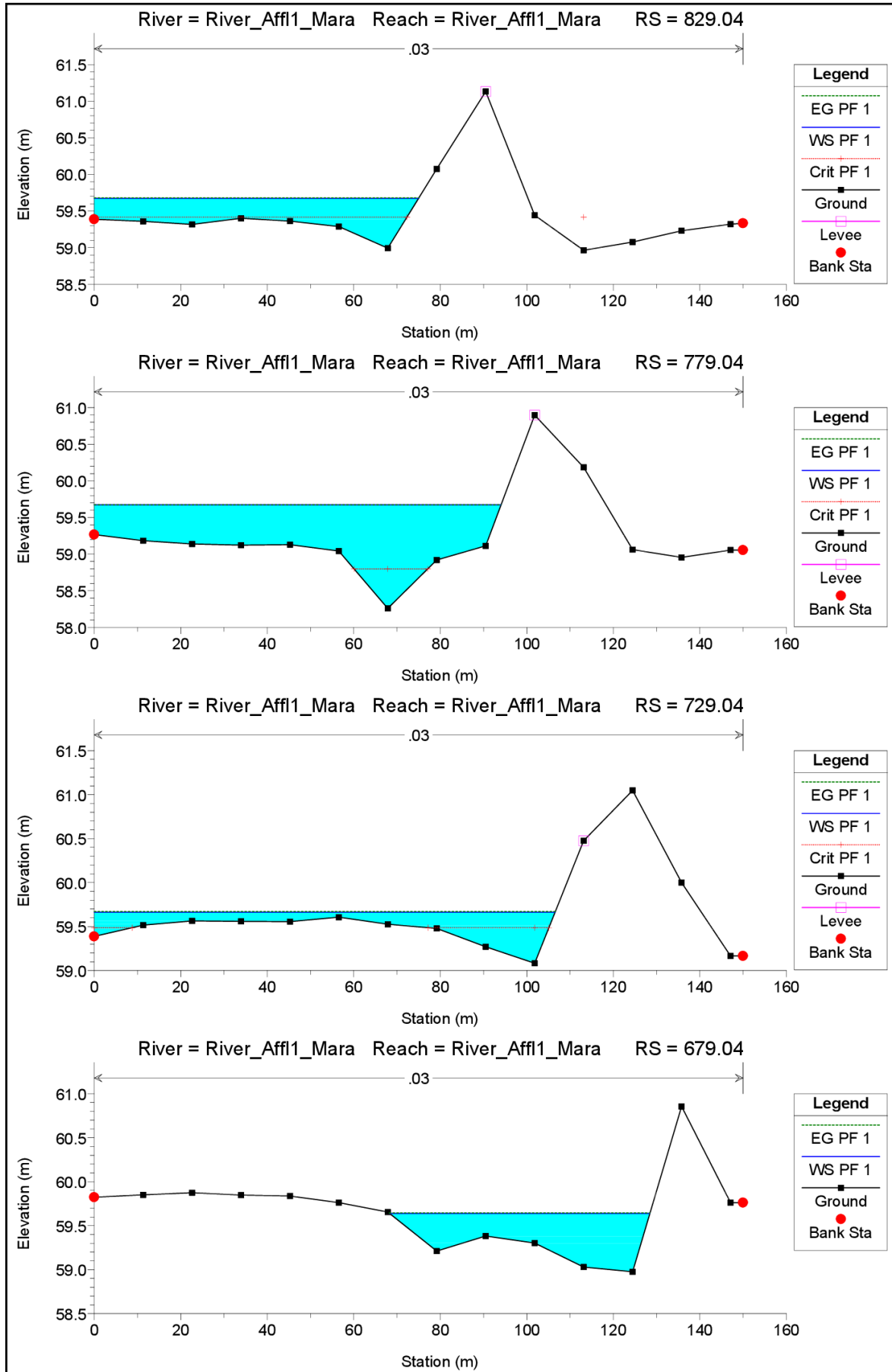


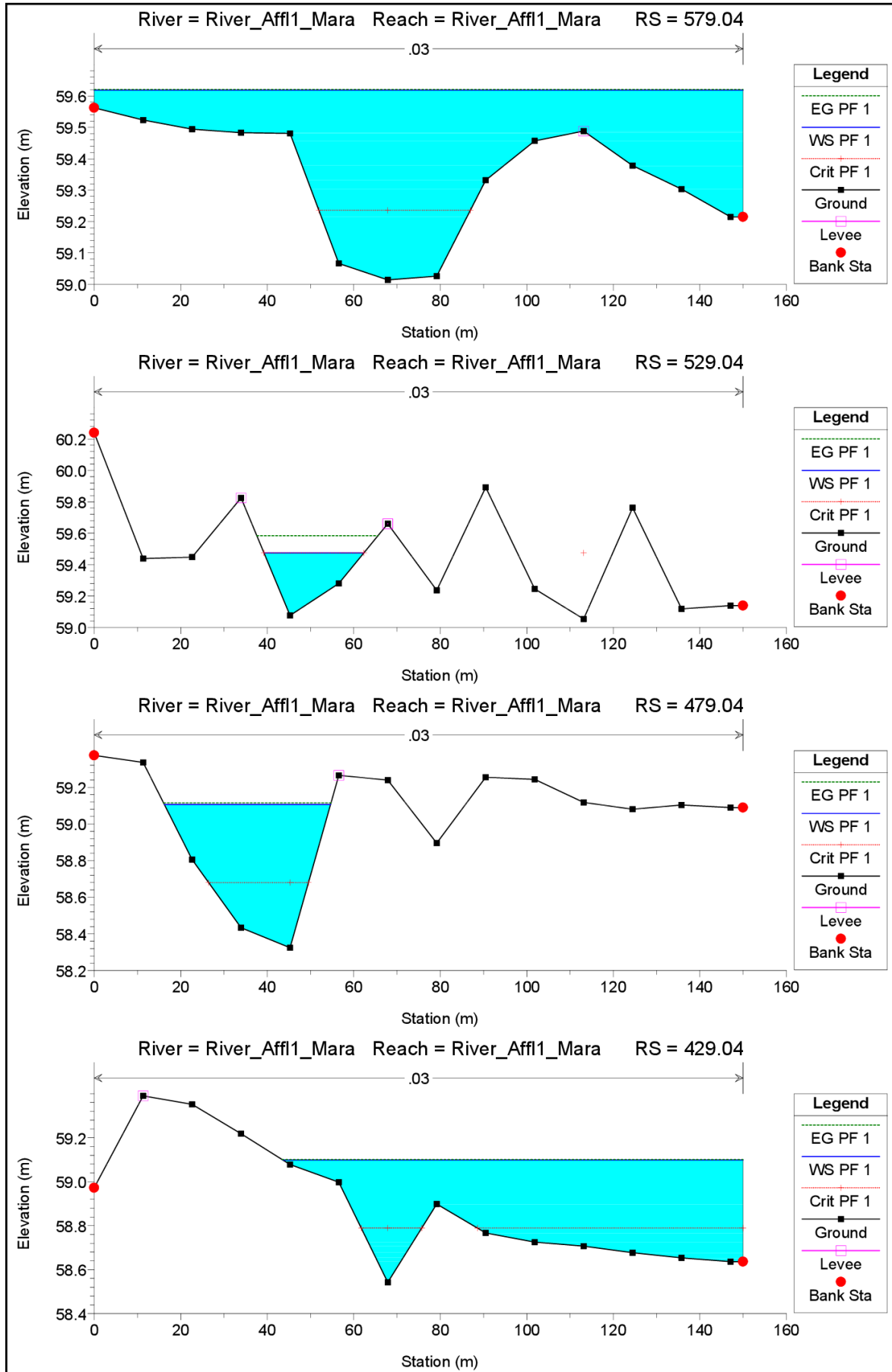


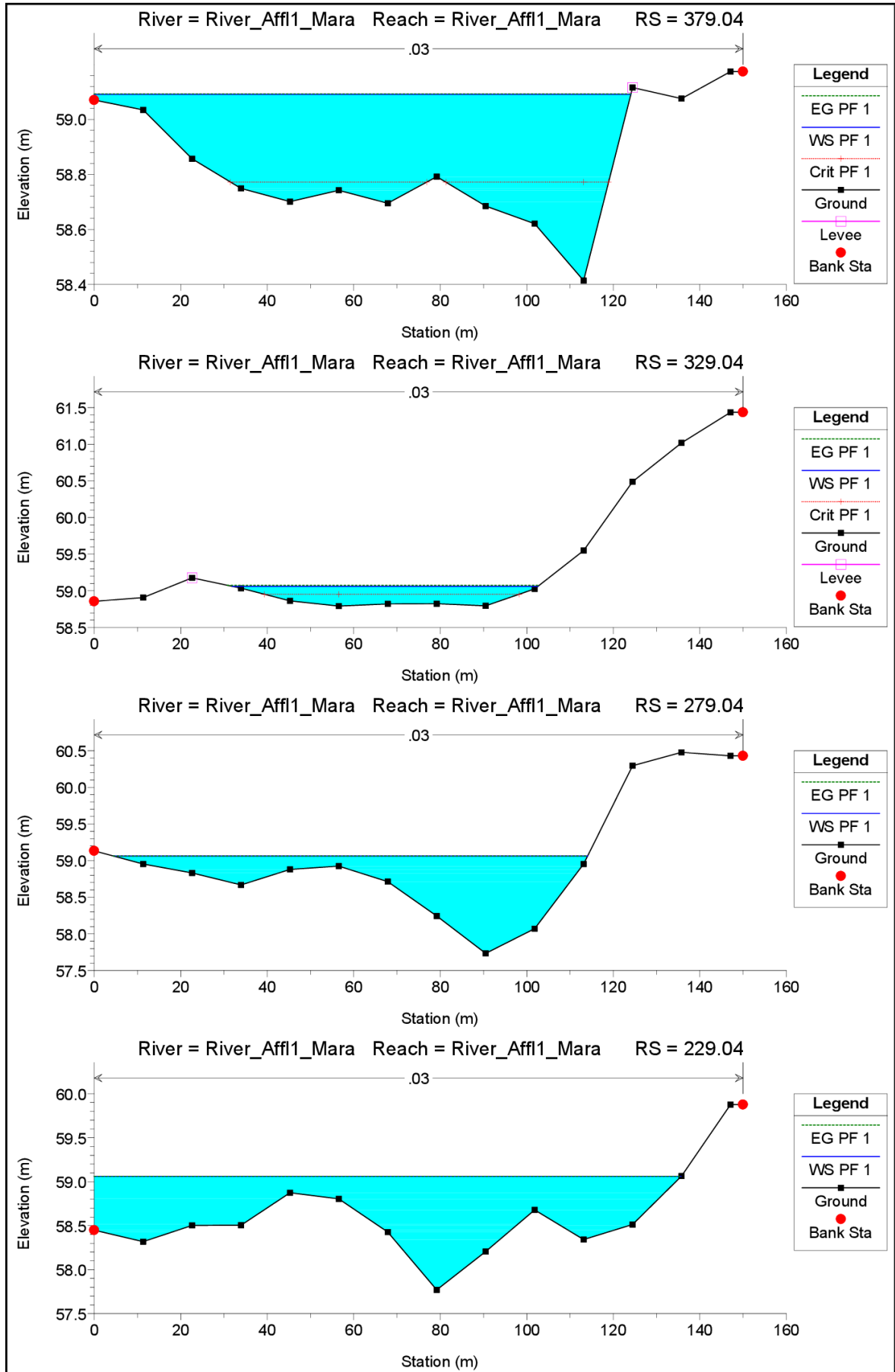


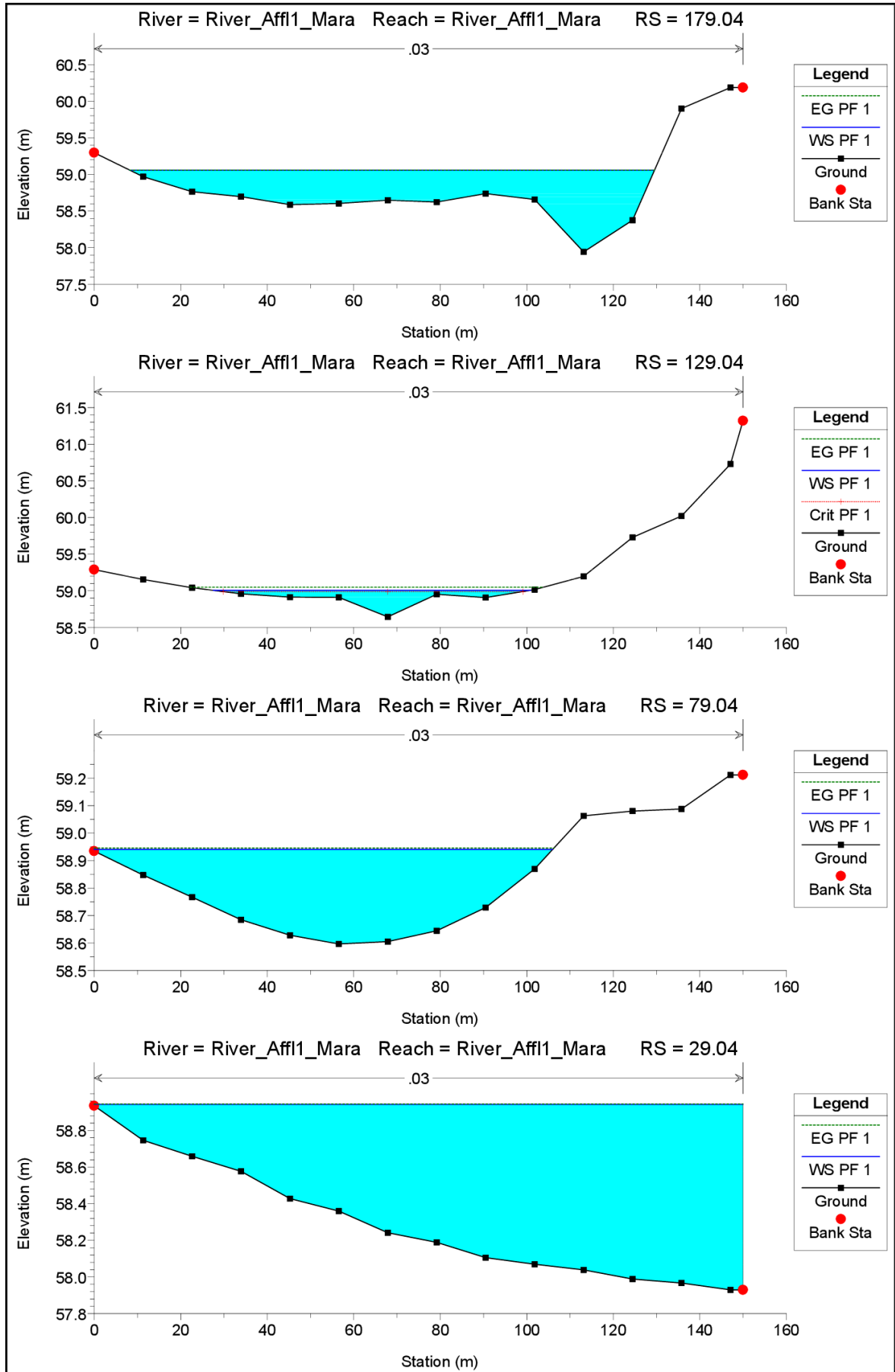


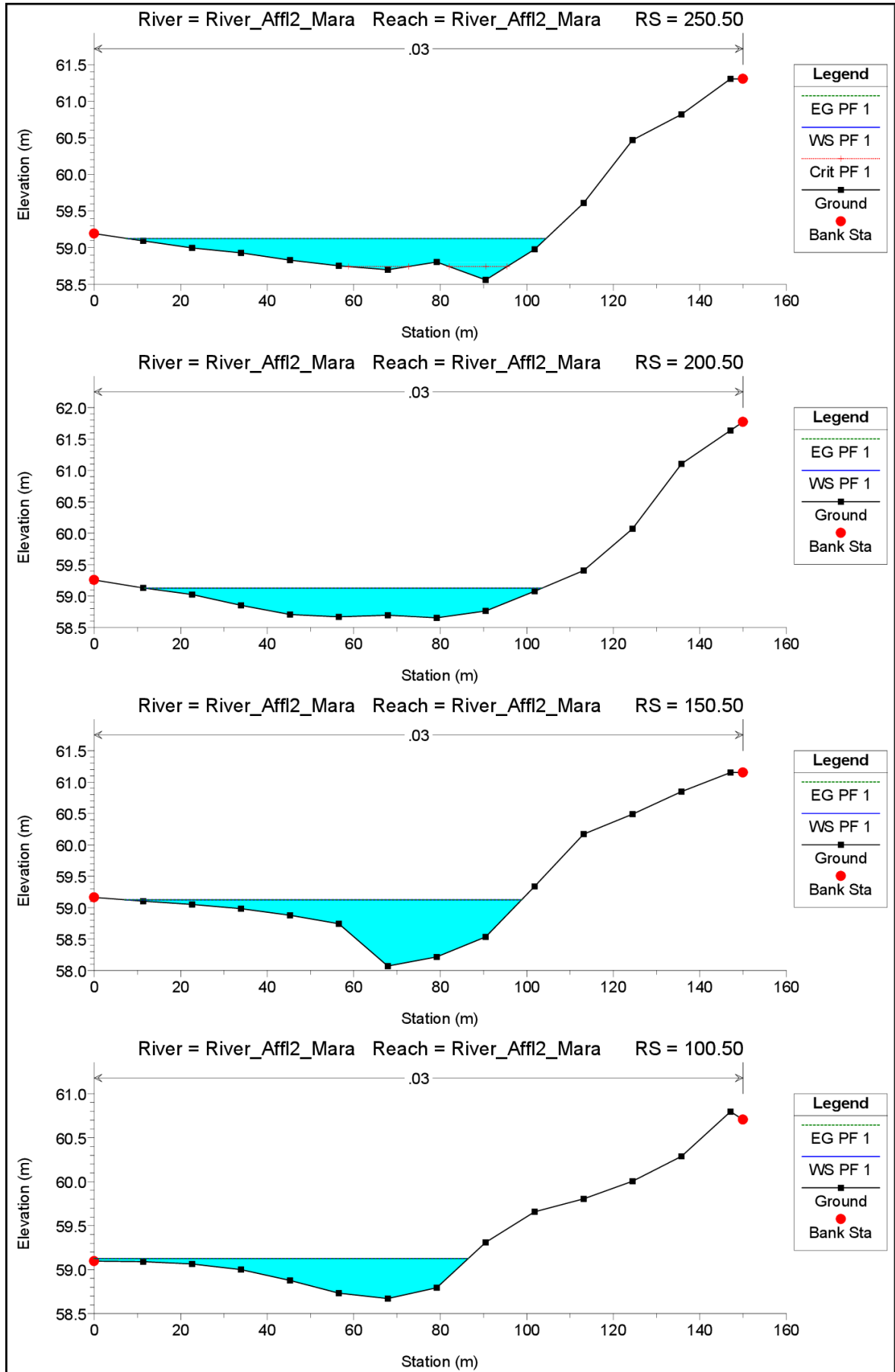


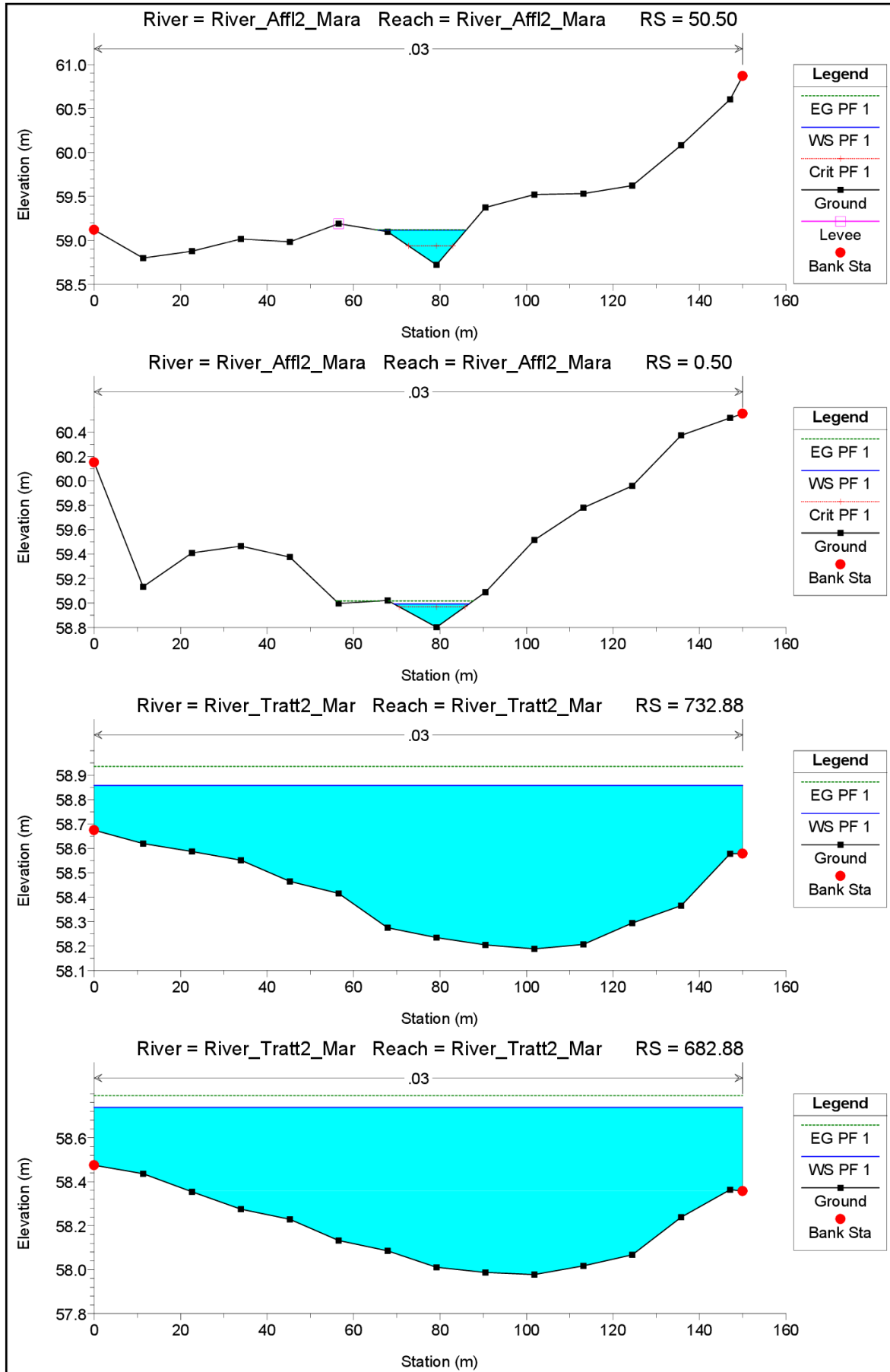


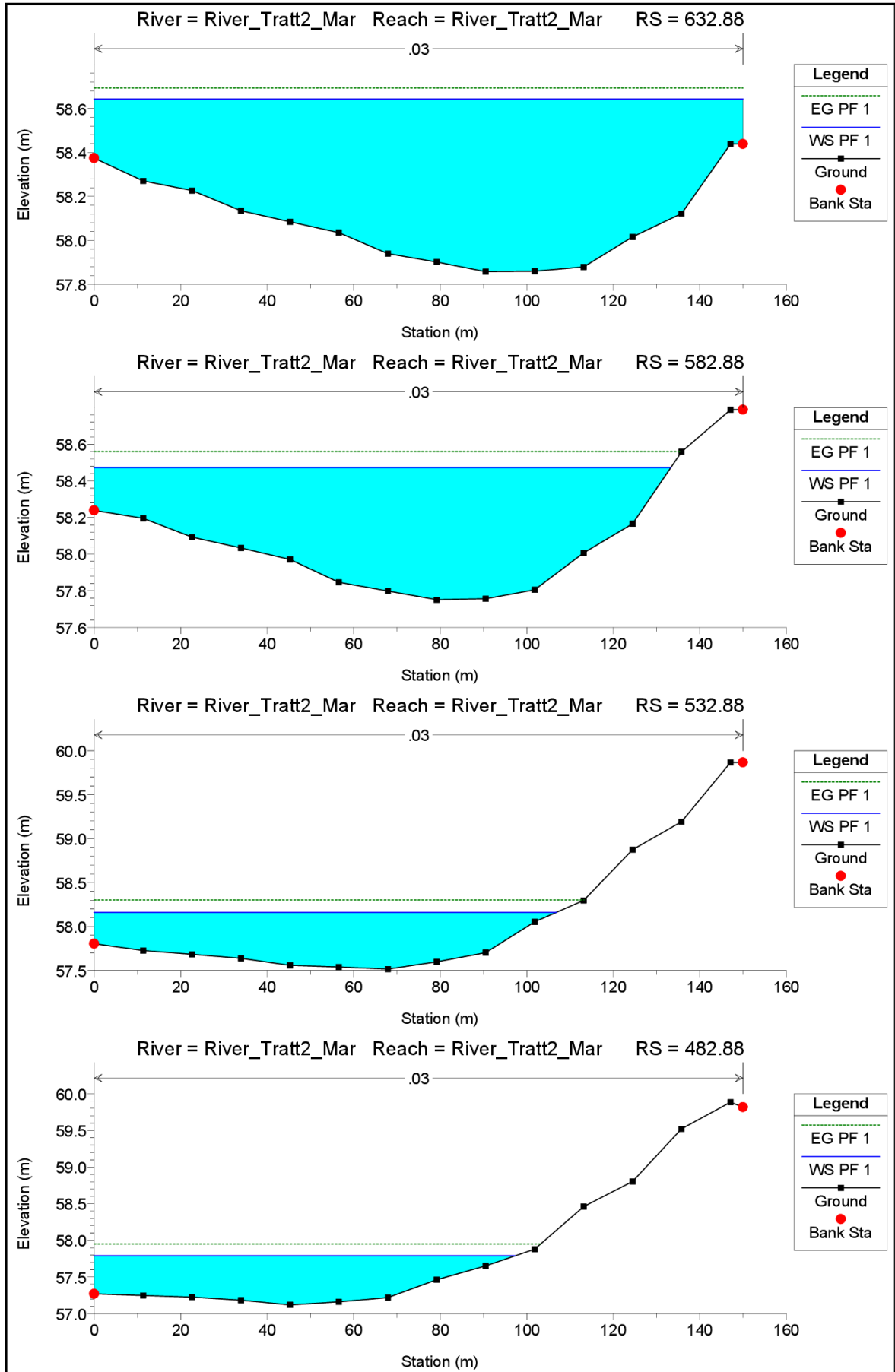


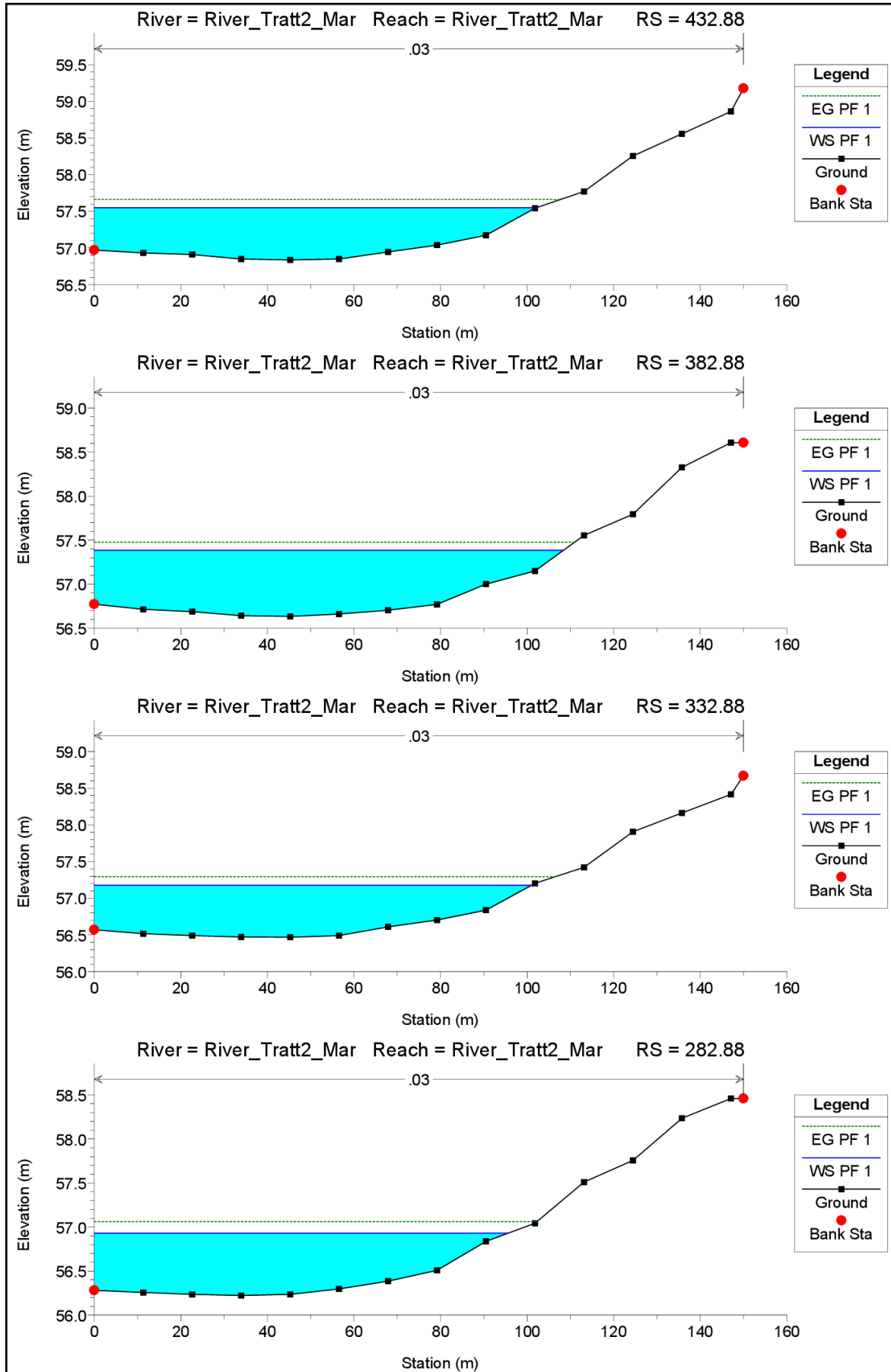


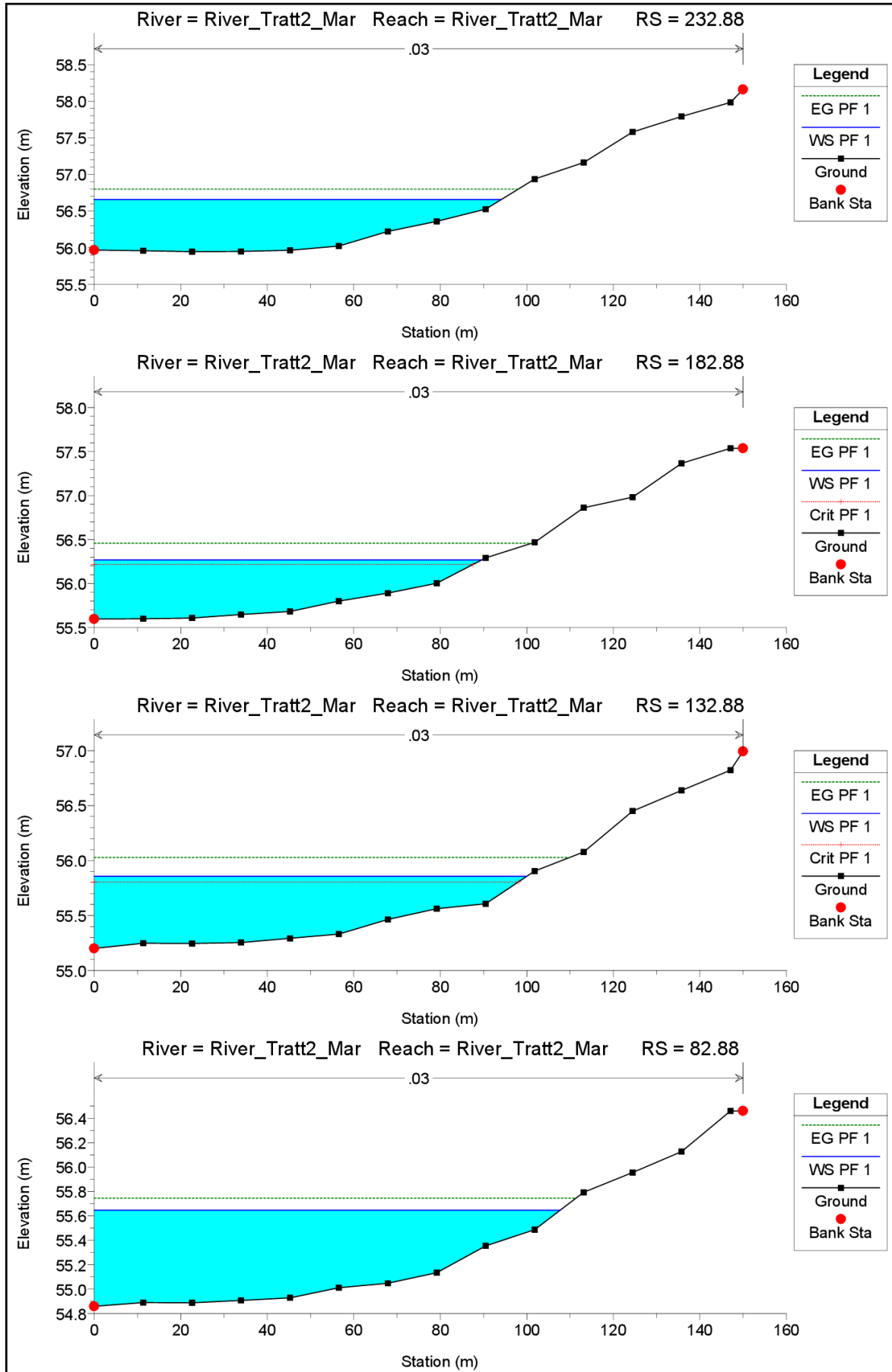


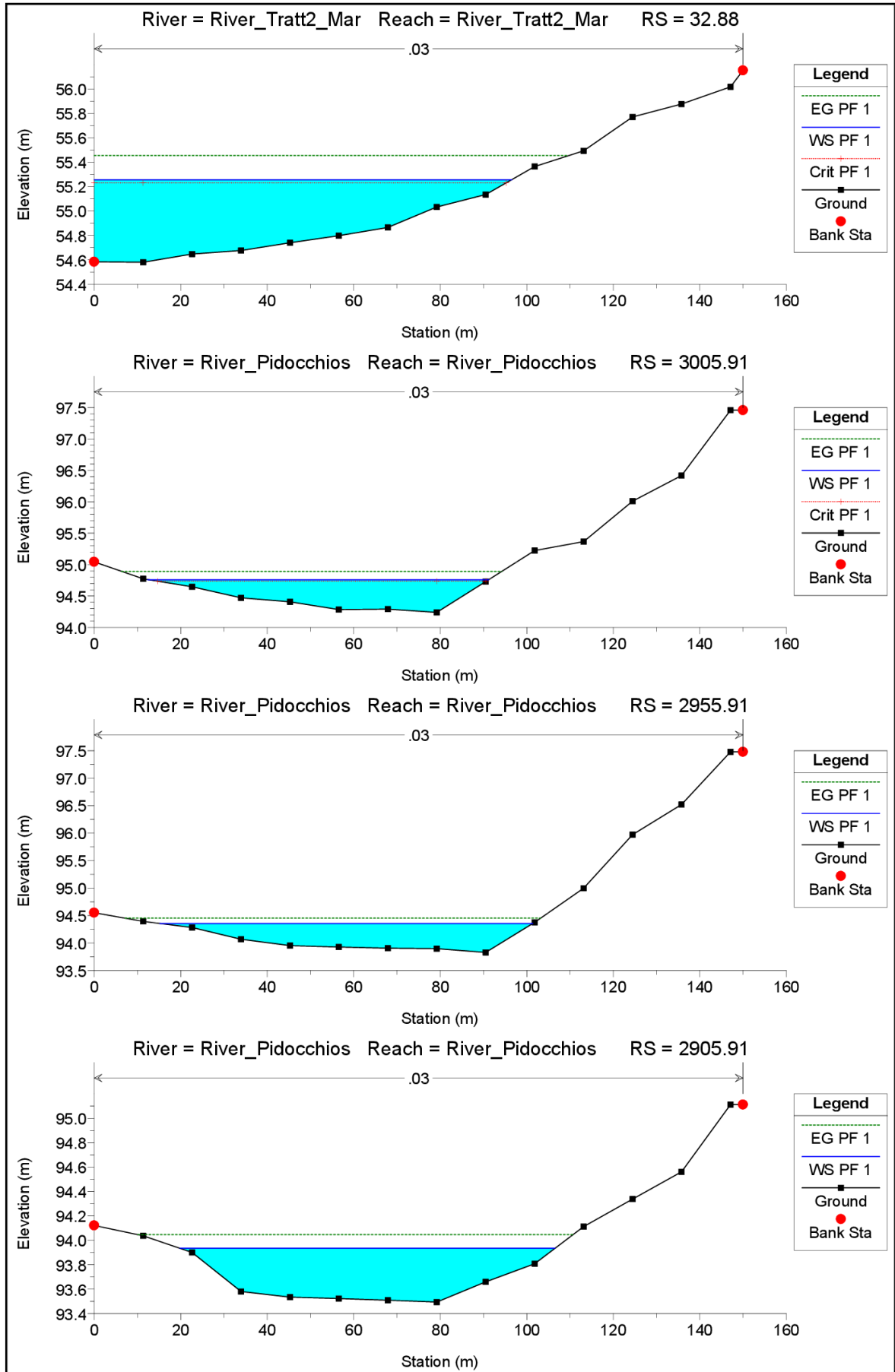


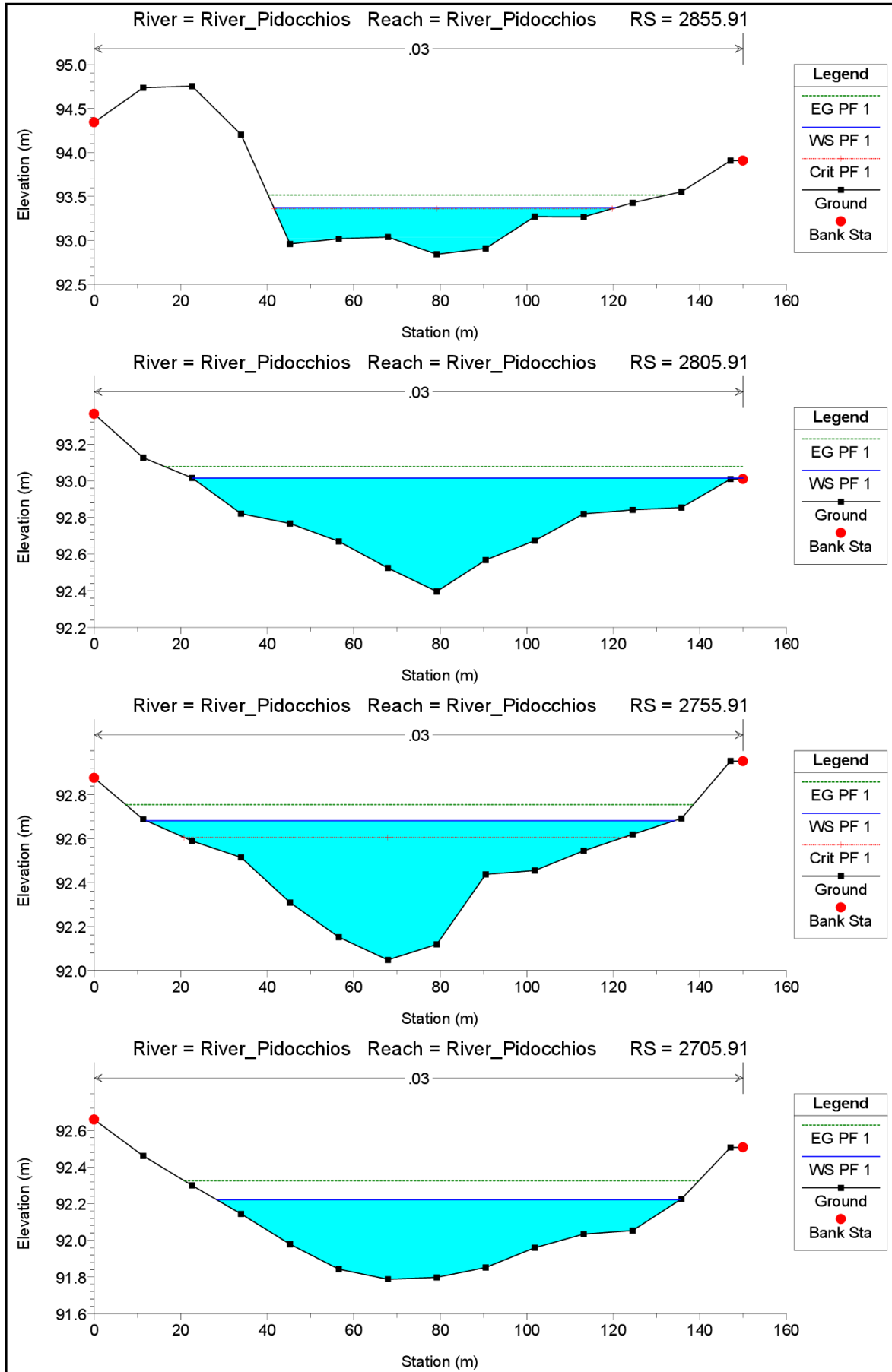


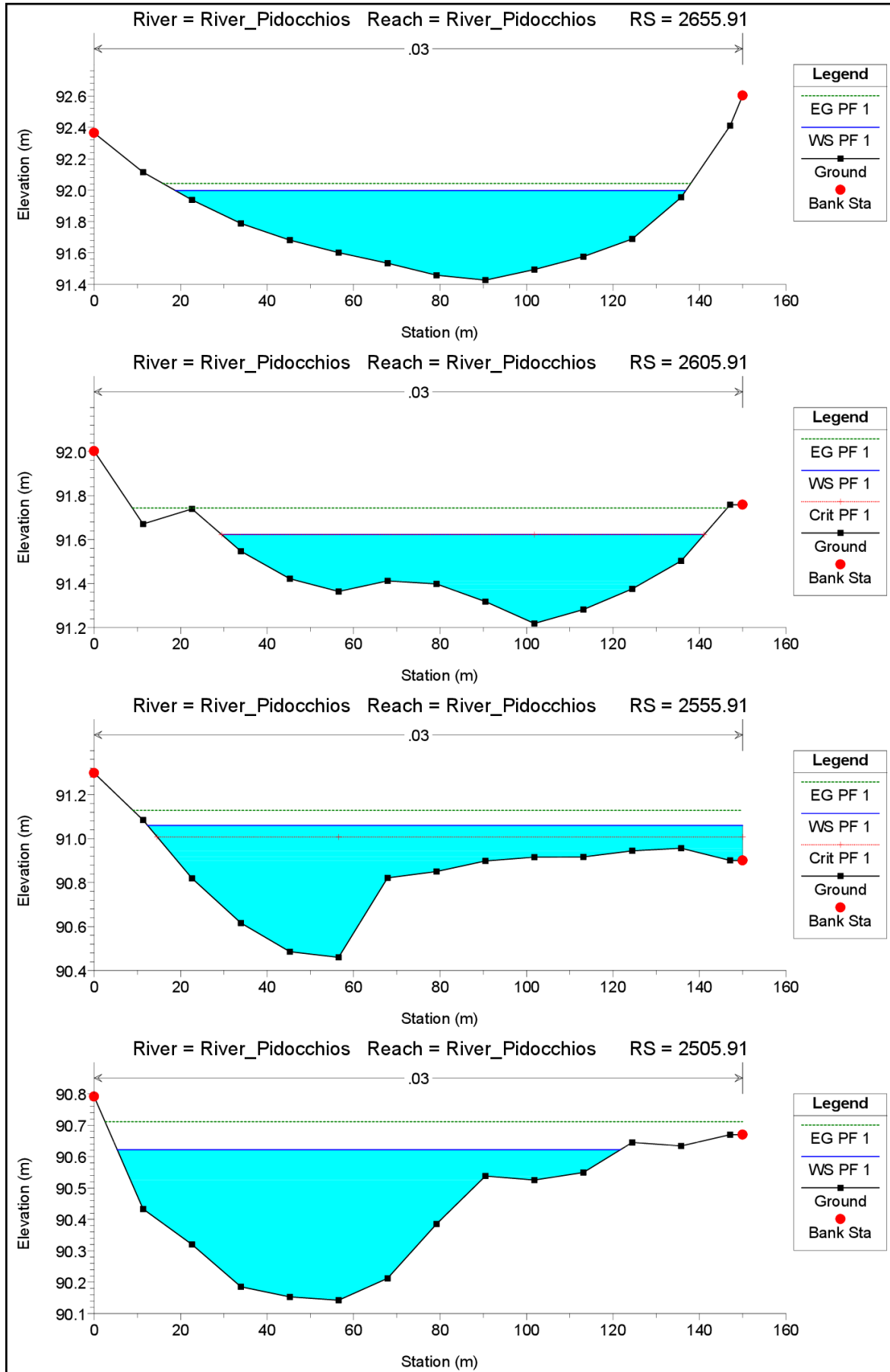


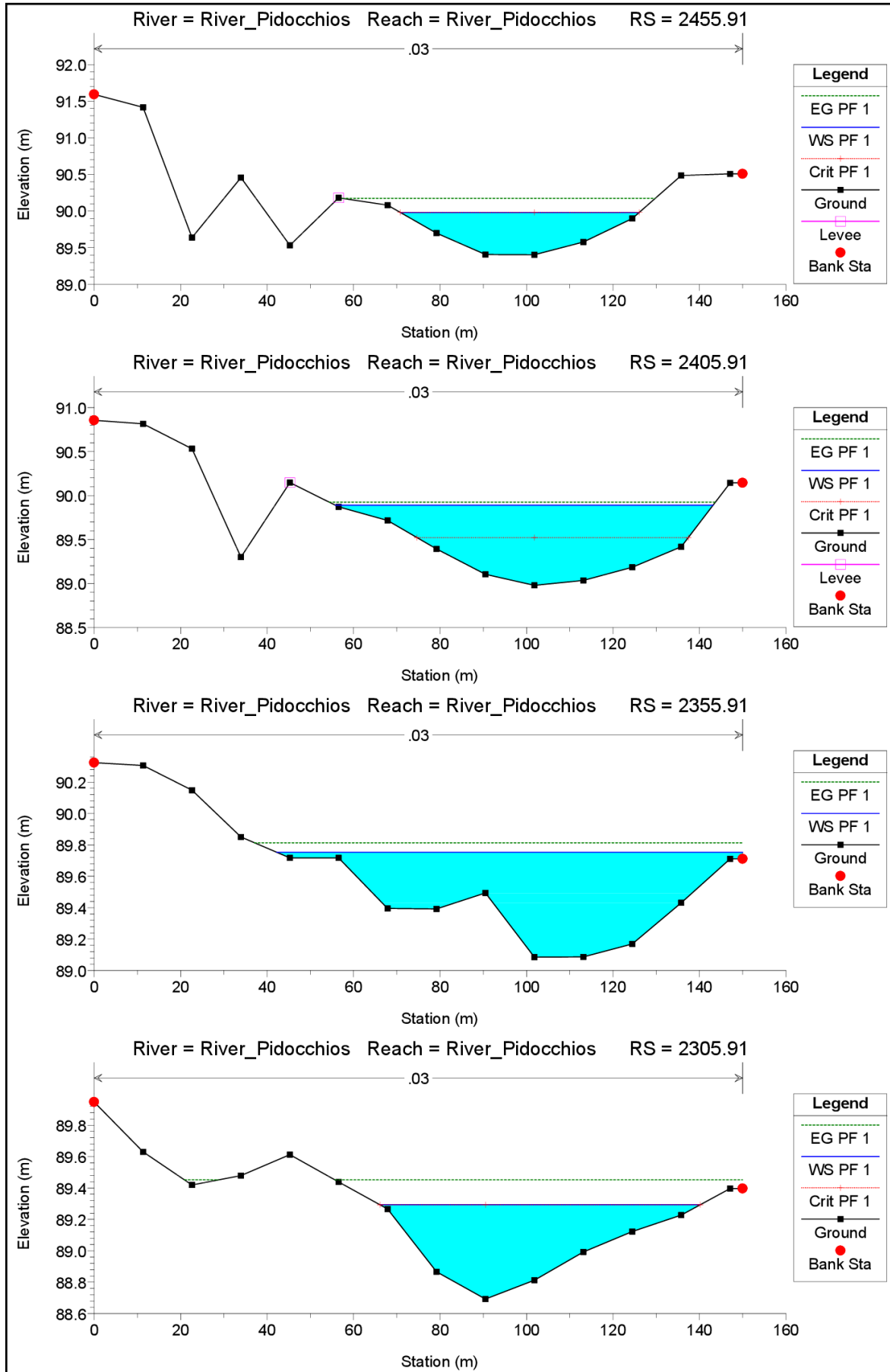


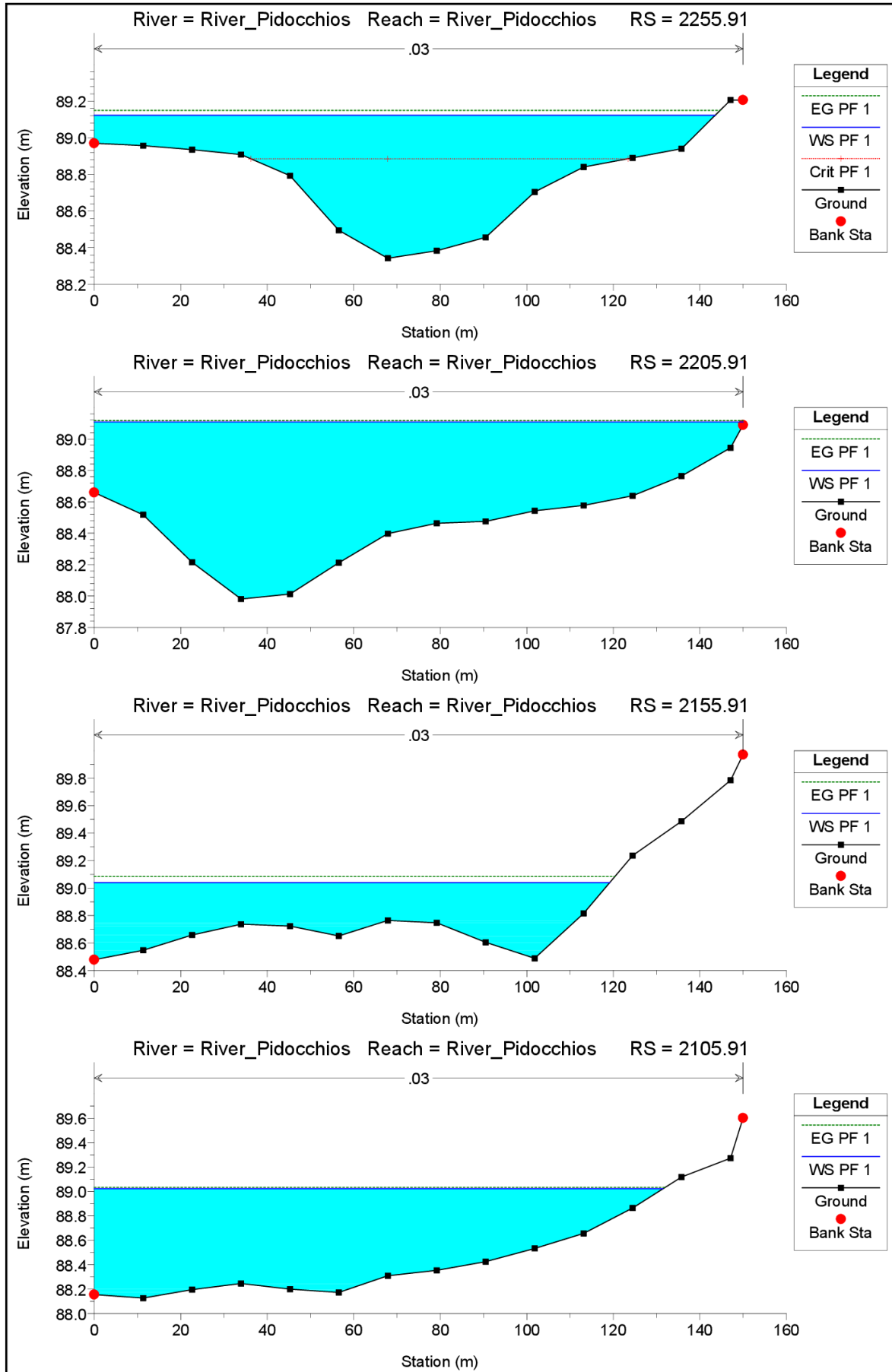


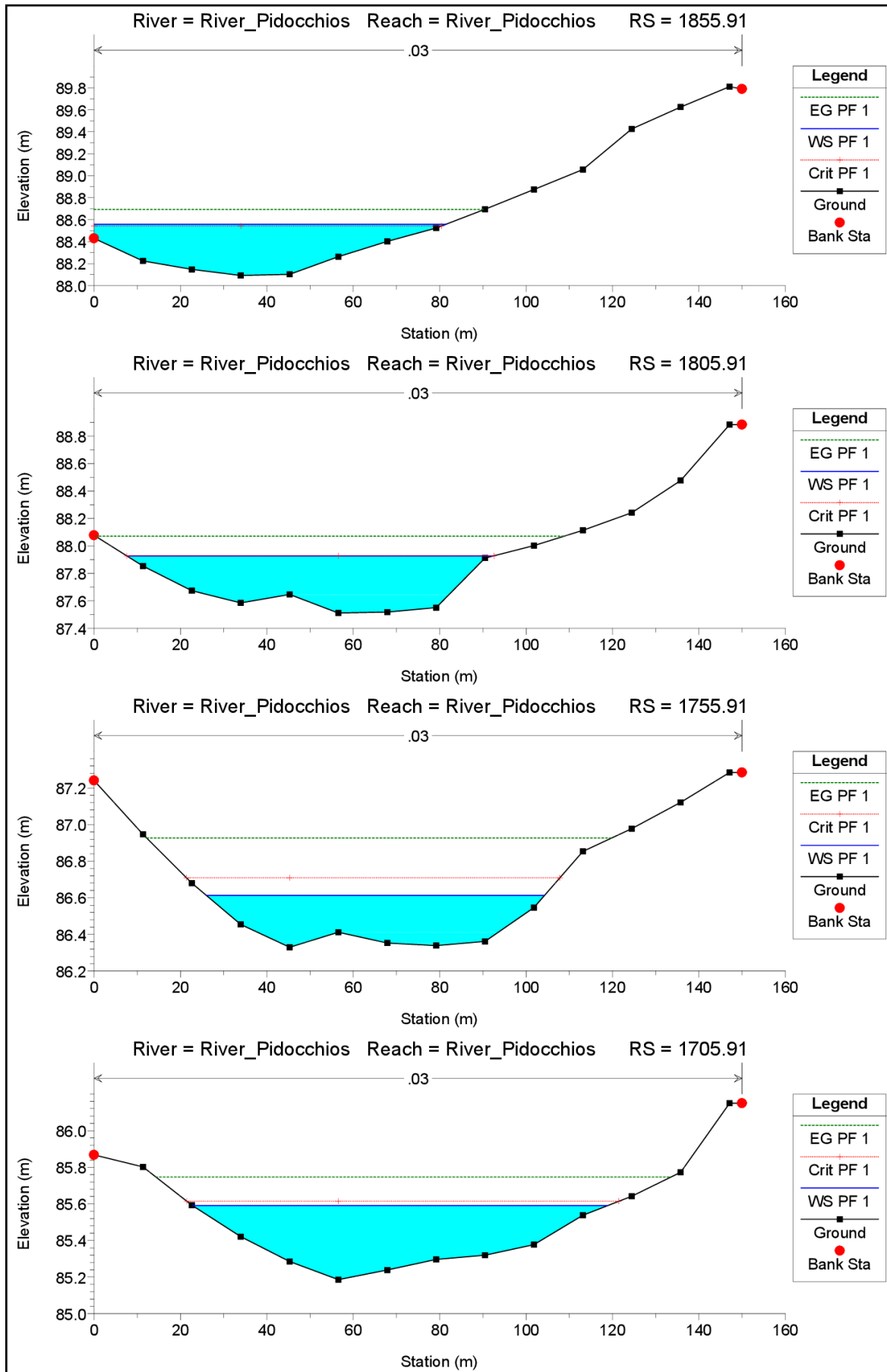


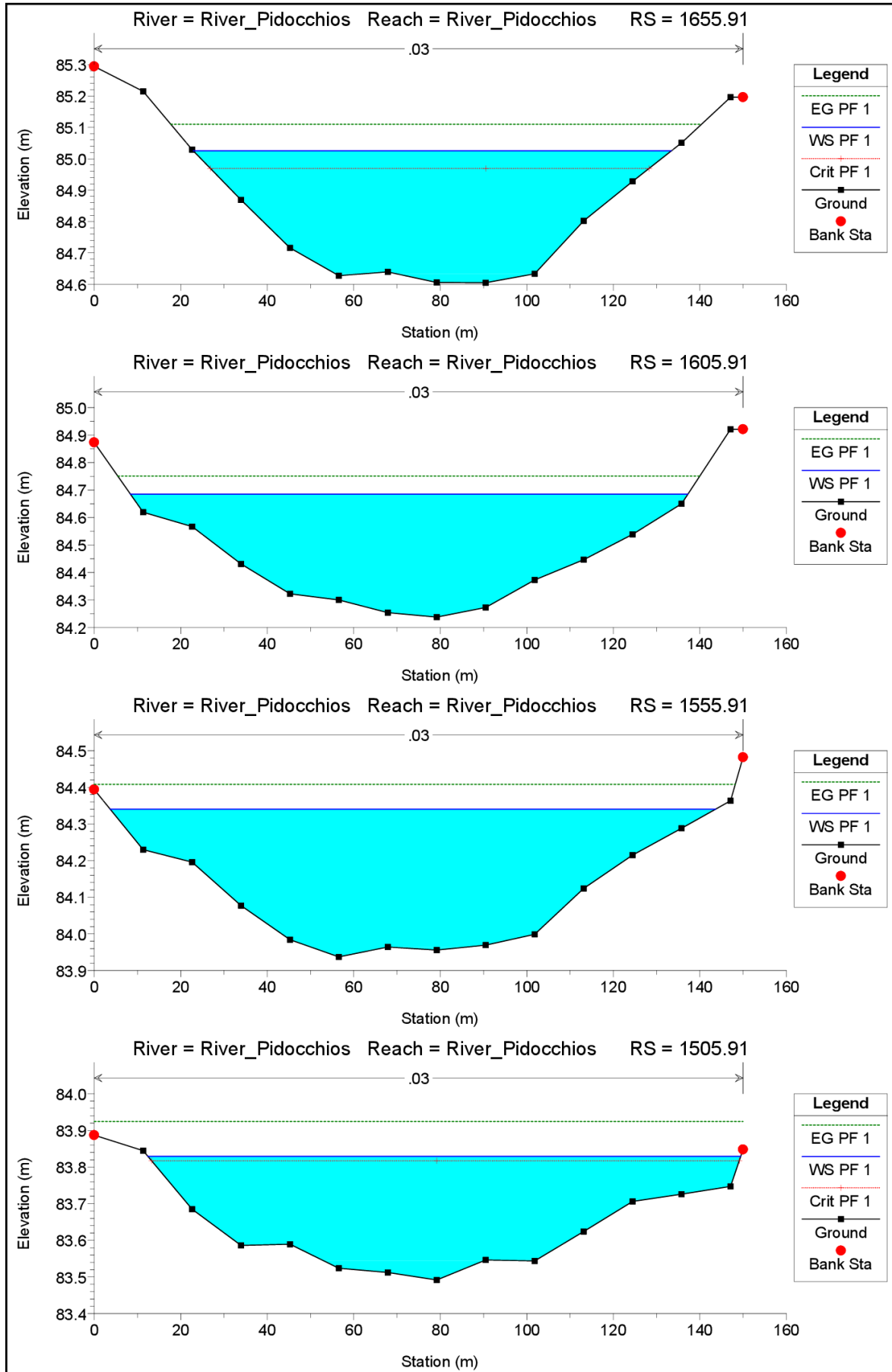


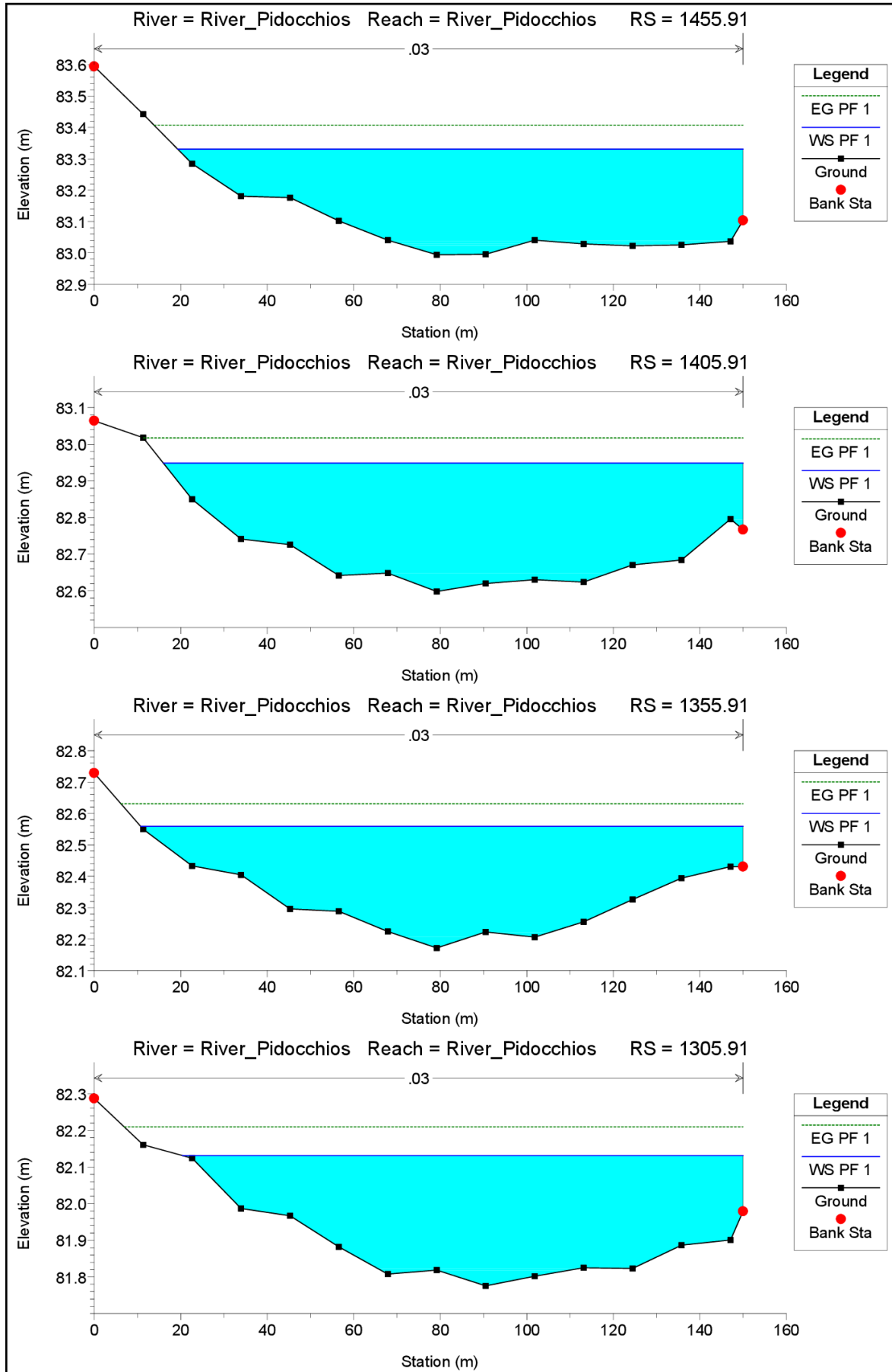


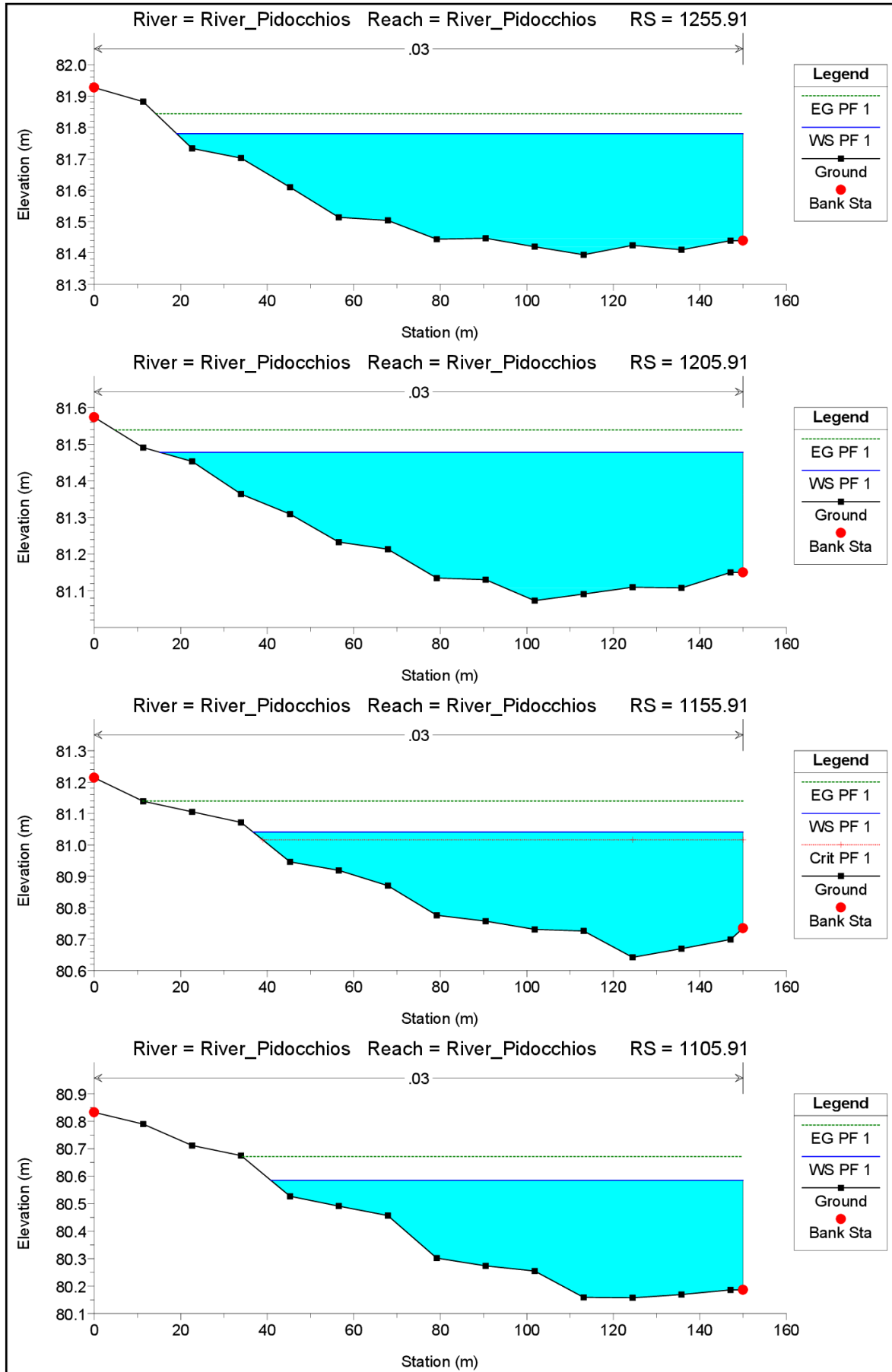


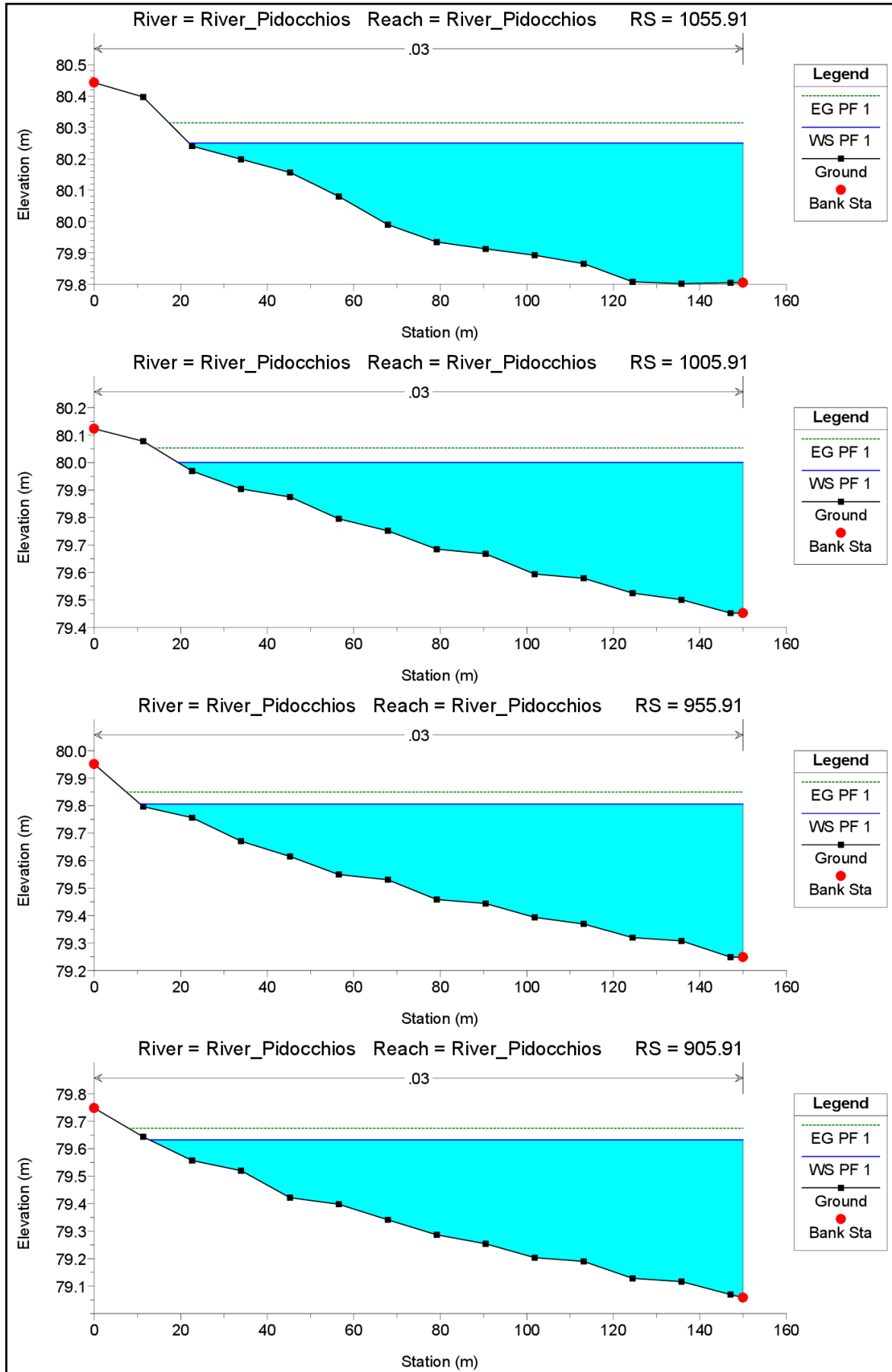


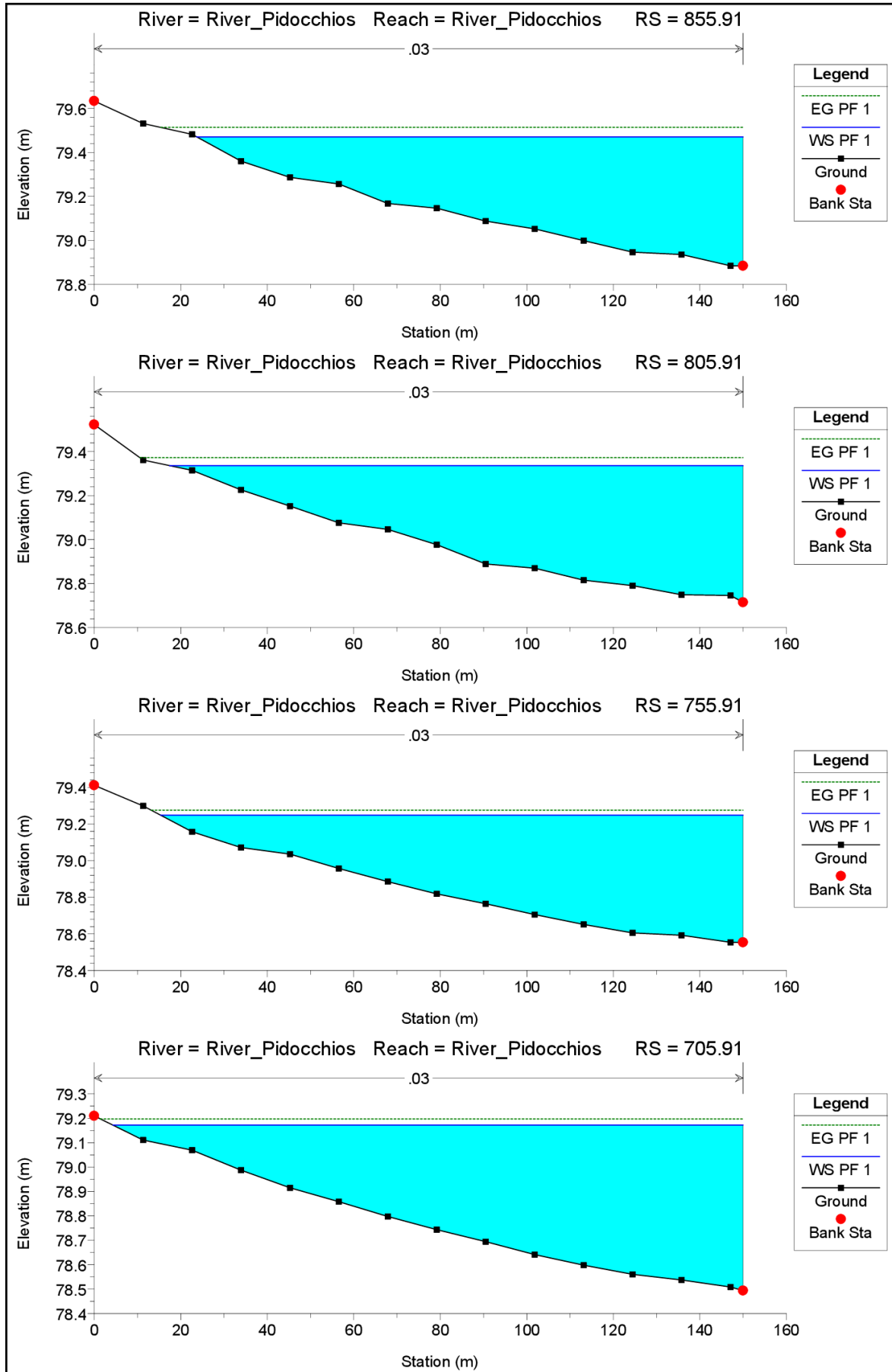


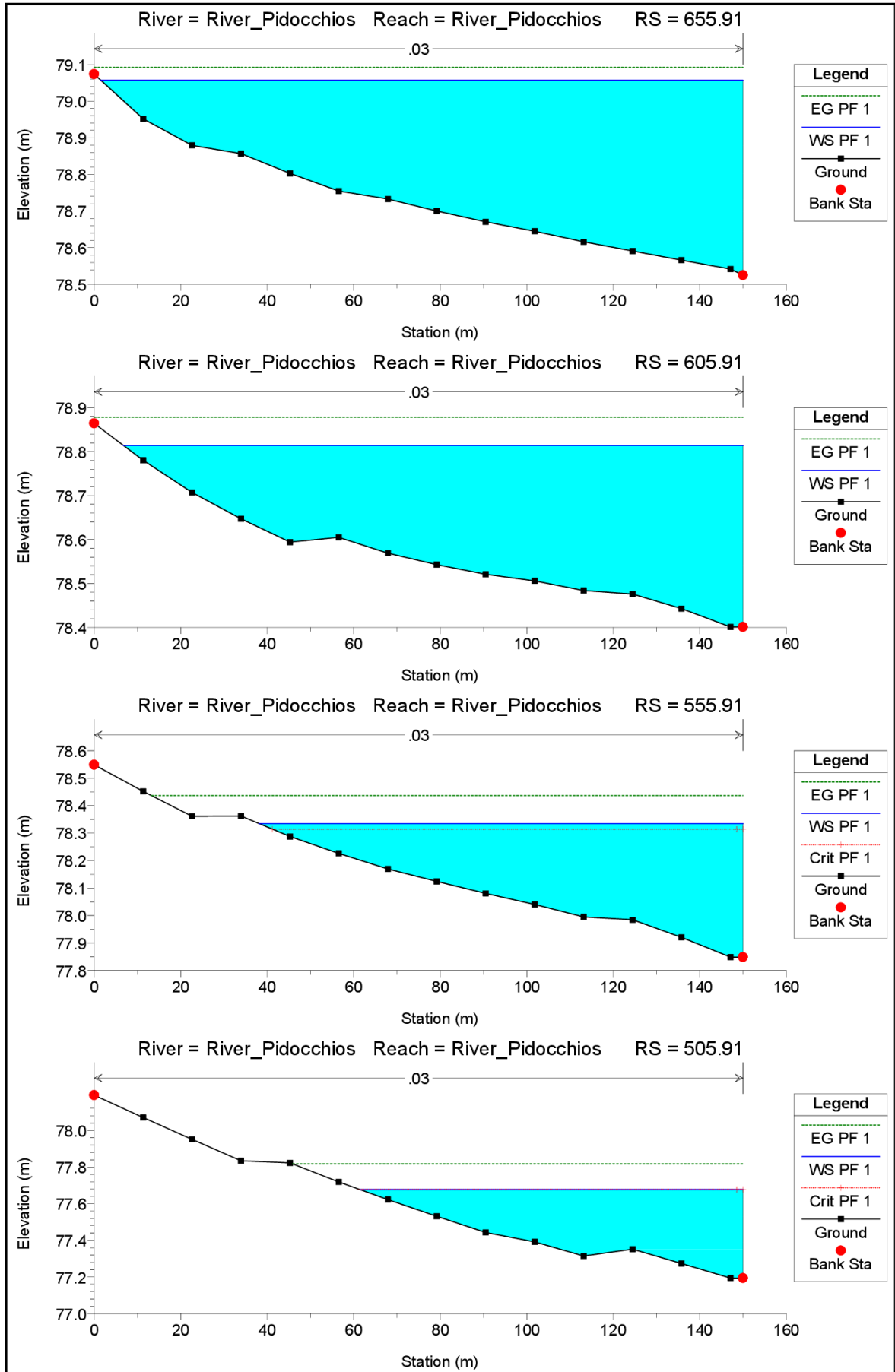


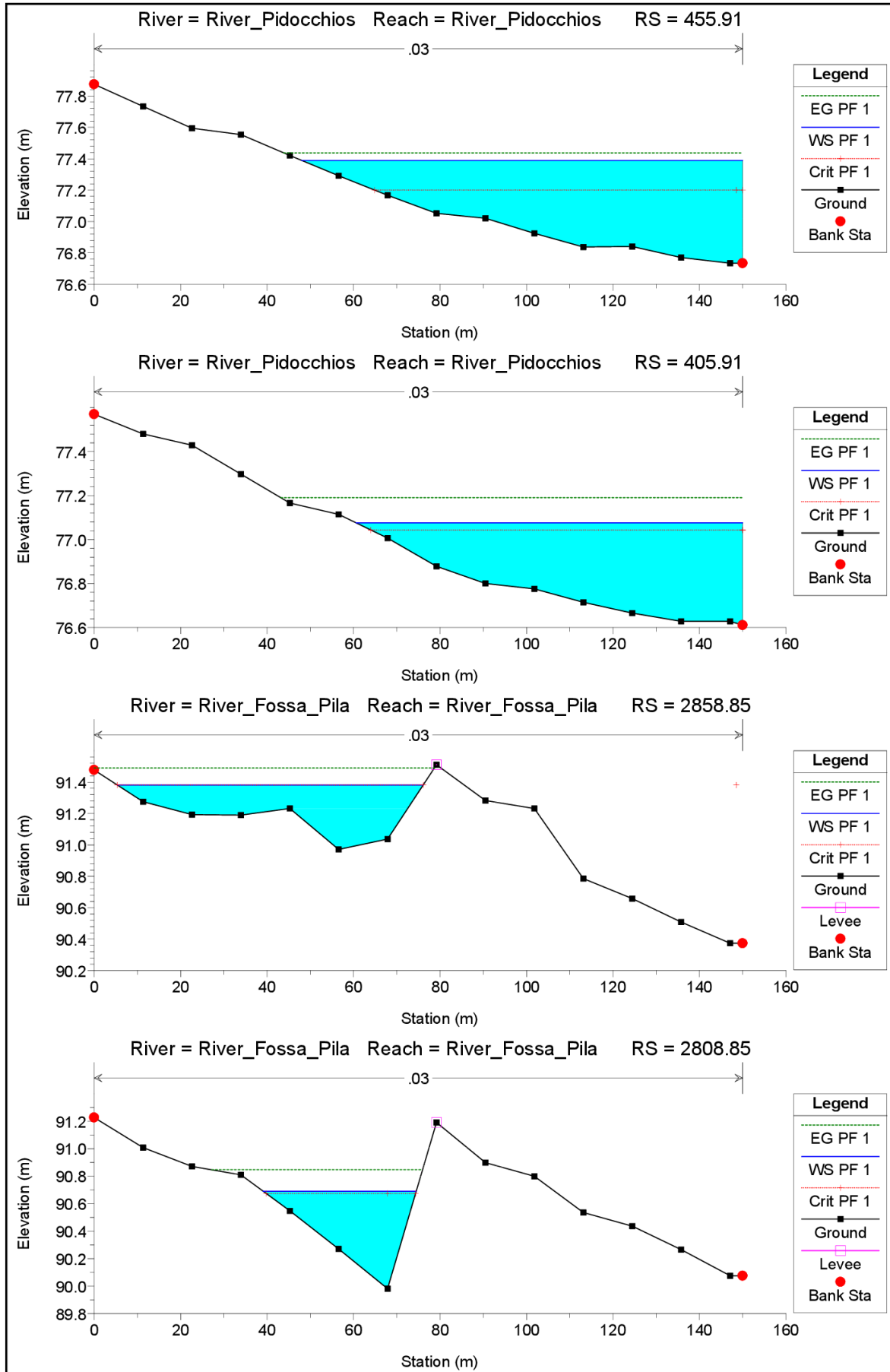


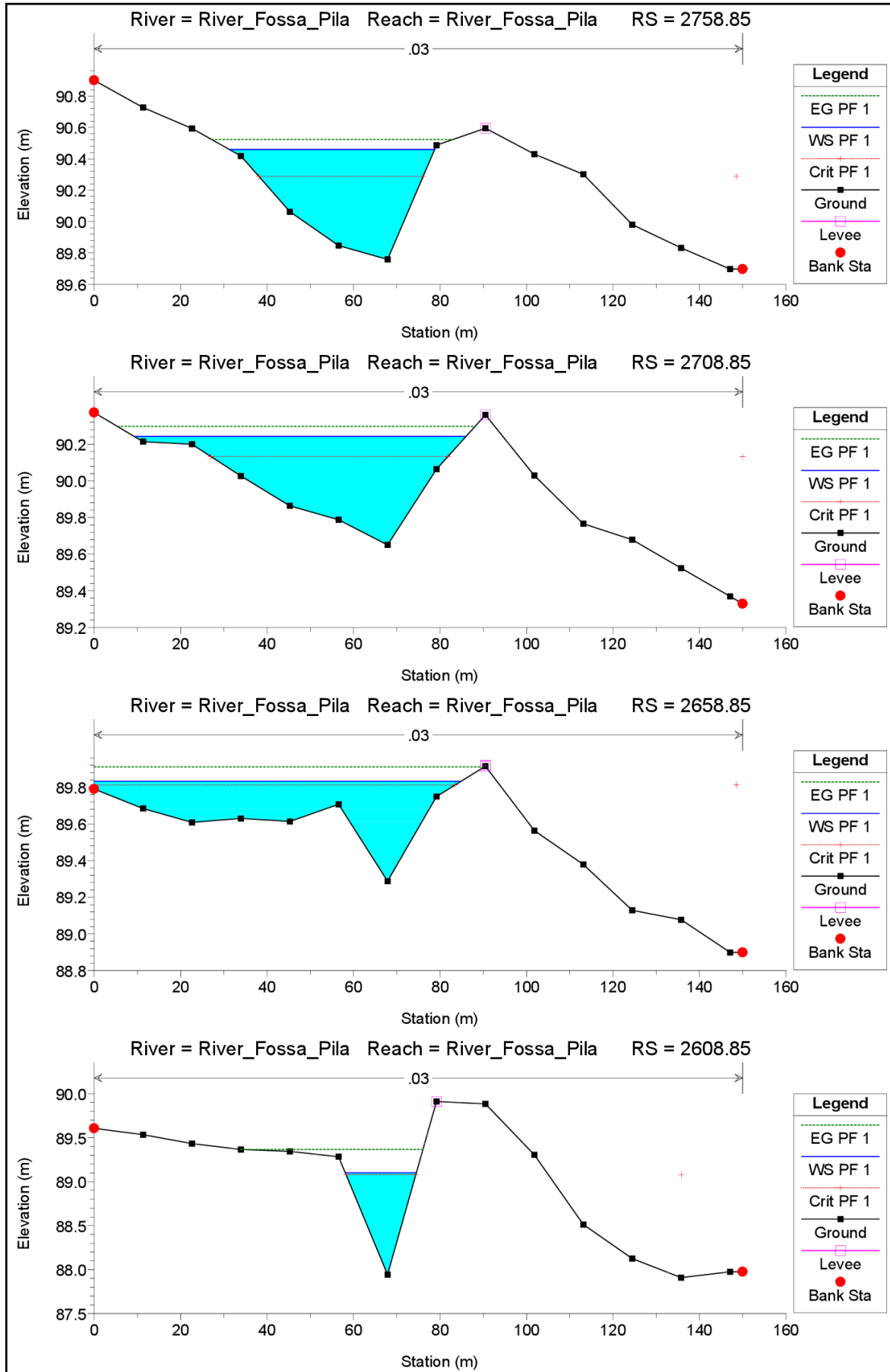


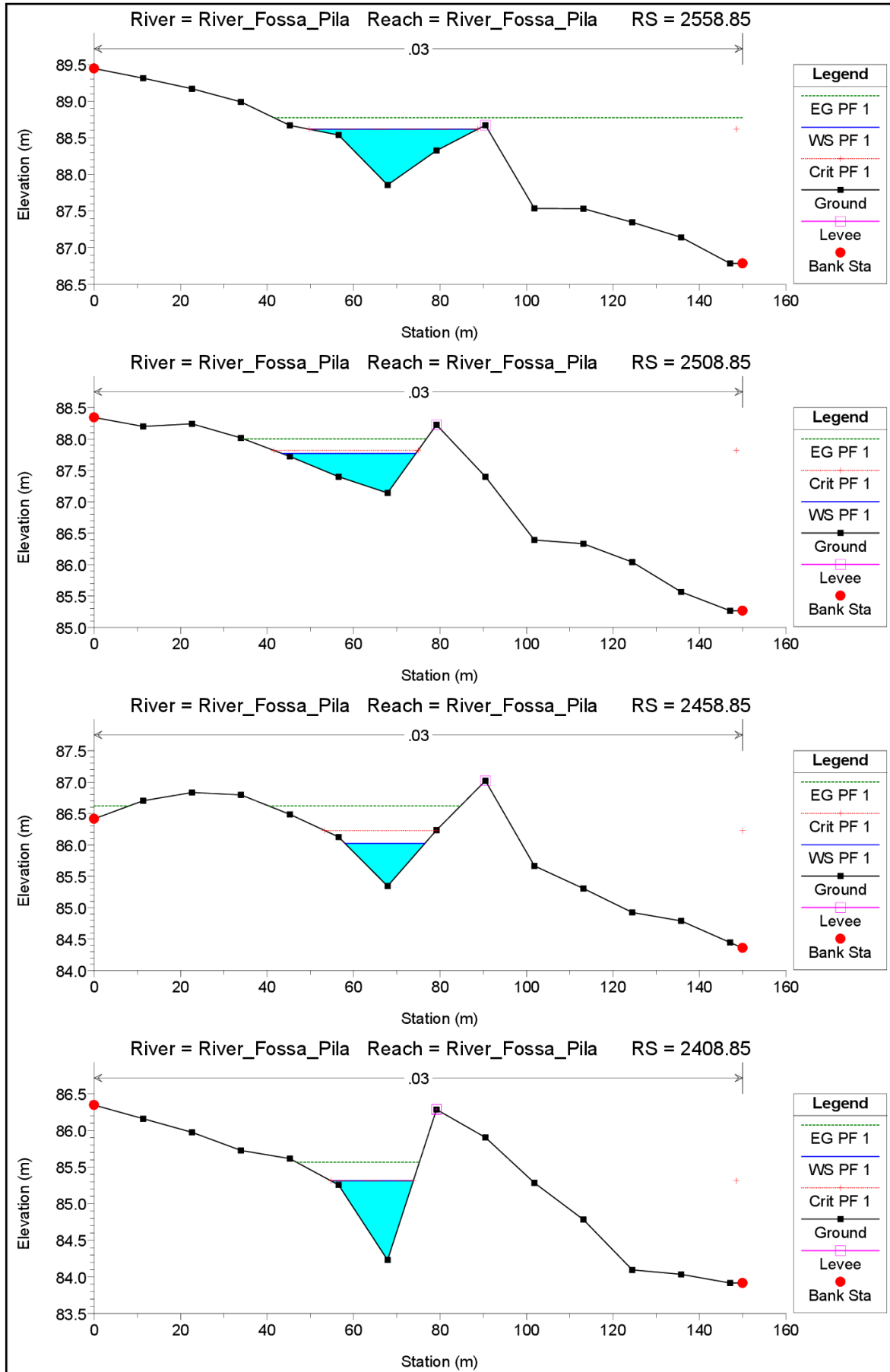


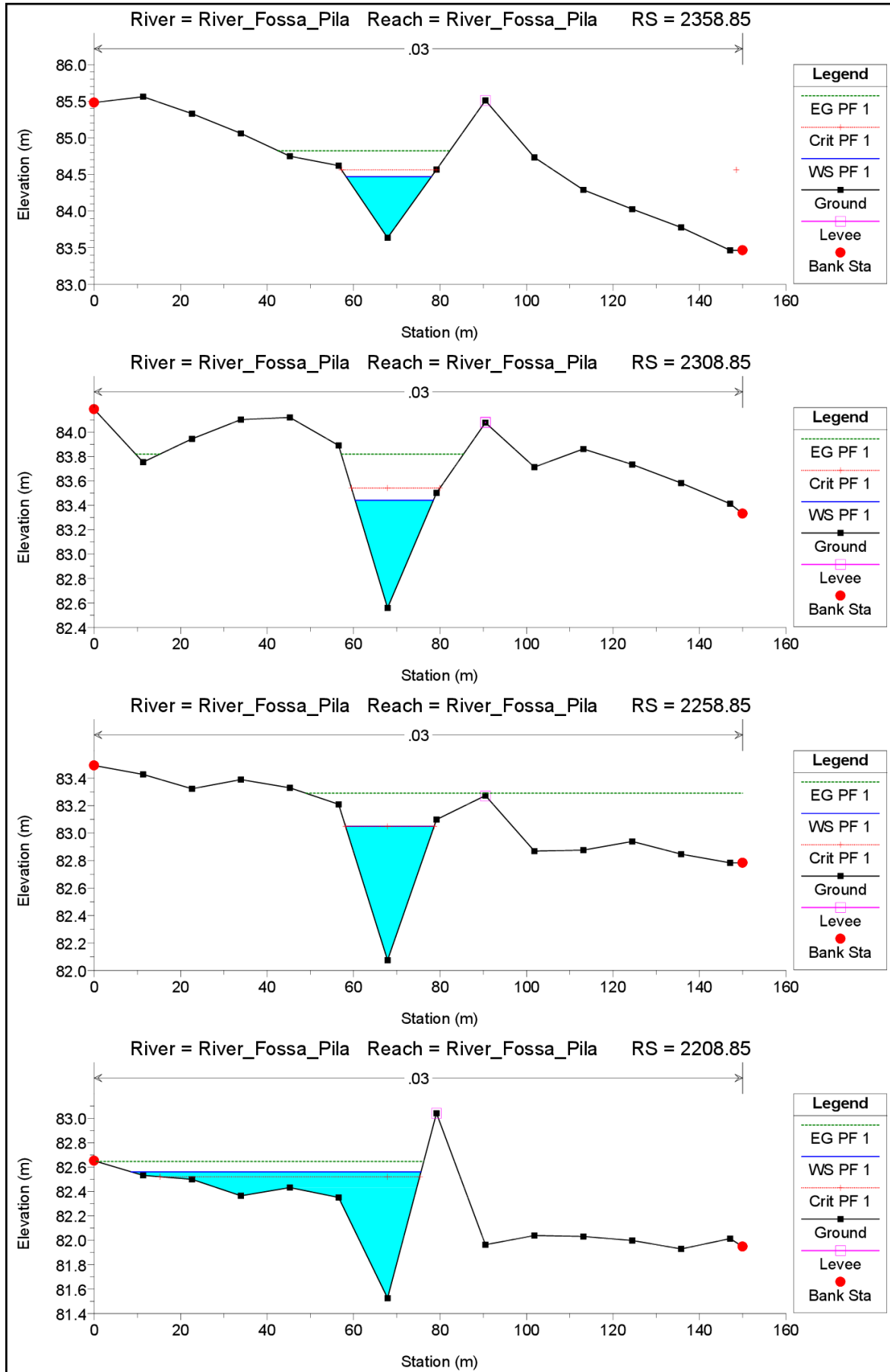


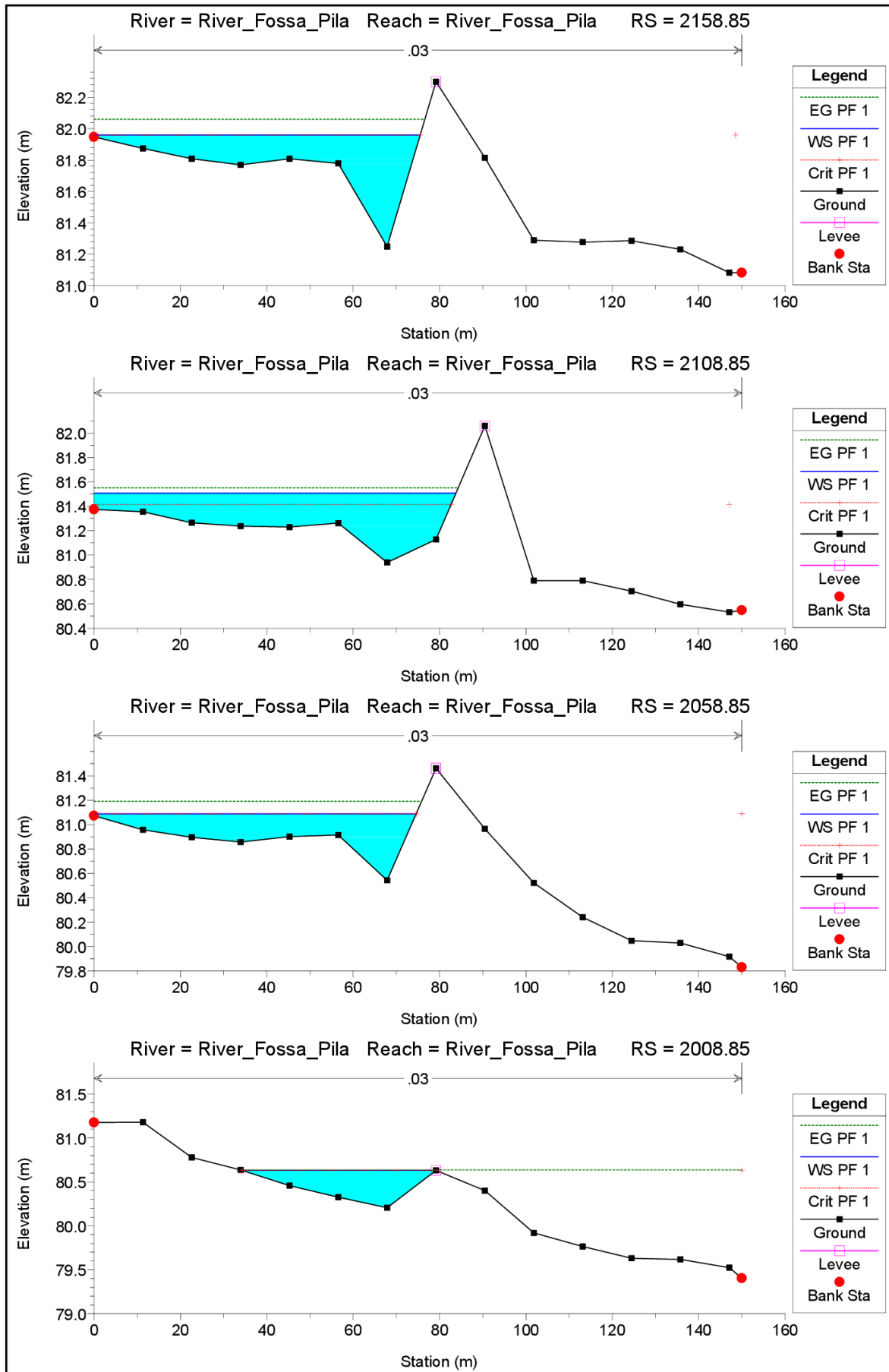


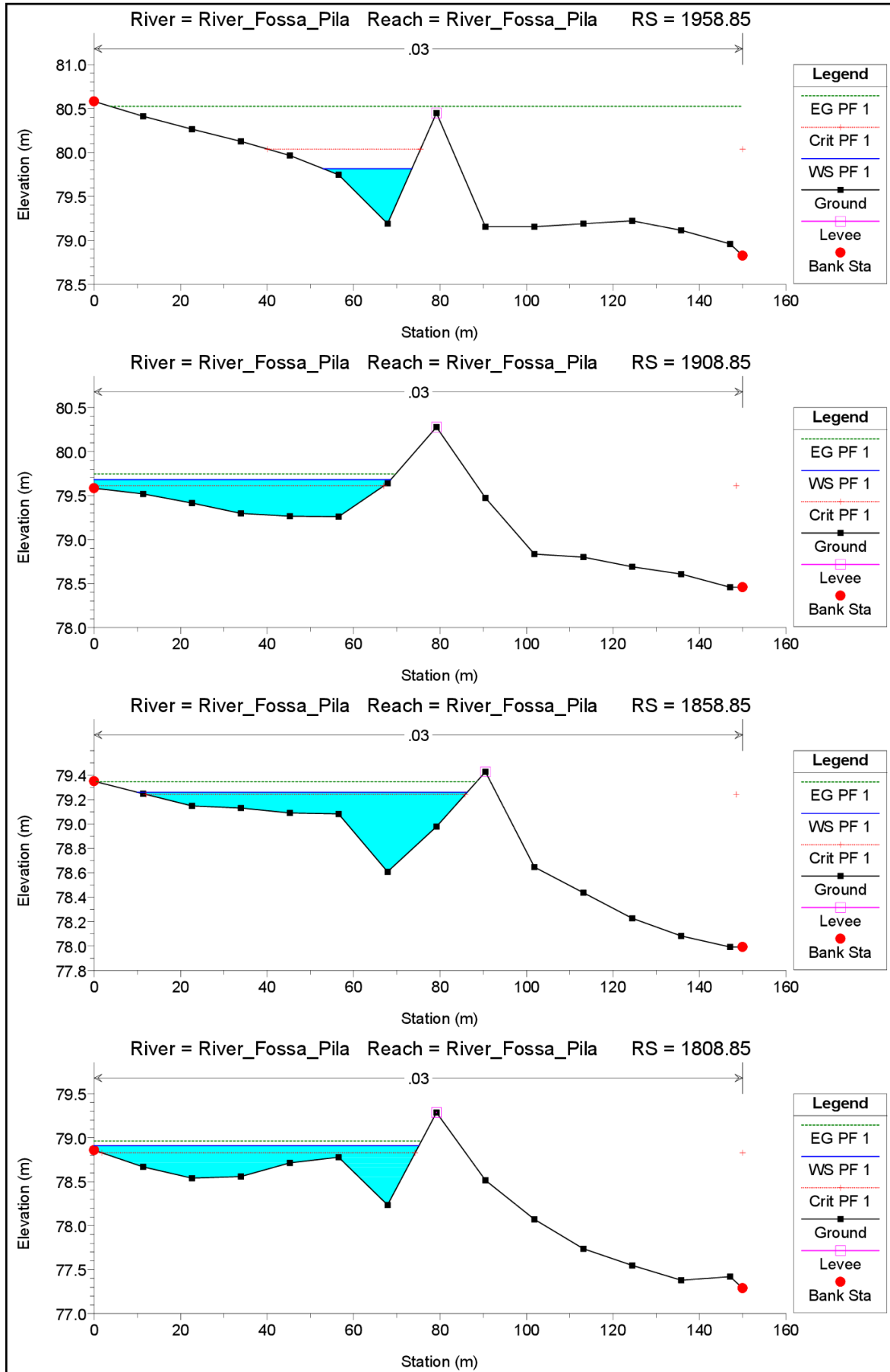


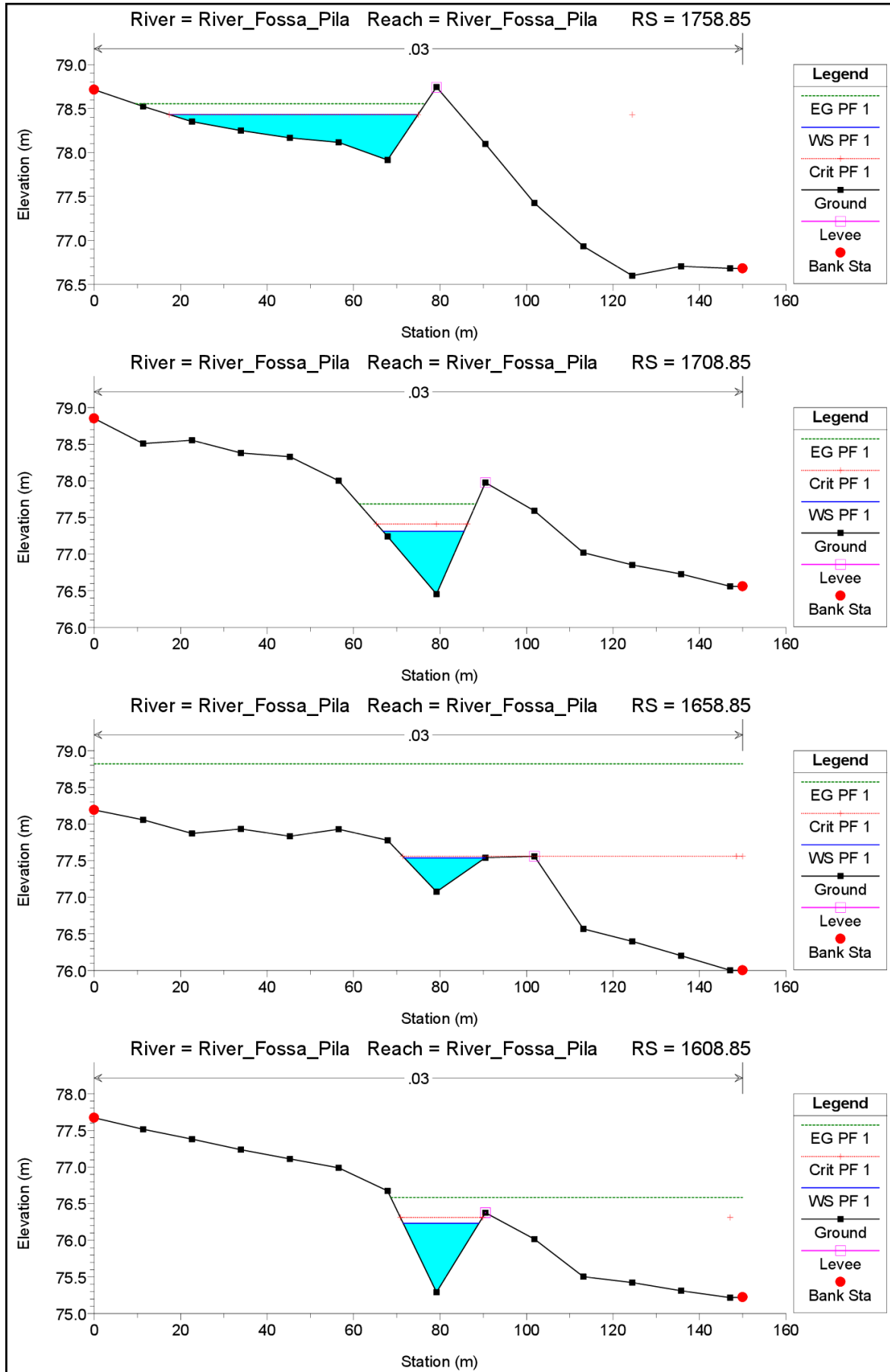


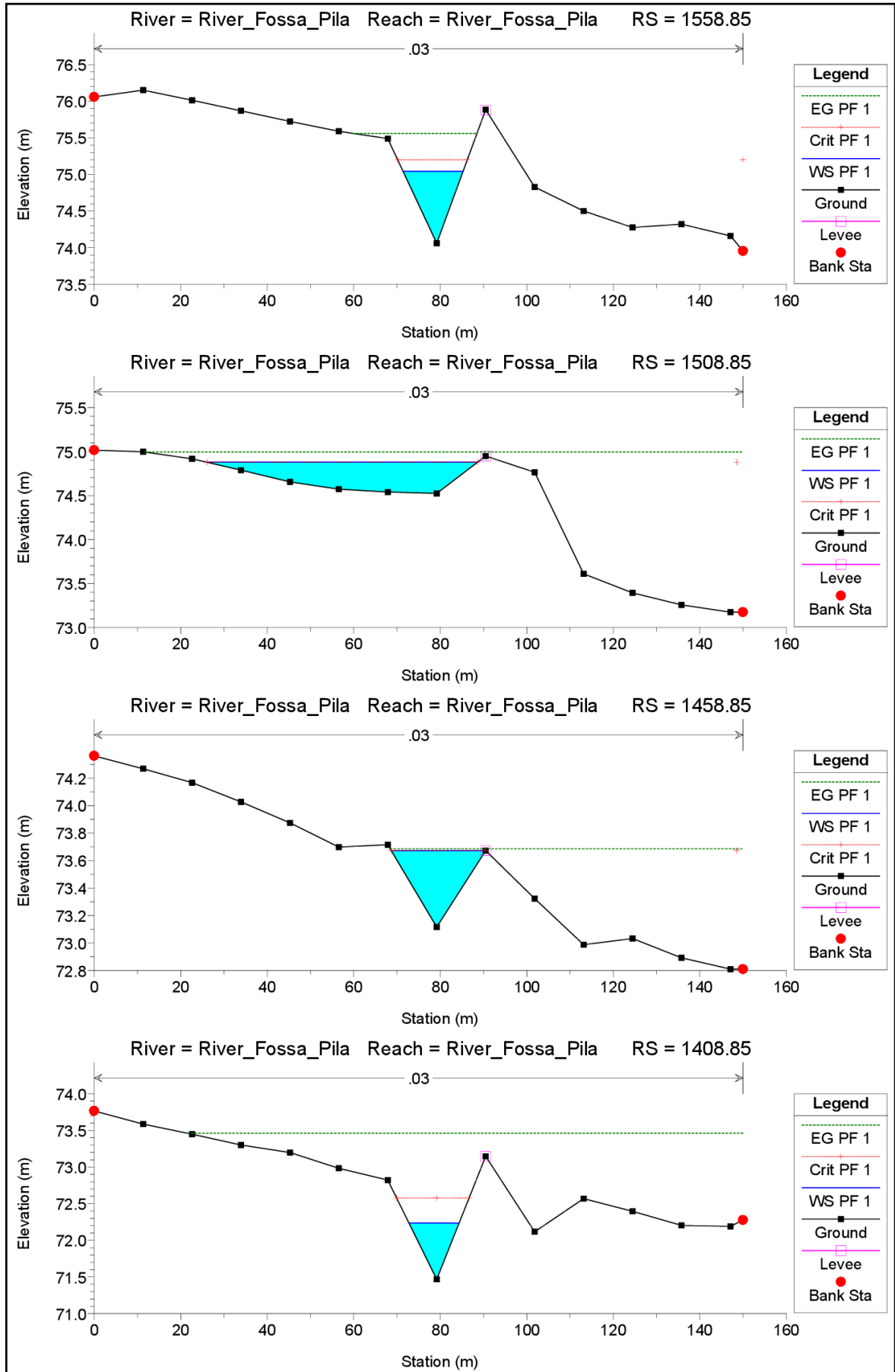


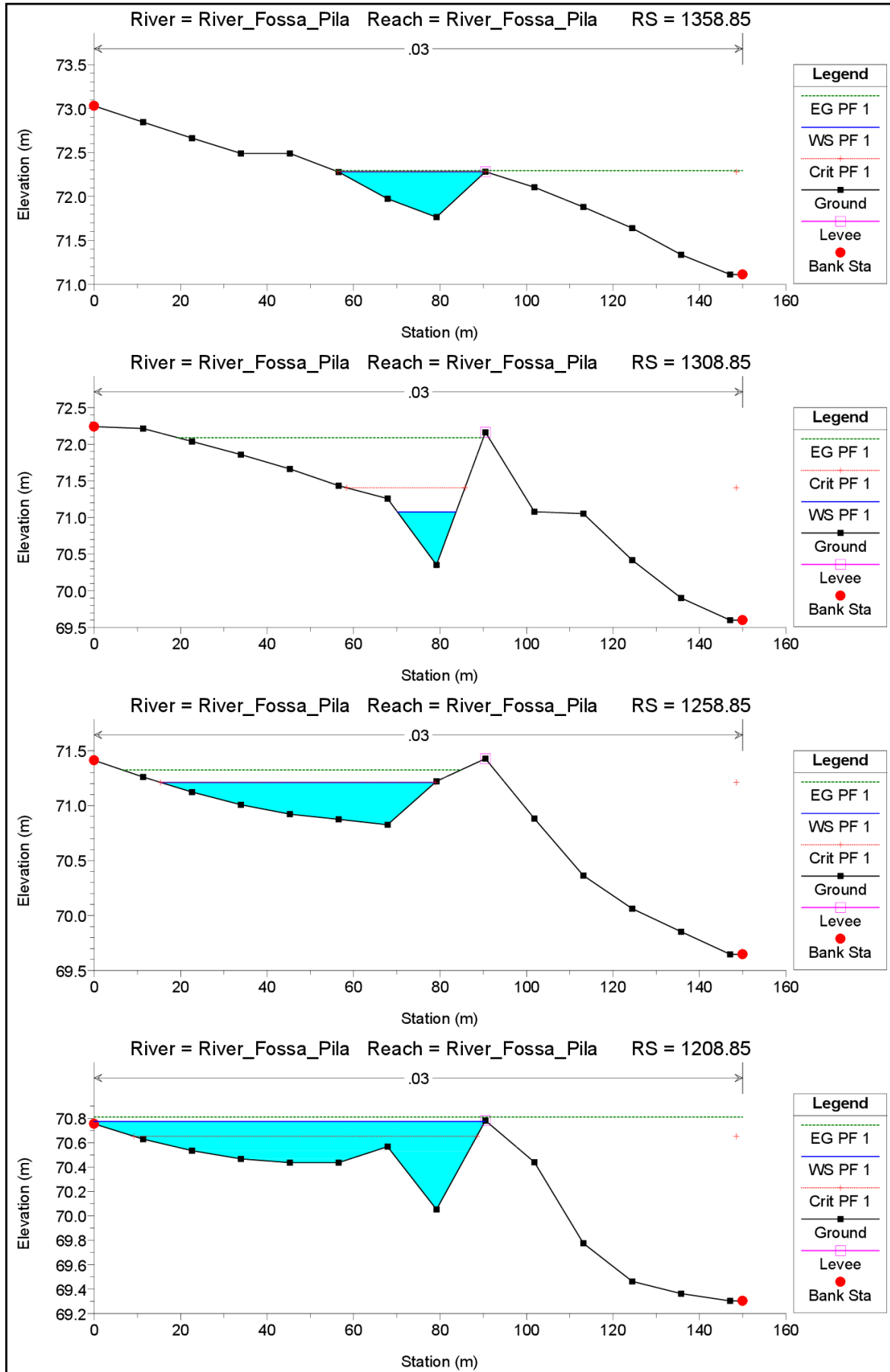


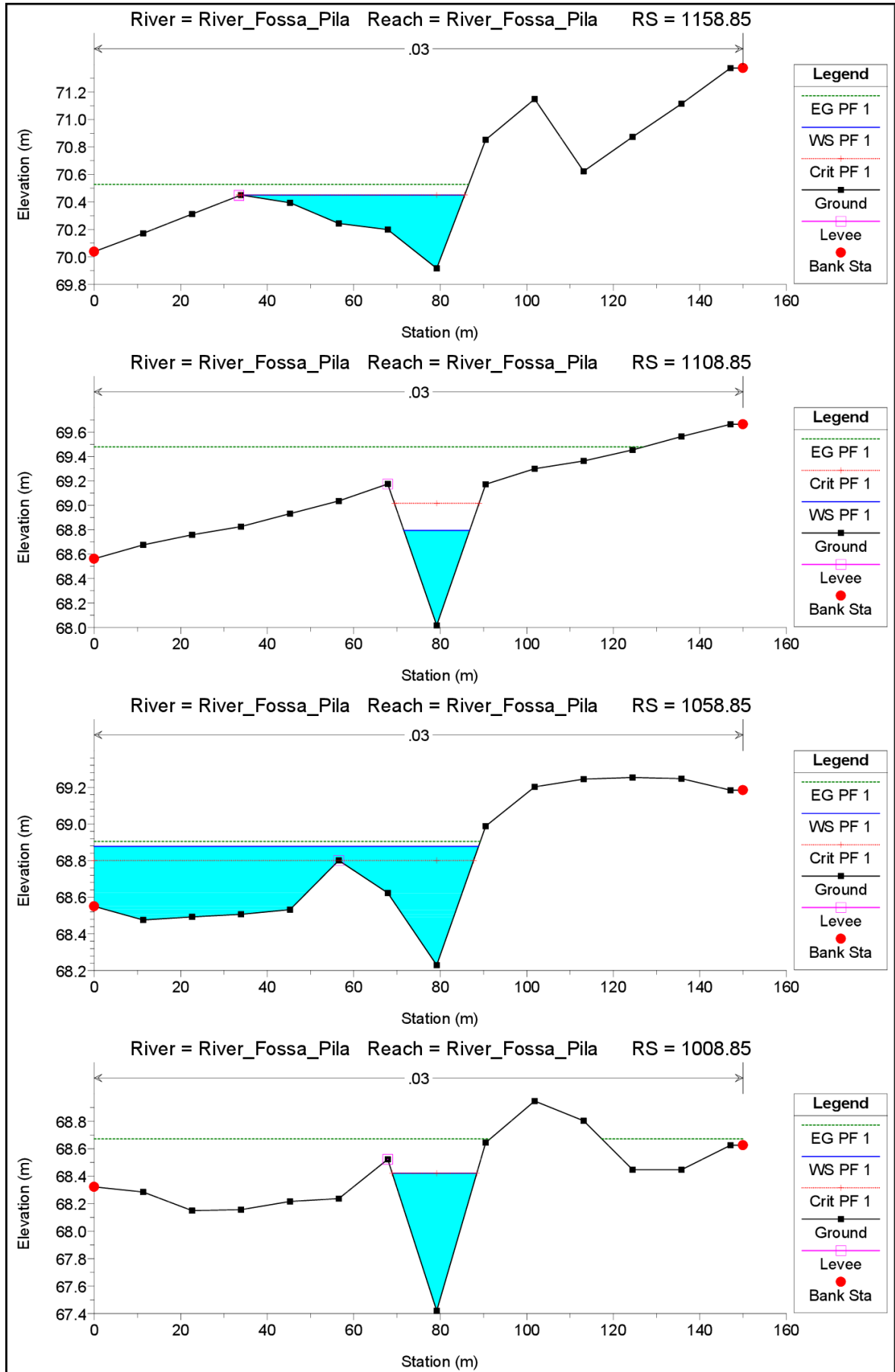


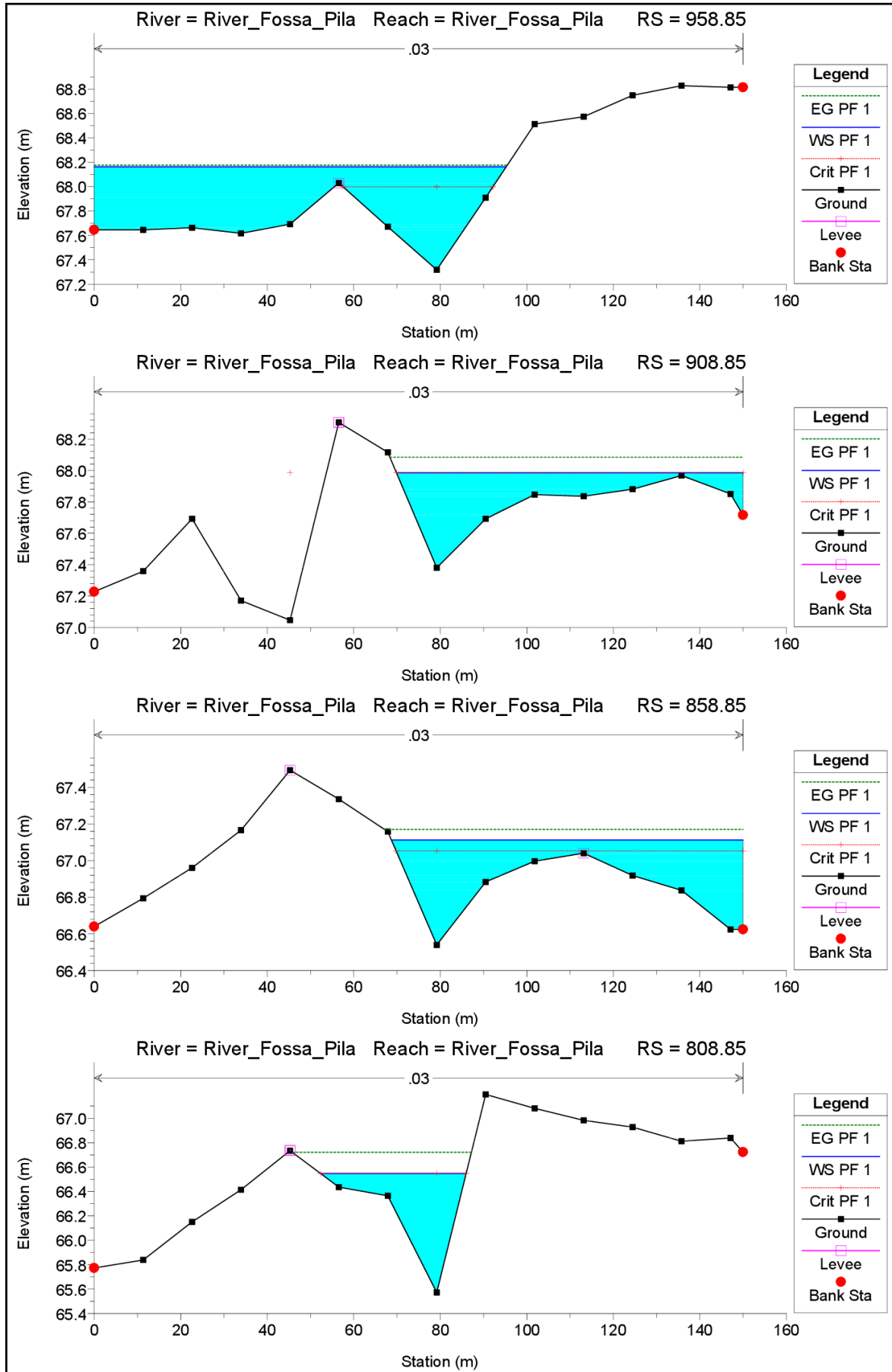


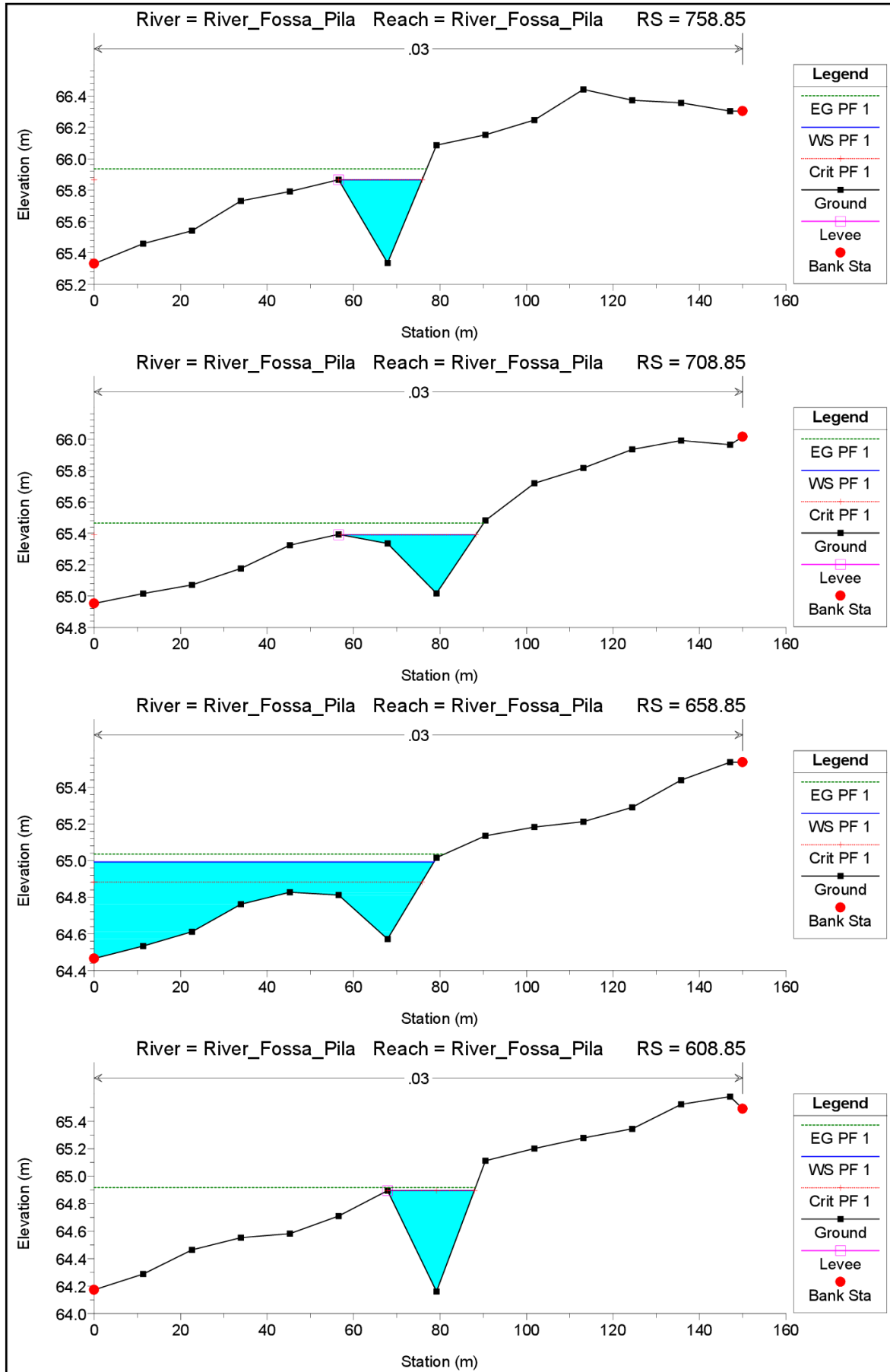


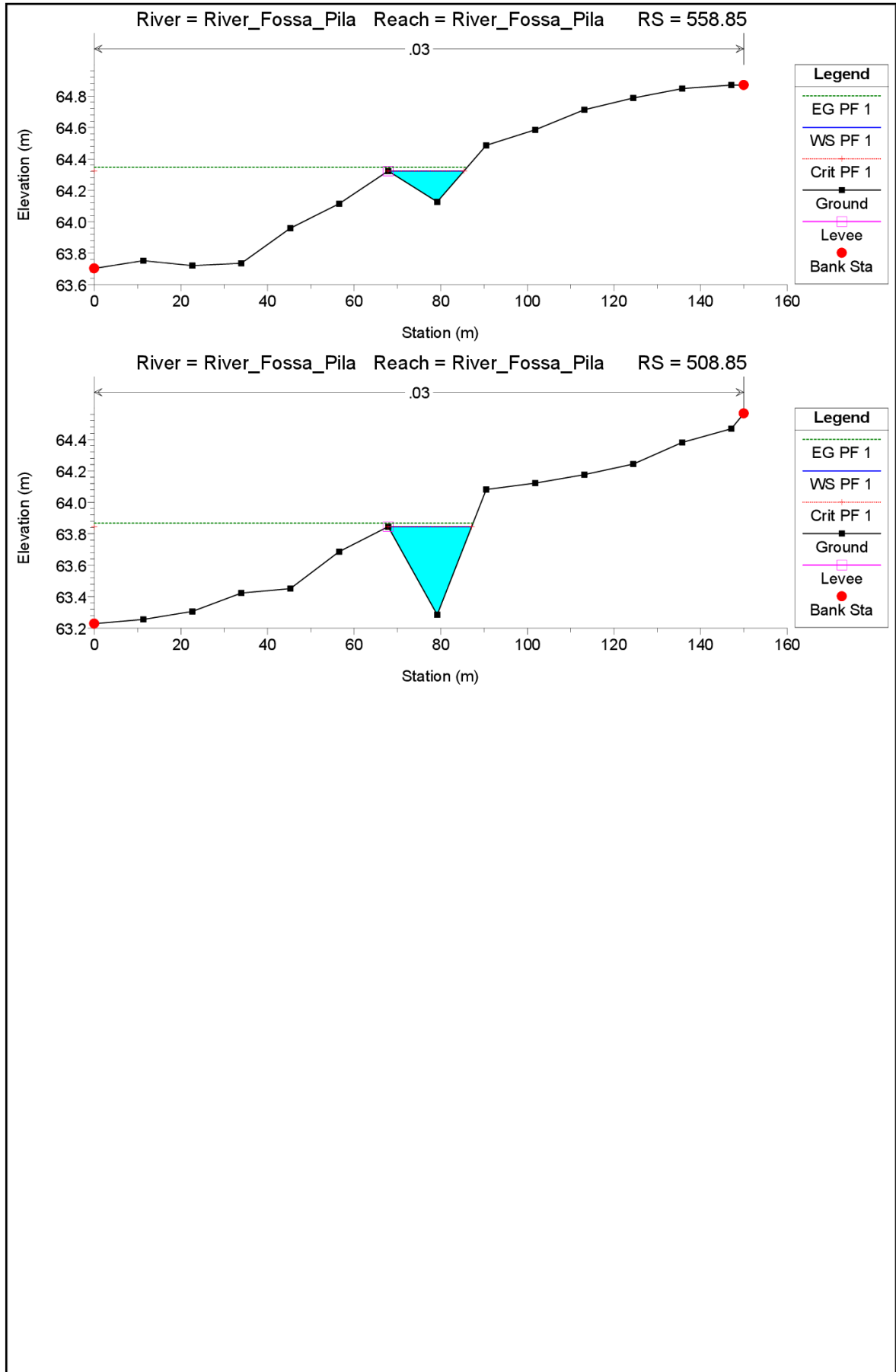


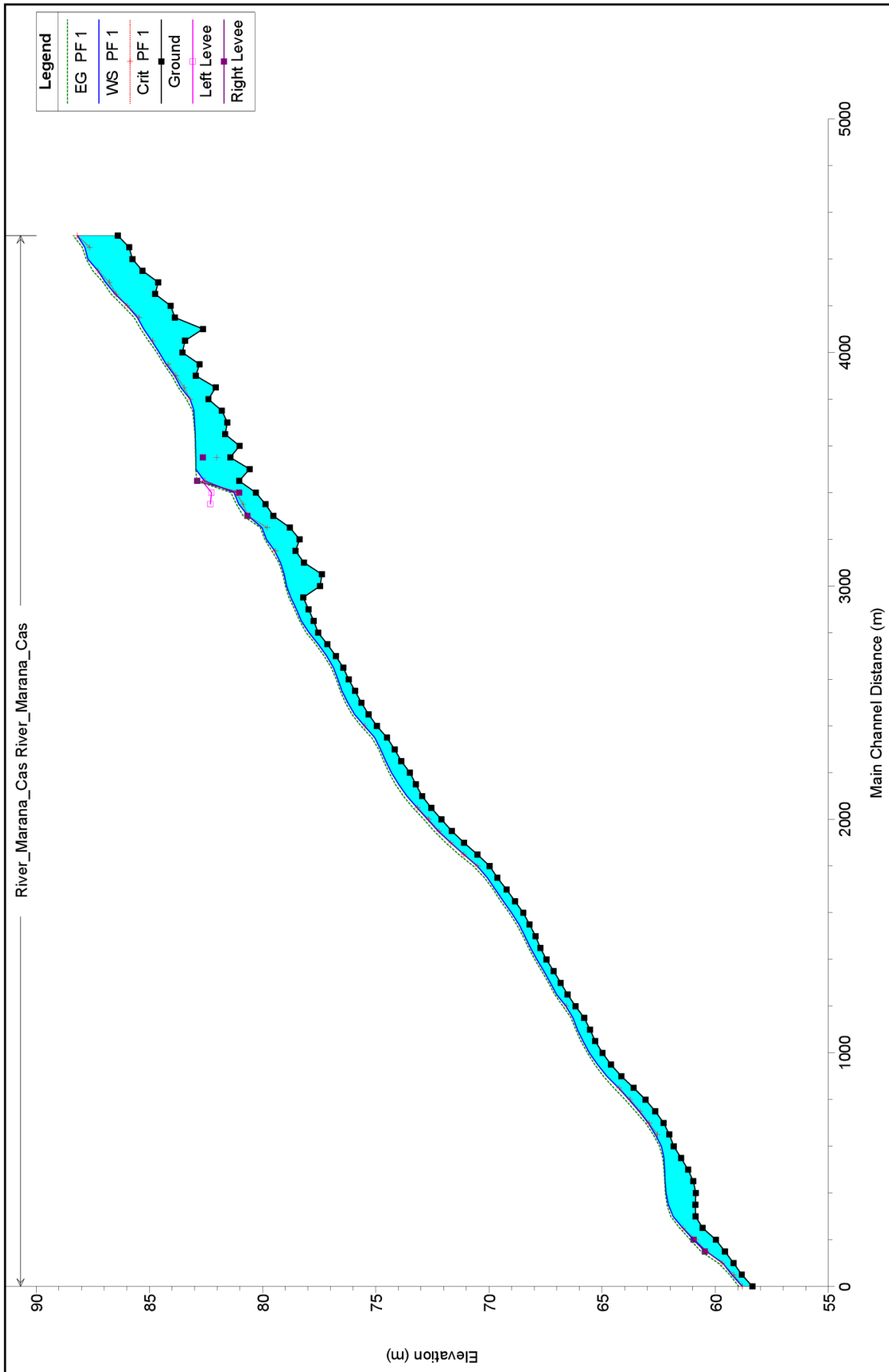


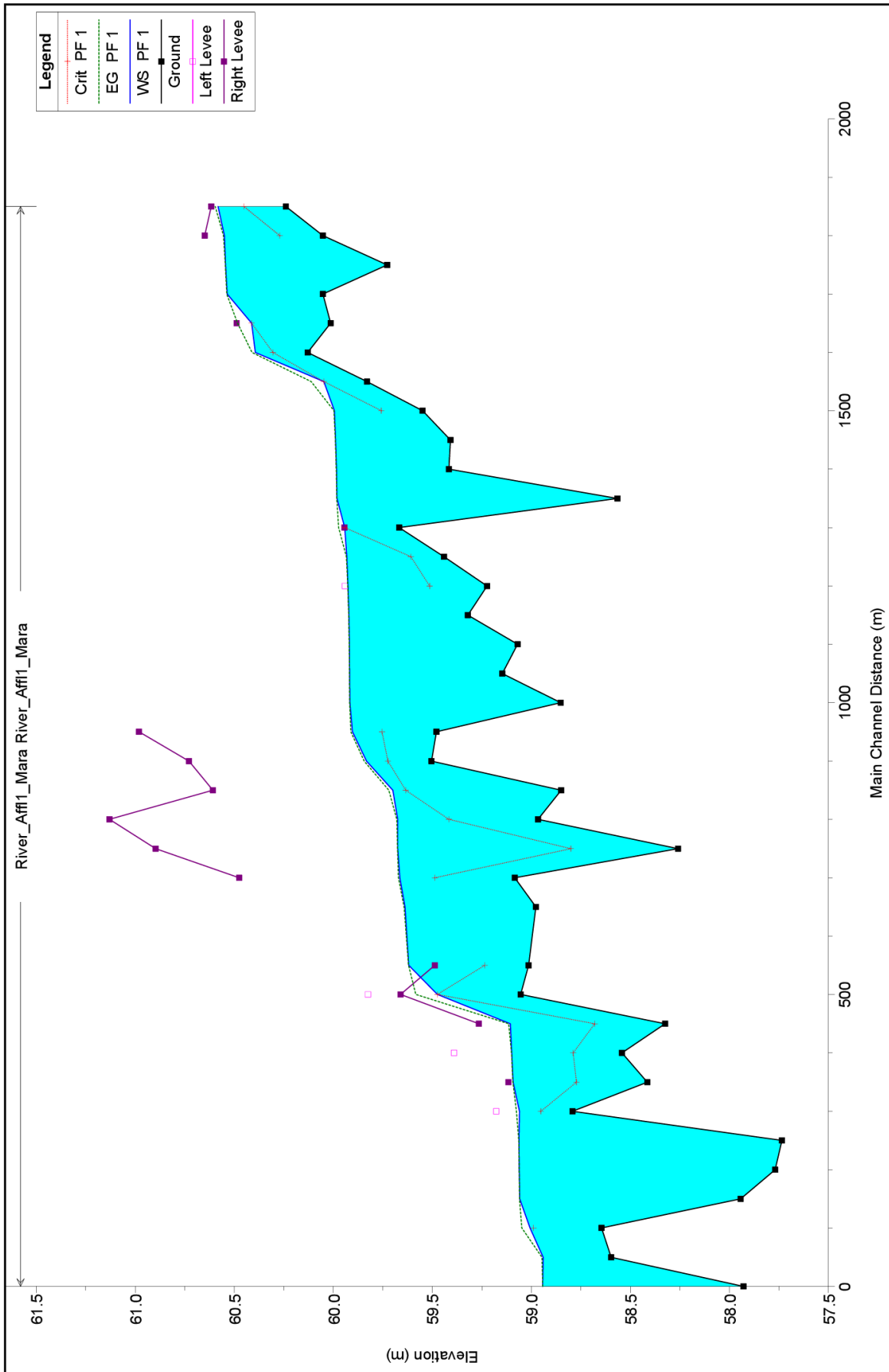


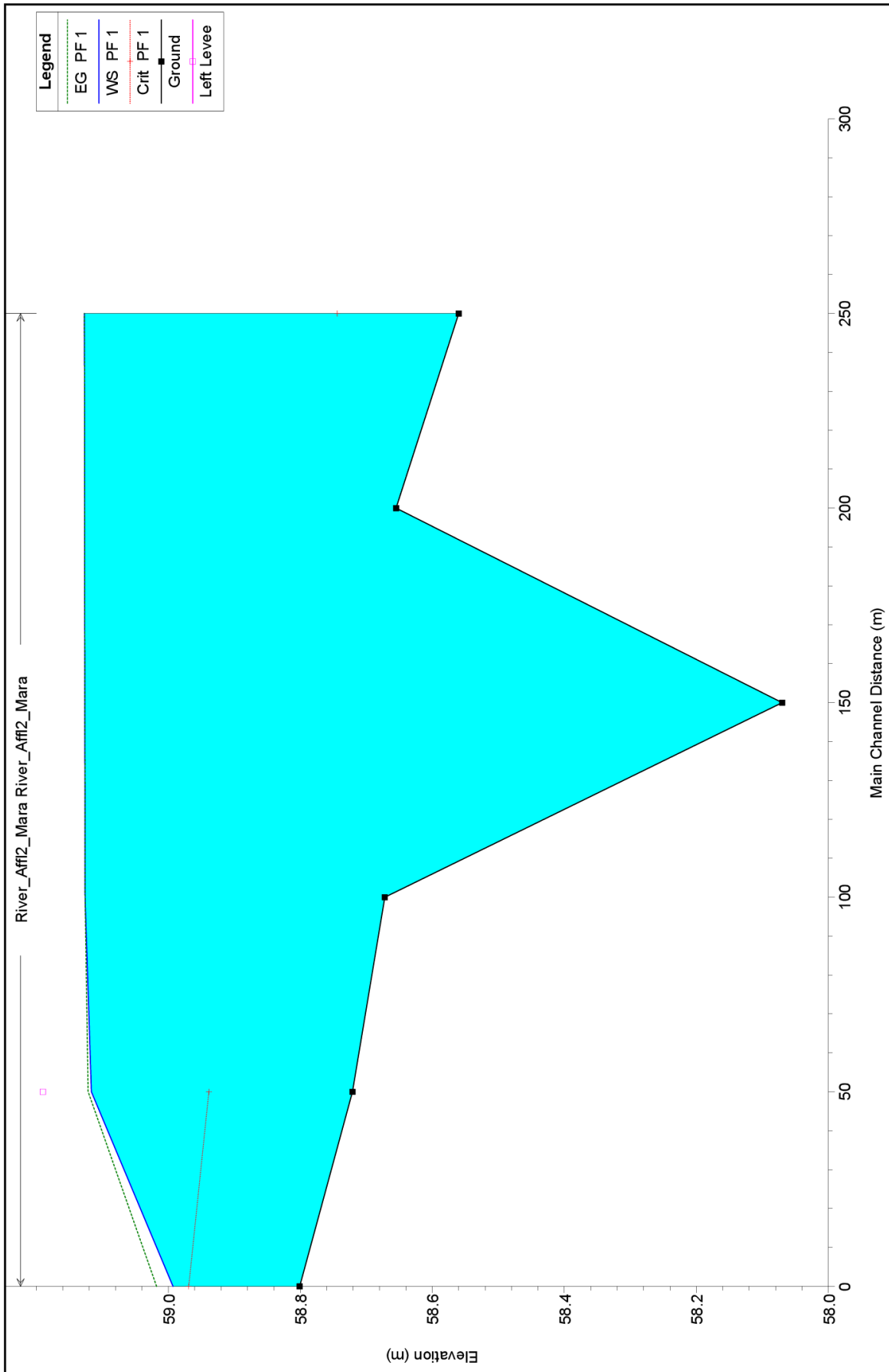


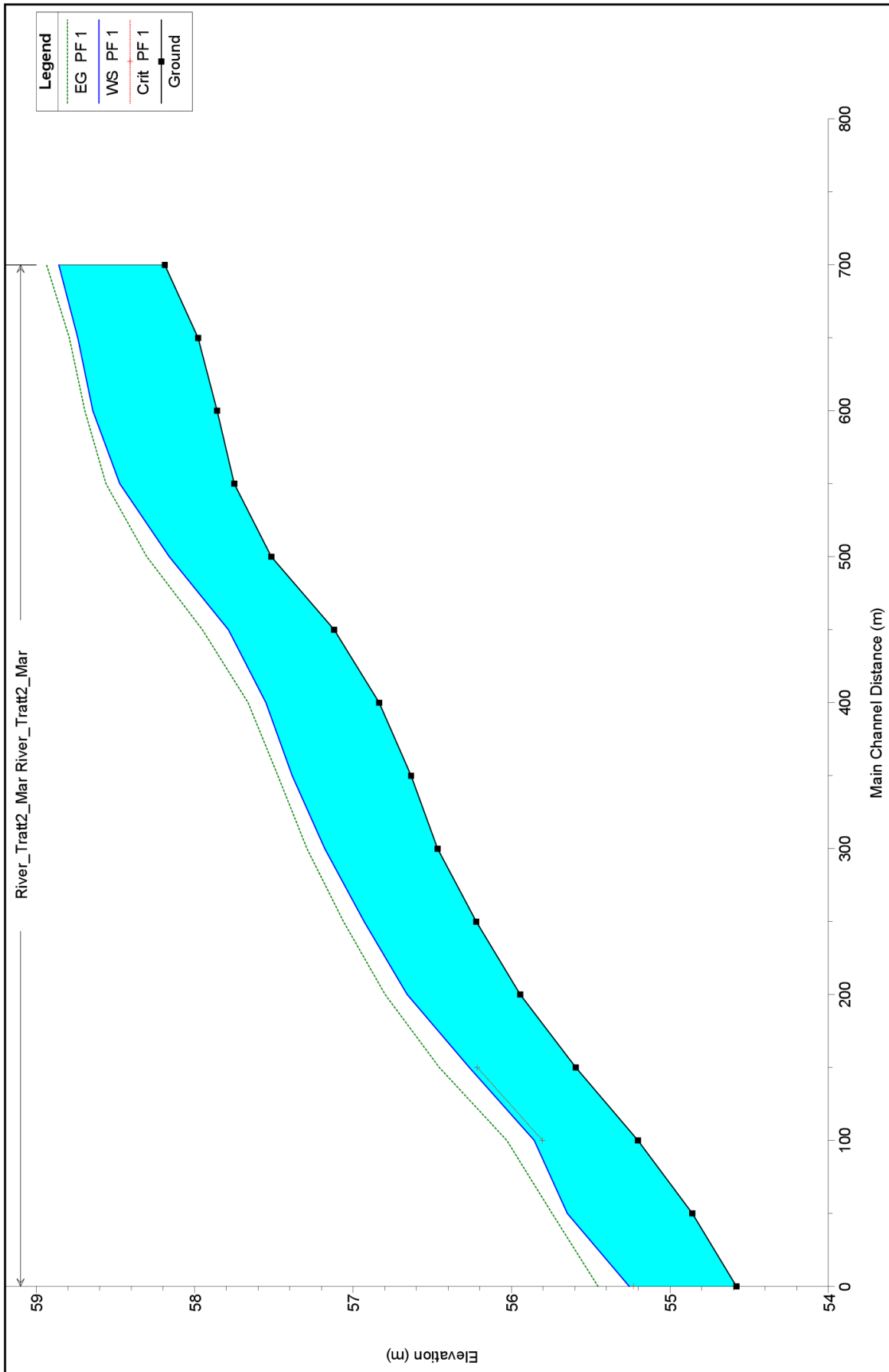


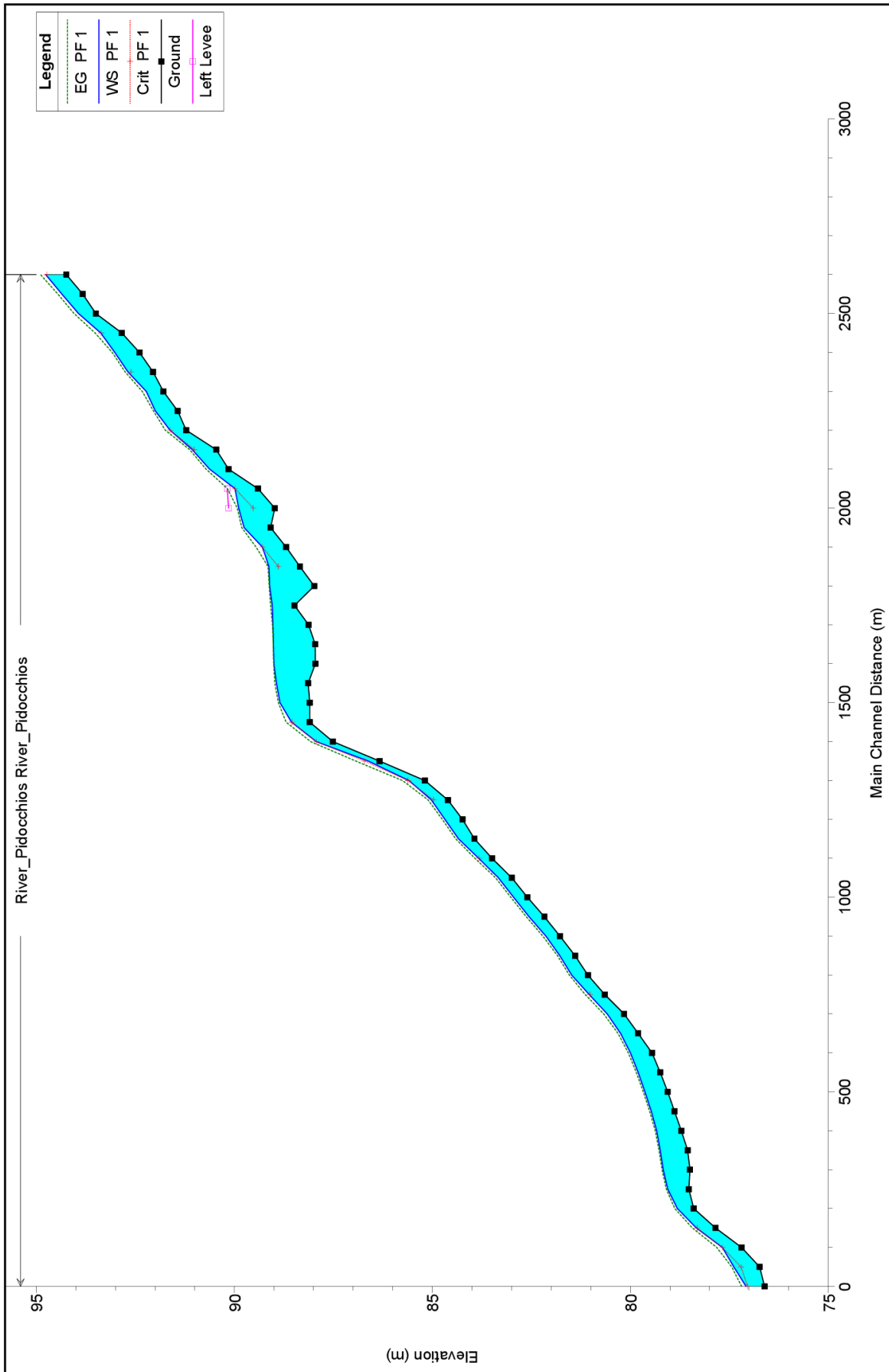


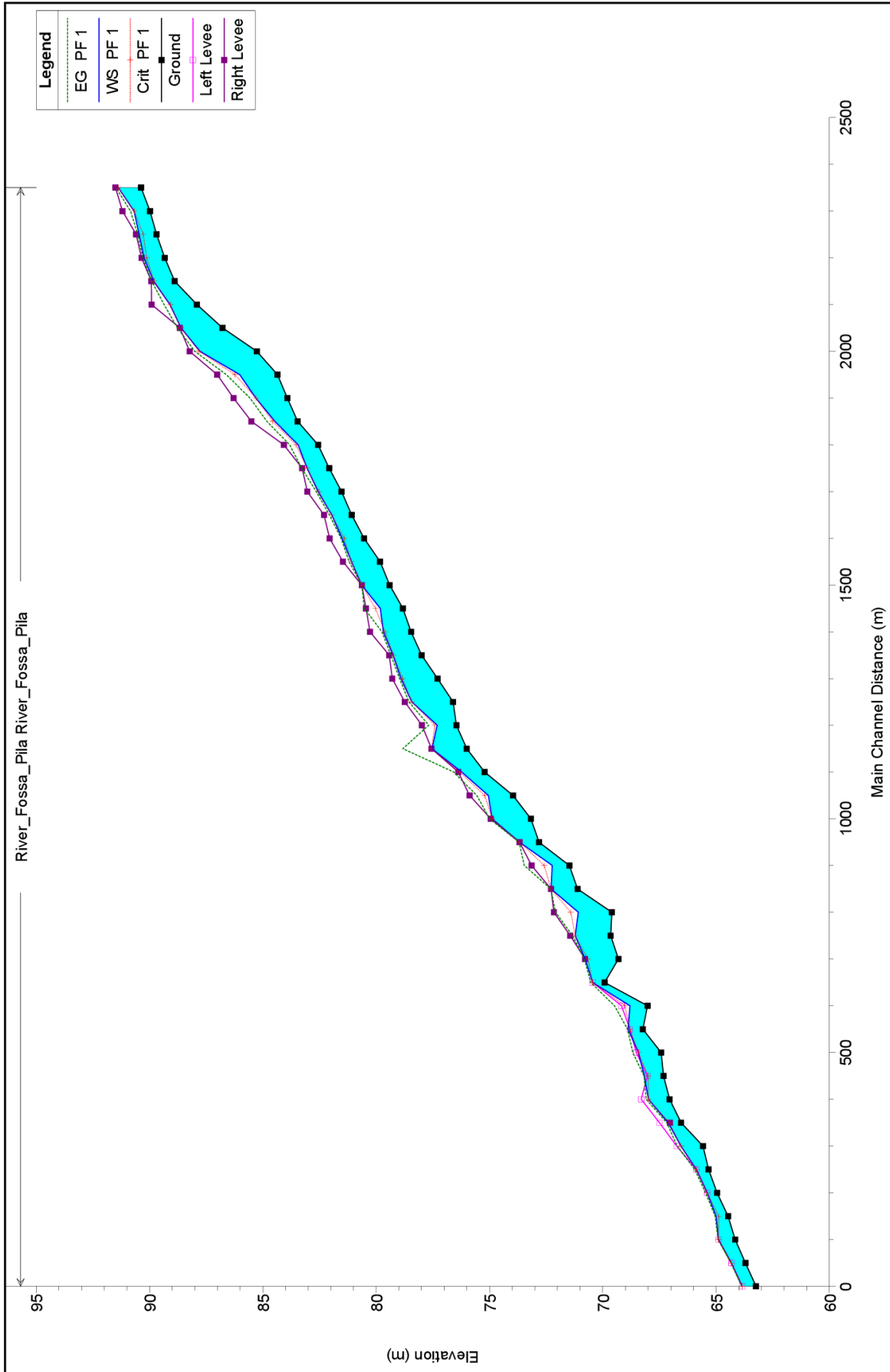












HEC-RAS Plan Profile: PF 1

River	Reach	River Sta	Profile	Q Total (m ³ /s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m ²)	Top Width (m)	Froude # Chl
River_Trat2_Mar	River_Trat2_Mar	732.88	PF 1	86.46	58.19	58.86		58.94	0.003822	1.24	69.93	150.00	0.58
River_Trat2_Mar	River_Trat2_Mar	682.88	PF 1	86.46	57.98	58.74		58.79	0.002043	1.02	84.43	150.00	0.44
River_Trat2_Mar	River_Trat2_Mar	632.88	PF 1	86.46	57.86	58.64		58.69	0.001859	1.00	86.81	150.00	0.42
River_Trat2_Mar	River_Trat2_Mar	582.88	PF 1	86.46	57.75	58.47		58.56	0.003895	1.30	66.29	133.28	0.59
River_Trat2_Mar	River_Trat2_Mar	532.88	PF 1	86.46	57.52	58.16		58.30	0.006614	1.67	51.79	106.82	0.77
River_Trat2_Mar	River_Trat2_Mar	482.88	PF 1	86.46	57.12	57.79		57.95	0.007389	1.79	48.29	97.27	0.81
River_Trat2_Mar	River_Trat2_Mar	432.88	PF 1	86.46	56.84	57.55		57.66	0.004205	1.48	58.35	102.20	0.63
River_Trat2_Mar	River_Trat2_Mar	382.88	PF 1	86.46	56.63	57.39		57.47	0.003149	1.33	65.15	108.40	0.55
River_Trat2_Mar	River_Trat2_Mar	332.88	PF 1	86.46	56.47	57.18		57.29	0.004199	1.49	58.13	101.11	0.63
River_Trat2_Mar	River_Trat2_Mar	282.88	PF 1	86.46	56.22	56.93		57.06	0.005032	1.61	53.84	95.54	0.68
River_Trat2_Mar	River_Trat2_Mar	232.88	PF 1	86.46	55.95	56.66		56.80	0.005460	1.66	52.24	94.15	0.71
River_Trat2_Mar	River_Trat2_Mar	182.88	PF 1	86.46	55.59	56.27	56.22	56.46	0.008473	1.93	44.89	89.58	0.87
River_Trat2_Mar	River_Trat2_Mar	132.88	PF 1	86.46	55.20	55.86	55.80	56.03	0.008412	1.84	47.00	100.03	0.86
River_Trat2_Mar	River_Trat2_Mar	82.88	PF 1	86.46	54.86	55.65		55.74	0.003582	1.38	62.57	107.75	0.58
River_Trat2_Mar	River_Trat2_Mar	32.88	PF 1	86.46	54.58	55.28	55.23	55.45	0.010007	1.97	43.99	96.56	0.93
River_Pidocchios	River_Pidocchios	3005.91	PF 1	40.63	94.24	94.76	94.74	94.89	0.010599	1.61	25.31	78.86	0.90
River_Pidocchios	River_Pidocchios	2955.91	PF 1	40.63	93.83	94.36		94.45	0.007097	1.38	29.55	86.21	0.75
River_Pidocchios	River_Pidocchios	2905.91	PF 1	40.63	93.49	93.93		94.05	0.009313	1.49	27.29	86.86	0.85
River_Pidocchios	River_Pidocchios	2855.91	PF 1	40.63	92.84	93.37	93.36	93.52	0.012143	1.67	24.29	79.03	0.96
River_Pidocchios	River_Pidocchios	2805.91	PF 1	40.63	92.40	93.01		93.08	0.005899	1.12	36.33	127.29	0.67
River_Pidocchios	River_Pidocchios	2755.91	PF 1	40.63	92.05	92.68	92.61	92.75	0.006923	1.19	34.22	122.13	0.72
River_Pidocchios	River_Pidocchios	2705.91	PF 1	40.63	91.79	92.22		92.32	0.010724	1.43	28.47	107.09	0.88
River_Pidocchios	River_Pidocchios	2655.91	PF 1	40.63	91.43	92.00		92.04	0.003124	0.95	42.85	118.05	0.50
River_Pidocchios	River_Pidocchios	2605.91	PF 1	40.63	91.22	91.62	91.62	91.74	0.014650	1.54	26.35	111.56	1.01
River_Pidocchios	River_Pidocchios	2555.91	PF 1	40.63	90.46	91.06	91.01	91.13	0.007615	1.16	34.90	137.65	0.74
River_Pidocchios	River_Pidocchios	2505.91	PF 1	40.63	90.14	90.62		90.71	0.009223	1.32	30.79	116.37	0.82
River_Pidocchios	River_Pidocchios	2455.91	PF 1	40.63	89.40	89.98	89.98	90.17	0.012254	1.94	21.00	55.26	1.00
River_Pidocchios	River_Pidocchios	2405.91	PF 1	40.63	88.98	89.89	89.52	89.93	0.001329	0.83	49.10	87.35	0.35
River_Pidocchios	River_Pidocchios	2355.91	PF 1	40.63	89.09	89.75		89.81	0.004363	1.09	37.39	107.80	0.59
River_Pidocchios	River_Pidocchios	2305.91	PF 1	40.63	88.69	89.29	89.29	89.45	0.013225	1.76	23.06	74.51	1.01
River_Pidocchios	River_Pidocchios	2255.91	PF 1	40.63	88.34	89.12	88.89	89.15	0.001759	0.74	55.08	143.01	0.38
River_Pidocchios	River_Pidocchios	2205.91	PF 1	40.63	87.98	89.11		89.12	0.000255	0.41	100.10	150.00	0.16
River_Pidocchios	River_Pidocchios	2155.91	PF 1	40.63	88.48	89.04		89.08	0.002903	0.92	44.06	119.19	0.48
River_Pidocchios	River_Pidocchios	2105.91	PF 1	40.63	88.13	89.02		89.03	0.000362	0.47	85.64	131.50	0.19
River_Pidocchios	River_Pidocchios	2055.91	PF 1	40.63	87.96	89.01		89.02	0.000174	0.37	110.37	143.50	0.13
River_Pidocchios	River_Pidocchios	2005.91	PF 1	40.63	87.95	89.00		89.01	0.000321	0.45	89.75	135.94	0.18
River_Pidocchios	River_Pidocchios	1955.91	PF 1	40.63	88.13	88.94		88.98	0.001683	0.86	47.09	93.95	0.39
River_Pidocchios	River_Pidocchios	1905.91	PF 1	40.63	88.09	88.85		88.89	0.001805	0.90	45.08	88.69	0.40
River_Pidocchios	River_Pidocchios	1855.91	PF 1	40.63	88.09	88.56	88.54	88.69	0.011496	1.62	25.02	81.52	0.94
River_Pidocchios	River_Pidocchios	1805.91	PF 1	40.63	87.51	87.93	87.93	88.07	0.013559	1.68	24.19	84.97	1.01
