



avvio del procedimento Del.C.C. n.55 del 15.05.2008
valutazione iniziale Del.G.C. n. 171 del 17.07.2008
valutazione intermedia e rapporto ambientale preliminare Del.C.C. n.47 del 29.05.2009
relazione di sintesi finale - rapporto ambientale Del.G.C. n.251 del 29.10.2009
rapporto ambientale - relazione di sintesi non tecnica Del.C.C. n..... del
adozione Del.C.C. n..... del

**variante di adeguamento
alla disciplina urbanistica regionale e ai contenuti dell'art.55 co.6 della L.R.1/2005**

RELAZIONE IDRAULICA - ALLEGATO 2 - VOLUME I

PIANO STRUTTURALE

dicembre 2009



comune di montevarchi - provincia di arezzo

Sindaco

Giorgio Valentini

Assessore

Moreno Grassi

Responsabile del procedimento

Domenico Scrascia

Garante della comunicazione

Francesca Barucci

Progetto

Stefania Fanfani
Domenico Scrascia

Sistema informativo

Ugo Fabbri

Ufficio di piano

Gabriele Banchetti
Stefano Borchi

Indagini geologiche ed idrauliche

Claudia Lombardi
Roberto Nevini
Michele Sani

RELAZIONE IDRAULICA - ALLEGATO 2 - VOLUME I

PIANO STRUTTURALE

dicembre 2009

verifiche idrauliche stato attuale

volume I

borro del Quercio
borro dello Spedaluzzo
borro del Giglio

volume II

borro della Sabina
borro del Caspri
borro della Dogana
borro dell'Ornaccio

volume III

borro del Valdilago
torrente Caposelvi (loc. Mercatale)
torrente Caposelvi
torrente Ambra

verifiche idrauliche stato attuale - volume I

- borro del Quercio
- borro dello Spedaluzzo
- borro del Giglio

borro del Quercio

verifiche con Tpioggia critico per il Borro del Quercio

- moto vario

Tr=200, 100, 30 e 20 anni

profilo

livelli idrici nelle sezioni di verifica

tabella di output del software Hec-ras 4.0

livelli e portate in ingresso alle aree di accumulo

verifiche con Tpioggia critico per il Fiume Arno

- moto vario

Tr=200, 100, 30 e 20 anni

profilo

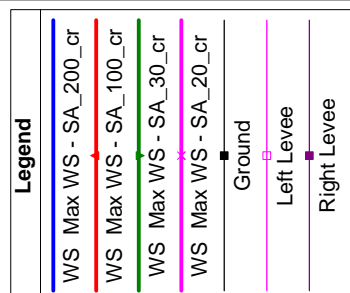
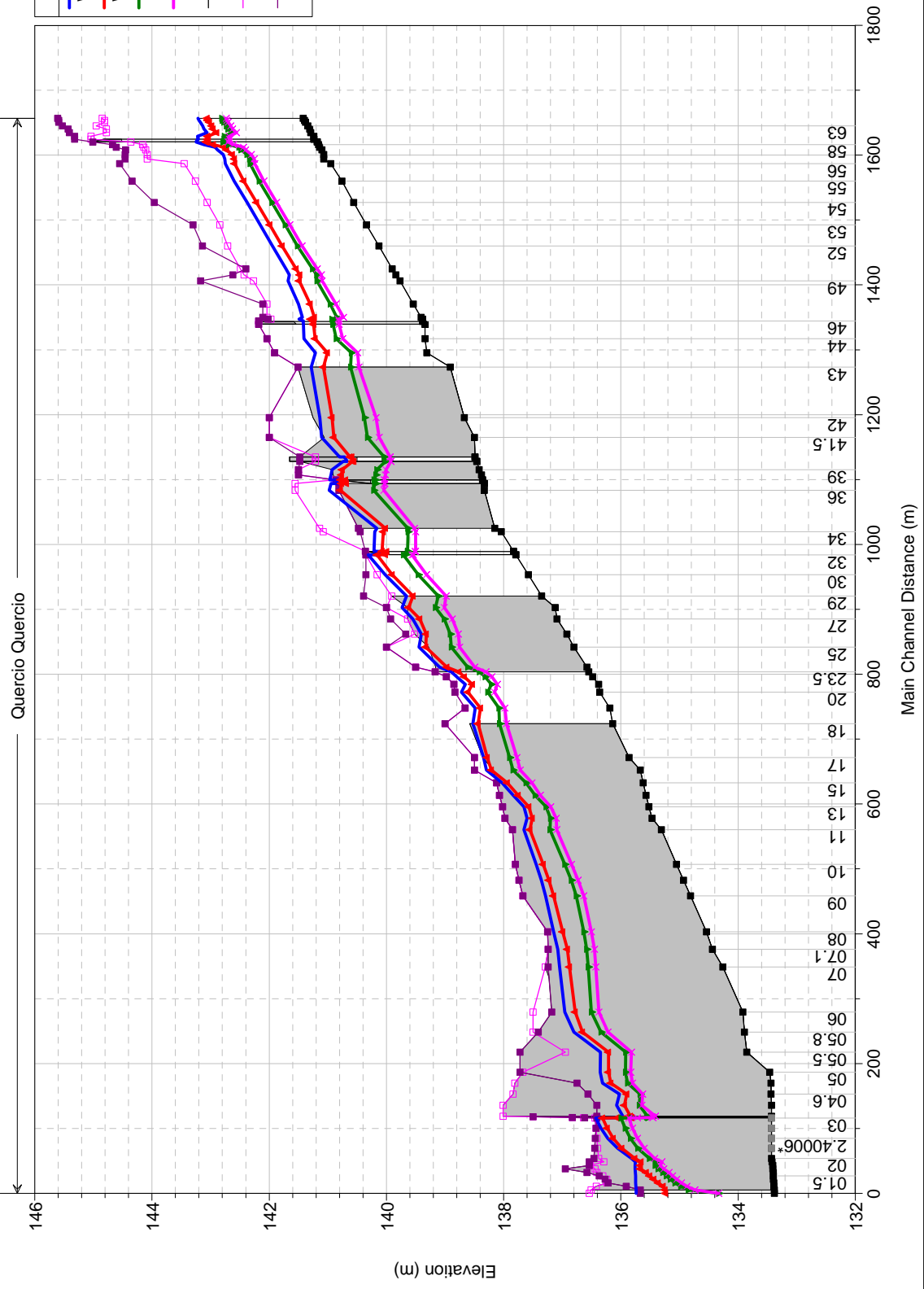
livelli idrici nelle sezioni di verifica