River_Pidocchios	River_Pidocchios	1755.91	PF 1	40.63	86.33	86.61	86.71	86.93	0.044560	2.48	16.38	78.30	1.73
River_Pidocchios	River_Pidocchios	1705.91	PF 1	40.63	85.19	85.59	85.61	85.75	0.018352	1.75	23.21	96.13	1.14
River_Pidocchios	River_Pidocchios	1655.91	PF 1	40.63	84.60	85.03	84.97	85.11	0.007963	1.29	31.52	110.47	0.77
River_Pidocchios	River_Pidocchios	1605.91	PF 1	40.63	84.24	84.69		84.75	0.006328	1.13	35.92	128.90	0.68
River_Pidocchios	River_Pidocchios	1555.91	PF 1	40.63	83.94	84.34		84.41	0.007475	1.15	35.32	140.02	0.73
River_Pidocchios	River_Pidocchios	1505.91	PF 1	40.63	83.49	83.83	83.82	83.92	0.012839	1.36	29.77	137.04	0.94
River_Pidocchios	River_Pidocchios	1455.91	PF 1	40.63	82.99	83.33		83.41	0.008361	1.22	33.24	130.70	0.77
River_Pidocchios	River_Pidocchios	1405.91	PF 1	40.63	82.60	82.95		83.02	0.007259	1.16	35.03	133.99	0.72
River_Pidocchios	River_Pidocchios	1355.91	PF 1	40.63	82.17	82.56		82.63	0.008257	1.19	34.21	139.24	0.76
River_Pidocchios	River_Pidocchios	1305.91	PF 1	40.63	81.78	82.13		82.21	0.008564	1.24	32.89	129.62	0.78
River_Pidocchios	River_Pidocchios	1255.91	PF 1	40.63	81.39	81.78		81.84	0.006176	1.11	36.45	130.93	0.67
River_Pidocchios	River_Pidocchios	1205.91	PF 1	40.63	81.07	81.48		81.54	0.006033	1.09	37.13	134.80	0.67
River_Pidocchios	River_Pidocchios	1155.91	PF 1	40.63	80.64	81.04	81.02	81.14	0.010762	1.40	29.12	113.27	0.88
River_Pidocchios	River_Pidocchios	1105.91	PF 1	40.63	80.16	80.59		80.67	0.008123	1.30	31.23	109.19	0.78
River_Pidocchios	River_Pidocchios	1055.91	PF 1	40.63	79.80	80.25		80.31	0.006145	1.12	36.19	128.07	0.67
River_Pidocchios	River_Pidocchios	1005.91	PF 1	40.63	79.45	80.00		80.05	0.004387	1.01	40.38	130.71	0.58
River_Pidocchios	River_Pidocchios	955.91	PF 1	40.63	79.25	79.81		79.85	0.003623	0.93	43.88	139.40	0.53
River_Pidocchios	River_Pidocchios	905.91	PF 1	40.63	79.06	79.63		79.67	0.003311	0.91	44.80	137.26	0.51
River_Pidocchios	River_Pidocchios	855.91	PF 1	40.63	78.88	79.47		79.51	0.003096	0.92	44.24	126.34	0.50
River_Pidocchios	River_Pidocchios	805.91	PF 1	40.63	78.71	79.34		79.37	0.002518	0.85	47.98	132.58	0.45
River_Pidocchios	River_Pidocchios	755.91	PF 1	40.63	78.55	79.25		79.27	0.001482	0.72	56.61	134.68	0.35
River_Pidocchios	River_Pidocchios	705.91	PF 1	40.63	78.49	79.17		79.20	0.001610	0.71	56.98	145.66	0.36
River_Pidocchios	River_Pidocchios	655.91	PF 1	40.63	78.53	79.06		79.09	0.002796	0.84	48.62	148.40	0.47
River_Pidocchios	River_Pidocchios	605.91	PF 1	40.63	78.40	78.81		78.88	0.007154	1.12	36.15	143.25	0.71
River_Pidocchios	River_Pidocchios	555.91	PF 1	40.63	77.85	78.33	78.31	78.44	0.011034	1.41	28.78	111.92	0.89
River_Pidocchios	River_Pidocchios	505.91	PF 1	40.63	77.19	77.68	77.68	77.82	0.013817	1.66	24.51	88.56	1.01
River_Pidocchios	River_Pidocchios	455.91	PF 1	40.63	76.73	77.39	77.20	77.44	0.002829	0.97	41.75	102.01	0.49
River_Pidocchios	River_Pidocchios	405.91	PF 1	40.63	76.61	77.08	77.04	77.19	0.010005	1.50	27.10	89.45	0.87
River_Marana_Cas	River_Marana_Cas	4520.66	PF 1	77.82	86.39	88.19	88.19	88.36	0.012980	1.87	41.65	120.49	1.01
River_Marana_Cas	River_Marana_Cas	4470.66	PF 1	77.82	85.90	87.85	87.64	87.97	0.003455	1.48	52.55	79.17	0.58
River_Marana_Cas	River_Marana_Cas	4420.66	PF 1	77.82	85.75	87.72		87.79	0.003155	1.21	64.42	123.75	0.53
River_Marana_Cas	River_Marana_Cas	4370.66	PF 1	77.82	85.31	87.27	87.27	87.50	0.012257	2.11	36.80	84.14	1.02
River_Marana_Cas	River_Marana_Cas	4320.66	PF 1	77.82	84.61	86.95	86.76	87.05	0.005640	1.42	54.92	128.18	0.69
River_Marana_Cas	River_Marana_Cas	4270.66	PF 1	77.82	84.74	86.52	86.47	86.69	0.009151	1.85	42.06	94.74	0.89
River_Marana_Cas	River_Marana_Cas	4220.66	PF 1	77.82	84.06	85.98	85.98	86.17	0.011774	1.96	39.79	99.76	0.99
River_Marana_Cas	River_Marana_Cas	4170.66	PF 1	77.82	83.87	85.53	85.44	85.68	0.007036	1.70	45.85	96.28	0.79
River_Marana_Cas	River_Marana_Cas	4120.66	PF 1	77.82	82.63	85.25		85.39	0.004869	1.64	47.42	79.14	0.68
River_Marana_Cas	River_Marana_Cas	4070.66	PF 1	77.82	83.42	84.90	84.86	85.04	0.010251	1.69	46.02	129.43	0.91
River_Marana_Cas	River_Marana_Cas	4020.66	PF 1	77.82	83.54	84.57		84.67	0.005317	1.38	56.80	132.48	0.67
River_Marana_Cas	River_Marana_Cas	3970.66	PF 1	77.82	82.78	84.25	84.18	84.37	0.006911	1.48	52.54	134.10	0.76
River_Marana_Cas	River_Marana_Cas	3920.66	PF 1	77.82	82.95	83.88	83.82	84.01	0.007438	1.55	50.18	126.25	0.79
River_Marana_Cas	River_Marana_Cas	3870.66	PF 1	77.82	82.08	83.62	83.47	83.72	0.004438	1.38	56.53	115.23	0.63
River_Marana_Cas	River_Marana_Cas	3820.66	PF 1	77.82	82.39	83.20	83.20	83.37	0.011815	1.79	43.50	125.13	0.97
River_Marana_Cas	River_Marana_Cas	3770.66	PF 1	77.82	81.80	83.							

HEC-RAS Plan: Plan Profile: PF 1 (Continued)

River	Reach	River Sta	Profile	Q Total (m ³ /s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m ²)	Top Width (m)	Froude # Chl
River_Marana_Cas	River_Marana_Cas	2670.66	PF 1	77.82	76.44	76.87		76.96	0.005307	1.31	59.53	150.00	0.66
River_Marana_Cas	River_Marana_Cas	2620.66	PF 1	77.82	76.19	76.67		76.74	0.003487	1.15	67.54	150.00	0.55
River_Marana_Cas	River_Marana_Cas	2570.66	PF 1	77.82	75.92	76.49		76.56	0.003595	1.16	66.89	150.00	0.56
River_Marana_Cas	River_Marana_Cas	2520.66	PF 1	77.82	75.64	76.23		76.34	0.005571	1.43	54.53	124.92	0.69
River_Marana_Cas	River_Marana_Cas	2470.66	PF 1	77.82	75.31	75.94		76.05	0.005957	1.48	52.41	118.92	0.71
River_Marana_Cas	River_Marana_Cas	2420.66	PF 1	77.82	74.95	75.50	75.47	75.66	0.010580	1.77	44.07	118.67	0.93
River_Marana_Cas	River_Marana_Cas	2370.66	PF 1	77.82	74.51	75.04		75.18	0.008347	1.64	47.42	119.36	0.83
River_Marana_Cas	River_Marana_Cas	2320.66	PF 1	77.82	74.16	74.78		74.87	0.004395	1.33	58.32	123.67	0.62
River_Marana_Cas	River_Marana_Cas	2270.66	PF 1	77.82	73.87	74.55		74.65	0.004583	1.37	56.90	119.90	0.63
River_Marana_Cas	River_Marana_Cas	2220.66	PF 1	77.82	73.49	74.31		74.41	0.004732	1.44	54.08	107.98	0.65
River_Marana_Cas	River_Marana_Cas	2170.66	PF 1	77.82	73.23	73.99		74.13	0.006685	1.68	46.23	94.50	0.77
River_Marana_Cas	River_Marana_Cas	2120.66	PF 1	77.82	72.95	73.63		73.78	0.007160	1.74	44.66	91.31	0.80
River_Marana_Cas	River_Marana_Cas	2070.66	PF 1	77.82	72.54	73.17	73.15	73.36	0.010226	1.90	40.91	95.90	0.93
River_Marana_Cas	River_Marana_Cas	2020.66	PF 1	77.82	72.10	72.71	72.66	72.88	0.008812	1.83	42.59	94.83	0.87
River_Marana_Cas	River_Marana_Cas	1970.66	PF 1	77.82	71.64	72.24	72.20	72.43	0.009253	1.89	41.07	89.80	0.89
River_Marana_Cas	River_Marana_Cas	1920.66	PF 1	77.82	71.10	71.68	71.68	71.91	0.011524	2.10	37.00	81.59	1.00
River_Marana_Cas	River_Marana_Cas	1870.66	PF 1	77.82	70.51	71.10	71.10	71.32	0.011890	2.05	37.94	88.98	1.00
River_Marana_Cas	River_Marana_Cas	1820.66	PF 1	77.82	69.97	70.52	70.49	70.69	0.010208	1.83	42.63	106.28	0.92
River_Marana_Cas	River_Marana_Cas	1770.66	PF 1	77.82	69.62	70.07		70.19	0.009118	1.54	50.58	150.00	0.85
River_Marana_Cas	River_Marana_Cas	1720.66	PF 1	77.82	69.22	69.72		69.81	0.006170	1.37	56.87	150.00	0.71
River_Marana_Cas	River_Marana_Cas	1670.66	PF 1	77.82	68.85	69.37		69.47	0.007447	1.45	53.51	148.35	0.77
River_Marana_Cas	River_Marana_Cas	1620.66	PF 1	77.82	68.49	69.00		69.11	0.007270	1.44	54.12	150.00	0.76
River_Marana_Cas	River_Marana_Cas	1570.66	PF 1	77.82	68.20	68.67		68.77	0.006139	1.37	56.96	150.00	0.71
River_Marana_Cas	River_Marana_Cas	1520.66	PF 1	77.82	67.93	68.41		68.49	0.004838	1.27	61.19	150.00	0.64
River_Marana_Cas	River_Marana_Cas	1470.66	PF 1	77.82	67.73	68.16		68.25	0.005062	1.29	60.38	150.00	0.65
River_Marana_Cas	River_Marana_Cas	1420.66	PF 1	77.82	67.46	67.88		67.97	0.005857	1.35	57.81	150.00	0.69
River_Marana_Cas	River_Marana_Cas	1370.66	PF 1	77.82	67.13	67.57		67.67	0.006323	1.38	56.49	150.00	0.72
River_Marana_Cas	River_Marana_Cas	1320.66	PF 1	77.82	66.82	67.28		67.37	0.005690	1.33	58.31	150.00	0.68
River_Marana_Cas	River_Marana_Cas	1270.66	PF 1	77.82	66.52	67.01		67.10	0.005092	1.29	60.27	150.00	0.65
River_Marana_Cas	River_Marana_Cas	1220.66	PF 1	77.82	66.18	66.60	66.58	66.73	0.010852	1.63	47.72	147.92	0.92
River_Marana_Cas	River_Marana_Cas	1170.66	PF 1	77.82	65.79	66.28		66.37	0.004899	1.28	60.95	150.00	0.64
River_Marana_Cas	River_Marana_Cas	1120.66	PF 1	77.82	65.53	66.09		66.16	0.003347	1.14	68.36	150.00	0.54
River_Marana_Cas	River_Marana_Cas	1070.66	PF 1	77.82	65.30	65.84		65.94	0.006121	1.39	56.18	144.71	0.71
River_Marana_Cas	River_Marana_Cas	1020.66	PF 1	77.82	64.98	65.56		65.05	0.005348	1.31	59.31	150.00	0.67
River_Marana_Cas	River_Marana_Cas	970.66	PF 1	77.82	64.60	65.19		65.33	0.007651	1.61	48.19	116.50	0.80
River_Marana_Cas	River_Marana_Cas	920.66	PF 1	77.82	64.14	64.79		64.94	0.007605	1.75	44.54	95.07	0.81
River_Marana_Cas	River_Marana_Cas	870.66	PF 1	77.82	63.60	64.27	64.26	64.48	0.011054	2.03	38.28	85.97	0.97
River_Marana_Cas	River_Marana_Cas	820.66	PF 1	77.82	63.08	63.81	63.76	63.99	0.008615	1.87	41.56	87.54	0.87
River_Marana_Cas	River_Marana_Cas	770.66	PF 1	77.82	62.65	63.37	63.32	63.53	0.009544	1.80	43.16	104.02	0.89
River_Marana_Cas	River_Marana_Cas	720.66	PF 1	77.82	62.27	62.96	62.91	63.08	0.008188	1.49	52.29	150.00	0.80
River_Marana_Cas	River_Marana_Cas	670.66	PF 1	77.82	62.03	62.65	62.55	62.74	0.005466	1.32	59.03	150.00	0.67
River_Marana_Cas	River_Marana_Cas	620.66	PF 1	77.82	61.83	62.38		62.46	0.005376	1.31	59.32	150.00	0.67
River_Marana_Cas	River_Marana_Cas	570.66	PF 1	77.82	61.51	62.27		62.31	0.001691	0.93	84.00	150.00	0.40
River_Marana_Cas	River_Marana_Cas	520.66	PF 1	77.82	61.20	62.24		62.28	0.000576	0.67	116.15	150.00	0.24
River_Marana_Cas	River_Marana_Cas	470.66	PF 1	77.82	60.97	62.21		62.23	0.000486	0.64	122.30	150.00	0.23
River_Marana_Cas	River_Marana_Cas	420.66	PF 1	77.82	60.85	62.17		62.20	0.000930	0.77	100.57	150.00	0.30
River_Marana_Cas	River_Marana_Cas	370.66	PF 1	77.82	60.88	62.07		62.13	0.002093	1.05	73.78	127.05	0.44
River_Marana_Cas	River_Marana_Cas	320.66	PF 1	77.82	60.87	61.86		61.96	0.005815	1.43	54.44	128.08	0.70
River_Marana_Cas	River_Marana_Cas	270.66	PF 1	77.82	60.55	61.44	61.42	61.57	0.010917	1.62	47.98	150.00	0.92
River_Marana_Cas	River_Marana_Cas	220.66	PF 1	77.82	59.97	60.96	60.88	61.11	0.007847	1.71	45.42	101.76	0.82
River_Marana_Cas	River_Marana_Cas	170.66	PF 1	77.82	59.57	60.39	60.39	60.63	0.011557	2.16	35.96	75.79	1.00
River_Marana_Cas	River_Marana_Cas	120.66	PF 1	77.82	59.19	59.66	59.70	59.86	0.020816	1.97	39.52	150.00	1.23
River_Marana_Cas	River_Marana_Cas	70.66	PF 1	77.82	58.82	59.27	59.18	59.36	0.005381	1.31	59.28	150.00	0.67
River_Fossa_Pila	River_Fossa_Pila	2858.85	PF 1	21.68	90.37	91.38	91.49	91.49	0.015110	1.45	14.93	70.77	1.01
River_Fossa_Pila	River_Fossa_Pila	2808.85	PF 1	21.68	89.98	90.69	90.67	90.85	0.011229	1.75	12.38	35.44	0.95
River_Fossa_Pila	River_Fossa_Pila	2758.85	PF 1	21.68	89.70	90.46	90.29	90.52	0.003655	1.11	19.49	47.51	0.55
River_Fossa_Pila	River_Fossa_Pila	2708.85	PF 1	21.68	89.33	90.24	90.13	90.30	0.005573	1.04	20.79	76.66	0.64
River_Fossa_Pila	River_Fossa_Pila	2658.85	PF 1	21.68	88.90	89.83	89.81	89.91	0.011277	1.24	17.54	84.90	0.87
River_Fossa_Pila	River_Fossa_Pila	2608.85	PF 1	21.68	87.91	89.10	89.08	89.37	0.009837	2.28	9.51	16.43	0.96
River_Fossa_Pila	River_Fossa_Pila	2558.85	PF 1	21.68	86.79	88.62	88.62	88.77	0.012934	1.76	12.33	38.99	1.00
River_Fossa_Pila	River_Fossa_Pila	2508.85	PF 1	21.68	85.27	87.77	87.82	88.00	0.018190	2.13	10.16	31.05	1.19
River_Fossa_Pila	River_Fossa_Pila	2458.85	PF 1	21.68	84.36	86.03	86.23	86.62	0.043965	3.41	6.36	18.59	1.86
River_Fossa_Pila	River_Fossa_Pila	2408.85	PF 1	21.68	83.92	85.31	85.31	85.57	0.011180	2.24	9.70	19.05	1.00
River_Fossa_Pila	River_Fossa_Pila	2358.85	PF 1	21.68	83.46	84.47	84.56	84.82	0.020130	2.63	8.23	19.74	1.30
River_Fossa_Pila	River_Fossa_Pila	2308.85	PF 1	21.68	82.56	83.44	83.54	83.82	0.019975	2.72	7.97	18.08	1.31
River_Fossa_Pila	River_Fossa_Pila	2258.85	PF 1	21.68	82.08	83.05	83.05	83.29	0.011265	2.18	9.94	20.45	1.00
River_Fossa_Pila	River_Fossa_Pila	2208.85	PF 1	21.68	81.53	82.56	82.52	82.65	0.009490	1.29	16.81	67.08	0.82
River_Fossa_Pila	River_Fossa_Pila	2158.85	PF 1	21.68	81.08	81.96	81.96	82.06	0.014803	1.41	15.42	75.53	0.99
River_Fossa_Pila	River_Fossa_Pila	2108.85	PF 1	21.68	80.53	81.51	81.41	81.55	0.004100	0.92	23.64	83.80	0.55
River_Fossa_Pila	River_Fossa_Pila	2058.85	PF 1	21.68	79.83	81.09	81.09	81.19	0.014790	1.41	15.35	74.60	0.99
River_Fossa_Pila	River_Fossa_Pila	2008.85	PF 1	21.68	79.40	80.63	80.63	80.64	0.000242	0.34	63.10	115.68	0.15
River_Fossa_Pila	River_Fossa_Pila	1958.85	PF 1	21.68	78.82	79.82	80.04	80.52	0.067490	3.73	5.82	20.54	2.24
River_Fossa_Pila	River_Fossa_Pila	1908.85	PF 1	21.68	78.46	79.68	79.61	79.75	0.005941	1.10	19.63	68.65	0.66
River_Fossa_Pila	River_Fossa_Pila	1858.85	PF 1	21.68	77.99	79.26	79.24	79.35	0.011586	1.30	16.67	76.33	0.89
River_Fossa_Pila	River_Fossa_Pila	1808.85	PF 1	21.68	77.29	78.91	78.83	78.96	0.005193	1.03	21.08	75.13	0.63
River_Fossa_Pila	River_Fossa_Pila	1758.85	PF 1	21.68	76.60	78.43	78.43	78.55	0.014027	1.54	14.06	57.57	1.00
River_Fossa_Pila	River_Fossa_Pila	1708.85	PF 1	21.68	76.46	77.31	77.41	77.69	0.020581	2.70	8.02	18.75	1.32
River_Fossa_Pila	River_Fossa_Pila	1658.85	PF 1	21.68	76.00	77.54	77.56	78.82	0.159637	5.02	4.32	18.67	3.33
River_Fossa_Pila	River_Fossa_Pila	1608.85	PF 1	21.68	75.22	76.23	76.31	76.59	0.017262	2.64	8.22	17.50	1.23
River_Fossa_Pila	River_Fossa_Pila	1558.85	PF 1	21.68	73.96	75.04	75.20	75.56	0.023898	3.18	6.81	13.88	1.45
River_Fossa_Pila	River_Fossa_Pila	1508.85	PF 1	21.68	73.17	74.88	74.88	74.99	0.014422	1.50	14.41	62.58	1.00
River_Fossa_Pila	River_Fossa_Pila	1458.85	PF 1	21.68	72.81	73.67	73.67	73.69	0.000624	0.53	41.23	81.31	0.24
River_Fossa_Pila	River_Fossa_Pila	1408.85	PF 1	21.68	71.47	72.23	72.58	73.46	0.078889	4.90	4.42	11.57	2.53
River_Fossa_Pila	River_Fossa_Pila	1358.85	PF 1	21.68	71.11	72.28	72.28	72.29	0.000616	0.49	43.83	93.58	

HEC-RAS Plan: Plan Profile: PF 1 (Continued)

River	Reach	River Sta	Profile	Q Total (m ³ /s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m ²)	Top Width (m)	Froude # Chl
River_Aff2_Mara	River_Aff2_Mara	100.50	PF 1	1.16	58.67	59.13		59.13	0.000029	0.06	18.19	86.47	0.04
River_Aff2_Mara	River_Aff2_Mara	50.50	PF 1	1.16	58.72	59.12	58.94	59.12	0.000851	0.31	3.71	20.35	0.23
River_Aff2_Mara	River_Aff2_Mara	0.50	PF 1	1.16	58.80	58.99	58.97	59.02	0.010001	0.70	1.66	17.34	0.72
River_Aff1_Mara	River_Aff1_Mara	1879.04	PF 1	7.48	60.24	60.58	60.45	60.60	0.001903	0.53	14.20	64.95	0.36
River_Aff1_Mara	River_Aff1_Mara	1829.04	PF 1	7.48	60.05	60.55	60.27	60.55	0.000414	0.32	23.69	74.53	0.18
River_Aff1_Mara	River_Aff1_Mara	1779.04	PF 1	7.48	59.73	60.54		60.55	0.000083	0.15	48.37	132.56	0.08
River_Aff1_Mara	River_Aff1_Mara	1729.04	PF 1	7.48	60.05	60.54		60.54	0.000308	0.24	31.68	123.36	0.15
River_Aff1_Mara	River_Aff1_Mara	1679.04	PF 1	7.48	60.01	60.41	60.41	60.48	0.016836	1.18	6.34	44.04	0.99
River_Aff1_Mara	River_Aff1_Mara	1629.04	PF 1	7.48	60.13	60.39	60.31	60.41	0.002840	0.57	13.19	72.81	0.43
River_Aff1_Mara	River_Aff1_Mara	1579.04	PF 1	7.48	59.83	60.05	60.05	60.11	0.018353	1.12	6.87	53.80	1.02
River_Aff1_Mara	River_Aff1_Mara	1529.04	PF 1	7.48	59.55	59.99	59.76	60.00	0.000313	0.24	30.62	114.67	0.15
River_Aff1_Mara	River_Aff1_Mara	1479.04	PF 1	7.48	59.41	59.99		59.99	0.000081	0.15	48.61	131.85	0.08
River_Aff1_Mara	River_Aff1_Mara	1429.04	PF 1	7.48	59.42	59.98		59.99	0.000091	0.16	46.32	127.87	0.09
River_Aff1_Mara	River_Aff1_Mara	1379.04	PF 1	7.48	58.56	59.98		59.98	0.000034	0.13	59.43	114.01	0.06
River_Aff1_Mara	River_Aff1_Mara	1329.04	PF 1	7.48	59.67	59.94	59.94	59.97	0.009313	0.78	9.64	81.24	0.72
River_Aff1_Mara	River_Aff1_Mara	1279.04	PF 1	7.48	59.44	59.93	59.61	59.93	0.000160	0.22	33.56	86.70	0.11
River_Aff1_Mara	River_Aff1_Mara	1229.04	PF 1	7.48	59.22	59.93	59.51	59.93	0.000123	0.18	42.01	125.07	0.10
River_Aff1_Mara	River_Aff1_Mara	1179.04	PF 1	7.48	59.32	59.92		59.92	0.000088	0.15	49.86	150.00	0.08
River_Aff1_Mara	River_Aff1_Mara	1129.04	PF 1	7.48	59.07	59.92		59.92	0.000024	0.10	73.44	150.00	0.05
River_Aff1_Mara	River_Aff1_Mara	1079.04	PF 1	7.48	59.15	59.92		59.92	0.000028	0.11	70.75	150.00	0.05
River_Aff1_Mara	River_Aff1_Mara	1029.04	PF 1	7.48	58.85	59.92		59.92	0.000028	0.11	70.58	150.00	0.05
River_Aff1_Mara	River_Aff1_Mara	979.04	PF 1	7.48	59.48	59.90	59.75	59.91	0.001056	0.42	17.81	73.47	0.27
River_Aff1_Mara	River_Aff1_Mara	929.04	PF 1	7.48	59.50	59.83	59.72	59.84	0.001783	0.49	15.25	73.92	0.34
River_Aff1_Mara	River_Aff1_Mara	879.04	PF 1	7.48	58.85	59.70	59.63	59.72	0.003834	0.62	11.97	71.68	0.49
River_Aff1_Mara	River_Aff1_Mara	829.04	PF 1	7.48	58.97	59.68	59.42	59.68	0.000289	0.28	26.51	75.02	0.15
River_Aff1_Mara	River_Aff1_Mara	779.04	PF 1	7.48	58.26	59.67	58.80	59.68	0.000023	0.12	62.20	94.07	0.05
River_Aff1_Mara	River_Aff1_Mara	729.04	PF 1	7.48	58.08	59.66	59.49	59.67	0.001129	0.37	20.25	106.54	0.27
River_Aff1_Mara	River_Aff1_Mara	679.04	PF 1	7.48	58.98	59.64		59.64	0.000326	0.32	23.36	60.09	0.16
River_Aff1_Mara	River_Aff1_Mara	629.04	PF 1	7.48	59.01	59.62	59.24	59.62	0.000156	0.18	42.01	150.00	0.11
River_Aff1_Mara	River_Aff1_Mara	579.04	PF 1	7.48	59.05	59.47	59.47	59.58	0.014506	1.47	5.10	23.11	1.00
River_Aff1_Mara	River_Aff1_Mara	479.04	PF 1	7.48	58.32	59.11	58.68	59.11	0.000399	0.41	18.39	38.45	0.19
River_Aff1_Mara	River_Aff1_Mara	429.04	PF 1	7.48	58.54	59.10	58.79	59.10	0.000166	0.21	36.01	106.41	0.11
River_Aff1_Mara	River_Aff1_Mara	379.04	PF 1	7.48	58.41	59.09	58.77	59.09	0.000131	0.18	40.99	124.06	0.10
River_Aff1_Mara	River_Aff1_Mara	329.04	PF 1	7.48	58.79	59.06	58.95	59.07	0.002217	0.53	14.01	70.66	0.38
River_Aff1_Mara	River_Aff1_Mara	279.04	PF 1	7.48	57.73	59.06		59.06	0.000051	0.14	51.81	109.59	0.07
River_Aff1_Mara	River_Aff1_Mara	229.04	PF 1	7.48	57.77	59.06		59.06	0.000016	0.09	79.63	135.69	0.04
River_Aff1_Mara	River_Aff1_Mara	179.04	PF 1	7.48	57.94	59.06		59.06	0.000049	0.14	54.54	121.34	0.07
River_Aff1_Mara	River_Aff1_Mara	129.04	PF 1	7.48	58.65	59.01	58.99	59.05	0.013273	0.90	8.32	73.39	0.85
River_Aff1_Mara	River_Aff1_Mara	79.04	PF 1	7.48	58.60	58.94		58.95	0.000682	0.32	23.48	105.98	0.22
River_Aff1_Mara	River_Aff1_Mara	29.04	PF 1	7.48	57.93	58.94		58.94	0.000009	0.08	98.62	150.00	0.03

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1879.04 Profile: PF 1

E.G. Elev (m)	60.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	60.58	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	60.45	Flow Area (m2)		14.20	
E.G. Slope (m/m)	0.001903	Area (m2)		14.20	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	64.95	Top Width (m)		64.95	
Vel Total (m/s)	0.53	Avg. Vel. (m/s)		0.53	
Max Chl Dpth (m)	0.34	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	171.5	Conv. (m3/s)		171.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		65.08	
Min Ch El (m)	60.24	Shear (N/m2)		4.07	
Alpha	1.00	Stream Power (N/m s)		2.14	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)		65.27	
C & E Loss (m)	0.00	Cum SA (1000 m2)		185.42	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1829.04 Profile: PF 1

E.G. Elev (m)	60.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	60.55	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	60.27	Flow Area (m2)		23.69	
E.G. Slope (m/m)	0.000414	Area (m2)		23.69	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	74.53	Top Width (m)		74.53	
Vel Total (m/s)	0.32	Avg. Vel. (m/s)		0.32	
Max Chl Dpth (m)	0.50	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	367.5	Conv. (m3/s)		367.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		74.60	
Min Ch El (m)	60.05	Shear (N/m2)		1.29	
Alpha	1.00	Stream Power (N/m s)		0.41	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		64.33	
C & E Loss (m)	0.00	Cum SA (1000 m2)		181.94	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1779.04 Profile: PF 1

E.G. Elev (m)	60.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	60.54	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		48.37	
E.G. Slope (m/m)	0.000083	Area (m2)		48.37	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	132.56	Top Width (m)		132.56	
Vel Total (m/s)	0.15	Avg. Vel. (m/s)		0.15	
Max Chl Dpth (m)	0.82	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	821.9	Conv. (m3/s)		821.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		132.94	
Min Ch El (m)	59.73	Shear (N/m2)		0.30	
Alpha	1.00	Stream Power (N/m s)		0.05	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		62.53	
C & E Loss (m)	0.00	Cum SA (1000 m2)		176.76	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1729.04 Profile: PF 1

E.G. Elev (m)	60.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	60.54	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		31.68	
E.G. Slope (m/m)	0.000308	Area (m2)		31.68	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1729.04 Profile: PF 1 (Continued)

Top Width (m)	123.36	Top Width (m)	123.36
Vel Total (m/s)	0.24	Avg. Vel. (m/s)	0.24
Max Chl Dpth (m)	0.48	Hydr. Depth (m)	0.26
Conv. Total (m3/s)	425.9	Conv. (m3/s)	425.9
Length Wtd. (m)	50.00	Wetted Per. (m)	123.72
Min Ch El (m)	60.05	Shear (N/m2)	0.77
Alpha	1.00	Stream Power (N/m s)	0.18
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	60.52
C & E Loss (m)	0.01	Cum SA (1000 m2)	170.36

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1679.04 Profile: PF 1

E.G. Elev (m)	60.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	60.41	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	60.41	Flow Area (m2)		6.34	
E.G. Slope (m/m)	0.016636	Area (m2)		6.34	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	44.04	Top Width (m)		44.04	
Vel Total (m/s)	1.18	Avg. Vel. (m/s)		1.18	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.14	
Conv. Total (m3/s)	58.0	Conv. (m3/s)		58.0	
Length Wtd. (m)		Wetted Per. (m)		44.05	
Min Ch El (m)	60.01	Shear (N/m2)		23.47	
Alpha	1.00	Stream Power (N/m s)		27.70	
Frctn Loss (m)		Cum Volume (1000 m3)		59.57	
C & E Loss (m)		Cum SA (1000 m2)		166.18	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1629.04 Profile: PF 1

E.G. Elev (m)	60.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	60.39	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	60.31	Flow Area (m2)		13.19	
E.G. Slope (m/m)	0.002840	Area (m2)		13.19	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	72.81	Top Width (m)		72.81	
Vel Total (m/s)	0.57	Avg. Vel. (m/s)		0.57	
Max Chl Dpth (m)	0.26	Hydr. Depth (m)		0.18	
Conv. Total (m3/s)	140.3	Conv. (m3/s)		140.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		73.07	
Min Ch El (m)	60.13	Shear (N/m2)		5.03	
Alpha	1.00	Stream Power (N/m s)		2.85	
Frctn Loss (m)	0.29	Cum Volume (1000 m3)		59.09	
C & E Loss (m)	0.00	Cum SA (1000 m2)		163.26	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1579.04 Profile: PF 1

E.G. Elev (m)	60.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	60.05	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	60.05	Flow Area (m2)		6.67	
E.G. Slope (m/m)	0.018353	Area (m2)		6.67	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	53.80	Top Width (m)		53.80	
Vel Total (m/s)	1.12	Avg. Vel. (m/s)		1.12	
Max Chl Dpth (m)	0.22	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	55.2	Conv. (m3/s)		55.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		53.89	
Min Ch El (m)	59.83	Shear (N/m2)		22.28	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1579.04 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)	24.98
Frctn Loss (m)	0.05	Cum Volume (1000 m3)	58.59
C & E Loss (m)	0.02	Cum SA (1000 m2)	160.09

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1529.04 Profile: PF 1

E.G. Elev (m)	60.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.99	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.76	Flow Area (m2)		30.62	
E.G. Slope (m/m)	0.000313	Area (m2)		30.62	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	114.67	Top Width (m)		114.67	
Vel Total (m/s)	0.24	Avg. Vel. (m/s)		0.24	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	422.9	Conv. (m3/s)		422.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		114.76	
Min Ch El (m)	59.55	Shear (N/m2)		0.82	
Alpha	1.00	Stream Power (N/m s)		0.20	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		57.66	
C & E Loss (m)	0.00	Cum SA (1000 m2)		155.88	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1479.04 Profile: PF 1

E.G. Elev (m)	59.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.99	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		48.61	
E.G. Slope (m/m)	0.000081	Area (m2)		48.61	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	131.85	Top Width (m)		131.85	
Vel Total (m/s)	0.15	Avg. Vel. (m/s)		0.15	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	832.1	Conv. (m3/s)		832.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		132.09	
Min Ch El (m)	59.41	Shear (N/m2)		0.29	
Alpha	1.00	Stream Power (N/m s)		0.04	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		55.68	
C & E Loss (m)	0.00	Cum SA (1000 m2)		149.72	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1429.04 Profile: PF 1

E.G. Elev (m)	59.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.98	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		46.32	
E.G. Slope (m/m)	0.000091	Area (m2)		46.32	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	127.87	Top Width (m)		127.87	
Vel Total (m/s)	0.16	Avg. Vel. (m/s)		0.16	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	783.1	Conv. (m3/s)		783.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		128.26	
Min Ch El (m)	59.42	Shear (N/m2)		0.32	
Alpha	1.00	Stream Power (N/m s)		0.05	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		53.30	
C & E Loss (m)	0.00	Cum SA (1000 m2)		143.22	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1379.04 Profile: PF 1

E.G. Elev (m)	59.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.98	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		59.43	
E.G. Slope (m/m)	0.000034	Area (m2)		59.43	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	114.01	Top Width (m)		114.01	
Vel Total (m/s)	0.13	Avg. Vel. (m/s)		0.13	
Max Chl Dpth (m)	1.42	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	1280.1	Conv. (m3/s)		1280.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		114.40	
Min Ch El (m)	58.56	Shear (N/m2)		0.17	
Alpha	1.00	Stream Power (N/m s)		0.02	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		50.66	
C & E Loss (m)	0.00	Cum SA (1000 m2)		137.18	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1329.04 Profile: PF 1

E.G. Elev (m)	59.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	59.94	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.94	Flow Area (m2)		9.64	
E.G. Slope (m/m)	0.009313	Area (m2)		9.64	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	81.24	Top Width (m)		81.24	
Vel Total (m/s)	0.78	Avg. Vel. (m/s)		0.78	
Max Chl Dpth (m)	0.27	Hydr. Depth (m)		0.12	
Conv. Total (m3/s)	77.5	Conv. (m3/s)		77.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		81.47	
Min Ch El (m)	59.67	Shear (N/m2)		10.81	
Alpha	1.00	Stream Power (N/m s)		8.39	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		48.93	
C & E Loss (m)	0.01	Cum SA (1000 m2)		132.29	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1279.04 Profile: PF 1

E.G. Elev (m)	59.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.93	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.61	Flow Area (m2)		33.56	
E.G. Slope (m/m)	0.000160	Area (m2)		33.56	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	86.70	Top Width (m)		86.70	
Vel Total (m/s)	0.22	Avg. Vel. (m/s)		0.22	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	592.0	Conv. (m3/s)		592.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		87.19	
Min Ch El (m)	59.44	Shear (N/m2)		0.60	
Alpha	1.00	Stream Power (N/m s)		0.13	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		47.85	
C & E Loss (m)	0.00	Cum SA (1000 m2)		128.10	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1229.04 Profile: PF 1

E.G. Elev (m)	59.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.93	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.51	Flow Area (m2)		42.01	
E.G. Slope (m/m)	0.000123	Area (m2)		42.01	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1229.04 Profile: PF 1 (Continued)

Top Width (m)	125.07	Top Width (m)	125.07
Vel Total (m/s)	0.18	Avg. Vel. (m/s)	0.18
Max Chl Dpth (m)	0.70	Hydr. Depth (m)	0.34
Conv. Total (m3/s)	674.3	Conv. (m3/s)	674.3
Length Wtd. (m)	50.00	Wetted Per. (m)	125.77
Min Ch El (m)	59.22	Shear (N/m2)	0.40
Alpha	1.00	Stream Power (N/m s)	0.07
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	45.96
C & E Loss (m)	0.00	Cum SA (1000 m2)	122.80

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1179.04 Profile: PF 1

E.G. Elev (m)	59.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.92	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		49.86	
E.G. Slope (m/m)	0.000088	Area (m2)		49.86	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.15	Avg. Vel. (m/s)		0.15	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	795.5	Conv. (m3/s)		795.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.53	
Min Ch El (m)	59.32	Shear (N/m2)		0.29	
Alpha	1.00	Stream Power (N/m s)		0.04	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		43.67	
C & E Loss (m)	0.00	Cum SA (1000 m2)		115.93	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1129.04 Profile: PF 1

E.G. Elev (m)	59.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.92	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		73.44	
E.G. Slope (m/m)	0.000024	Area (m2)		73.44	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.10	Avg. Vel. (m/s)		0.10	
Max Chl Dpth (m)	0.85	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	1516.2	Conv. (m3/s)		1516.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.68	
Min Ch El (m)	59.07	Shear (N/m2)		0.12	
Alpha	1.00	Stream Power (N/m s)		0.01	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		40.58	
C & E Loss (m)	0.00	Cum SA (1000 m2)		108.43	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1079.04 Profile: PF 1

E.G. Elev (m)	59.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.92	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		70.75	
E.G. Slope (m/m)	0.000028	Area (m2)		70.75	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.11	Avg. Vel. (m/s)		0.11	
Max Chl Dpth (m)	0.77	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	1423.7	Conv. (m3/s)		1423.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.83	
Min Ch El (m)	59.15	Shear (N/m2)		0.13	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1079.04 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		0.01	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		36.98	
C & E Loss (m)	0.00	Cum SA (1000 m2)		100.93	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 1029.04 Profile: PF 1

E.G. Elev (m)	59.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.92	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		70.58	
E.G. Slope (m/m)	0.000028	Area (m2)		70.58	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.11	Avg. Vel. (m/s)		0.11	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	1418.1	Conv. (m3/s)		1418.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.83	
Min Ch El (m)	58.85	Shear (N/m2)		0.13	
Alpha	1.00	Stream Power (N/m s)		0.01	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		33.45	
C & E Loss (m)	0.00	Cum SA (1000 m2)		93.43	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 979.04 Profile: PF 1

E.G. Elev (m)	59.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	59.90	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.75	Flow Area (m2)		17.81	
E.G. Slope (m/m)	0.001056	Area (m2)		17.81	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	73.47	Top Width (m)		73.47	
Vel Total (m/s)	0.42	Avg. Vel. (m/s)		0.42	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.24	
Conv. Total (m3/s)	230.1	Conv. (m3/s)		230.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		73.79	
Min Ch El (m)	59.48	Shear (N/m2)		2.50	
Alpha	1.00	Stream Power (N/m s)		1.05	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		31.24	
C & E Loss (m)	0.00	Cum SA (1000 m2)		87.84	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 929.04 Profile: PF 1

E.G. Elev (m)	59.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	59.83	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.72	Flow Area (m2)		15.25	
E.G. Slope (m/m)	0.001783	Area (m2)		15.25	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	73.92	Top Width (m)		73.92	
Vel Total (m/s)	0.49	Avg. Vel. (m/s)		0.49	
Max Chl Dpth (m)	0.33	Hydr. Depth (m)		0.21	
Conv. Total (m3/s)	177.2	Conv. (m3/s)		177.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		74.11	
Min Ch El (m)	59.50	Shear (N/m2)		3.60	
Alpha	1.00	Stream Power (N/m s)		1.76	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)		30.41	
C & E Loss (m)	0.00	Cum SA (1000 m2)		84.15	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 879.04 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	59.72				
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	59.70	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.63	Flow Area (m2)		11.97	
E.G. Slope (m/m)	0.003834	Area (m2)		11.97	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	71.68	Top Width (m)		71.68	
Vel Total (m/s)	0.62	Avg. Vel. (m/s)		0.62	
Max Chl Dpth (m)	0.85	Hydr. Depth (m)		0.17	
Conv. Total (m3/s)	120.8	Conv. (m3/s)		120.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		71.87	
Min Ch El (m)	58.85	Shear (N/m2)		6.26	
Alpha	1.00	Stream Power (N/m s)		3.91	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)		29.73	
C & E Loss (m)	0.00	Cum SA (1000 m2)		80.51	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 829.04 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	59.68				
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.68	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.42	Flow Area (m2)		26.51	
E.G. Slope (m/m)	0.000289	Area (m2)		26.51	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	75.02	Top Width (m)		75.02	
Vel Total (m/s)	0.28	Avg. Vel. (m/s)		0.28	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	440.4	Conv. (m3/s)		440.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		75.35	
Min Ch El (m)	58.97	Shear (N/m2)		1.00	
Alpha	1.00	Stream Power (N/m s)		0.28	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		28.77	
C & E Loss (m)	0.00	Cum SA (1000 m2)		76.85	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 779.04 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	59.68				
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.67	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	58.80	Flow Area (m2)		62.20	
E.G. Slope (m/m)	0.000023	Area (m2)		62.20	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	94.07	Top Width (m)		94.07	
Vel Total (m/s)	0.12	Avg. Vel. (m/s)		0.12	
Max Chl Dpth (m)	1.42	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	1568.1	Conv. (m3/s)		1568.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		94.57	
Min Ch El (m)	58.26	Shear (N/m2)		0.15	
Alpha	1.00	Stream Power (N/m s)		0.02	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		26.55	
C & E Loss (m)	0.00	Cum SA (1000 m2)		72.62	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 729.04 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	59.67				
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	59.66	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.49	Flow Area (m2)		20.25	
E.G. Slope (m/m)	0.001129	Area (m2)		20.25	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 729.04 Profile: PF 1 (Continued)

Top Width (m)	106.54	Top Width (m)		106.54
Vel Total (m/s)	0.37	Avg. Vel. (m/s)		0.37
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.19
Conv. Total (m3/s)	222.6	Conv. (m3/s)		222.6
Length Wtd. (m)	50.00	Wetted Per. (m)		106.86
Min Ch El (m)	59.08	Shear (N/m2)		2.10
Alpha	1.00	Stream Power (N/m s)		0.77
Frctn Loss (m)	0.03	Cum Volume (1000 m3)		24.49
C & E Loss (m)	0.00	Cum SA (1000 m2)		67.60

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 679.04 Profile: PF 1

E.G. Elev (m)	59.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	59.64	Reach Len. (m)	100.00	100.00	100.00
Crit W.S. (m)		Flow Area (m2)		23.36	
E.G. Slope (m/m)	0.000326	Area (m2)		23.36	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	60.09	Top Width (m)		60.09	
Vel Total (m/s)	0.32	Avg. Vel. (m/s)		0.32	
Max Chl Dpth (m)	0.66	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	414.5	Conv. (m3/s)		414.5	
Length Wtd. (m)	100.00	Wetted Per. (m)		60.16	
Min Ch El (m)	58.98	Shear (N/m2)		1.24	
Alpha	1.00	Stream Power (N/m s)		0.40	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		23.40	
C & E Loss (m)	0.00	Cum SA (1000 m2)		63.44	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 579.04 Profile: PF 1

E.G. Elev (m)	59.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.62	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.24	Flow Area (m2)		42.01	
E.G. Slope (m/m)	0.000156	Area (m2)		42.01	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.18	Avg. Vel. (m/s)		0.18	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	598.2	Conv. (m3/s)		598.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.47	
Min Ch El (m)	59.01	Shear (N/m2)		0.43	
Alpha	1.00	Stream Power (N/m s)		0.08	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)		20.13	
C & E Loss (m)	0.01	Cum SA (1000 m2)		52.93	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 529.04 Profile: PF 1

E.G. Elev (m)	59.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	59.47	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.47	Flow Area (m2)		5.10	
E.G. Slope (m/m)	0.014506	Area (m2)		5.10	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	23.11	Top Width (m)		23.11	
Vel Total (m/s)	1.47	Avg. Vel. (m/s)		1.47	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	62.1	Conv. (m3/s)		62.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		23.13	
Min Ch El (m)	59.05	Shear (N/m2)		31.39	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 529.04 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		46.01	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		18.95	
C & E Loss (m)	0.03	Cum SA (1000 m2)		48.61	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 479.04 Profile: PF 1

E.G. Elev (m)	59.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	59.11	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	58.68	Flow Area (m2)		18.39	
E.G. Slope (m/m)	0.000399	Area (m2)		18.39	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	38.45	Top Width (m)		38.45	
Vel Total (m/s)	0.41	Avg. Vel. (m/s)		0.41	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.48	
Conv. Total (m3/s)	374.6	Conv. (m3/s)		374.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		38.49	
Min Ch El (m)	58.32	Shear (N/m2)		1.87	
Alpha	1.00	Stream Power (N/m s)		0.76	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		18.36	
C & E Loss (m)	0.00	Cum SA (1000 m2)		47.07	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 429.04 Profile: PF 1

E.G. Elev (m)	59.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.10	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	58.79	Flow Area (m2)		36.01	
E.G. Slope (m/m)	0.000166	Area (m2)		36.01	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	106.41	Top Width (m)		106.41	
Vel Total (m/s)	0.21	Avg. Vel. (m/s)		0.21	
Max Chl Dpth (m)	0.56	Hydr. Depth (m)		0.34	
Conv. Total (m3/s)	581.3	Conv. (m3/s)		581.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		106.89	
Min Ch El (m)	58.54	Shear (N/m2)		0.55	
Alpha	1.00	Stream Power (N/m s)		0.11	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		17.00	
C & E Loss (m)	0.00	Cum SA (1000 m2)		43.45	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 379.04 Profile: PF 1

E.G. Elev (m)	59.09	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.09	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	58.77	Flow Area (m2)		40.99	
E.G. Slope (m/m)	0.000131	Area (m2)		40.99	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	124.06	Top Width (m)		124.06	
Vel Total (m/s)	0.18	Avg. Vel. (m/s)		0.18	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	652.9	Conv. (m3/s)		652.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		124.10	
Min Ch El (m)	58.41	Shear (N/m2)		0.43	
Alpha	1.00	Stream Power (N/m s)		0.08	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		15.08	
C & E Loss (m)	0.00	Cum SA (1000 m2)		37.68	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 329.04 Profile: PF 1

E.G. Elev (m)	59.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	59.06	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	58.95	Flow Area (m2)		14.01	
E.G. Slope (m/m)	0.002217	Area (m2)		14.01	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	70.66	Top Width (m)		70.66	
Vel Total (m/s)	0.53	Avg. Vel. (m/s)		0.53	
Max Chl Dpth (m)	0.27	Hydr. Depth (m)		0.20	
Conv. Total (m3/s)	158.9	Conv. (m3/s)		158.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		70.67	
Min Ch El (m)	58.79	Shear (N/m2)		4.31	
Alpha	1.00	Stream Power (N/m s)		2.30	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		13.70	
C & E Loss (m)	0.00	Cum SA (1000 m2)		32.82	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 279.04 Profile: PF 1

E.G. Elev (m)	59.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.06	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		51.81	
E.G. Slope (m/m)	0.000051	Area (m2)		51.81	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	109.59	Top Width (m)		109.59	
Vel Total (m/s)	0.14	Avg. Vel. (m/s)		0.14	
Max Chl Dpth (m)	1.33	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	1047.6	Conv. (m3/s)		1047.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		109.66	
Min Ch El (m)	57.73	Shear (N/m2)		0.24	
Alpha	1.00	Stream Power (N/m s)		0.03	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		12.06	
C & E Loss (m)	0.00	Cum SA (1000 m2)		28.31	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 229.04 Profile: PF 1

E.G. Elev (m)	59.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.06	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		79.63	
E.G. Slope (m/m)	0.000016	Area (m2)		79.63	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	135.69	Top Width (m)		135.69	
Vel Total (m/s)	0.09	Avg. Vel. (m/s)		0.09	
Max Chl Dpth (m)	1.29	Hydr. Depth (m)		0.59	
Conv. Total (m3/s)	1854.2	Conv. (m3/s)		1854.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		136.37	
Min Ch El (m)	57.77	Shear (N/m2)		0.09	
Alpha	1.00	Stream Power (N/m s)		0.01	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		8.77	
C & E Loss (m)	0.00	Cum SA (1000 m2)		22.18	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 179.04 Profile: PF 1

E.G. Elev (m)	59.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.06	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		54.54	
E.G. Slope (m/m)	0.000049	Area (m2)		54.54	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 179.04 Profile: PF 1 (Continued)

Top Width (m)	121.34	Top Width (m)	121.34
Vel Total (m/s)	0.14	Avg. Vel. (m/s)	0.14
Max Chl Dpth (m)	1.12	Hydr. Depth (m)	0.45
Conv. Total (m3/s)	1066.1	Conv. (m3/s)	1066.1
Length Wtd. (m)	50.00	Wetted Per. (m)	121.43
Min Ch El (m)	57.94	Shear (N/m2)	0.22
Alpha	1.00	Stream Power (N/m s)	0.03
Frctn Loss (m)	0.01	Cum Volume (1000 m3)	5.42
C & E Loss (m)	0.00	Cum SA (1000 m2)	15.75

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 129.04 Profile: PF 1

E.G. Elev (m)	59.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	59.01	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	58.99	Flow Area (m2)		8.32	
E.G. Slope (m/m)	0.013273	Area (m2)		8.32	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	73.39	Top Width (m)		73.39	
Vel Total (m/s)	0.90	Avg. Vel. (m/s)		0.90	
Max Chl Dpth (m)	0.36	Hydr. Depth (m)		0.11	
Conv. Total (m3/s)	64.9	Conv. (m3/s)		64.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		73.40	
Min Ch El (m)	58.65	Shear (N/m2)		14.75	
Alpha	1.00	Stream Power (N/m s)		13.26	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		3.85	
C & E Loss (m)	0.01	Cum SA (1000 m2)		10.88	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 79.04 Profile: PF 1

E.G. Elev (m)	58.95	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	58.94	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		23.48	
E.G. Slope (m/m)	0.000682	Area (m2)		23.48	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	105.98	Top Width (m)		105.98	
Vel Total (m/s)	0.32	Avg. Vel. (m/s)		0.32	
Max Chl Dpth (m)	0.34	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	286.5	Conv. (m3/s)		286.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		105.99	
Min Ch El (m)	58.60	Shear (N/m2)		1.48	
Alpha	1.00	Stream Power (N/m s)		0.47	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		3.05	
C & E Loss (m)	0.00	Cum SA (1000 m2)		6.40	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 29.04 Profile: PF 1

E.G. Elev (m)	58.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	58.94	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)		Flow Area (m2)		98.62	
E.G. Slope (m/m)	0.000009	Area (m2)		98.62	
Q Total (m3/s)	7.48	Flow (m3/s)		7.48	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.08	Avg. Vel. (m/s)		0.08	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	2474.1	Conv. (m3/s)		2474.1	
Length Wtd. (m)	0.00	Wetted Per. (m)		151.03	
Min Ch El (m)	57.93	Shear (N/m2)		0.06	

Plan: Plan River_Affl1_Mara River_Affl1_Mara RS: 29.04 Profile: PF 1 (Continued)

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

Plan: Plan River_Affl2_Mara River_Affl2_Mara RS: 250.50 Profile: PF 1

E.G. Elev (m)	59.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.13	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	58.74	Flow Area (m2)		27.47	
E.G. Slope (m/m)	0.000009	Area (m2)		27.47	
Q Total (m3/s)	1.16	Flow (m3/s)		1.16	
Top Width (m)	97.14	Top Width (m)		97.14	
Vel Total (m/s)	0.04	Avg. Vel. (m/s)		0.04	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	394.3	Conv. (m3/s)		394.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		97.16	
Min Ch El (m)	58.56	Shear (N/m2)		0.02	
Alpha	1.00	Stream Power (N/m s)		0.00	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		5.16	
C & E Loss (m)	0.00	Cum SA (1000 m2)		17.39	

Plan: Plan River_Affl2_Mara River_Affl2_Mara RS: 200.50 Profile: PF 1

E.G. Elev (m)	59.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.13	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		28.88	
E.G. Slope (m/m)	0.000007	Area (m2)		28.88	
Q Total (m3/s)	1.16	Flow (m3/s)		1.16	
Top Width (m)	91.91	Top Width (m)		91.91	
Vel Total (m/s)	0.04	Avg. Vel. (m/s)		0.04	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.31	
Conv. Total (m3/s)	444.8	Conv. (m3/s)		444.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		91.92	
Min Ch El (m)	58.66	Shear (N/m2)		0.02	
Alpha	1.00	Stream Power (N/m s)		0.00	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		3.75	
C & E Loss (m)	0.00	Cum SA (1000 m2)		12.66	

Plan: Plan River_Affl2_Mara River_Affl2_Mara RS: 150.50 Profile: PF 1

E.G. Elev (m)	59.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.13	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		37.81	
E.G. Slope (m/m)	0.000003	Area (m2)		37.81	
Q Total (m3/s)	1.16	Flow (m3/s)		1.16	
Top Width (m)	91.76	Top Width (m)		91.76	
Vel Total (m/s)	0.03	Avg. Vel. (m/s)		0.03	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.41	
Conv. Total (m3/s)	697.6	Conv. (m3/s)		697.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		91.81	
Min Ch El (m)	58.07	Shear (N/m2)		0.01	
Alpha	1.00	Stream Power (N/m s)		0.00	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		2.08	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.07	

Plan: Plan River_Affl2_Mara River_Affl2_Mara RS: 100.50 Profile: PF 1

E.G. Elev (m)	59.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.13	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		18.19	
E.G. Slope (m/m)	0.000029	Area (m2)		18.19	
Q Total (m3/s)	1.16	Flow (m3/s)		1.16	
Top Width (m)	86.47	Top Width (m)		86.47	
Vel Total (m/s)	0.06	Avg. Vel. (m/s)		0.06	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)		0.21	
Conv. Total (m3/s)	214.3	Conv. (m3/s)		214.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		86.51	
Min Ch El (m)	58.67	Shear (N/m2)		0.06	
Alpha	1.00	Stream Power (N/m s)		0.00	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)		0.68	
C & E Loss (m)	0.00	Cum SA (1000 m2)		3.61	

Plan: Plan River_Affl2_Mara River_Affl2_Mara RS: 50.50 Profile: PF 1

E.G. Elev (m)	59.12	Element	Left OB	Channel	Right OB
Vel Head (m)	0.00	Wt. n-Val.		0.030	
W.S. Elev (m)	59.12	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	58.94	Flow Area (m2)		3.71	
E.G. Slope (m/m)	0.000851	Area (m2)		3.71	
Q Total (m3/s)	1.16	Flow (m3/s)		1.16	
Top Width (m)	20.35	Top Width (m)		20.35	
Vel Total (m/s)	0.31	Avg. Vel. (m/s)		0.31	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.18	
Conv. Total (m3/s)	39.8	Conv. (m3/s)		39.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		20.37	
Min Ch El (m)	58.72	Shear (N/m2)		1.52	
Alpha	1.00	Stream Power (N/m s)		0.48	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)		0.13	
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.94	

Plan: Plan River_Affl2_Mara River_Affl2_Mara RS: 0.50 Profile: PF 1

E.G. Elev (m)	59.02	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	58.99	Reach Len. (m)			
Crit W.S. (m)	58.97	Flow Area (m2)		1.66	
E.G. Slope (m/m)	0.010001	Area (m2)		1.66	
Q Total (m3/s)	1.16	Flow (m3/s)		1.16	
Top Width (m)	17.34	Top Width (m)		17.34	
Vel Total (m/s)	0.70	Avg. Vel. (m/s)		0.70	
Max Chl Dpth (m)	0.19	Hydr. Depth (m)		0.10	
Conv. Total (m3/s)	11.6	Conv. (m3/s)		11.6	
Length Wtd. (m)		Wetted Per. (m)		17.35	
Min Ch El (m)	58.80	Shear (N/m2)		9.40	
Alpha	1.00	Stream Power (N/m s)		6.56	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2858.85 Profile: PF 1

E.G. Elev (m)	91.49	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	91.38	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	91.38	Flow Area (m2)		14.93	
E.G. Slope (m/m)	0.015110	Area (m2)		14.93	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2858.85 Profile: PF 1 (Continued)

Top Width (m)	70.77	Top Width (m)	70.77
Vel Total (m/s)	1.45	Avg. Vel. (m/s)	1.45
Max Chl Dpth (m)	1.01	Hydr. Depth (m)	0.21
Conv. Total (m3/s)	176.4	Conv. (m3/s)	176.4
Length Wtd. (m)	50.00	Wetted Per. (m)	70.79
Min Ch El (m)	90.37	Shear (N/m2)	31.26
Alpha	1.00	Stream Power (N/m s)	45.38
Frctn Loss (m)	0.64	Cum Volume (1000 m3)	41.80
C & E Loss (m)	0.01	Cum SA (1000 m2)	131.03

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2808.85 Profile: PF 1

E.G. Elev (m)	90.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.030	
W.S. Elev (m)	90.69	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	90.67	Flow Area (m2)		12.38	
E.G. Slope (m/m)	0.011229	Area (m2)		12.38	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	35.44	Top Width (m)		35.44	
Vel Total (m/s)	1.75	Avg. Vel. (m/s)		1.75	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	204.6	Conv. (m3/s)		204.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		35.48	
Min Ch El (m)	89.98	Shear (N/m2)		38.43	
Alpha	1.00	Stream Power (N/m s)		67.28	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		41.12	
C & E Loss (m)	0.03	Cum SA (1000 m2)		128.37	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2758.85 Profile: PF 1

E.G. Elev (m)	90.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	90.46	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	90.29	Flow Area (m2)		19.49	
E.G. Slope (m/m)	0.003655	Area (m2)		19.49	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	47.51	Top Width (m)		47.51	
Vel Total (m/s)	1.11	Avg. Vel. (m/s)		1.11	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.41	
Conv. Total (m3/s)	358.6	Conv. (m3/s)		358.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		47.54	
Min Ch El (m)	89.70	Shear (N/m2)		14.70	
Alpha	1.00	Stream Power (N/m s)		16.35	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)		40.32	
C & E Loss (m)	0.00	Cum SA (1000 m2)		126.30	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2708.85 Profile: PF 1

E.G. Elev (m)	90.30	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	90.24	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	90.13	Flow Area (m2)		20.79	
E.G. Slope (m/m)	0.005573	Area (m2)		20.79	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	76.66	Top Width (m)		76.66	
Vel Total (m/s)	1.04	Avg. Vel. (m/s)		1.04	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	290.4	Conv. (m3/s)		290.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		76.67	
Min Ch El (m)	89.33	Shear (N/m2)		14.82	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2708.85 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)	15.45
Frctn Loss (m)	0.38	Cum Volume (1000 m3)	39.31
C & E Loss (m)	0.00	Cum SA (1000 m2)	123.19

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2658.85 Profile: PF 1

E.G. Elev (m)	89.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	89.83	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	89.81	Flow Area (m2)		17.54	
E.G. Slope (m/m)	0.011277	Area (m2)		17.54	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	84.90	Top Width (m)		84.90	
Vel Total (m/s)	1.24	Avg. Vel. (m/s)		1.24	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.21	
Conv. Total (m3/s)	204.2	Conv. (m3/s)		204.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		84.96	
Min Ch El (m)	88.90	Shear (N/m2)		22.82	
Alpha	1.00	Stream Power (N/m s)		28.22	
Frctn Loss (m)	0.53	Cum Volume (1000 m3)		38.35	
C & E Loss (m)	0.02	Cum SA (1000 m2)		119.15	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2608.85 Profile: PF 1

E.G. Elev (m)	89.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.27	Wt. n-Val.		0.030	
W.S. Elev (m)	89.10	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	89.08	Flow Area (m2)		9.51	
E.G. Slope (m/m)	0.009837	Area (m2)		9.51	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	16.43	Top Width (m)		16.43	
Vel Total (m/s)	2.28	Avg. Vel. (m/s)		2.28	
Max Chl Dpth (m)	1.19	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	218.6	Conv. (m3/s)		218.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		16.60	
Min Ch El (m)	87.91	Shear (N/m2)		55.25	
Alpha	1.00	Stream Power (N/m s)		125.98	
Frctn Loss (m)	0.56	Cum Volume (1000 m3)		37.68	
C & E Loss (m)	0.03	Cum SA (1000 m2)		116.62	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2558.85 Profile: PF 1

E.G. Elev (m)	88.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.030	
W.S. Elev (m)	88.62	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	88.62	Flow Area (m2)		12.33	
E.G. Slope (m/m)	0.012934	Area (m2)		12.33	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	38.99	Top Width (m)		38.99	
Vel Total (m/s)	1.76	Avg. Vel. (m/s)		1.76	
Max Chl Dpth (m)	1.83	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	190.6	Conv. (m3/s)		190.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		39.02	
Min Ch El (m)	86.79	Shear (N/m2)		40.07	
Alpha	1.00	Stream Power (N/m s)		70.47	
Frctn Loss (m)	0.76	Cum Volume (1000 m3)		37.13	
C & E Loss (m)	0.01	Cum SA (1000 m2)		115.23	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2508.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	88.00				
Vel Head (m)	0.23	Wt. n-Val.		0.030	
W.S. Elev (m)	87.77	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	87.82	Flow Area (m2)		10.16	
E.G. Slope (m/m)	0.018190	Area (m2)		10.16	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	31.05	Top Width (m)		31.05	
Vel Total (m/s)	2.13	Avg. Vel. (m/s)		2.13	
Max Chl Dpth (m)	2.51	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	160.7	Conv. (m3/s)		160.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		31.09	
Min Ch El (m)	85.27	Shear (N/m2)		58.31	
Alpha	1.00	Stream Power (N/m s)		124.39	
Frctn Loss (m)	1.35	Cum Volume (1000 m3)		36.57	
C & E Loss (m)	0.04	Cum SA (1000 m2)		113.48	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2458.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	86.62				
Vel Head (m)	0.59	Wt. n-Val.		0.030	
W.S. Elev (m)	86.03	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	86.23	Flow Area (m2)		6.36	
E.G. Slope (m/m)	0.043965	Area (m2)		6.36	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	18.59	Top Width (m)		18.59	
Vel Total (m/s)	3.41	Avg. Vel. (m/s)		3.41	
Max Chl Dpth (m)	1.67	Hydr. Depth (m)		0.34	
Conv. Total (m3/s)	103.4	Conv. (m3/s)		103.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		18.64	
Min Ch El (m)	84.36	Shear (N/m2)		147.01	
Alpha	1.00	Stream Power (N/m s)		501.51	
Frctn Loss (m)	0.57	Cum Volume (1000 m3)		36.16	
C & E Loss (m)	0.00	Cum SA (1000 m2)		112.24	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2408.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	85.57				
Vel Head (m)	0.25	Wt. n-Val.		0.030	
W.S. Elev (m)	85.31	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	85.31	Flow Area (m2)		9.70	
E.G. Slope (m/m)	0.011180	Area (m2)		9.70	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	19.05	Top Width (m)		19.05	
Vel Total (m/s)	2.24	Avg. Vel. (m/s)		2.24	
Max Chl Dpth (m)	1.39	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	205.0	Conv. (m3/s)		205.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		19.19	
Min Ch El (m)	83.92	Shear (N/m2)		55.40	
Alpha	1.00	Stream Power (N/m s)		123.87	
Frctn Loss (m)	0.73	Cum Volume (1000 m3)		35.76	
C & E Loss (m)	0.01	Cum SA (1000 m2)		111.30	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2358.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	84.82				
Vel Head (m)	0.35	Wt. n-Val.		0.030	
W.S. Elev (m)	84.47	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	84.56	Flow Area (m2)		8.23	
E.G. Slope (m/m)	0.020130	Area (m2)		8.23	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2358.85 Profile: PF 1 (Continued)

Top Width (m)	19.74	Top Width (m)	19.74
Vel Total (m/s)	2.63	Avg. Vel. (m/s)	2.63
Max Chl Dpth (m)	1.01	Hydr. Depth (m)	0.42
Conv. Total (m3/s)	152.8	Conv. (m3/s)	152.8
Length Wtd. (m)	50.00	Wetted Per. (m)	19.81
Min Ch El (m)	83.46	Shear (N/m2)	82.04
Alpha	1.00	Stream Power (N/m s)	216.07
Frctn Loss (m)	1.00	Cum Volume (1000 m3)	35.31
C & E Loss (m)	0.00	Cum SA (1000 m2)	110.33

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2308.85 Profile: PF 1

E.G. Elev (m)	83.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.38	Wt. n-Val.		0.030	
W.S. Elev (m)	83.44	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	83.54	Flow Area (m2)		7.97	
E.G. Slope (m/m)	0.019975	Area (m2)		7.97	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	18.08	Top Width (m)		18.08	
Vel Total (m/s)	2.72	Avg. Vel. (m/s)		2.72	
Max Chl Dpth (m)	0.88	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	153.4	Conv. (m3/s)		153.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		18.17	
Min Ch El (m)	82.56	Shear (N/m2)		85.93	
Alpha	1.00	Stream Power (N/m s)		233.72	
Frctn Loss (m)	0.50	Cum Volume (1000 m3)		34.90	
C & E Loss (m)	0.00	Cum SA (1000 m2)		109.39	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2258.85 Profile: PF 1

E.G. Elev (m)	83.29	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.030	
W.S. Elev (m)	83.05	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	83.05	Flow Area (m2)		9.94	
E.G. Slope (m/m)	0.011265	Area (m2)		9.94	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	20.45	Top Width (m)		20.45	
Vel Total (m/s)	2.18	Avg. Vel. (m/s)		2.18	
Max Chl Dpth (m)	0.97	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	204.3	Conv. (m3/s)		204.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		20.54	
Min Ch El (m)	82.08	Shear (N/m2)		53.46	
Alpha	1.00	Stream Power (N/m s)		116.59	
Frctn Loss (m)	0.52	Cum Volume (1000 m3)		34.46	
C & E Loss (m)	0.05	Cum SA (1000 m2)		108.42	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2208.85 Profile: PF 1

E.G. Elev (m)	82.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	82.56	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	82.52	Flow Area (m2)		16.81	
E.G. Slope (m/m)	0.009490	Area (m2)		16.81	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	67.08	Top Width (m)		67.08	
Vel Total (m/s)	1.29	Avg. Vel. (m/s)		1.29	
Max Chl Dpth (m)	1.03	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	222.6	Conv. (m3/s)		222.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		67.18	
Min Ch El (m)	81.53	Shear (N/m2)		23.29	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2208.85 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		30.03	
Frctn Loss (m)	0.59	Cum Volume (1000 m3)		33.79	
C & E Loss (m)	0.00	Cum SA (1000 m2)		106.24	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2158.85 Profile: PF 1

E.G. Elev (m)	82.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	81.96	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	81.96	Flow Area (m2)		15.42	
E.G. Slope (m/m)	0.014803	Area (m2)		15.42	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	75.53	Top Width (m)		75.53	
Vel Total (m/s)	1.41	Avg. Vel. (m/s)		1.41	
Max Chl Dpth (m)	0.88	Hydr. Depth (m)		0.20	
Conv. Total (m3/s)	178.2	Conv. (m3/s)		178.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		75.59	
Min Ch El (m)	81.08	Shear (N/m2)		29.62	
Alpha	1.00	Stream Power (N/m s)		41.64	
Frctn Loss (m)	0.35	Cum Volume (1000 m3)		32.98	
C & E Loss (m)	0.02	Cum SA (1000 m2)		102.67	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2108.85 Profile: PF 1

E.G. Elev (m)	81.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	81.51	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	81.41	Flow Area (m2)		23.64	
E.G. Slope (m/m)	0.004100	Area (m2)		23.64	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	83.80	Top Width (m)		83.80	
Vel Total (m/s)	0.92	Avg. Vel. (m/s)		0.92	
Max Chl Dpth (m)	0.98	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	338.6	Conv. (m3/s)		338.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		83.96	
Min Ch El (m)	80.53	Shear (N/m2)		11.32	
Alpha	1.00	Stream Power (N/m s)		10.38	
Frctn Loss (m)	0.35	Cum Volume (1000 m3)		32.00	
C & E Loss (m)	0.01	Cum SA (1000 m2)		98.69	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2058.85 Profile: PF 1

E.G. Elev (m)	81.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	81.09	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	81.09	Flow Area (m2)		15.35	
E.G. Slope (m/m)	0.014790	Area (m2)		15.35	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	74.60	Top Width (m)		74.60	
Vel Total (m/s)	1.41	Avg. Vel. (m/s)		1.41	
Max Chl Dpth (m)	1.26	Hydr. Depth (m)		0.21	
Conv. Total (m3/s)	178.3	Conv. (m3/s)		178.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		74.64	
Min Ch El (m)	79.83	Shear (N/m2)		29.83	
Alpha	1.00	Stream Power (N/m s)		42.12	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)		31.03	
C & E Loss (m)	0.03	Cum SA (1000 m2)		94.73	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 2008.85 Profile: PF 1

E.G. Elev (m)	80.64	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	80.63	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	80.63	Flow Area (m2)		63.10	
E.G. Slope (m/m)	0.000242	Area (m2)		63.10	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	115.68	Top Width (m)		115.68	
Vel Total (m/s)	0.34	Avg. Vel. (m/s)		0.34	
Max Chl Dpth (m)	1.23	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	1394.1	Conv. (m3/s)		1394.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		116.93	
Min Ch El (m)	79.40	Shear (N/m2)		1.28	
Alpha	1.00	Stream Power (N/m s)		0.44	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)		29.07	
C & E Loss (m)	0.07	Cum SA (1000 m2)		89.97	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1958.85 Profile: PF 1

E.G. Elev (m)	80.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.71	Wt. n-Val.		0.030	
W.S. Elev (m)	79.82	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	80.04	Flow Area (m2)		5.82	
E.G. Slope (m/m)	0.067490	Area (m2)		5.82	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	20.54	Top Width (m)		20.54	
Vel Total (m/s)	3.73	Avg. Vel. (m/s)		3.73	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	83.5	Conv. (m3/s)		83.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		20.59	
Min Ch El (m)	78.82	Shear (N/m2)		186.94	
Alpha	1.00	Stream Power (N/m s)		696.88	
Frctn Loss (m)	0.41	Cum Volume (1000 m3)		27.34	
C & E Loss (m)	0.03	Cum SA (1000 m2)		86.56	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1908.85 Profile: PF 1

E.G. Elev (m)	79.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	79.68	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	79.61	Flow Area (m2)		19.63	
E.G. Slope (m/m)	0.005841	Area (m2)		19.63	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	68.65	Top Width (m)		68.65	
Vel Total (m/s)	1.10	Avg. Vel. (m/s)		1.10	
Max Chl Dpth (m)	1.23	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	283.7	Conv. (m3/s)		283.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		68.76	
Min Ch El (m)	78.46	Shear (N/m2)		16.35	
Alpha	1.00	Stream Power (N/m s)		18.06	
Frctn Loss (m)	0.40	Cum Volume (1000 m3)		26.71	
C & E Loss (m)	0.00	Cum SA (1000 m2)		84.33	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1858.85 Profile: PF 1

E.G. Elev (m)	79.35	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	79.26	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	79.24	Flow Area (m2)		16.67	
E.G. Slope (m/m)	0.011586	Area (m2)		16.67	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1858.85 Profile: PF 1 (Continued)

Top Width (m)	76.33	Top Width (m)	76.33
Vel Total (m/s)	1.30	Avg. Vel. (m/s)	1.30
Max Chl Dpth (m)	1.27	Hydr. Depth (m)	0.22
Conv. Total (m3/s)	201.4	Conv. (m3/s)	201.4
Length Wtd. (m)	50.00	Wetted Per. (m)	76.35
Min Ch El (m)	77.99	Shear (N/m2)	24.80
Alpha	1.00	Stream Power (N/m s)	32.26
Frctn Loss (m)	0.37	Cum Volume (1000 m3)	25.80
C & E Loss (m)	0.01	Cum SA (1000 m2)	80.71

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1808.85 Profile: PF 1

E.G. Elev (m)	78.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	78.91	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	78.83	Flow Area (m2)		21.08	
E.G. Slope (m/m)	0.005193	Area (m2)		21.08	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	75.13	Top Width (m)		75.13	
Vel Total (m/s)	1.03	Avg. Vel. (m/s)		1.03	
Max Chl Dpth (m)	1.62	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	300.8	Conv. (m3/s)		300.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		75.23	
Min Ch El (m)	77.29	Shear (N/m2)		14.27	
Alpha	1.00	Stream Power (N/m s)		14.68	
Frctn Loss (m)	0.40	Cum Volume (1000 m3)		24.86	
C & E Loss (m)	0.01	Cum SA (1000 m2)		76.92	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1758.85 Profile: PF 1

E.G. Elev (m)	78.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.030	
W.S. Elev (m)	78.43	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	78.43	Flow Area (m2)		14.06	
E.G. Slope (m/m)	0.014027	Area (m2)		14.06	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	57.57	Top Width (m)		57.57	
Vel Total (m/s)	1.54	Avg. Vel. (m/s)		1.54	
Max Chl Dpth (m)	1.83	Hydr. Depth (m)		0.24	
Conv. Total (m3/s)	183.1	Conv. (m3/s)		183.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		57.59	
Min Ch El (m)	76.60	Shear (N/m2)		33.58	
Alpha	1.00	Stream Power (N/m s)		51.78	
Frctn Loss (m)	0.84	Cum Volume (1000 m3)		23.98	
C & E Loss (m)	0.03	Cum SA (1000 m2)		73.61	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1708.85 Profile: PF 1

E.G. Elev (m)	77.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.37	Wt. n-Val.		0.030	
W.S. Elev (m)	77.31	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	77.41	Flow Area (m2)		8.02	
E.G. Slope (m/m)	0.020581	Area (m2)		8.02	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	18.75	Top Width (m)		18.75	
Vel Total (m/s)	2.70	Avg. Vel. (m/s)		2.70	
Max Chl Dpth (m)	0.86	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	151.1	Conv. (m3/s)		151.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		18.84	
Min Ch El (m)	76.46	Shear (N/m2)		85.86	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1708.85 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)	232.25
Frctn Loss (m)	0.03	Cum Volume (1000 m3)	23.43
C & E Loss (m)	0.11	Cum SA (1000 m2)	71.70

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1658.85 Profile: PF 1

E.G. Elev (m)	78.82	Element	Left OB	Channel	Right OB
Vel Head (m)	1.28	Wt. n-Val.		0.030	
W.S. Elev (m)	77.54	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	77.56	Flow Area (m2)		4.32	
E.G. Slope (m/m)	0.159637	Area (m2)		4.32	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	18.67	Top Width (m)		18.67	
Vel Total (m/s)	5.02	Avg. Vel. (m/s)		5.02	
Max Chl Dpth (m)	1.53	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	54.3	Conv. (m3/s)		54.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		18.69	
Min Ch El (m)	76.00	Shear (N/m2)		361.91	
Alpha	1.00	Stream Power (N/m s)		1815.61	
Frctn Loss (m)	1.96	Cum Volume (1000 m3)		23.12	
C & E Loss (m)	0.28	Cum SA (1000 m2)		70.76	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1608.85 Profile: PF 1

E.G. Elev (m)	76.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.35	Wt. n-Val.		0.030	
W.S. Elev (m)	76.23	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	76.31	Flow Area (m2)		8.22	
E.G. Slope (m/m)	0.017262	Area (m2)		8.22	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	17.50	Top Width (m)		17.50	
Vel Total (m/s)	2.64	Avg. Vel. (m/s)		2.64	
Max Chl Dpth (m)	1.01	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	165.0	Conv. (m3/s)		165.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		17.60	
Min Ch El (m)	75.22	Shear (N/m2)		79.07	
Alpha	1.00	Stream Power (N/m s)		208.47	
Frctn Loss (m)	1.01	Cum Volume (1000 m3)		22.81	
C & E Loss (m)	0.02	Cum SA (1000 m2)		69.86	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1558.85 Profile: PF 1

E.G. Elev (m)	75.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.52	Wt. n-Val.		0.030	
W.S. Elev (m)	75.04	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	75.20	Flow Area (m2)		6.81	
E.G. Slope (m/m)	0.023898	Area (m2)		6.81	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	13.88	Top Width (m)		13.88	
Vel Total (m/s)	3.18	Avg. Vel. (m/s)		3.18	
Max Chl Dpth (m)	1.09	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	140.2	Conv. (m3/s)		140.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		14.02	
Min Ch El (m)	73.96	Shear (N/m2)		113.80	
Alpha	1.00	Stream Power (N/m s)		362.29	
Frctn Loss (m)	0.48	Cum Volume (1000 m3)		22.43	
C & E Loss (m)	0.03	Cum SA (1000 m2)		69.07	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1508.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	74.99				
Vel Head (m)	0.12	Wt. n-Val.		0.030	
W.S. Elev (m)	74.88	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	74.88	Flow Area (m2)		14.41	
E.G. Slope (m/m)	0.014422	Area (m2)		14.41	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	62.58	Top Width (m)		62.58	
Vel Total (m/s)	1.50	Avg. Vel. (m/s)		1.50	
Max Chl Dpth (m)	1.70	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	180.5	Conv. (m3/s)		180.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		62.59	
Min Ch El (m)	73.17	Shear (N/m2)		32.57	
Alpha	1.00	Stream Power (N/m s)		48.99	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		21.90	
C & E Loss (m)	0.00	Cum SA (1000 m2)		67.16	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1458.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	73.69				
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	73.67	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	73.67	Flow Area (m2)		41.23	
E.G. Slope (m/m)	0.000624	Area (m2)		41.23	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	81.31	Top Width (m)		81.31	
Vel Total (m/s)	0.53	Avg. Vel. (m/s)		0.53	
Max Chl Dpth (m)	0.86	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	867.6	Conv. (m3/s)		867.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		82.21	
Min Ch El (m)	72.81	Shear (N/m2)		3.07	
Alpha	1.00	Stream Power (N/m s)		1.61	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		20.51	
C & E Loss (m)	0.12	Cum SA (1000 m2)		63.56	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1408.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	73.46				
Vel Head (m)	1.23	Wt. n-Val.		0.030	
W.S. Elev (m)	72.23	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	72.58	Flow Area (m2)		4.42	
E.G. Slope (m/m)	0.078889	Area (m2)		4.42	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	11.57	Top Width (m)		11.57	
Vel Total (m/s)	4.90	Avg. Vel. (m/s)		4.90	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	77.2	Conv. (m3/s)		77.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		11.67	
Min Ch El (m)	71.47	Shear (N/m2)		293.18	
Alpha	1.00	Stream Power (N/m s)		1437.46	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		19.37	
C & E Loss (m)	0.08	Cum SA (1000 m2)		61.24	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1358.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	72.29				
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	72.28	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	72.28	Flow Area (m2)		43.83	
E.G. Slope (m/m)	0.000616	Area (m2)		43.83	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1358.85 Profile: PF 1 (Continued)

Top Width (m)	93.58	Top Width (m)	93.58
Vel Total (m/s)	0.49	Avg. Vel. (m/s)	0.49
Max Chl Dpth (m)	1.17	Hydr. Depth (m)	0.47
Conv. Total (m3/s)	873.7	Conv. (m3/s)	873.7
Length Wtd. (m)	50.00	Wetted Per. (m)	94.78
Min Ch El (m)	71.11	Shear (N/m2)	2.79
Alpha	1.00	Stream Power (N/m s)	1.38
Frctn Loss (m)	0.10	Cum Volume (1000 m3)	18.16
C & E Loss (m)	0.10	Cum SA (1000 m2)	58.61

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1308.85 Profile: PF 1

E.G. Elev (m)	72.09	Element	Left OB	Channel	Right OB
Vel Head (m)	1.01	Wt. n-Val.		0.030	
W.S. Elev (m)	71.07	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	71.41	Flow Area (m2)		4.86	
E.G. Slope (m/m)	0.070633	Area (m2)		4.86	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	13.51	Top Width (m)		13.51	
Vel Total (m/s)	4.46	Avg. Vel. (m/s)		4.46	
Max Chl Dpth (m)	1.48	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	81.6	Conv. (m3/s)		81.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		13.60	
Min Ch El (m)	69.60	Shear (N/m2)		247.56	
Alpha	1.00	Stream Power (N/m s)		1104.52	
Frctn Loss (m)	0.35	Cum Volume (1000 m3)		16.94	
C & E Loss (m)	0.00	Cum SA (1000 m2)		55.94	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1258.85 Profile: PF 1

E.G. Elev (m)	71.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	71.21	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	71.21	Flow Area (m2)		14.45	
E.G. Slope (m/m)	0.014590	Area (m2)		14.45	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	63.52	Top Width (m)		63.52	
Vel Total (m/s)	1.50	Avg. Vel. (m/s)		1.50	
Max Chl Dpth (m)	1.56	Hydr. Depth (m)		0.23	
Conv. Total (m3/s)	179.5	Conv. (m3/s)		179.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		63.53	
Min Ch El (m)	69.65	Shear (N/m2)		32.54	
Alpha	1.00	Stream Power (N/m s)		48.82	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)		16.46	
C & E Loss (m)	0.00	Cum SA (1000 m2)		54.01	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1208.85 Profile: PF 1

E.G. Elev (m)	70.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	70.77	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	70.65	Flow Area (m2)		26.07	
E.G. Slope (m/m)	0.003271	Area (m2)		26.07	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	90.41	Top Width (m)		90.41	
Vel Total (m/s)	0.83	Avg. Vel. (m/s)		0.83	
Max Chl Dpth (m)	1.47	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	379.1	Conv. (m3/s)		379.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		90.47	
Min Ch El (m)	69.30	Shear (N/m2)		9.24	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1208.85 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		7.69	
Frctn Loss (m)	0.28	Cum Volume (1000 m3)		15.45	
C & E Loss (m)	0.00	Cum SA (1000 m2)		50.16	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1158.85 Profile: PF 1

E.G. Elev (m)	70.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	70.45	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	70.45	Flow Area (m2)		17.61	
E.G. Slope (m/m)	0.011316	Area (m2)		17.61	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	85.64	Top Width (m)		85.64	
Vel Total (m/s)	1.23	Avg. Vel. (m/s)		1.23	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.21	
Conv. Total (m3/s)	203.8	Conv. (m3/s)		203.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		86.09	
Min Ch El (m)	69.92	Shear (N/m2)		22.70	
Alpha	1.00	Stream Power (N/m s)		27.95	
Frctn Loss (m)	0.99	Cum Volume (1000 m3)		14.36	
C & E Loss (m)	0.06	Cum SA (1000 m2)		45.76	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1108.85 Profile: PF 1

E.G. Elev (m)	69.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.68	Wt. n-Val.		0.030	
W.S. Elev (m)	68.79	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	69.02	Flow Area (m2)		5.92	
E.G. Slope (m/m)	0.042853	Area (m2)		5.92	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	15.22	Top Width (m)		15.22	
Vel Total (m/s)	3.66	Avg. Vel. (m/s)		3.66	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	104.7	Conv. (m3/s)		104.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		15.30	
Min Ch El (m)	68.02	Shear (N/m2)		162.54	
Alpha	1.00	Stream Power (N/m s)		595.43	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		13.77	
C & E Loss (m)	0.07	Cum SA (1000 m2)		43.24	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1058.85 Profile: PF 1

E.G. Elev (m)	68.90	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	68.88	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	68.80	Flow Area (m2)		29.34	
E.G. Slope (m/m)	0.002165	Area (m2)		29.34	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	88.85	Top Width (m)		88.85	
Vel Total (m/s)	0.74	Avg. Vel. (m/s)		0.74	
Max Chl Dpth (m)	0.65	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	466.0	Conv. (m3/s)		466.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		89.21	
Min Ch El (m)	68.23	Shear (N/m2)		6.98	
Alpha	1.00	Stream Power (N/m s)		5.16	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		12.89	
C & E Loss (m)	0.02	Cum SA (1000 m2)		40.64	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 1008.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	68.67				
Vel Head (m)	0.25	Wt. n-Val.		0.030	
W.S. Elev (m)	68.42	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	68.42	Flow Area (m2)		9.78	
E.G. Slope (m/m)	0.011195	Area (m2)		9.78	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	19.53	Top Width (m)		19.53	
Vel Total (m/s)	2.22	Avg. Vel. (m/s)		2.22	
Max Chl Dpth (m)	1.00	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	204.9	Conv. (m3/s)		204.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		19.63	
Min Ch El (m)	67.42	Shear (N/m2)		54.69	
Alpha	1.00	Stream Power (N/m s)		121.22	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		11.91	
C & E Loss (m)	0.07	Cum SA (1000 m2)		37.93	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 958.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	68.18				
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	68.16	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	68.00	Flow Area (m2)		44.57	
E.G. Slope (m/m)	0.000591	Area (m2)		44.57	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	95.25	Top Width (m)		95.25	
Vel Total (m/s)	0.49	Avg. Vel. (m/s)		0.49	
Max Chl Dpth (m)	0.84	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	891.9	Conv. (m3/s)		891.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		95.81	
Min Ch El (m)	67.32	Shear (N/m2)		2.70	
Alpha	1.00	Stream Power (N/m s)		1.31	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		10.55	
C & E Loss (m)	0.01	Cum SA (1000 m2)		35.06	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 908.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	68.08				
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	67.99	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	67.99	Flow Area (m2)		15.56	
E.G. Slope (m/m)	0.015603	Area (m2)		15.56	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	80.12	Top Width (m)		80.12	
Vel Total (m/s)	1.39	Avg. Vel. (m/s)		1.39	
Max Chl Dpth (m)	0.94	Hydr. Depth (m)		0.19	
Conv. Total (m3/s)	173.6	Conv. (m3/s)		173.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		80.42	
Min Ch El (m)	67.05	Shear (N/m2)		29.61	
Alpha	1.00	Stream Power (N/m s)		41.25	
Frctn Loss (m)	0.48	Cum Volume (1000 m3)		9.05	
C & E Loss (m)	0.01	Cum SA (1000 m2)		30.67	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 858.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	67.17				
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	67.11	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	67.05	Flow Area (m2)		20.40	
E.G. Slope (m/m)	0.006477	Area (m2)		20.40	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 858.85 Profile: PF 1 (Continued)

Top Width (m)	81.28	Top Width (m)		81.28	
Vel Total (m/s)	1.06	Avg. Vel. (m/s)		1.06	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	269.4	Conv. (m3/s)		269.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		81.79	
Min Ch El (m)	66.54	Shear (N/m2)		15.84	
Alpha	1.00	Stream Power (N/m s)		16.84	
Frctn Loss (m)	0.44	Cum Volume (1000 m3)		8.15	
C & E Loss (m)	0.01	Cum SA (1000 m2)		26.64	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 808.85 Profile: PF 1

E.G. Elev (m)	66.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.030	
W.S. Elev (m)	66.55	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	66.55	Flow Area (m2)		11.74	
E.G. Slope (m/m)	0.012523	Area (m2)		11.74	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	33.61	Top Width (m)		33.61	
Vel Total (m/s)	1.85	Avg. Vel. (m/s)		1.85	
Max Chl Dpth (m)	0.97	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	193.7	Conv. (m3/s)		193.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		33.71	
Min Ch El (m)	65.57	Shear (N/m2)		42.77	
Alpha	1.00	Stream Power (N/m s)		78.98	
Frctn Loss (m)	0.49	Cum Volume (1000 m3)		7.34	
C & E Loss (m)	0.03	Cum SA (1000 m2)		23.77	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 758.85 Profile: PF 1

E.G. Elev (m)	65.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	65.87	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	65.87	Flow Area (m2)		18.82	
E.G. Slope (m/m)	0.007736	Area (m2)		18.82	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	75.88	Top Width (m)		75.88	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	246.5	Conv. (m3/s)		246.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		76.44	
Min Ch El (m)	65.33	Shear (N/m2)		18.68	
Alpha	1.00	Stream Power (N/m s)		21.52	
Frctn Loss (m)	0.46	Cum Volume (1000 m3)		6.58	
C & E Loss (m)	0.00	Cum SA (1000 m2)		21.03	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 708.85 Profile: PF 1

E.G. Elev (m)	65.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	65.39	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	65.39	Flow Area (m2)		17.87	
E.G. Slope (m/m)	0.011029	Area (m2)		17.87	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	87.18	Top Width (m)		87.18	
Vel Total (m/s)	1.21	Avg. Vel. (m/s)		1.21	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)		0.21	
Conv. Total (m3/s)	206.4	Conv. (m3/s)		206.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		87.63	
Min Ch El (m)	64.95	Shear (N/m2)		22.06	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 708.85 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		26.76	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		5.66	
C & E Loss (m)	0.01	Cum SA (1000 m2)		16.95	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 658.85 Profile: PF 1

E.G. Elev (m)	65.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	64.99	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	64.88	Flow Area (m2)		23.69	
E.G. Slope (m/m)	0.003763	Area (m2)		23.69	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	78.61	Top Width (m)		78.61	
Vel Total (m/s)	0.92	Avg. Vel. (m/s)		0.92	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.30	
Conv. Total (m3/s)	353.4	Conv. (m3/s)		353.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		79.16	
Min Ch El (m)	64.46	Shear (N/m2)		11.05	
Alpha	1.00	Stream Power (N/m s)		10.11	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		4.62	
C & E Loss (m)	0.01	Cum SA (1000 m2)		12.81	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 608.85 Profile: PF 1

E.G. Elev (m)	64.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	64.89	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	64.89	Flow Area (m2)		32.71	
E.G. Slope (m/m)	0.001495	Area (m2)		32.71	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	87.92	Top Width (m)		87.92	
Vel Total (m/s)	0.66	Avg. Vel. (m/s)		0.66	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	560.7	Conv. (m3/s)		560.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		88.70	
Min Ch El (m)	64.16	Shear (N/m2)		5.41	
Alpha	1.00	Stream Power (N/m s)		3.58	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		3.21	
C & E Loss (m)	0.00	Cum SA (1000 m2)		8.65	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 558.85 Profile: PF 1

E.G. Elev (m)	64.35	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	64.32	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	64.32	Flow Area (m2)		31.57	
E.G. Slope (m/m)	0.001616	Area (m2)		31.57	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	85.37	Top Width (m)		85.37	
Vel Total (m/s)	0.69	Avg. Vel. (m/s)		0.69	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	539.4	Conv. (m3/s)		539.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		86.00	
Min Ch El (m)	63.70	Shear (N/m2)		5.82	
Alpha	1.00	Stream Power (N/m s)		3.99	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		1.61	
C & E Loss (m)	0.00	Cum SA (1000 m2)		4.31	

Plan: Plan River_Fossa_Pila River_Fossa_Pila RS: 508.85 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	63.87				
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	63.84	Reach Len. (m)			
Crit W.S. (m)	63.84	Flow Area (m2)		32.65	
E.G. Slope (m/m)	0.001484	Area (m2)		32.65	
Q Total (m3/s)	21.68	Flow (m3/s)		21.68	
Top Width (m)	87.14	Top Width (m)		87.14	
Vel Total (m/s)	0.66	Avg. Vel. (m/s)		0.66	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	562.8	Conv. (m3/s)		562.8	
Length Wtd. (m)		Wetted Per. (m)		87.80	
Min Ch El (m)	63.23	Shear (N/m2)		5.41	
Alpha	1.00	Stream Power (N/m s)		3.59	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4520.66 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	88.36				
Vel Head (m)	0.18	Wt. n-Val.		0.030	
W.S. Elev (m)	88.19	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	88.19	Flow Area (m2)		41.65	
E.G. Slope (m/m)	0.012980	Area (m2)		41.65	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	120.49	Top Width (m)		120.49	
Vel Total (m/s)	1.87	Avg. Vel. (m/s)		1.87	
Max Chl Dpth (m)	1.80	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	683.1	Conv. (m3/s)		683.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		120.71	
Min Ch El (m)	86.39	Shear (N/m2)		43.92	
Alpha	1.00	Stream Power (N/m s)		82.06	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		272.42	
C & E Loss (m)	0.02	Cum SA (1000 m2)		574.78	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4470.66 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	87.97				
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	87.85	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	87.64	Flow Area (m2)		52.55	
E.G. Slope (m/m)	0.003455	Area (m2)		52.55	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	79.17	Top Width (m)		79.17	
Vel Total (m/s)	1.48	Avg. Vel. (m/s)		1.48	
Max Chl Dpth (m)	1.96	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	1324.0	Conv. (m3/s)		1324.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		79.96	
Min Ch El (m)	85.90	Shear (N/m2)		22.26	
Alpha	1.00	Stream Power (N/m s)		32.97	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		270.06	
C & E Loss (m)	0.01	Cum SA (1000 m2)		569.79	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4420.66 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	87.79				
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	87.72	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		64.42	
E.G. Slope (m/m)	0.003155	Area (m2)		64.42	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4420.66 Profile: PF 1 (Continued)

Top Width (m)	123.75	Top Width (m)		123.75	
Vel Total (m/s)	1.21	Avg. Vel. (m/s)		1.21	
Max Chl Dpth (m)	1.97	Hydr. Depth (m)		0.52	
Conv. Total (m3/s)	1385.5	Conv. (m3/s)		1385.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		124.29	
Min Ch El (m)	85.75	Shear (N/m2)		16.03	
Alpha	1.00	Stream Power (N/m s)		19.37	
Frctn Loss (m)	0.28	Cum Volume (1000 m3)		267.14	
C & E Loss (m)	0.02	Cum SA (1000 m2)		564.71	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4370.66 Profile: PF 1

E.G. Elev (m)	87.50	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.030	
W.S. Elev (m)	87.27	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	87.27	Flow Area (m2)		36.80	
E.G. Slope (m/m)	0.012257	Area (m2)		36.80	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	84.14	Top Width (m)		84.14	
Vel Total (m/s)	2.11	Avg. Vel. (m/s)		2.11	
Max Chl Dpth (m)	1.96	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	702.9	Conv. (m3/s)		702.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		84.86	
Min Ch El (m)	85.31	Shear (N/m2)		52.13	
Alpha	1.00	Stream Power (N/m s)		110.23	
Frctn Loss (m)	0.40	Cum Volume (1000 m3)		264.61	
C & E Loss (m)	0.04	Cum SA (1000 m2)		559.52	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4320.66 Profile: PF 1

E.G. Elev (m)	87.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	86.95	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	86.76	Flow Area (m2)		54.92	
E.G. Slope (m/m)	0.005640	Area (m2)		54.92	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	128.18	Top Width (m)		128.18	
Vel Total (m/s)	1.42	Avg. Vel. (m/s)		1.42	
Max Chl Dpth (m)	2.34	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	1036.2	Conv. (m3/s)		1036.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		128.94	
Min Ch El (m)	84.61	Shear (N/m2)		23.55	
Alpha	1.00	Stream Power (N/m s)		33.38	
Frctn Loss (m)	0.35	Cum Volume (1000 m3)		262.32	
C & E Loss (m)	0.01	Cum SA (1000 m2)		554.21	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4270.66 Profile: PF 1

E.G. Elev (m)	86.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.030	
W.S. Elev (m)	86.52	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	86.47	Flow Area (m2)		42.06	
E.G. Slope (m/m)	0.009151	Area (m2)		42.06	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	94.74	Top Width (m)		94.74	
Vel Total (m/s)	1.85	Avg. Vel. (m/s)		1.85	
Max Chl Dpth (m)	1.77	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	813.5	Conv. (m3/s)		813.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		95.16	
Min Ch El (m)	84.74	Shear (N/m2)		39.66	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4270.66 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		73.39	
Frctn Loss (m)	0.52	Cum Volume (1000 m3)		259.89	
C & E Loss (m)	0.00	Cum SA (1000 m2)		548.63	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4220.66 Profile: PF 1

E.G. Elev (m)	86.17	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.030	
W.S. Elev (m)	85.98	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	85.98	Flow Area (m2)		39.79	
E.G. Slope (m/m)	0.011774	Area (m2)		39.79	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	99.76	Top Width (m)		99.76	
Vel Total (m/s)	1.96	Avg. Vel. (m/s)		1.96	
Max Chl Dpth (m)	1.92	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	717.2	Conv. (m3/s)		717.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		100.04	
Min Ch El (m)	84.06	Shear (N/m2)		45.92	
Alpha	1.00	Stream Power (N/m s)		89.81	
Frctn Loss (m)	0.45	Cum Volume (1000 m3)		257.85	
C & E Loss (m)	0.01	Cum SA (1000 m2)		543.77	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4170.66 Profile: PF 1

E.G. Elev (m)	85.68	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.030	
W.S. Elev (m)	85.53	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	85.44	Flow Area (m2)		45.85	
E.G. Slope (m/m)	0.007036	Area (m2)		45.85	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	96.28	Top Width (m)		96.28	
Vel Total (m/s)	1.70	Avg. Vel. (m/s)		1.70	
Max Chl Dpth (m)	1.66	Hydr. Depth (m)		0.48	
Conv. Total (m3/s)	927.8	Conv. (m3/s)		927.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		96.96	
Min Ch El (m)	83.87	Shear (N/m2)		32.63	
Alpha	1.00	Stream Power (N/m s)		55.38	
Frctn Loss (m)	0.29	Cum Volume (1000 m3)		255.71	
C & E Loss (m)	0.00	Cum SA (1000 m2)		538.87	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4120.66 Profile: PF 1

E.G. Elev (m)	85.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.030	
W.S. Elev (m)	85.25	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		47.42	
E.G. Slope (m/m)	0.004869	Area (m2)		47.42	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	79.14	Top Width (m)		79.14	
Vel Total (m/s)	1.64	Avg. Vel. (m/s)		1.64	
Max Chl Dpth (m)	2.62	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	1115.3	Conv. (m3/s)		1115.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		80.02	
Min Ch El (m)	82.63	Shear (N/m2)		28.29	
Alpha	1.00	Stream Power (N/m s)		46.43	
Frctn Loss (m)	0.34	Cum Volume (1000 m3)		253.37	
C & E Loss (m)	0.00	Cum SA (1000 m2)		534.48	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4070.66 Profile: PF 1

E.G. Elev (m)	85.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.030	
W.S. Elev (m)	84.90	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	84.86	Flow Area (m2)		46.02	
E.G. Slope (m/m)	0.010251	Area (m2)		46.02	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	129.43	Top Width (m)		129.43	
Vel Total (m/s)	1.69	Avg. Vel. (m/s)		1.69	
Max Chl Dpth (m)	1.47	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	768.6	Conv. (m3/s)		768.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		129.78	
Min Ch El (m)	83.42	Shear (N/m2)		35.65	
Alpha	1.00	Stream Power (N/m s)		60.27	
Frctn Loss (m)	0.36	Cum Volume (1000 m3)		251.04	
C & E Loss (m)	0.01	Cum SA (1000 m2)		529.27	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 4020.66 Profile: PF 1

E.G. Elev (m)	84.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	84.57	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		56.60	
E.G. Slope (m/m)	0.005317	Area (m2)		56.60	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	132.48	Top Width (m)		132.48	
Vel Total (m/s)	1.38	Avg. Vel. (m/s)		1.38	
Max Chl Dpth (m)	1.03	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	1067.2	Conv. (m3/s)		1067.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		133.02	
Min Ch El (m)	83.54	Shear (N/m2)		22.19	
Alpha	1.00	Stream Power (N/m s)		30.51	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		248.47	
C & E Loss (m)	0.00	Cum SA (1000 m2)		522.72	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3970.66 Profile: PF 1

E.G. Elev (m)	84.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	84.25	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	84.18	Flow Area (m2)		52.54	
E.G. Slope (m/m)	0.006911	Area (m2)		52.54	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	134.10	Top Width (m)		134.10	
Vel Total (m/s)	1.48	Avg. Vel. (m/s)		1.48	
Max Chl Dpth (m)	1.47	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	936.1	Conv. (m3/s)		936.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		134.45	
Min Ch El (m)	82.78	Shear (N/m2)		26.48	
Alpha	1.00	Stream Power (N/m s)		39.23	
Frctn Loss (m)	0.36	Cum Volume (1000 m3)		245.74	
C & E Loss (m)	0.00	Cum SA (1000 m2)		516.06	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3920.66 Profile: PF 1

E.G. Elev (m)	84.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.030	
W.S. Elev (m)	83.88	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	83.82	Flow Area (m2)		50.18	
E.G. Slope (m/m)	0.007438	Area (m2)		50.18	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3920.66 Profile: PF 1 (Continued)

Top Width (m)	126.25	Top Width (m)		126.25	
Vel Total (m/s)	1.55	Avg. Vel. (m/s)		1.55	
Max Chl Dpth (m)	0.93	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	902.3	Conv. (m3/s)		902.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		126.66	
Min Ch El (m)	82.95	Shear (N/m2)		28.90	
Alpha	1.00	Stream Power (N/m s)		44.82	
Frctn Loss (m)	0.28	Cum Volume (1000 m3)		243.18	
C & E Loss (m)	0.01	Cum SA (1000 m2)		509.55	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3870.66 Profile: PF 1

E.G. Elev (m)	83.72	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	83.62	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	83.47	Flow Area (m2)		56.53	
E.G. Slope (m/m)	0.004438	Area (m2)		56.53	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	115.23	Top Width (m)		115.23	
Vel Total (m/s)	1.38	Avg. Vel. (m/s)		1.38	
Max Chl Dpth (m)	1.54	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	1168.1	Conv. (m3/s)		1168.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		115.81	
Min Ch El (m)	82.08	Shear (N/m2)		21.24	
Alpha	1.00	Stream Power (N/m s)		29.25	
Frctn Loss (m)	0.34	Cum Volume (1000 m3)		240.51	
C & E Loss (m)	0.01	Cum SA (1000 m2)		503.51	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3820.66 Profile: PF 1

E.G. Elev (m)	83.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.030	
W.S. Elev (m)	83.20	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	83.20	Flow Area (m2)		43.50	
E.G. Slope (m/m)	0.011815	Area (m2)		43.50	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	125.13	Top Width (m)		125.13	
Vel Total (m/s)	1.79	Avg. Vel. (m/s)		1.79	
Max Chl Dpth (m)	0.81	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	715.9	Conv. (m3/s)		715.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		125.37	
Min Ch El (m)	82.39	Shear (N/m2)		40.20	
Alpha	1.00	Stream Power (N/m s)		71.92	
Frctn Loss (m)	0.24	Cum Volume (1000 m3)		238.01	
C & E Loss (m)	0.03	Cum SA (1000 m2)		497.50	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3770.66 Profile: PF 1

E.G. Elev (m)	83.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	83.04	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		69.85	
E.G. Slope (m/m)	0.002527	Area (m2)		69.85	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	128.65	Top Width (m)		128.65	
Vel Total (m/s)	1.11	Avg. Vel. (m/s)		1.11	
Max Chl Dpth (m)	1.23	Hydr. Depth (m)		0.54	
Conv. Total (m3/s)	1548.0	Conv. (m3/s)		1548.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		128.83	
Min Ch El (m)	81.80	Shear (N/m2)		13.44	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3770.66 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		14.97	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		235.17	
C & E Loss (m)	0.01	Cum SA (1000 m2)		491.16	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3720.66 Profile: PF 1

E.G. Elev (m)	83.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	83.00	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		103.56	
E.G. Slope (m/m)	0.000683	Area (m2)		103.56	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	128.59	Top Width (m)		128.59	
Vel Total (m/s)	0.75	Avg. Vel. (m/s)		0.75	
Max Chl Dpth (m)	1.45	Hydr. Depth (m)		0.81	
Conv. Total (m3/s)	2978.3	Conv. (m3/s)		2978.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		129.21	
Min Ch El (m)	81.55	Shear (N/m2)		5.37	
Alpha	1.00	Stream Power (N/m s)		4.03	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)		230.84	
C & E Loss (m)	0.00	Cum SA (1000 m2)		484.73	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3670.66 Profile: PF 1

E.G. Elev (m)	83.00	Element	Left OB	Channel	Right OB
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	82.97	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		113.03	
E.G. Slope (m/m)	0.000628	Area (m2)		113.03	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.69	Avg. Vel. (m/s)		0.69	
Max Chl Dpth (m)	1.32	Hydr. Depth (m)		0.75	
Conv. Total (m3/s)	3104.3	Conv. (m3/s)		3104.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		151.14	
Min Ch El (m)	81.66	Shear (N/m2)		4.61	
Alpha	1.00	Stream Power (N/m s)		3.17	
Frctn Loss (m)	0.02	Cum Volume (1000 m3)		225.42	
C & E Loss (m)	0.00	Cum SA (1000 m2)		477.76	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3620.66 Profile: PF 1

E.G. Elev (m)	82.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	82.96	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		153.55	
E.G. Slope (m/m)	0.000227	Area (m2)		153.55	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.51	Avg. Vel. (m/s)		0.51	
Max Chl Dpth (m)	1.95	Hydr. Depth (m)		1.02	
Conv. Total (m3/s)	5166.4	Conv. (m3/s)		5166.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		151.42	
Min Ch El (m)	81.01	Shear (N/m2)		2.26	
Alpha	1.00	Stream Power (N/m s)		1.14	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		218.76	
C & E Loss (m)	0.00	Cum SA (1000 m2)		470.26	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3570.66 Profile: PF 1

E.G. Elev (m)	82.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	82.95	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	82.03	Flow Area (m2)		151.09	
E.G. Slope (m/m)	0.000241	Area (m2)		151.09	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.52	Avg. Vel. (m/s)		0.52	
Max Chl Dpth (m)	1.52	Hydr. Depth (m)		1.01	
Conv. Total (m3/s)	5012.8	Conv. (m3/s)		5012.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		152.17	
Min Ch El (m)	81.43	Shear (N/m2)		2.35	
Alpha	1.00	Stream Power (N/m s)		1.21	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		211.14	
C & E Loss (m)	0.00	Cum SA (1000 m2)		462.76	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3520.66 Profile: PF 1

E.G. Elev (m)	82.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	82.95	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		232.95	
E.G. Slope (m/m)	0.000058	Area (m2)		232.95	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.33	Avg. Vel. (m/s)		0.33	
Max Chl Dpth (m)	2.38	Hydr. Depth (m)		1.55	
Conv. Total (m3/s)	10227.0	Conv. (m3/s)		10227.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		154.12	
Min Ch El (m)	80.57	Shear (N/m2)		0.86	
Alpha	1.00	Stream Power (N/m s)		0.29	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		201.54	
C & E Loss (m)	0.03	Cum SA (1000 m2)		455.26	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3470.66 Profile: PF 1

E.G. Elev (m)	82.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.34	Wt. n-Val.		0.030	
W.S. Elev (m)	82.57	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	82.57	Flow Area (m2)		30.18	
E.G. Slope (m/m)	0.010050	Area (m2)		30.18	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	44.42	Top Width (m)		44.42	
Vel Total (m/s)	2.58	Avg. Vel. (m/s)		2.58	
Max Chl Dpth (m)	1.54	Hydr. Depth (m)		0.68	
Conv. Total (m3/s)	776.3	Conv. (m3/s)		776.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		44.54	
Min Ch El (m)	81.03	Shear (N/m2)		66.79	
Alpha	1.00	Stream Power (N/m s)		172.21	
Frctn Loss (m)	0.39	Cum Volume (1000 m3)		194.96	
C & E Loss (m)	0.06	Cum SA (1000 m2)		450.40	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3420.66 Profile: PF 1

E.G. Elev (m)	81.40	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.030	
W.S. Elev (m)	81.26	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	81.17	Flow Area (m2)		47.09	
E.G. Slope (m/m)	0.006140	Area (m2)		47.09	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3420.66 Profile: PF 1 (Continued)

Top Width (m)	93.01	Top Width (m)		93.01
Vel Total (m/s)	1.65	Avg. Vel. (m/s)		1.65
Max Chl Dpth (m)	0.96	Hydr. Depth (m)		0.51
Conv. Total (m3/s)	993.2	Conv. (m3/s)		993.2
Length Wtd. (m)	50.00	Wetted Per. (m)		93.56
Min Ch El (m)	80.30	Shear (N/m2)		30.30
Alpha	1.00	Stream Power (N/m s)		50.08
Frctn Loss (m)	0.23	Cum Volume (1000 m3)		193.03
C & E Loss (m)	0.01	Cum SA (1000 m2)		446.97

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3370.66 Profile: PF 1

E.G. Elev (m)	81.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	81.06	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	80.87	Flow Area (m2)		54.40	
E.G. Slope (m/m)	0.003572	Area (m2)		54.40	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	88.53	Top Width (m)		88.53	
Vel Total (m/s)	1.43	Avg. Vel. (m/s)		1.43	
Max Chl Dpth (m)	1.18	Hydr. Depth (m)		0.61	
Conv. Total (m3/s)	1302.1	Conv. (m3/s)		1302.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		89.42	
Min Ch El (m)	79.87	Shear (N/m2)		21.31	
Alpha	1.00	Stream Power (N/m s)		30.48	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		190.49	
C & E Loss (m)	0.01	Cum SA (1000 m2)		442.43	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3320.66 Profile: PF 1

E.G. Elev (m)	80.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.030	
W.S. Elev (m)	80.64	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	80.64	Flow Area (m2)		38.22	
E.G. Slope (m/m)	0.011783	Area (m2)		38.22	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	89.95	Top Width (m)		89.95	
Vel Total (m/s)	2.04	Avg. Vel. (m/s)		2.04	
Max Chl Dpth (m)	1.12	Hydr. Depth (m)		0.42	
Conv. Total (m3/s)	716.9	Conv. (m3/s)		716.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		90.56	
Min Ch El (m)	79.52	Shear (N/m2)		48.77	
Alpha	1.00	Stream Power (N/m s)		99.30	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		188.18	
C & E Loss (m)	0.04	Cum SA (1000 m2)		437.97	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3270.66 Profile: PF 1

E.G. Elev (m)	80.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	80.03	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	79.80	Flow Area (m2)		67.18	
E.G. Slope (m/m)	0.003551	Area (m2)		67.18	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)		1.16	
Max Chl Dpth (m)	1.24	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	1305.9	Conv. (m3/s)		1305.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.85	
Min Ch El (m)	78.80	Shear (N/m2)		15.51	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3270.66 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		17.96	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)		185.54	
C & E Loss (m)	0.00	Cum SA (1000 m2)		431.97	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3220.66 Profile: PF 1

E.G. Elev (m)	79.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	79.83	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		63.91	
E.G. Slope (m/m)	0.004195	Area (m2)		63.91	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.22	Avg. Vel. (m/s)		1.22	
Max Chl Dpth (m)	1.48	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	1201.4	Conv. (m3/s)		1201.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.90	
Min Ch El (m)	78.36	Shear (N/m2)		17.43	
Alpha	1.00	Stream Power (N/m s)		21.22	
Frctn Loss (m)	0.31	Cum Volume (1000 m3)		182.27	
C & E Loss (m)	0.01	Cum SA (1000 m2)		424.47	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3170.66 Profile: PF 1

E.G. Elev (m)	79.59	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.030	
W.S. Elev (m)	79.47	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	79.44	Flow Area (m2)		49.37	
E.G. Slope (m/m)	0.009887	Area (m2)		49.37	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.58	Avg. Vel. (m/s)		1.58	
Max Chl Dpth (m)	0.92	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	782.6	Conv. (m3/s)		782.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.58	
Min Ch El (m)	78.55	Shear (N/m2)		31.79	
Alpha	1.00	Stream Power (N/m s)		50.11	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		179.43	
C & E Loss (m)	0.02	Cum SA (1000 m2)		416.97	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3120.66 Profile: PF 1

E.G. Elev (m)	79.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	79.21	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		64.86	
E.G. Slope (m/m)	0.003987	Area (m2)		64.86	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.20	Avg. Vel. (m/s)		1.20	
Max Chl Dpth (m)	1.03	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	1232.4	Conv. (m3/s)		1232.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.72	
Min Ch El (m)	78.18	Shear (N/m2)		16.83	
Alpha	1.00	Stream Power (N/m s)		20.19	
Frctn Loss (m)	0.17	Cum Volume (1000 m3)		176.58	
C & E Loss (m)	0.00	Cum SA (1000 m2)		409.47	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3070.66 Profile: PF 1

E.G. Elev (m)	79.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	79.05	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		71.24	
E.G. Slope (m/m)	0.002925	Area (m2)		71.24	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.09	Avg. Vel. (m/s)		1.09	
Max Chl Dpth (m)	1.67	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	1438.9	Conv. (m3/s)		1438.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		151.02	
Min Ch El (m)	77.37	Shear (N/m2)		13.53	
Alpha	1.00	Stream Power (N/m s)		14.78	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		173.18	
C & E Loss (m)	0.00	Cum SA (1000 m2)		401.97	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 3020.66 Profile: PF 1

E.G. Elev (m)	78.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	78.94	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		82.09	
E.G. Slope (m/m)	0.001822	Area (m2)		82.09	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.95	Avg. Vel. (m/s)		0.95	
Max Chl Dpth (m)	1.49	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	1823.3	Conv. (m3/s)		1823.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.93	
Min Ch El (m)	77.46	Shear (N/m2)		9.72	
Alpha	1.00	Stream Power (N/m s)		9.21	
Frctn Loss (m)	0.15	Cum Volume (1000 m3)		169.34	
C & E Loss (m)	0.00	Cum SA (1000 m2)		394.47	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2970.66 Profile: PF 1

E.G. Elev (m)	78.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	78.75	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		59.43	
E.G. Slope (m/m)	0.005338	Area (m2)		59.43	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.54	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	1065.1	Conv. (m3/s)		1065.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.77	
Min Ch El (m)	78.21	Shear (N/m2)		20.64	
Alpha	1.00	Stream Power (N/m s)		27.02	
Frctn Loss (m)	0.25	Cum Volume (1000 m3)		165.80	
C & E Loss (m)	0.00	Cum SA (1000 m2)		386.97	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2920.66 Profile: PF 1

E.G. Elev (m)	78.58	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	78.50	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		61.44	
E.G. Slope (m/m)	0.004783	Area (m2)		61.44	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2920.66 Profile: PF 1 (Continued)

Top Width (m)	150.00	Top Width (m)	150.00
Vel Total (m/s)	1.27	Avg. Vel. (m/s)	1.27
Max Chl Dpth (m)	0.53	Hydr. Depth (m)	0.41
Conv. Total (m3/s)	1125.2	Conv. (m3/s)	1125.2
Length Wtd. (m)	50.00	Wetted Per. (m)	150.86
Min Ch El (m)	77.97	Shear (N/m2)	19.10
Alpha	1.00	Stream Power (N/m s)	24.20
Frctn Loss (m)	0.22	Cum Volume (1000 m3)	162.78
C & E Loss (m)	0.00	Cum SA (1000 m2)	379.47

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2870.66 Profile: PF 1

E.G. Elev (m)	78.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	78.29	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		64.56	
E.G. Slope (m/m)	0.004058	Area (m2)		64.56	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.21	Avg. Vel. (m/s)		1.21	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	1221.6	Conv. (m3/s)		1221.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.97	
Min Ch El (m)	77.74	Shear (N/m2)		17.02	
Alpha	1.00	Stream Power (N/m s)		20.51	
Frctn Loss (m)	0.29	Cum Volume (1000 m3)		159.63	
C & E Loss (m)	0.00	Cum SA (1000 m2)		371.97	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2820.66 Profile: PF 1

E.G. Elev (m)	78.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.030	
W.S. Elev (m)	77.95	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		51.18	
E.G. Slope (m/m)	0.008788	Area (m2)		51.18	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.52	Avg. Vel. (m/s)		1.52	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.34	
Conv. Total (m3/s)	830.1	Conv. (m3/s)		830.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.77	
Min Ch El (m)	77.55	Shear (N/m2)		29.25	
Alpha	1.00	Stream Power (N/m s)		44.48	
Frctn Loss (m)	0.41	Cum Volume (1000 m3)		156.74	
C & E Loss (m)	0.00	Cum SA (1000 m2)		364.47	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2770.66 Profile: PF 1

E.G. Elev (m)	77.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	77.55	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		53.30	
E.G. Slope (m/m)	0.007671	Area (m2)		53.30	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.46	Avg. Vel. (m/s)		1.46	
Max Chl Dpth (m)	0.41	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	888.5	Conv. (m3/s)		888.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.72	
Min Ch El (m)	77.14	Shear (N/m2)		26.60	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2770.66 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		38.84	
Frctn Loss (m)	0.38	Cum Volume (1000 m3)		154.13	
C & E Loss (m)	0.00	Cum SA (1000 m2)		356.97	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2720.66 Profile: PF 1

E.G. Elev (m)	77.28	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	77.17	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		53.71	
E.G. Slope (m/m)	0.007476	Area (m2)		53.71	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.45	Avg. Vel. (m/s)		1.45	
Max Chl Dpth (m)	0.41	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	900.1	Conv. (m3/s)		900.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.71	
Min Ch El (m)	76.77	Shear (N/m2)		26.13	
Alpha	1.00	Stream Power (N/m s)		37.85	
Frctn Loss (m)	0.31	Cum Volume (1000 m3)		151.45	
C & E Loss (m)	0.01	Cum SA (1000 m2)		349.47	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2670.66 Profile: PF 1

E.G. Elev (m)	76.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	76.87	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		59.53	
E.G. Slope (m/m)	0.005307	Area (m2)		59.53	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	1068.2	Conv. (m3/s)		1068.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.75	
Min Ch El (m)	76.44	Shear (N/m2)		20.55	
Alpha	1.00	Stream Power (N/m s)		26.87	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		148.62	
C & E Loss (m)	0.01	Cum SA (1000 m2)		341.97	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2620.66 Profile: PF 1

E.G. Elev (m)	76.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	76.67	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		67.54	
E.G. Slope (m/m)	0.003487	Area (m2)		67.54	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	0.48	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	1317.9	Conv. (m3/s)		1317.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.77	
Min Ch El (m)	76.19	Shear (N/m2)		15.32	
Alpha	1.00	Stream Power (N/m s)		17.65	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)		145.44	
C & E Loss (m)	0.00	Cum SA (1000 m2)		334.47	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2570.66 Profile: PF 1

E.G. Elev (m)	76.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	76.49	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		66.89	
E.G. Slope (m/m)	0.003595	Area (m2)		66.89	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)		1.16	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	1298.0	Conv. (m3/s)		1298.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.62	
Min Ch El (m)	75.92	Shear (N/m2)		15.66	
Alpha	1.00	Stream Power (N/m s)		18.21	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)		142.08	
C & E Loss (m)	0.00	Cum SA (1000 m2)		326.97	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2520.66 Profile: PF 1

E.G. Elev (m)	76.34	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	76.23	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		54.53	
E.G. Slope (m/m)	0.005571	Area (m2)		54.53	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	124.92	Top Width (m)		124.92	
Vel Total (m/s)	1.43	Avg. Vel. (m/s)		1.43	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	1042.6	Conv. (m3/s)		1042.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		125.52	
Min Ch El (m)	75.64	Shear (N/m2)		23.73	
Alpha	1.00	Stream Power (N/m s)		33.87	
Frctn Loss (m)	0.29	Cum Volume (1000 m3)		139.05	
C & E Loss (m)	0.00	Cum SA (1000 m2)		320.10	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2470.66 Profile: PF 1

E.G. Elev (m)	76.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	75.94	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		52.41	
E.G. Slope (m/m)	0.005957	Area (m2)		52.41	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	118.92	Top Width (m)		118.92	
Vel Total (m/s)	1.48	Avg. Vel. (m/s)		1.48	
Max Chl Dpth (m)	0.63	Hydr. Depth (m)		0.44	
Conv. Total (m3/s)	1008.3	Conv. (m3/s)		1008.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		119.55	
Min Ch El (m)	75.31	Shear (N/m2)		25.61	
Alpha	1.00	Stream Power (N/m s)		38.03	
Frctn Loss (m)	0.39	Cum Volume (1000 m3)		136.37	
C & E Loss (m)	0.00	Cum SA (1000 m2)		314.00	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2420.66 Profile: PF 1

E.G. Elev (m)	75.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.030	
W.S. Elev (m)	75.50	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	75.47	Flow Area (m2)		44.07	
E.G. Slope (m/m)	0.010580	Area (m2)		44.07	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2420.66 Profile: PF 1 (Continued)

Top Width (m)	118.67	Top Width (m)		118.67
Vel Total (m/s)	1.77	Avg. Vel. (m/s)		1.77
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.37
Conv. Total (m3/s)	756.6	Conv. (m3/s)		756.6
Length Wtd. (m)	50.00	Wetted Per. (m)		119.21
Min Ch El (m)	74.95	Shear (N/m2)		38.35
Alpha	1.00	Stream Power (N/m s)		67.73
Frctn Loss (m)	0.47	Cum Volume (1000 m3)		133.96
C & E Loss (m)	0.01	Cum SA (1000 m2)		308.06

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2370.66 Profile: PF 1

E.G. Elev (m)	75.18	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.030	
W.S. Elev (m)	75.04	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		47.42	
E.G. Slope (m/m)	0.008347	Area (m2)		47.42	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	119.36	Top Width (m)		119.36	
Vel Total (m/s)	1.64	Avg. Vel. (m/s)		1.64	
Max Chl Dpth (m)	0.54	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	851.8	Conv. (m3/s)		851.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		119.88	
Min Ch El (m)	74.51	Shear (N/m2)		32.38	
Alpha	1.00	Stream Power (N/m s)		53.14	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		131.67	
C & E Loss (m)	0.01	Cum SA (1000 m2)		302.11	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2320.66 Profile: PF 1

E.G. Elev (m)	74.87	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	74.78	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		58.32	
E.G. Slope (m/m)	0.004395	Area (m2)		58.32	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	123.67	Top Width (m)		123.67	
Vel Total (m/s)	1.33	Avg. Vel. (m/s)		1.33	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	1173.9	Conv. (m3/s)		1173.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		124.27	
Min Ch El (m)	74.16	Shear (N/m2)		20.22	
Alpha	1.00	Stream Power (N/m s)		26.99	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)		129.03	
C & E Loss (m)	0.00	Cum SA (1000 m2)		296.03	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2270.66 Profile: PF 1

E.G. Elev (m)	74.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	74.55	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		56.90	
E.G. Slope (m/m)	0.004583	Area (m2)		56.90	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	119.90	Top Width (m)		119.90	
Vel Total (m/s)	1.37	Avg. Vel. (m/s)		1.37	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	1149.5	Conv. (m3/s)		1149.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		120.58	
Min Ch El (m)	73.87	Shear (N/m2)		21.21	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2270.66 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		29.00	
Frctn Loss (m)	0.23	Cum Volume (1000 m3)		126.15	
C & E Loss (m)	0.00	Cum SA (1000 m2)		289.94	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2220.66 Profile: PF 1

E.G. Elev (m)	74.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	74.31	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		54.08	
E.G. Slope (m/m)	0.004732	Area (m2)		54.08	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	107.98	Top Width (m)		107.98	
Vel Total (m/s)	1.44	Avg. Vel. (m/s)		1.44	
Max Chl Dpth (m)	0.82	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	1131.3	Conv. (m3/s)		1131.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		108.80	
Min Ch El (m)	73.49	Shear (N/m2)		23.07	
Alpha	1.00	Stream Power (N/m s)		33.19	
Frctn Loss (m)	0.28	Cum Volume (1000 m3)		123.38	
C & E Loss (m)	0.00	Cum SA (1000 m2)		284.25	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2170.66 Profile: PF 1

E.G. Elev (m)	74.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.030	
W.S. Elev (m)	73.99	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		46.23	
E.G. Slope (m/m)	0.006685	Area (m2)		46.23	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	94.50	Top Width (m)		94.50	
Vel Total (m/s)	1.68	Avg. Vel. (m/s)		1.68	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	951.8	Conv. (m3/s)		951.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		95.26	
Min Ch El (m)	73.23	Shear (N/m2)		31.82	
Alpha	1.00	Stream Power (N/m s)		53.55	
Frctn Loss (m)	0.35	Cum Volume (1000 m3)		120.87	
C & E Loss (m)	0.00	Cum SA (1000 m2)		279.18	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2120.66 Profile: PF 1

E.G. Elev (m)	73.78	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.030	
W.S. Elev (m)	73.63	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		44.66	
E.G. Slope (m/m)	0.007160	Area (m2)		44.66	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	91.31	Top Width (m)		91.31	
Vel Total (m/s)	1.74	Avg. Vel. (m/s)		1.74	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.49	
Conv. Total (m3/s)	919.7	Conv. (m3/s)		919.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		91.98	
Min Ch El (m)	72.95	Shear (N/m2)		34.09	
Alpha	1.00	Stream Power (N/m s)		59.41	
Frctn Loss (m)	0.42	Cum Volume (1000 m3)		118.60	
C & E Loss (m)	0.00	Cum SA (1000 m2)		274.54	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2070.66 Profile: PF 1

E.G. Elev (m)	73.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.030	
W.S. Elev (m)	73.17	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	73.15	Flow Area (m2)		40.91	
E.G. Slope (m/m)	0.010226	Area (m2)		40.91	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	95.90	Top Width (m)		95.90	
Vel Total (m/s)	1.90	Avg. Vel. (m/s)		1.90	
Max Chl Dpth (m)	0.63	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	769.6	Conv. (m3/s)		769.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		96.48	
Min Ch El (m)	72.54	Shear (N/m2)		42.52	
Alpha	1.00	Stream Power (N/m s)		80.88	
Frctn Loss (m)	0.47	Cum Volume (1000 m3)		116.46	
C & E Loss (m)	0.00	Cum SA (1000 m2)		269.86	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 2020.66 Profile: PF 1

E.G. Elev (m)	72.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.030	
W.S. Elev (m)	72.71	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	72.66	Flow Area (m2)		42.59	
E.G. Slope (m/m)	0.008812	Area (m2)		42.59	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	94.83	Top Width (m)		94.83	
Vel Total (m/s)	1.83	Avg. Vel. (m/s)		1.83	
Max Chl Dpth (m)	0.61	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	829.0	Conv. (m3/s)		829.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		95.43	
Min Ch El (m)	72.10	Shear (N/m2)		38.57	
Alpha	1.00	Stream Power (N/m s)		70.47	
Frctn Loss (m)	0.45	Cum Volume (1000 m3)		114.37	
C & E Loss (m)	0.00	Cum SA (1000 m2)		265.09	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1970.66 Profile: PF 1

E.G. Elev (m)	72.43	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.030	
W.S. Elev (m)	72.24	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	72.20	Flow Area (m2)		41.07	
E.G. Slope (m/m)	0.009253	Area (m2)		41.07	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	89.80	Top Width (m)		89.80	
Vel Total (m/s)	1.89	Avg. Vel. (m/s)		1.89	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.46	
Conv. Total (m3/s)	809.0	Conv. (m3/s)		809.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		90.41	
Min Ch El (m)	71.64	Shear (N/m2)		41.22	
Alpha	1.00	Stream Power (N/m s)		78.10	
Frctn Loss (m)	0.51	Cum Volume (1000 m3)		112.28	
C & E Loss (m)	0.00	Cum SA (1000 m2)		260.48	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1920.66 Profile: PF 1

E.G. Elev (m)	71.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.23	Wt. n-Val.		0.030	
W.S. Elev (m)	71.68	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	71.68	Flow Area (m2)		37.00	
E.G. Slope (m/m)	0.011524	Area (m2)		37.00	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1920.66 Profile: PF 1 (Continued)

Top Width (m)	81.59	Top Width (m)		81.59
Vel Total (m/s)	2.10	Avg. Vel. (m/s)		2.10
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.45
Conv. Total (m3/s)	724.9	Conv. (m3/s)		724.9
Length Wtd. (m)	50.00	Wetted Per. (m)		82.12
Min Ch El (m)	71.10	Shear (N/m2)		50.92
Alpha	1.00	Stream Power (N/m s)		107.10
Frctn Loss (m)	0.59	Cum Volume (1000 m3)		110.33
C & E Loss (m)	0.00	Cum SA (1000 m2)		256.19

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1870.66 Profile: PF 1

E.G. Elev (m)	71.32	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.030	
W.S. Elev (m)	71.10	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	71.10	Flow Area (m2)		37.94	
E.G. Slope (m/m)	0.011890	Area (m2)		37.94	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	88.98	Top Width (m)		88.98	
Vel Total (m/s)	2.05	Avg. Vel. (m/s)		2.05	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	713.7	Conv. (m3/s)		713.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		89.49	
Min Ch El (m)	70.51	Shear (N/m2)		49.43	
Alpha	1.00	Stream Power (N/m s)		101.39	
Frctn Loss (m)	0.55	Cum Volume (1000 m3)		108.45	
C & E Loss (m)	0.01	Cum SA (1000 m2)		251.93	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1820.66 Profile: PF 1

E.G. Elev (m)	70.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.030	
W.S. Elev (m)	70.52	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	70.49	Flow Area (m2)		42.63	
E.G. Slope (m/m)	0.010208	Area (m2)		42.63	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	106.28	Top Width (m)		106.28	
Vel Total (m/s)	1.83	Avg. Vel. (m/s)		1.83	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	770.2	Conv. (m3/s)		770.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		106.81	
Min Ch El (m)	69.97	Shear (N/m2)		39.95	
Alpha	1.00	Stream Power (N/m s)		72.94	
Frctn Loss (m)	0.48	Cum Volume (1000 m3)		106.44	
C & E Loss (m)	0.01	Cum SA (1000 m2)		247.04	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1770.66 Profile: PF 1

E.G. Elev (m)	70.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.12	Wt. n-Val.		0.030	
W.S. Elev (m)	70.07	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		50.58	
E.G. Slope (m/m)	0.009118	Area (m2)		50.58	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.54	Avg. Vel. (m/s)		1.54	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)		0.34	
Conv. Total (m3/s)	815.0	Conv. (m3/s)		815.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.50	
Min Ch El (m)	69.62	Shear (N/m2)		30.05	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1770.66 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		46.24	
Frctn Loss (m)	0.37	Cum Volume (1000 m3)		104.11	
C & E Loss (m)	0.01	Cum SA (1000 m2)		240.64	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1720.66 Profile: PF 1

E.G. Elev (m)	69.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	69.72	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		56.87	
E.G. Slope (m/m)	0.006170	Area (m2)		56.87	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.37	Avg. Vel. (m/s)		1.37	
Max Chl Dpth (m)	0.50	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	990.7	Conv. (m3/s)		990.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.51	
Min Ch El (m)	69.22	Shear (N/m2)		22.86	
Alpha	1.00	Stream Power (N/m s)		31.28	
Frctn Loss (m)	0.34	Cum Volume (1000 m3)		101.42	
C & E Loss (m)	0.00	Cum SA (1000 m2)		233.14	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1670.66 Profile: PF 1

E.G. Elev (m)	69.47	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	69.37	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		53.51	
E.G. Slope (m/m)	0.007447	Area (m2)		53.51	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	148.35	Top Width (m)		148.35	
Vel Total (m/s)	1.45	Avg. Vel. (m/s)		1.45	
Max Chl Dpth (m)	0.51	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	901.8	Conv. (m3/s)		901.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		148.83	
Min Ch El (m)	68.85	Shear (N/m2)		26.26	
Alpha	1.00	Stream Power (N/m s)		38.19	
Frctn Loss (m)	0.37	Cum Volume (1000 m3)		98.66	
C & E Loss (m)	0.00	Cum SA (1000 m2)		225.68	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1620.66 Profile: PF 1

E.G. Elev (m)	69.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	69.00	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		54.12	
E.G. Slope (m/m)	0.007270	Area (m2)		54.12	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.44	Avg. Vel. (m/s)		1.44	
Max Chl Dpth (m)	0.51	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	912.7	Conv. (m3/s)		912.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.40	
Min Ch El (m)	68.49	Shear (N/m2)		25.66	
Alpha	1.00	Stream Power (N/m s)		36.89	
Frctn Loss (m)	0.33	Cum Volume (1000 m3)		95.97	
C & E Loss (m)	0.00	Cum SA (1000 m2)		218.22	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1570.66 Profile: PF 1

E.G. Elev (m)	68.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	68.67	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		56.96	
E.G. Slope (m/m)	0.006139	Area (m2)		56.96	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.37	Avg. Vel. (m/s)		1.37	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	993.2	Conv. (m3/s)		993.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.56	
Min Ch El (m)	68.20	Shear (N/m2)		22.78	
Alpha	1.00	Stream Power (N/m s)		31.12	
Frctn Loss (m)	0.27	Cum Volume (1000 m3)		93.19	
C & E Loss (m)	0.00	Cum SA (1000 m2)		210.72	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1520.66 Profile: PF 1

E.G. Elev (m)	68.49	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	68.41	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		61.19	
E.G. Slope (m/m)	0.004838	Area (m2)		61.19	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.27	Avg. Vel. (m/s)		1.27	
Max Chl Dpth (m)	0.48	Hydr. Depth (m)		0.41	
Conv. Total (m3/s)	1118.8	Conv. (m3/s)		1118.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.63	
Min Ch El (m)	67.93	Shear (N/m2)		19.27	
Alpha	1.00	Stream Power (N/m s)		24.51	
Frctn Loss (m)	0.25	Cum Volume (1000 m3)		90.24	
C & E Loss (m)	0.00	Cum SA (1000 m2)		203.22	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1470.66 Profile: PF 1

E.G. Elev (m)	68.25	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	68.16	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		60.38	
E.G. Slope (m/m)	0.005062	Area (m2)		60.38	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.29	Avg. Vel. (m/s)		1.29	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	1093.7	Conv. (m3/s)		1093.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.75	
Min Ch El (m)	67.73	Shear (N/m2)		19.89	
Alpha	1.00	Stream Power (N/m s)		25.63	
Frctn Loss (m)	0.27	Cum Volume (1000 m3)		87.20	
C & E Loss (m)	0.00	Cum SA (1000 m2)		195.72	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1420.66 Profile: PF 1

E.G. Elev (m)	67.97	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	67.88	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		57.81	
E.G. Slope (m/m)	0.005857	Area (m2)		57.81	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1420.66 Profile: PF 1 (Continued)

Top Width (m)	150.00	Top Width (m)		150.00
Vel Total (m/s)	1.35	Avg. Vel. (m/s)		1.35
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.39
Conv. Total (m3/s)	1016.9	Conv. (m3/s)		1016.9
Length Wtd. (m)	50.00	Wetted Per. (m)		150.80
Min Ch El (m)	67.46	Shear (N/m2)		22.02
Alpha	1.00	Stream Power (N/m s)		29.64
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		84.25
C & E Loss (m)	0.00	Cum SA (1000 m2)		188.22

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1370.66 Profile: PF 1

E.G. Elev (m)	67.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	67.57	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		56.49	
E.G. Slope (m/m)	0.006323	Area (m2)		56.49	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.38	Avg. Vel. (m/s)		1.38	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	978.7	Conv. (m3/s)		978.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.78	
Min Ch El (m)	67.13	Shear (N/m2)		23.23	
Alpha	1.00	Stream Power (N/m s)		32.00	
Frctn Loss (m)	0.30	Cum Volume (1000 m3)		81.39	
C & E Loss (m)	0.00	Cum SA (1000 m2)		180.72	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1320.66 Profile: PF 1

E.G. Elev (m)	67.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	67.28	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		58.31	
E.G. Slope (m/m)	0.005690	Area (m2)		58.31	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.33	Avg. Vel. (m/s)		1.33	
Max Chl Dpth (m)	0.46	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	1031.7	Conv. (m3/s)		1031.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.76	
Min Ch El (m)	66.82	Shear (N/m2)		21.58	
Alpha	1.00	Stream Power (N/m s)		28.80	
Frctn Loss (m)	0.27	Cum Volume (1000 m3)		78.52	
C & E Loss (m)	0.00	Cum SA (1000 m2)		173.22	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1270.66 Profile: PF 1

E.G. Elev (m)	67.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	67.01	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		60.27	
E.G. Slope (m/m)	0.005092	Area (m2)		60.27	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.29	Avg. Vel. (m/s)		1.29	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	1090.5	Conv. (m3/s)		1090.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.67	
Min Ch El (m)	66.52	Shear (N/m2)		19.97	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1270.66 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		25.79	
Frctn Loss (m)	0.36	Cum Volume (1000 m3)		75.55	
C & E Loss (m)	0.01	Cum SA (1000 m2)		165.72	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1220.66 Profile: PF 1

E.G. Elev (m)	66.73	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.030	
W.S. Elev (m)	66.60	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	66.58	Flow Area (m2)		47.72	
E.G. Slope (m/m)	0.010852	Area (m2)		47.72	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	147.92	Top Width (m)		147.92	
Vel Total (m/s)	1.63	Avg. Vel. (m/s)		1.63	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	747.0	Conv. (m3/s)		747.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		148.29	
Min Ch El (m)	66.18	Shear (N/m2)		34.25	
Alpha	1.00	Stream Power (N/m s)		55.85	
Frctn Loss (m)	0.35	Cum Volume (1000 m3)		72.86	
C & E Loss (m)	0.02	Cum SA (1000 m2)		158.27	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1170.66 Profile: PF 1

E.G. Elev (m)	66.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	66.28	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		60.95	
E.G. Slope (m/m)	0.004899	Area (m2)		60.95	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.28	Avg. Vel. (m/s)		1.28	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)		0.41	
Conv. Total (m3/s)	1111.8	Conv. (m3/s)		1111.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.57	
Min Ch El (m)	65.79	Shear (N/m2)		19.45	
Alpha	1.00	Stream Power (N/m s)		24.83	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		70.14	
C & E Loss (m)	0.01	Cum SA (1000 m2)		150.82	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1120.66 Profile: PF 1

E.G. Elev (m)	66.16	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	66.09	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		68.36	
E.G. Slope (m/m)	0.003347	Area (m2)		68.36	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.14	Avg. Vel. (m/s)		1.14	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.46	
Conv. Total (m3/s)	1345.1	Conv. (m3/s)		1345.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.71	
Min Ch El (m)	65.53	Shear (N/m2)		14.89	
Alpha	1.00	Stream Power (N/m s)		16.95	
Frctn Loss (m)	0.22	Cum Volume (1000 m3)		66.91	
C & E Loss (m)	0.00	Cum SA (1000 m2)		143.32	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1070.66 Profile: PF 1

E.G. Elev (m)	65.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	65.84	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		56.18	
E.G. Slope (m/m)	0.006121	Area (m2)		56.18	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	144.71	Top Width (m)		144.71	
Vel Total (m/s)	1.39	Avg. Vel. (m/s)		1.39	
Max Chl Dpth (m)	0.54	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	994.7	Conv. (m3/s)		994.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		145.10	
Min Ch El (m)	65.30	Shear (N/m2)		23.24	
Alpha	1.00	Stream Power (N/m s)		32.19	
Frctn Loss (m)	0.29	Cum Volume (1000 m3)		63.79	
C & E Loss (m)	0.00	Cum SA (1000 m2)		135.96	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 1020.66 Profile: PF 1

E.G. Elev (m)	65.65	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	65.56	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		59.31	
E.G. Slope (m/m)	0.005348	Area (m2)		59.31	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.58	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	1064.1	Conv. (m3/s)		1064.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.17	
Min Ch El (m)	64.98	Shear (N/m2)		20.71	
Alpha	1.00	Stream Power (N/m s)		27.18	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)		60.91	
C & E Loss (m)	0.00	Cum SA (1000 m2)		128.59	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 970.66 Profile: PF 1

E.G. Elev (m)	65.33	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.030	
W.S. Elev (m)	65.19	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		48.19	
E.G. Slope (m/m)	0.007651	Area (m2)		48.19	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	116.50	Top Width (m)		116.50	
Vel Total (m/s)	1.61	Avg. Vel. (m/s)		1.61	
Max Chl Dpth (m)	0.59	Hydr. Depth (m)		0.41	
Conv. Total (m3/s)	889.7	Conv. (m3/s)		889.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		116.90	
Min Ch El (m)	64.60	Shear (N/m2)		30.93	
Alpha	1.00	Stream Power (N/m s)		49.95	
Frctn Loss (m)	0.38	Cum Volume (1000 m3)		58.22	
C & E Loss (m)	0.00	Cum SA (1000 m2)		121.93	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 920.66 Profile: PF 1

E.G. Elev (m)	64.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.030	
W.S. Elev (m)	64.79	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		44.54	
E.G. Slope (m/m)	0.007605	Area (m2)		44.54	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 920.66 Profile: PF 1 (Continued)

Top Width (m)	95.07	Top Width (m)	95.07
Vel Total (m/s)	1.75	Avg. Vel. (m/s)	1.75
Max Chl Dpth (m)	0.65	Hydr. Depth (m)	0.47
Conv. Total (m3/s)	892.3	Conv. (m3/s)	892.3
Length Wtd. (m)	50.00	Wetted Per. (m)	95.61
Min Ch El (m)	64.14	Shear (N/m2)	34.75
Alpha	1.00	Stream Power (N/m s)	60.70
Frctn Loss (m)	0.45	Cum Volume (1000 m3)	55.90
C & E Loss (m)	0.01	Cum SA (1000 m2)	116.64

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 870.66 Profile: PF 1

E.G. Elev (m)	64.48	Element	Left OB	Channel	Right OB
Vel Head (m)	0.21	Wt. n-Val.		0.030	
W.S. Elev (m)	64.27	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	64.26	Flow Area (m2)		38.28	
E.G. Slope (m/m)	0.011054	Area (m2)		38.28	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	85.97	Top Width (m)		85.97	
Vel Total (m/s)	2.03	Avg. Vel. (m/s)		2.03	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	740.2	Conv. (m3/s)		740.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		86.64	
Min Ch El (m)	63.60	Shear (N/m2)		47.89	
Alpha	1.00	Stream Power (N/m s)		97.37	
Frctn Loss (m)	0.49	Cum Volume (1000 m3)		53.83	
C & E Loss (m)	0.01	Cum SA (1000 m2)		112.11	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 820.66 Profile: PF 1

E.G. Elev (m)	63.99	Element	Left OB	Channel	Right OB
Vel Head (m)	0.18	Wt. n-Val.		0.030	
W.S. Elev (m)	63.81	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	63.76	Flow Area (m2)		41.56	
E.G. Slope (m/m)	0.008615	Area (m2)		41.56	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	87.54	Top Width (m)		87.54	
Vel Total (m/s)	1.87	Avg. Vel. (m/s)		1.87	
Max Chl Dpth (m)	0.73	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	838.4	Conv. (m3/s)		838.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		88.27	
Min Ch El (m)	63.08	Shear (N/m2)		39.78	
Alpha	1.00	Stream Power (N/m s)		74.48	
Frctn Loss (m)	0.45	Cum Volume (1000 m3)		51.83	
C & E Loss (m)	0.00	Cum SA (1000 m2)		107.77	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 770.66 Profile: PF 1

E.G. Elev (m)	63.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.030	
W.S. Elev (m)	63.37	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	63.32	Flow Area (m2)		43.16	
E.G. Slope (m/m)	0.009544	Area (m2)		43.16	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	104.02	Top Width (m)		104.02	
Vel Total (m/s)	1.80	Avg. Vel. (m/s)		1.80	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.41	
Conv. Total (m3/s)	796.6	Conv. (m3/s)		796.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		104.74	
Min Ch El (m)	62.65	Shear (N/m2)		38.57	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 770.66 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		69.54	
Frctn Loss (m)	0.44	Cum Volume (1000 m3)		49.72	
C & E Loss (m)	0.02	Cum SA (1000 m2)		102.98	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 720.66 Profile: PF 1

E.G. Elev (m)	63.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	62.96	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	62.91	Flow Area (m2)		52.29	
E.G. Slope (m/m)	0.008188	Area (m2)		52.29	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.49	Avg. Vel. (m/s)		1.49	
Max Chl Dpth (m)	0.69	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	860.0	Conv. (m3/s)		860.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.87	
Min Ch El (m)	62.27	Shear (N/m2)		27.83	
Alpha	1.00	Stream Power (N/m s)		41.42	
Frctn Loss (m)	0.33	Cum Volume (1000 m3)		47.33	
C & E Loss (m)	0.01	Cum SA (1000 m2)		96.63	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 670.66 Profile: PF 1

E.G. Elev (m)	62.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	62.65	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	62.55	Flow Area (m2)		59.03	
E.G. Slope (m/m)	0.005466	Area (m2)		59.03	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.32	Avg. Vel. (m/s)		1.32	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	1052.5	Conv. (m3/s)		1052.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.89	
Min Ch El (m)	62.03	Shear (N/m2)		20.97	
Alpha	1.00	Stream Power (N/m s)		27.65	
Frctn Loss (m)	0.27	Cum Volume (1000 m3)		44.55	
C & E Loss (m)	0.00	Cum SA (1000 m2)		89.13	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 620.66 Profile: PF 1

E.G. Elev (m)	62.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	62.38	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		59.32	
E.G. Slope (m/m)	0.005376	Area (m2)		59.32	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	1061.4	Conv. (m3/s)		1061.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.84	
Min Ch El (m)	61.83	Shear (N/m2)		20.73	
Alpha	1.00	Stream Power (N/m s)		27.20	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)		41.59	
C & E Loss (m)	0.01	Cum SA (1000 m2)		81.63	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 570.66 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	62.31				
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	62.27	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		84.00	
E.G. Slope (m/m)	0.001691	Area (m2)		84.00	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.93	Avg. Vel. (m/s)		0.93	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	1892.5	Conv. (m3/s)		1892.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		151.16	
Min Ch El (m)	61.51	Shear (N/m2)		9.21	
Alpha	1.00	Stream Power (N/m s)		8.54	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)		38.00	
C & E Loss (m)	0.01	Cum SA (1000 m2)		74.13	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 520.66 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	62.26				
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	62.24	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		116.15	
E.G. Slope (m/m)	0.000576	Area (m2)		116.15	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.67	Avg. Vel. (m/s)		0.67	
Max Chl Dpth (m)	1.04	Hydr. Depth (m)		0.77	
Conv. Total (m3/s)	3241.2	Conv. (m3/s)		3241.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		151.64	
Min Ch El (m)	61.20	Shear (N/m2)		4.33	
Alpha	1.00	Stream Power (N/m s)		2.90	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)		33.00	
C & E Loss (m)	0.00	Cum SA (1000 m2)		66.63	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 470.66 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	62.23				
Vel Head (m)	0.02	Wt. n-Val.		0.030	
W.S. Elev (m)	62.21	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		122.30	
E.G. Slope (m/m)	0.000486	Area (m2)		122.30	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.64	Avg. Vel. (m/s)		0.64	
Max Chl Dpth (m)	1.25	Hydr. Depth (m)		0.82	
Conv. Total (m3/s)	3530.7	Conv. (m3/s)		3530.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		151.74	
Min Ch El (m)	60.97	Shear (N/m2)		3.84	
Alpha	1.00	Stream Power (N/m s)		2.44	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)		27.04	
C & E Loss (m)	0.00	Cum SA (1000 m2)		59.13	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 420.66 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	62.20				
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	62.17	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		100.57	
E.G. Slope (m/m)	0.000930	Area (m2)		100.57	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 420.66 Profile: PF 1 (Continued)

Top Width (m)	150.00	Top Width (m)	150.00
Vel Total (m/s)	0.77	Avg. Vel. (m/s)	0.77
Max Chl Dpth (m)	1.32	Hydr. Depth (m)	0.67
Conv. Total (m3/s)	2551.6	Conv. (m3/s)	2551.6
Length Wtd. (m)	50.00	Wetted Per. (m)	151.46
Min Ch El (m)	60.85	Shear (N/m2)	6.06
Alpha	1.00	Stream Power (N/m s)	4.69
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	21.47
C & E Loss (m)	0.00	Cum SA (1000 m2)	51.63

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 370.66 Profile: PF 1

E.G. Elev (m)	62.13	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	62.07	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		73.78	
E.G. Slope (m/m)	0.002093	Area (m2)		73.78	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	127.05	Top Width (m)		127.05	
Vel Total (m/s)	1.05	Avg. Vel. (m/s)		1.05	
Max Chl Dpth (m)	1.20	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	1701.2	Conv. (m3/s)		1701.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		128.26	
Min Ch El (m)	60.88	Shear (N/m2)		11.81	
Alpha	1.00	Stream Power (N/m s)		12.45	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		17.11	
C & E Loss (m)	0.00	Cum SA (1000 m2)		44.71	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 320.66 Profile: PF 1

E.G. Elev (m)	61.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	61.86	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		54.44	
E.G. Slope (m/m)	0.005815	Area (m2)		54.44	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	128.08	Top Width (m)		128.08	
Vel Total (m/s)	1.43	Avg. Vel. (m/s)		1.43	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.43	
Conv. Total (m3/s)	1020.5	Conv. (m3/s)		1020.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		129.08	
Min Ch El (m)	60.87	Shear (N/m2)		24.05	
Alpha	1.00	Stream Power (N/m s)		34.38	
Frctn Loss (m)	0.39	Cum Volume (1000 m3)		13.90	
C & E Loss (m)	0.00	Cum SA (1000 m2)		38.33	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 270.66 Profile: PF 1

E.G. Elev (m)	61.57	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.030	
W.S. Elev (m)	61.44	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	61.42	Flow Area (m2)		47.98	
E.G. Slope (m/m)	0.010917	Area (m2)		47.98	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.62	Avg. Vel. (m/s)		1.62	
Max Chl Dpth (m)	0.88	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	744.8	Conv. (m3/s)		744.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.98	
Min Ch El (m)	60.55	Shear (N/m2)		34.02	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 270.66 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		55.18	
Frctn Loss (m)	0.46	Cum Volume (1000 m3)		11.34	
C & E Loss (m)	0.00	Cum SA (1000 m2)		31.38	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 220.66 Profile: PF 1

E.G. Elev (m)	61.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.030	
W.S. Elev (m)	60.96	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	60.88	Flow Area (m2)		45.42	
E.G. Slope (m/m)	0.007847	Area (m2)		45.42	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	101.76	Top Width (m)		101.76	
Vel Total (m/s)	1.71	Avg. Vel. (m/s)		1.71	
Max Chl Dpth (m)	0.99	Hydr. Depth (m)		0.45	
Conv. Total (m3/s)	878.5	Conv. (m3/s)		878.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		102.76	
Min Ch El (m)	59.97	Shear (N/m2)		34.01	
Alpha	1.00	Stream Power (N/m s)		58.27	
Frctn Loss (m)	0.47	Cum Volume (1000 m3)		9.01	
C & E Loss (m)	0.01	Cum SA (1000 m2)		25.08	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 170.66 Profile: PF 1

E.G. Elev (m)	60.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.24	Wt. n-Val.		0.030	
W.S. Elev (m)	60.39	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	60.39	Flow Area (m2)		35.96	
E.G. Slope (m/m)	0.011557	Area (m2)		35.96	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	75.79	Top Width (m)		75.79	
Vel Total (m/s)	2.16	Avg. Vel. (m/s)		2.16	
Max Chl Dpth (m)	0.82	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	723.9	Conv. (m3/s)		723.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		76.62	
Min Ch El (m)	59.57	Shear (N/m2)		53.19	
Alpha	1.00	Stream Power (N/m s)		115.10	
Frctn Loss (m)	0.76	Cum Volume (1000 m3)		6.97	
C & E Loss (m)	0.01	Cum SA (1000 m2)		20.64	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 120.66 Profile: PF 1

E.G. Elev (m)	59.86	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.030	
W.S. Elev (m)	59.66	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.70	Flow Area (m2)		39.52	
E.G. Slope (m/m)	0.020816	Area (m2)		39.52	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.97	Avg. Vel. (m/s)		1.97	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	539.4	Conv. (m3/s)		539.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.83	
Min Ch El (m)	59.19	Shear (N/m2)		53.48	
Alpha	1.00	Stream Power (N/m s)		105.32	
Frctn Loss (m)	0.41	Cum Volume (1000 m3)		5.09	
C & E Loss (m)	0.02	Cum SA (1000 m2)		15.00	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 70.66 Profile: PF 1

E.G. Elev (m)	59.36	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	59.27	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	59.18	Flow Area (m2)		59.28	
E.G. Slope (m/m)	0.005381	Area (m2)		59.28	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.31	Avg. Vel. (m/s)		1.31	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)		0.40	
Conv. Total (m3/s)	1060.8	Conv. (m3/s)		1060.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.72	
Min Ch El (m)	58.82	Shear (N/m2)		20.76	
Alpha	1.00	Stream Power (N/m s)		27.25	
Frctn Loss (m)	0.40	Cum Volume (1000 m3)		2.62	
C & E Loss (m)	0.01	Cum SA (1000 m2)		7.50	

Plan: Plan River_Marana_Cas River_Marana_Cas RS: 20.66 Profile: PF 1

E.G. Elev (m)	58.96	Element	Left OB	Channel	Right OB
Vel Head (m)	0.15	Wt. n-Val.		0.030	
W.S. Elev (m)	58.81	Reach Len. (m)	0.00	0.00	0.00
Crit W.S. (m)	58.80	Flow Area (m2)		45.35	
E.G. Slope (m/m)	0.013082	Area (m2)		45.35	
Q Total (m3/s)	77.82	Flow (m3/s)		77.82	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.72	Avg. Vel. (m/s)		1.72	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)		0.30	
Conv. Total (m3/s)	680.4	Conv. (m3/s)		680.4	
Length Wtd. (m)	0.00	Wetted Per. (m)		150.22	
Min Ch El (m)	58.36	Shear (N/m2)		38.73	
Alpha	1.00	Stream Power (N/m s)		66.46	
Frctn Loss (m)	0.00	Cum Volume (1000 m3)			
C & E Loss (m)	0.02	Cum SA (1000 m2)			

Plan: Plan River_Pidocchios River_Pidocchios RS: 3005.91 Profile: PF 1

E.G. Elev (m)	94.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.030	
W.S. Elev (m)	94.76	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	94.74	Flow Area (m2)		25.31	
E.G. Slope (m/m)	0.010559	Area (m2)		25.31	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	78.86	Top Width (m)		78.86	
Vel Total (m/s)	1.61	Avg. Vel. (m/s)		1.61	
Max Chl Dpth (m)	0.52	Hydr. Depth (m)		0.32	
Conv. Total (m3/s)	395.4	Conv. (m3/s)		395.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		78.87	
Min Ch El (m)	94.24	Shear (N/m2)		33.23	
Alpha	1.00	Stream Power (N/m s)		53.34	
Frctn Loss (m)	0.43	Cum Volume (1000 m3)		104.52	
C & E Loss (m)	0.01	Cum SA (1000 m2)		302.74	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2955.91 Profile: PF 1

E.G. Elev (m)	94.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	94.36	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		29.55	
E.G. Slope (m/m)	0.007097	Area (m2)		29.55	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2955.91 Profile: PF 1 (Continued)

Top Width (m)	86.21	Top Width (m)	86.21
Vel Total (m/s)	1.38	Avg. Vel. (m/s)	1.38
Max Chl Dpth (m)	0.53	Hydr. Depth (m)	0.34
Conv. Total (m3/s)	482.3	Conv. (m3/s)	482.3
Length Wtd. (m)	50.00	Wetted Per. (m)	86.23
Min Ch El (m)	93.83	Shear (N/m2)	23.85
Alpha	1.00	Stream Power (N/m s)	32.80
Frctn Loss (m)	0.40	Cum Volume (1000 m3)	103.15
C & E Loss (m)	0.00	Cum SA (1000 m2)	298.61

Plan: Plan River_Pidocchios River_Pidocchios RS: 2905.91 Profile: PF 1

E.G. Elev (m)	94.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	93.93	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		27.29	
E.G. Slope (m/m)	0.009313	Area (m2)		27.29	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	86.66	Top Width (m)		86.66	
Vel Total (m/s)	1.49	Avg. Vel. (m/s)		1.49	
Max Chl Dpth (m)	0.44	Hydr. Depth (m)		0.31	
Conv. Total (m3/s)	421.0	Conv. (m3/s)		421.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		86.67	
Min Ch El (m)	93.49	Shear (N/m2)		28.76	
Alpha	1.00	Stream Power (N/m s)		42.82	
Frctn Loss (m)	0.53	Cum Volume (1000 m3)		101.73	
C & E Loss (m)	0.00	Cum SA (1000 m2)		294.29	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2855.91 Profile: PF 1

E.G. Elev (m)	93.52	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.030	
W.S. Elev (m)	93.37	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	93.36	Flow Area (m2)		24.29	
E.G. Slope (m/m)	0.012143	Area (m2)		24.29	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	79.03	Top Width (m)		79.03	
Vel Total (m/s)	1.67	Avg. Vel. (m/s)		1.67	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.31	
Conv. Total (m3/s)	368.7	Conv. (m3/s)		368.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		79.06	
Min Ch El (m)	92.84	Shear (N/m2)		36.59	
Alpha	1.00	Stream Power (N/m s)		61.19	
Frctn Loss (m)	0.41	Cum Volume (1000 m3)		100.44	
C & E Loss (m)	0.02	Cum SA (1000 m2)		290.15	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2805.91 Profile: PF 1

E.G. Elev (m)	93.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	93.01	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		36.33	
E.G. Slope (m/m)	0.005989	Area (m2)		36.33	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	127.29	Top Width (m)		127.29	
Vel Total (m/s)	1.12	Avg. Vel. (m/s)		1.12	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	525.0	Conv. (m3/s)		525.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		127.30	
Min Ch El (m)	92.40	Shear (N/m2)		16.76	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2805.91 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		18.74	
Frctn Loss (m)	0.32	Cum Volume (1000 m3)		98.93	
C & E Loss (m)	0.00	Cum SA (1000 m2)		284.99	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2755.91 Profile: PF 1

E.G. Elev (m)	92.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	92.68	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	92.61	Flow Area (m2)		34.22	
E.G. Slope (m/m)	0.006923	Area (m2)		34.22	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	122.13	Top Width (m)		122.13	
Vel Total (m/s)	1.19	Avg. Vel. (m/s)		1.19	
Max Chl Dpth (m)	0.63	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	488.3	Conv. (m3/s)		488.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		122.14	
Min Ch El (m)	92.05	Shear (N/m2)		19.02	
Alpha	1.00	Stream Power (N/m s)		22.58	
Frctn Loss (m)	0.43	Cum Volume (1000 m3)		97.16	
C & E Loss (m)	0.00	Cum SA (1000 m2)		278.76	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2705.91 Profile: PF 1

E.G. Elev (m)	92.32	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	92.22	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		28.47	
E.G. Slope (m/m)	0.010724	Area (m2)		28.47	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	107.09	Top Width (m)		107.09	
Vel Total (m/s)	1.43	Avg. Vel. (m/s)		1.43	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)		0.27	
Conv. Total (m3/s)	392.4	Conv. (m3/s)		392.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		107.10	
Min Ch El (m)	91.79	Shear (N/m2)		27.96	
Alpha	1.00	Stream Power (N/m s)		39.90	
Frctn Loss (m)	0.26	Cum Volume (1000 m3)		95.60	
C & E Loss (m)	0.02	Cum SA (1000 m2)		273.03	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2655.91 Profile: PF 1

E.G. Elev (m)	92.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	92.00	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		42.85	
E.G. Slope (m/m)	0.003124	Area (m2)		42.85	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	118.05	Top Width (m)		118.05	
Vel Total (m/s)	0.95	Avg. Vel. (m/s)		0.95	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	726.9	Conv. (m3/s)		726.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		118.05	
Min Ch El (m)	91.43	Shear (N/m2)		11.12	
Alpha	1.00	Stream Power (N/m s)		10.54	
Frctn Loss (m)	0.29	Cum Volume (1000 m3)		93.81	
C & E Loss (m)	0.01	Cum SA (1000 m2)		267.40	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2605.91 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	91.74				
Vel Head (m)	0.12	Wt. n-Val.		0.030	
W.S. Elev (m)	91.62	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	91.62	Flow Area (m2)		26.35	
E.G. Slope (m/m)	0.014650	Area (m2)		26.35	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	111.56	Top Width (m)		111.56	
Vel Total (m/s)	1.54	Avg. Vel. (m/s)		1.54	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.24	
Conv. Total (m3/s)	335.7	Conv. (m3/s)		335.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		111.57	
Min Ch El (m)	91.22	Shear (N/m2)		33.94	
Alpha	1.00	Stream Power (N/m s)		52.32	
Frctn Loss (m)	0.51	Cum Volume (1000 m3)		92.08	
C & E Loss (m)	0.02	Cum SA (1000 m2)		261.66	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2555.91 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	91.13				
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	91.06	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	91.01	Flow Area (m2)		34.90	
E.G. Slope (m/m)	0.007615	Area (m2)		34.90	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	137.65	Top Width (m)		137.65	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)		1.16	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	465.6	Conv. (m3/s)		465.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		137.82	
Min Ch El (m)	90.46	Shear (N/m2)		18.91	
Alpha	1.00	Stream Power (N/m s)		22.01	
Frctn Loss (m)	0.42	Cum Volume (1000 m3)		90.55	
C & E Loss (m)	0.00	Cum SA (1000 m2)		255.43	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2505.91 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	90.71				
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	90.62	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		30.79	
E.G. Slope (m/m)	0.009223	Area (m2)		30.79	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	116.37	Top Width (m)		116.37	
Vel Total (m/s)	1.32	Avg. Vel. (m/s)		1.32	
Max Chl Dpth (m)	0.48	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	423.1	Conv. (m3/s)		423.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		116.38	
Min Ch El (m)	90.14	Shear (N/m2)		23.93	
Alpha	1.00	Stream Power (N/m s)		31.58	
Frctn Loss (m)	0.53	Cum Volume (1000 m3)		88.91	
C & E Loss (m)	0.01	Cum SA (1000 m2)		249.08	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2455.91 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	90.17				
Vel Head (m)	0.19	Wt. n-Val.		0.030	
W.S. Elev (m)	89.98	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	89.98	Flow Area (m2)		21.00	
E.G. Slope (m/m)	0.012254	Area (m2)		21.00	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2455.91 Profile: PF 1 (Continued)

Top Width (m)	55.26	Top Width (m)	55.26
Vel Total (m/s)	1.94	Avg. Vel. (m/s)	1.94
Max Chl Dpth (m)	0.58	Hydr. Depth (m)	0.38
Conv. Total (m3/s)	367.0	Conv. (m3/s)	367.0
Length Wtd. (m)	50.00	Wetted Per. (m)	55.28
Min Ch El (m)	89.40	Shear (N/m2)	45.64
Alpha	1.00	Stream Power (N/m s)	88.33
Frctn Loss (m)	0.15	Cum Volume (1000 m3)	87.61
C & E Loss (m)	0.05	Cum SA (1000 m2)	244.79

Plan: Plan River_Pidocchios River_Pidocchios RS: 2405.91 Profile: PF 1

E.G. Elev (m)	89.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	89.89	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	89.52	Flow Area (m2)		49.10	
E.G. Slope (m/m)	0.001329	Area (m2)		49.10	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	87.35	Top Width (m)		87.35	
Vel Total (m/s)	0.83	Avg. Vel. (m/s)		0.83	
Max Chl Dpth (m)	0.91	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	1114.6	Conv. (m3/s)		1114.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		87.38	
Min Ch El (m)	88.98	Shear (N/m2)		7.32	
Alpha	1.00	Stream Power (N/m s)		6.06	
Frctn Loss (m)	0.11	Cum Volume (1000 m3)		85.86	
C & E Loss (m)	0.00	Cum SA (1000 m2)		241.22	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2355.91 Profile: PF 1

E.G. Elev (m)	89.81	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	89.75	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		37.39	
E.G. Slope (m/m)	0.004363	Area (m2)		37.39	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	107.80	Top Width (m)		107.80	
Vel Total (m/s)	1.09	Avg. Vel. (m/s)		1.09	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	615.1	Conv. (m3/s)		615.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		107.86	
Min Ch El (m)	89.09	Shear (N/m2)		14.83	
Alpha	1.00	Stream Power (N/m s)		16.12	
Frctn Loss (m)	0.35	Cum Volume (1000 m3)		83.70	
C & E Loss (m)	0.01	Cum SA (1000 m2)		236.34	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2305.91 Profile: PF 1

E.G. Elev (m)	89.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.030	
W.S. Elev (m)	89.29	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	89.29	Flow Area (m2)		23.06	
E.G. Slope (m/m)	0.013225	Area (m2)		23.06	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	74.01	Top Width (m)		74.01	
Vel Total (m/s)	1.76	Avg. Vel. (m/s)		1.76	
Max Chl Dpth (m)	0.60	Hydr. Depth (m)		0.31	
Conv. Total (m3/s)	353.3	Conv. (m3/s)		353.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		74.03	
Min Ch El (m)	88.69	Shear (N/m2)		40.41	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2305.91 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		71.19	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)		82.19	
C & E Loss (m)	0.04	Cum SA (1000 m2)		231.80	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2255.91 Profile: PF 1

E.G. Elev (m)	89.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	89.12	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	88.89	Flow Area (m2)		55.08	
E.G. Slope (m/m)	0.001759	Area (m2)		55.08	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	143.51	Top Width (m)		143.51	
Vel Total (m/s)	0.74	Avg. Vel. (m/s)		0.74	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.38	
Conv. Total (m3/s)	968.9	Conv. (m3/s)		968.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		143.67	
Min Ch El (m)	88.34	Shear (N/m2)		6.61	
Alpha	1.00	Stream Power (N/m s)		4.88	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)		80.23	
C & E Loss (m)	0.01	Cum SA (1000 m2)		226.36	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2205.91 Profile: PF 1

E.G. Elev (m)	89.12	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	89.11	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		100.10	
E.G. Slope (m/m)	0.000255	Area (m2)		100.10	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	0.41	Avg. Vel. (m/s)		0.41	
Max Chl Dpth (m)	1.13	Hydr. Depth (m)		0.67	
Conv. Total (m3/s)	2542.5	Conv. (m3/s)		2542.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.49	
Min Ch El (m)	87.98	Shear (N/m2)		1.67	
Alpha	1.00	Stream Power (N/m s)		0.68	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)		76.35	
C & E Loss (m)	0.00	Cum SA (1000 m2)		219.02	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2155.91 Profile: PF 1

E.G. Elev (m)	89.08	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	89.04	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		44.06	
E.G. Slope (m/m)	0.002903	Area (m2)		44.06	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	119.19	Top Width (m)		119.19	
Vel Total (m/s)	0.92	Avg. Vel. (m/s)		0.92	
Max Chl Dpth (m)	0.56	Hydr. Depth (m)		0.37	
Conv. Total (m3/s)	754.1	Conv. (m3/s)		754.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		119.77	
Min Ch El (m)	88.48	Shear (N/m2)		10.47	
Alpha	1.00	Stream Power (N/m s)		9.66	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)		72.75	
C & E Loss (m)	0.01	Cum SA (1000 m2)		212.29	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2105.91 Profile: PF 1

E.G. Elev (m)	89.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	89.02	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		85.64	
E.G. Slope (m/m)	0.000362	Area (m2)		85.64	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	131.50	Top Width (m)		131.50	
Vel Total (m/s)	0.47	Avg. Vel. (m/s)		0.47	
Max Chl Dpth (m)	0.90	Hydr. Depth (m)		0.65	
Conv. Total (m3/s)	2135.5	Conv. (m3/s)		2135.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		132.37	
Min Ch El (m)	88.13	Shear (N/m2)		2.30	
Alpha	1.00	Stream Power (N/m s)		1.09	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		69.51	
C & E Loss (m)	0.00	Cum SA (1000 m2)		206.02	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2055.91 Profile: PF 1

E.G. Elev (m)	89.02	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	89.01	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		110.37	
E.G. Slope (m/m)	0.000174	Area (m2)		110.37	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	143.50	Top Width (m)		143.50	
Vel Total (m/s)	0.37	Avg. Vel. (m/s)		0.37	
Max Chl Dpth (m)	1.06	Hydr. Depth (m)		0.77	
Conv. Total (m3/s)	3078.3	Conv. (m3/s)		3078.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		144.22	
Min Ch El (m)	87.96	Shear (N/m2)		1.31	
Alpha	1.00	Stream Power (N/m s)		0.48	
Frctn Loss (m)	0.01	Cum Volume (1000 m3)		64.61	
C & E Loss (m)	0.00	Cum SA (1000 m2)		199.15	

Plan: Plan River_Pidocchios River_Pidocchios RS: 2005.91 Profile: PF 1

E.G. Elev (m)	89.01	Element	Left OB	Channel	Right OB
Vel Head (m)	0.01	Wt. n-Val.		0.030	
W.S. Elev (m)	89.00	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		89.75	
E.G. Slope (m/m)	0.000321	Area (m2)		89.75	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	135.94	Top Width (m)		135.94	
Vel Total (m/s)	0.45	Avg. Vel. (m/s)		0.45	
Max Chl Dpth (m)	1.05	Hydr. Depth (m)		0.66	
Conv. Total (m3/s)	2266.6	Conv. (m3/s)		2266.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		136.11	
Min Ch El (m)	87.95	Shear (N/m2)		2.08	
Alpha	1.00	Stream Power (N/m s)		0.94	
Frctn Loss (m)	0.03	Cum Volume (1000 m3)		59.60	
C & E Loss (m)	0.00	Cum SA (1000 m2)		192.16	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1955.91 Profile: PF 1

E.G. Elev (m)	88.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	88.94	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		47.09	
E.G. Slope (m/m)	0.001683	Area (m2)		47.09	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1955.91 Profile: PF 1 (Continued)

Top Width (m)	93.95	Top Width (m)		93.95	
Vel Total (m/s)	0.86	Avg. Vel. (m/s)		0.86	
Max Chl Dpth (m)	0.80	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	990.4	Conv. (m3/s)		990.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		93.97	
Min Ch El (m)	88.13	Shear (N/m2)		8.27	
Alpha	1.00	Stream Power (N/m s)		7.14	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		56.18	
C & E Loss (m)	0.00	Cum SA (1000 m2)		186.41	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1905.91 Profile: PF 1

E.G. Elev (m)	88.89	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	88.85	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		45.08	
E.G. Slope (m/m)	0.001805	Area (m2)		45.08	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	88.69	Top Width (m)		88.69	
Vel Total (m/s)	0.90	Avg. Vel. (m/s)		0.90	
Max Chl Dpth (m)	0.75	Hydr. Depth (m)		0.51	
Conv. Total (m3/s)	956.2	Conv. (m3/s)		956.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		88.82	
Min Ch El (m)	88.09	Shear (N/m2)		8.99	
Alpha	1.00	Stream Power (N/m s)		8.10	
Frctn Loss (m)	0.19	Cum Volume (1000 m3)		53.88	
C & E Loss (m)	0.01	Cum SA (1000 m2)		181.85	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1855.91 Profile: PF 1

E.G. Elev (m)	88.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.030	
W.S. Elev (m)	88.56	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	88.54	Flow Area (m2)		25.02	
E.G. Slope (m/m)	0.011496	Area (m2)		25.02	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	81.52	Top Width (m)		81.52	
Vel Total (m/s)	1.62	Avg. Vel. (m/s)		1.62	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.31	
Conv. Total (m3/s)	378.9	Conv. (m3/s)		378.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		81.66	
Min Ch El (m)	88.09	Shear (N/m2)		34.54	
Alpha	1.00	Stream Power (N/m s)		56.09	
Frctn Loss (m)	0.62	Cum Volume (1000 m3)		52.13	
C & E Loss (m)	0.00	Cum SA (1000 m2)		177.59	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1805.91 Profile: PF 1

E.G. Elev (m)	88.07	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.030	
W.S. Elev (m)	87.93	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	87.93	Flow Area (m2)		24.19	
E.G. Slope (m/m)	0.013559	Area (m2)		24.19	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	84.97	Top Width (m)		84.97	
Vel Total (m/s)	1.68	Avg. Vel. (m/s)		1.68	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	348.9	Conv. (m3/s)		348.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		84.98	
Min Ch El (m)	87.51	Shear (N/m2)		37.85	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1805.91 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)	63.57
Frctn Loss (m)	1.13	Cum Volume (1000 m3)	50.90
C & E Loss (m)	0.02	Cum SA (1000 m2)	173.43

Plan: Plan River_Pidocchios River_Pidocchios RS: 1755.91 Profile: PF 1

E.G. Elev (m)	86.93	Element	Left OB	Channel	Right OB
Vel Head (m)	0.31	Wt. n-Val.		0.030	
W.S. Elev (m)	86.61	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	86.71	Flow Area (m2)		16.38	
E.G. Slope (m/m)	0.044560	Area (m2)		16.38	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	78.30	Top Width (m)		78.30	
Vel Total (m/s)	2.48	Avg. Vel. (m/s)		2.48	
Max Chl Dpth (m)	0.28	Hydr. Depth (m)		0.21	
Conv. Total (m3/s)	192.5	Conv. (m3/s)		192.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		78.31	
Min Ch El (m)	86.33	Shear (N/m2)		91.43	
Alpha	1.00	Stream Power (N/m s)		226.73	
Frctn Loss (m)	1.15	Cum Volume (1000 m3)		49.88	
C & E Loss (m)	0.06	Cum SA (1000 m2)		169.35	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1705.91 Profile: PF 1

E.G. Elev (m)	85.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.16	Wt. n-Val.		0.030	
W.S. Elev (m)	85.59	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	85.61	Flow Area (m2)		23.21	
E.G. Slope (m/m)	0.018352	Area (m2)		23.21	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	96.13	Top Width (m)		96.13	
Vel Total (m/s)	1.75	Avg. Vel. (m/s)		1.75	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.24	
Conv. Total (m3/s)	299.9	Conv. (m3/s)		299.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		96.13	
Min Ch El (m)	85.19	Shear (N/m2)		43.45	
Alpha	1.00	Stream Power (N/m s)		76.06	
Frctn Loss (m)	0.52	Cum Volume (1000 m3)		48.89	
C & E Loss (m)	0.01	Cum SA (1000 m2)		164.99	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1655.91 Profile: PF 1

E.G. Elev (m)	85.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	85.03	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	84.97	Flow Area (m2)		31.52	
E.G. Slope (m/m)	0.007963	Area (m2)		31.52	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	110.47	Top Width (m)		110.47	
Vel Total (m/s)	1.29	Avg. Vel. (m/s)		1.29	
Max Chl Dpth (m)	0.42	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	455.3	Conv. (m3/s)		455.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		110.48	
Min Ch El (m)	84.60	Shear (N/m2)		22.28	
Alpha	1.00	Stream Power (N/m s)		28.72	
Frctn Loss (m)	0.35	Cum Volume (1000 m3)		47.52	
C & E Loss (m)	0.01	Cum SA (1000 m2)		159.82	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1605.91 Profile: PF 1

E.G. Elev (m)	84.75	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	84.69	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		35.92	
E.G. Slope (m/m)	0.006328	Area (m2)		35.92	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	128.90	Top Width (m)		128.90	
Vel Total (m/s)	1.13	Avg. Vel. (m/s)		1.13	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	510.7	Conv. (m3/s)		510.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		128.91	
Min Ch El (m)	84.24	Shear (N/m2)		17.29	
Alpha	1.00	Stream Power (N/m s)		19.56	
Frctn Loss (m)	0.34	Cum Volume (1000 m3)		45.84	
C & E Loss (m)	0.00	Cum SA (1000 m2)		153.84	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1555.91 Profile: PF 1

E.G. Elev (m)	84.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	84.34	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		35.32	
E.G. Slope (m/m)	0.007475	Area (m2)		35.32	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	140.02	Top Width (m)		140.02	
Vel Total (m/s)	1.15	Avg. Vel. (m/s)		1.15	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	469.9	Conv. (m3/s)		469.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		140.02	
Min Ch El (m)	83.94	Shear (N/m2)		18.49	
Alpha	1.00	Stream Power (N/m s)		21.27	
Frctn Loss (m)	0.48	Cum Volume (1000 m3)		44.06	
C & E Loss (m)	0.00	Cum SA (1000 m2)		147.12	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1505.91 Profile: PF 1

E.G. Elev (m)	83.92	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	83.83	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	83.82	Flow Area (m2)		29.77	
E.G. Slope (m/m)	0.012839	Area (m2)		29.77	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	137.04	Top Width (m)		137.04	
Vel Total (m/s)	1.36	Avg. Vel. (m/s)		1.36	
Max Chl Dpth (m)	0.34	Hydr. Depth (m)		0.22	
Conv. Total (m3/s)	358.6	Conv. (m3/s)		358.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		137.04	
Min Ch El (m)	83.49	Shear (N/m2)		27.35	
Alpha	1.00	Stream Power (N/m s)		37.33	
Frctn Loss (m)	0.51	Cum Volume (1000 m3)		42.43	
C & E Loss (m)	0.01	Cum SA (1000 m2)		140.19	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1455.91 Profile: PF 1

E.G. Elev (m)	83.41	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	83.33	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		33.24	
E.G. Slope (m/m)	0.008361	Area (m2)		33.24	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1455.91 Profile: PF 1 (Continued)

Top Width (m)	130.70	Top Width (m)	130.70
Vel Total (m/s)	1.22	Avg. Vel. (m/s)	1.22
Max Chl Dpth (m)	0.34	Hydr. Depth (m)	0.25
Conv. Total (m3/s)	444.3	Conv. (m3/s)	444.3
Length Wtd. (m)	50.00	Wetted Per. (m)	130.93
Min Ch El (m)	82.99	Shear (N/m2)	20.82
Alpha	1.00	Stream Power (N/m s)	25.44
Frctn Loss (m)	0.39	Cum Volume (1000 m3)	40.86
C & E Loss (m)	0.00	Cum SA (1000 m2)	133.50

Plan: Plan River_Pidocchios River_Pidocchios RS: 1405.91 Profile: PF 1

E.G. Elev (m)	83.02	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	82.95	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		35.03	
E.G. Slope (m/m)	0.007259	Area (m2)		35.03	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	133.99	Top Width (m)		133.99	
Vel Total (m/s)	1.16	Avg. Vel. (m/s)		1.16	
Max Chl Dpth (m)	0.35	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	476.9	Conv. (m3/s)		476.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		134.17	
Min Ch El (m)	82.60	Shear (N/m2)		18.58	
Alpha	1.00	Stream Power (N/m s)		21.56	
Frctn Loss (m)	0.39	Cum Volume (1000 m3)		39.15	
C & E Loss (m)	0.00	Cum SA (1000 m2)		126.88	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1355.91 Profile: PF 1

E.G. Elev (m)	82.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.07	Wt. n-Val.		0.030	
W.S. Elev (m)	82.56	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		34.21	
E.G. Slope (m/m)	0.008257	Area (m2)		34.21	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	139.24	Top Width (m)		139.24	
Vel Total (m/s)	1.19	Avg. Vel. (m/s)		1.19	
Max Chl Dpth (m)	0.39	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	447.1	Conv. (m3/s)		447.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		139.37	
Min Ch El (m)	82.17	Shear (N/m2)		19.88	
Alpha	1.00	Stream Power (N/m s)		23.60	
Frctn Loss (m)	0.42	Cum Volume (1000 m3)		37.42	
C & E Loss (m)	0.00	Cum SA (1000 m2)		120.05	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1305.91 Profile: PF 1

E.G. Elev (m)	82.21	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	82.13	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		32.89	
E.G. Slope (m/m)	0.008564	Area (m2)		32.89	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	129.62	Top Width (m)		129.62	
Vel Total (m/s)	1.24	Avg. Vel. (m/s)		1.24	
Max Chl Dpth (m)	0.36	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	439.1	Conv. (m3/s)		439.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		129.77	
Min Ch El (m)	81.78	Shear (N/m2)		21.28	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1305.91 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)	26.29
Frctn Loss (m)	0.36	Cum Volume (1000 m3)	35.74
C & E Loss (m)	0.00	Cum SA (1000 m2)	113.33

Plan: Plan River_Pidocchios River_Pidocchios RS: 1255.91 Profile: PF 1

E.G. Elev (m)	81.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	81.78	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		36.45	
E.G. Slope (m/m)	0.006176	Area (m2)		36.45	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	130.93	Top Width (m)		130.93	
Vel Total (m/s)	1.11	Avg. Vel. (m/s)		1.11	
Max Chl Dpth (m)	0.39	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	517.0	Conv. (m3/s)		517.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		131.27	
Min Ch El (m)	81.39	Shear (N/m2)		16.81	
Alpha	1.00	Stream Power (N/m s)		18.74	
Frctn Loss (m)	0.31	Cum Volume (1000 m3)		34.01	
C & E Loss (m)	0.00	Cum SA (1000 m2)		106.81	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1205.91 Profile: PF 1

E.G. Elev (m)	81.54	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	81.48	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		37.13	
E.G. Slope (m/m)	0.006033	Area (m2)		37.13	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	134.80	Top Width (m)		134.80	
Vel Total (m/s)	1.09	Avg. Vel. (m/s)		1.09	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	523.1	Conv. (m3/s)		523.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		135.13	
Min Ch El (m)	81.07	Shear (N/m2)		16.26	
Alpha	1.00	Stream Power (N/m s)		17.79	
Frctn Loss (m)	0.39	Cum Volume (1000 m3)		32.17	
C & E Loss (m)	0.00	Cum SA (1000 m2)		100.17	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1155.91 Profile: PF 1

E.G. Elev (m)	81.14	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	81.04	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	81.02	Flow Area (m2)		29.12	
E.G. Slope (m/m)	0.010762	Area (m2)		29.12	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	113.27	Top Width (m)		113.27	
Vel Total (m/s)	1.40	Avg. Vel. (m/s)		1.40	
Max Chl Dpth (m)	0.40	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	391.7	Conv. (m3/s)		391.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		113.57	
Min Ch El (m)	80.64	Shear (N/m2)		27.05	
Alpha	1.00	Stream Power (N/m s)		37.75	
Frctn Loss (m)	0.47	Cum Volume (1000 m3)		30.51	
C & E Loss (m)	0.00	Cum SA (1000 m2)		93.97	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1105.91 Profile: PF 1

E.G. Elev (m)	80.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	80.59	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		31.23	
E.G. Slope (m/m)	0.008123	Area (m2)		31.23	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	109.19	Top Width (m)		109.19	
Vel Total (m/s)	1.30	Avg. Vel. (m/s)		1.30	
Max Chl Dpth (m)	0.43	Hydr. Depth (m)		0.29	
Conv. Total (m3/s)	450.8	Conv. (m3/s)		450.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		109.59	
Min Ch El (m)	80.16	Shear (N/m2)		22.70	
Alpha	1.00	Stream Power (N/m s)		29.53	
Frctn Loss (m)	0.35	Cum Volume (1000 m3)		29.00	
C & E Loss (m)	0.01	Cum SA (1000 m2)		88.41	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1055.91 Profile: PF 1

E.G. Elev (m)	80.31	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	80.25	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		36.19	
E.G. Slope (m/m)	0.006145	Area (m2)		36.19	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	128.07	Top Width (m)		128.07	
Vel Total (m/s)	1.12	Avg. Vel. (m/s)		1.12	
Max Chl Dpth (m)	0.45	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	518.3	Conv. (m3/s)		518.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		128.51	
Min Ch El (m)	79.80	Shear (N/m2)		16.97	
Alpha	1.00	Stream Power (N/m s)		19.05	
Frctn Loss (m)	0.26	Cum Volume (1000 m3)		27.32	
C & E Loss (m)	0.00	Cum SA (1000 m2)		82.48	

Plan: Plan River_Pidocchios River_Pidocchios RS: 1005.91 Profile: PF 1

E.G. Elev (m)	80.05	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	80.00	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		40.38	
E.G. Slope (m/m)	0.004387	Area (m2)		40.38	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	130.71	Top Width (m)		130.71	
Vel Total (m/s)	1.01	Avg. Vel. (m/s)		1.01	
Max Chl Dpth (m)	0.55	Hydr. Depth (m)		0.31	
Conv. Total (m3/s)	613.4	Conv. (m3/s)		613.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		131.26	
Min Ch El (m)	79.45	Shear (N/m2)		13.24	
Alpha	1.00	Stream Power (N/m s)		13.32	
Frctn Loss (m)	0.20	Cum Volume (1000 m3)		25.40	
C & E Loss (m)	0.00	Cum SA (1000 m2)		76.01	

Plan: Plan River_Pidocchios River_Pidocchios RS: 955.91 Profile: PF 1

E.G. Elev (m)	79.85	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	79.81	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		43.88	
E.G. Slope (m/m)	0.003623	Area (m2)		43.88	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	

Plan: Plan River_Pidocchios River_Pidocchios RS: 955.91 Profile: PF 1 (Continued)

Top Width (m)	139.40	Top Width (m)	139.40
Vel Total (m/s)	0.93	Avg. Vel. (m/s)	0.93
Max Chl Dpth (m)	0.56	Hydr. Depth (m)	0.31
Conv. Total (m3/s)	675.0	Conv. (m3/s)	675.0
Length Wtd. (m)	50.00	Wetted Per. (m)	139.96
Min Ch El (m)	79.25	Shear (N/m2)	11.14
Alpha	1.00	Stream Power (N/m s)	10.31
Frctn Loss (m)	0.17	Cum Volume (1000 m3)	23.30
C & E Loss (m)	0.00	Cum SA (1000 m2)	69.25

Plan: Plan River_Pidocchios River_Pidocchios RS: 905.91 Profile: PF 1

E.G. Elev (m)	79.67	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	79.63	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		44.80	
E.G. Slope (m/m)	0.003311	Area (m2)		44.80	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	137.26	Top Width (m)		137.26	
Vel Total (m/s)	0.91	Avg. Vel. (m/s)		0.91	
Max Chl Dpth (m)	0.57	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	706.1	Conv. (m3/s)		706.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		137.83	
Min Ch El (m)	79.06	Shear (N/m2)		10.56	
Alpha	1.00	Stream Power (N/m s)		9.57	
Frctn Loss (m)	0.16	Cum Volume (1000 m3)		21.08	
C & E Loss (m)	0.00	Cum SA (1000 m2)		62.34	

Plan: Plan River_Pidocchios River_Pidocchios RS: 855.91 Profile: PF 1

E.G. Elev (m)	79.51	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	79.47	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		44.24	
E.G. Slope (m/m)	0.003096	Area (m2)		44.24	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	126.34	Top Width (m)		126.34	
Vel Total (m/s)	0.92	Avg. Vel. (m/s)		0.92	
Max Chl Dpth (m)	0.59	Hydr. Depth (m)		0.35	
Conv. Total (m3/s)	730.2	Conv. (m3/s)		730.2	
Length Wtd. (m)	50.00	Wetted Per. (m)		126.93	
Min Ch El (m)	78.88	Shear (N/m2)		10.58	
Alpha	1.00	Stream Power (N/m s)		9.72	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)		18.85	
C & E Loss (m)	0.00	Cum SA (1000 m2)		55.75	

Plan: Plan River_Pidocchios River_Pidocchios RS: 805.91 Profile: PF 1

E.G. Elev (m)	79.37	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	79.34	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		47.98	
E.G. Slope (m/m)	0.002518	Area (m2)		47.98	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	132.58	Top Width (m)		132.58	
Vel Total (m/s)	0.85	Avg. Vel. (m/s)		0.85	
Max Chl Dpth (m)	0.62	Hydr. Depth (m)		0.36	
Conv. Total (m3/s)	809.7	Conv. (m3/s)		809.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		133.20	
Min Ch El (m)	78.71	Shear (N/m2)		8.89	

Plan: Plan River_Pidocchios River_Pidocchios RS: 805.91 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		7.53	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)		16.55	
C & E Loss (m)	0.00	Cum SA (1000 m2)		49.27	

Plan: Plan River_Pidocchios River_Pidocchios RS: 755.91 Profile: PF 1

E.G. Elev (m)	79.27	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	79.25	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		56.61	
E.G. Slope (m/m)	0.001482	Area (m2)		56.61	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	134.68	Top Width (m)		134.68	
Vel Total (m/s)	0.72	Avg. Vel. (m/s)		0.72	
Max Chl Dpth (m)	0.69	Hydr. Depth (m)		0.42	
Conv. Total (m3/s)	1055.3	Conv. (m3/s)		1055.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		135.37	
Min Ch El (m)	78.55	Shear (N/m2)		6.08	
Alpha	1.00	Stream Power (N/m s)		4.36	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		13.93	
C & E Loss (m)	0.00	Cum SA (1000 m2)		42.59	

Plan: Plan River_Pidocchios River_Pidocchios RS: 705.91 Profile: PF 1

E.G. Elev (m)	79.20	Element	Left OB	Channel	Right OB
Vel Head (m)	0.03	Wt. n-Val.		0.030	
W.S. Elev (m)	79.17	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		56.98	
E.G. Slope (m/m)	0.001610	Area (m2)		56.98	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	145.66	Top Width (m)		145.66	
Vel Total (m/s)	0.71	Avg. Vel. (m/s)		0.71	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.39	
Conv. Total (m3/s)	1012.7	Conv. (m3/s)		1012.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		146.34	
Min Ch El (m)	78.49	Shear (N/m2)		6.15	
Alpha	1.00	Stream Power (N/m s)		4.38	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)		11.09	
C & E Loss (m)	0.00	Cum SA (1000 m2)		35.58	

Plan: Plan River_Pidocchios River_Pidocchios RS: 655.91 Profile: PF 1

E.G. Elev (m)	79.09	Element	Left OB	Channel	Right OB
Vel Head (m)	0.04	Wt. n-Val.		0.030	
W.S. Elev (m)	79.06	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		48.62	
E.G. Slope (m/m)	0.002796	Area (m2)		48.62	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	148.40	Top Width (m)		148.40	
Vel Total (m/s)	0.84	Avg. Vel. (m/s)		0.84	
Max Chl Dpth (m)	0.53	Hydr. Depth (m)		0.33	
Conv. Total (m3/s)	768.4	Conv. (m3/s)		768.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		148.93	
Min Ch El (m)	78.53	Shear (N/m2)		8.95	
Alpha	1.00	Stream Power (N/m s)		7.48	
Frctn Loss (m)	0.21	Cum Volume (1000 m3)		8.45	
C & E Loss (m)	0.00	Cum SA (1000 m2)		28.23	

Plan: Plan River_Pidocchios River_Pidocchios RS: 605.91 Profile: PF 1

E.G. Elev (m)	78.88	Element	Left OB	Channel	Right OB
Vel Head (m)	0.06	Wt. n-Val.		0.030	
W.S. Elev (m)	78.81	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		36.15	
E.G. Slope (m/m)	0.007154	Area (m2)		36.15	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	143.25	Top Width (m)		143.25	
Vel Total (m/s)	1.12	Avg. Vel. (m/s)		1.12	
Max Chl Dpth (m)	0.41	Hydr. Depth (m)		0.25	
Conv. Total (m3/s)	480.4	Conv. (m3/s)		480.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		143.66	
Min Ch El (m)	78.40	Shear (N/m2)		17.65	
Alpha	1.00	Stream Power (N/m s)		19.84	
Frctn Loss (m)	0.44	Cum Volume (1000 m3)		6.33	
C & E Loss (m)	0.00	Cum SA (1000 m2)		20.94	

Plan: Plan River_Pidocchios River_Pidocchios RS: 555.91 Profile: PF 1

E.G. Elev (m)	78.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	78.33	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	78.31	Flow Area (m2)		28.78	
E.G. Slope (m/m)	0.011034	Area (m2)		28.78	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	111.92	Top Width (m)		111.92	
Vel Total (m/s)	1.41	Avg. Vel. (m/s)		1.41	
Max Chl Dpth (m)	0.49	Hydr. Depth (m)		0.26	
Conv. Total (m3/s)	386.8	Conv. (m3/s)		386.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		112.40	
Min Ch El (m)	77.85	Shear (N/m2)		27.70	
Alpha	1.00	Stream Power (N/m s)		39.11	
Frctn Loss (m)	0.62	Cum Volume (1000 m3)		4.71	
C & E Loss (m)	0.00	Cum SA (1000 m2)		14.56	

Plan: Plan River_Pidocchios River_Pidocchios RS: 505.91 Profile: PF 1

E.G. Elev (m)	77.82	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.030	
W.S. Elev (m)	77.68	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	77.68	Flow Area (m2)		24.51	
E.G. Slope (m/m)	0.013817	Area (m2)		24.51	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	88.56	Top Width (m)		88.56	
Vel Total (m/s)	1.66	Avg. Vel. (m/s)		1.66	
Max Chl Dpth (m)	0.48	Hydr. Depth (m)		0.28	
Conv. Total (m3/s)	345.7	Conv. (m3/s)		345.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		89.05	
Min Ch El (m)	77.19	Shear (N/m2)		37.29	
Alpha	1.00	Stream Power (N/m s)		61.82	
Frctn Loss (m)	0.27	Cum Volume (1000 m3)		3.38	
C & E Loss (m)	0.03	Cum SA (1000 m2)		9.55	

Plan: Plan River_Pidocchios River_Pidocchios RS: 455.91 Profile: PF 1

E.G. Elev (m)	77.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	77.39	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	77.20	Flow Area (m2)		41.75	
E.G. Slope (m/m)	0.002829	Area (m2)		41.75	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	

Plan: Plan River_Pidocchios River_Pidocchios RS: 455.91 Profile: PF 1 (Continued)

Top Width (m)	102.01	Top Width (m)	102.01
Vel Total (m/s)	0.97	Avg. Vel. (m/s)	0.97
Max Chl Dpth (m)	0.65	Hydr. Depth (m)	0.41
Conv. Total (m3/s)	763.8	Conv. (m3/s)	763.8
Length Wtd. (m)	50.00	Wetted Per. (m)	102.66
Min Ch El (m)	76.73	Shear (N/m2)	11.28
Alpha	1.00	Stream Power (N/m s)	10.98
Frctn Loss (m)	0.24	Cum Volume (1000 m3)	1.72
C & E Loss (m)	0.01	Cum SA (1000 m2)	4.79

Plan: Plan River_Pidocchios River_Pidocchios RS: 405.91 Profile: PF 1

E.G. Elev (m)	77.19	Element	Left OB	Channel	Right OB
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	77.08	Reach Len. (m)			
Crit W.S. (m)	77.04	Flow Area (m2)		27.10	
E.G. Slope (m/m)	0.010005	Area (m2)		27.10	
Q Total (m3/s)	40.63	Flow (m3/s)		40.63	
Top Width (m)	89.45	Top Width (m)		89.45	
Vel Total (m/s)	1.50	Avg. Vel. (m/s)		1.50	
Max Chl Dpth (m)	0.47	Hydr. Depth (m)		0.30	
Conv. Total (m3/s)	406.2	Conv. (m3/s)		406.2	
Length Wtd. (m)		Wetted Per. (m)		89.91	
Min Ch El (m)	76.61	Shear (N/m2)		29.58	
Alpha	1.00	Stream Power (N/m s)		44.34	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 732.88 Profile: PF 1

E.G. Elev (m)	58.94	Element	Left OB	Channel	Right OB
Vel Head (m)	0.08	Wt. n-Val.		0.030	
W.S. Elev (m)	58.86	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		69.93	
E.G. Slope (m/m)	0.003822	Area (m2)		69.93	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.24	Avg. Vel. (m/s)		1.24	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	1398.5	Conv. (m3/s)		1398.5	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.47	
Min Ch El (m)	58.19	Shear (N/m2)		17.42	
Alpha	1.00	Stream Power (N/m s)		21.54	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)		41.84	
C & E Loss (m)	0.01	Cum SA (1000 m2)		77.97	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 682.88 Profile: PF 1

E.G. Elev (m)	58.79	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	58.74	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		84.43	
E.G. Slope (m/m)	0.002043	Area (m2)		84.43	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.02	Avg. Vel. (m/s)		1.02	
Max Chl Dpth (m)	0.76	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	1913.0	Conv. (m3/s)		1913.0	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.65	
Min Ch El (m)	57.98	Shear (N/m2)		11.23	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 682.88 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		11.50	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)		37.98	
C & E Loss (m)	0.00	Cum SA (1000 m2)		70.47	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 632.88 Profile: PF 1

E.G. Elev (m)	58.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.05	Wt. n-Val.		0.030	
W.S. Elev (m)	58.64	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		86.81	
E.G. Slope (m/m)	0.001859	Area (m2)		86.81	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	150.00	Top Width (m)		150.00	
Vel Total (m/s)	1.00	Avg. Vel. (m/s)		1.00	
Max Chl Dpth (m)	0.78	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	2005.3	Conv. (m3/s)		2005.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		150.48	
Min Ch El (m)	57.86	Shear (N/m2)		10.52	
Alpha	1.00	Stream Power (N/m s)		10.47	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)		33.70	
C & E Loss (m)	0.00	Cum SA (1000 m2)		62.97	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 582.88 Profile: PF 1

E.G. Elev (m)	58.56	Element	Left OB	Channel	Right OB
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	58.47	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		66.29	
E.G. Slope (m/m)	0.003895	Area (m2)		66.29	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	133.28	Top Width (m)		133.28	
Vel Total (m/s)	1.30	Avg. Vel. (m/s)		1.30	
Max Chl Dpth (m)	0.72	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	1385.4	Conv. (m3/s)		1385.4	
Length Wtd. (m)	50.00	Wetted Per. (m)		133.53	
Min Ch El (m)	57.75	Shear (N/m2)		18.96	
Alpha	1.00	Stream Power (N/m s)		24.73	
Frctn Loss (m)	0.25	Cum Volume (1000 m3)		29.87	
C & E Loss (m)	0.01	Cum SA (1000 m2)		55.89	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 532.88 Profile: PF 1

E.G. Elev (m)	58.30	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.030	
W.S. Elev (m)	58.16	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		51.79	
E.G. Slope (m/m)	0.006614	Area (m2)		51.79	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	106.82	Top Width (m)		106.82	
Vel Total (m/s)	1.67	Avg. Vel. (m/s)		1.67	
Max Chl Dpth (m)	0.64	Hydr. Depth (m)		0.48	
Conv. Total (m3/s)	1063.1	Conv. (m3/s)		1063.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		107.18	
Min Ch El (m)	57.52	Shear (N/m2)		31.34	
Alpha	1.00	Stream Power (N/m s)		52.32	
Frctn Loss (m)	0.35	Cum Volume (1000 m3)		26.92	
C & E Loss (m)	0.00	Cum SA (1000 m2)		49.89	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 482.88 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	57.95				
Vel Head (m)	0.16	Wt. n-Val.		0.030	
W.S. Elev (m)	57.79	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		48.29	
E.G. Slope (m/m)	0.007389	Area (m2)		48.29	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	97.27	Top Width (m)		97.27	
Vel Total (m/s)	1.79	Avg. Vel. (m/s)		1.79	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	1005.8	Conv. (m3/s)		1005.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		97.79	
Min Ch El (m)	57.12	Shear (N/m2)		35.79	
Alpha	1.00	Stream Power (N/m s)		64.07	
Frctn Loss (m)	0.27	Cum Volume (1000 m3)		24.42	
C & E Loss (m)	0.02	Cum SA (1000 m2)		44.78	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 432.88 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	57.66				
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	57.55	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		58.35	
E.G. Slope (m/m)	0.004205	Area (m2)		58.35	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	102.20	Top Width (m)		102.20	
Vel Total (m/s)	1.48	Avg. Vel. (m/s)		1.48	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.57	
Conv. Total (m3/s)	1333.3	Conv. (m3/s)		1333.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		102.79	
Min Ch El (m)	56.84	Shear (N/m2)		23.41	
Alpha	1.00	Stream Power (N/m s)		34.69	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)		21.75	
C & E Loss (m)	0.01	Cum SA (1000 m2)		39.80	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 382.88 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	57.47				
Vel Head (m)	0.09	Wt. n-Val.		0.030	
W.S. Elev (m)	57.39	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		65.15	
E.G. Slope (m/m)	0.003149	Area (m2)		65.15	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	108.40	Top Width (m)		108.40	
Vel Total (m/s)	1.33	Avg. Vel. (m/s)		1.33	
Max Chl Dpth (m)	0.75	Hydr. Depth (m)		0.60	
Conv. Total (m3/s)	1540.8	Conv. (m3/s)		1540.8	
Length Wtd. (m)	50.00	Wetted Per. (m)		109.02	
Min Ch El (m)	56.63	Shear (N/m2)		18.45	
Alpha	1.00	Stream Power (N/m s)		24.49	
Frctn Loss (m)	0.18	Cum Volume (1000 m3)		18.66	
C & E Loss (m)	0.00	Cum SA (1000 m2)		34.53	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 332.88 Profile: PF 1

		Element	Left OB	Channel	Right OB
E.G. Elev (m)	57.29				
Vel Head (m)	0.11	Wt. n-Val.		0.030	
W.S. Elev (m)	57.18	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		58.13	
E.G. Slope (m/m)	0.004199	Area (m2)		58.13	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 332.88 Profile: PF 1 (Continued)

Top Width (m)	101.11	Top Width (m)	101.11
Vel Total (m/s)	1.49	Avg. Vel. (m/s)	1.49
Max Chl Dpth (m)	0.71	Hydr. Depth (m)	0.57
Conv. Total (m3/s)	1334.3	Conv. (m3/s)	1334.3
Length Wtd. (m)	50.00	Wetted Per. (m)	101.72
Min Ch El (m)	56.47	Shear (N/m2)	23.53
Alpha	1.00	Stream Power (N/m s)	35.00
Frctn Loss (m)	0.23	Cum Volume (1000 m3)	15.58
C & E Loss (m)	0.00	Cum SA (1000 m2)	29.29

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 282.88 Profile: PF 1

E.G. Elev (m)	57.06	Element	Left OB	Channel	Right OB
Vel Head (m)	0.13	Wt. n-Val.		0.030	
W.S. Elev (m)	56.93	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		53.84	
E.G. Slope (m/m)	0.005032	Area (m2)		53.84	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	95.54	Top Width (m)		95.54	
Vel Total (m/s)	1.61	Avg. Vel. (m/s)		1.61	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.56	
Conv. Total (m3/s)	1218.9	Conv. (m3/s)		1218.9	
Length Wtd. (m)	50.00	Wetted Per. (m)		96.20	
Min Ch El (m)	56.22	Shear (N/m2)		27.62	
Alpha	1.00	Stream Power (N/m s)		44.35	
Frctn Loss (m)	0.26	Cum Volume (1000 m3)		12.78	
C & E Loss (m)	0.00	Cum SA (1000 m2)		24.38	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 232.88 Profile: PF 1

E.G. Elev (m)	56.80	Element	Left OB	Channel	Right OB
Vel Head (m)	0.14	Wt. n-Val.		0.030	
W.S. Elev (m)	56.66	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		52.24	
E.G. Slope (m/m)	0.005460	Area (m2)		52.24	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	94.15	Top Width (m)		94.15	
Vel Total (m/s)	1.66	Avg. Vel. (m/s)		1.66	
Max Chl Dpth (m)	0.71	Hydr. Depth (m)		0.55	
Conv. Total (m3/s)	1170.1	Conv. (m3/s)		1170.1	
Length Wtd. (m)	50.00	Wetted Per. (m)		94.84	
Min Ch El (m)	55.95	Shear (N/m2)		29.49	
Alpha	1.00	Stream Power (N/m s)		48.81	
Frctn Loss (m)	0.34	Cum Volume (1000 m3)		10.13	
C & E Loss (m)	0.00	Cum SA (1000 m2)		19.64	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 182.88 Profile: PF 1

E.G. Elev (m)	56.46	Element	Left OB	Channel	Right OB
Vel Head (m)	0.19	Wt. n-Val.		0.030	
W.S. Elev (m)	56.27	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		44.89	
E.G. Slope (m/m)	0.008473	Area (m2)		44.89	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	89.58	Top Width (m)		89.58	
Vel Total (m/s)	1.93	Avg. Vel. (m/s)		1.93	
Max Chl Dpth (m)	0.67	Hydr. Depth (m)		0.50	
Conv. Total (m3/s)	939.3	Conv. (m3/s)		939.3	
Length Wtd. (m)	50.00	Wetted Per. (m)		90.26	
Min Ch El (m)	55.59	Shear (N/m2)		41.32	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 182.88 Profile: PF 1 (Continued)

Alpha	1.00	Stream Power (N/m s)		79.60	
Frctn Loss (m)	0.42	Cum Volume (1000 m3)		7.70	
C & E Loss (m)	0.00	Cum SA (1000 m2)		15.04	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 132.88 Profile: PF 1

E.G. Elev (m)	56.03	Element	Left OB	Channel	Right OB
Vel Head (m)	0.17	Wt. n-Val.		0.030	
W.S. Elev (m)	55.86	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)	55.80	Flow Area (m2)		47.00	
E.G. Slope (m/m)	0.008412	Area (m2)		47.00	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	100.03	Top Width (m)		100.03	
Vel Total (m/s)	1.84	Avg. Vel. (m/s)		1.84	
Max Chl Dpth (m)	0.65	Hydr. Depth (m)		0.47	
Conv. Total (m3/s)	942.7	Conv. (m3/s)		942.7	
Length Wtd. (m)	50.00	Wetted Per. (m)		100.69	
Min Ch El (m)	55.20	Shear (N/m2)		38.50	
Alpha	1.00	Stream Power (N/m s)		70.83	
Frctn Loss (m)	0.26	Cum Volume (1000 m3)		5.40	
C & E Loss (m)	0.02	Cum SA (1000 m2)		10.30	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 82.88 Profile: PF 1

E.G. Elev (m)	55.74	Element	Left OB	Channel	Right OB
Vel Head (m)	0.10	Wt. n-Val.		0.030	
W.S. Elev (m)	55.65	Reach Len. (m)	50.00	50.00	50.00
Crit W.S. (m)		Flow Area (m2)		62.57	
E.G. Slope (m/m)	0.003582	Area (m2)		62.57	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	107.75	Top Width (m)		107.75	
Vel Total (m/s)	1.38	Avg. Vel. (m/s)		1.38	
Max Chl Dpth (m)	0.79	Hydr. Depth (m)		0.58	
Conv. Total (m3/s)	1444.6	Conv. (m3/s)		1444.6	
Length Wtd. (m)	50.00	Wetted Per. (m)		108.54	
Min Ch El (m)	54.86	Shear (N/m2)		20.25	
Alpha	1.00	Stream Power (N/m s)		27.98	
Frctn Loss (m)	0.28	Cum Volume (1000 m3)		2.66	
C & E Loss (m)	0.01	Cum SA (1000 m2)		5.11	

Plan: Plan River_Tratt2_Mar River_Tratt2_Mar RS: 32.88 Profile: PF 1

E.G. Elev (m)	55.45	Element	Left OB	Channel	Right OB
Vel Head (m)	0.20	Wt. n-Val.		0.030	
W.S. Elev (m)	55.26	Reach Len. (m)			
Crit W.S. (m)	55.23	Flow Area (m2)		43.99	
E.G. Slope (m/m)	0.010007	Area (m2)		43.99	
Q Total (m3/s)	86.46	Flow (m3/s)		86.46	
Top Width (m)	96.56	Top Width (m)		96.56	
Vel Total (m/s)	1.97	Avg. Vel. (m/s)		1.97	
Max Chl Dpth (m)	0.68	Hydr. Depth (m)		0.46	
Conv. Total (m3/s)	864.3	Conv. (m3/s)		864.3	
Length Wtd. (m)		Wetted Per. (m)		97.23	
Min Ch El (m)	54.58	Shear (N/m2)		44.40	
Alpha	1.00	Stream Power (N/m s)		87.26	
Frctn Loss (m)		Cum Volume (1000 m3)			
C & E Loss (m)		Cum SA (1000 m2)			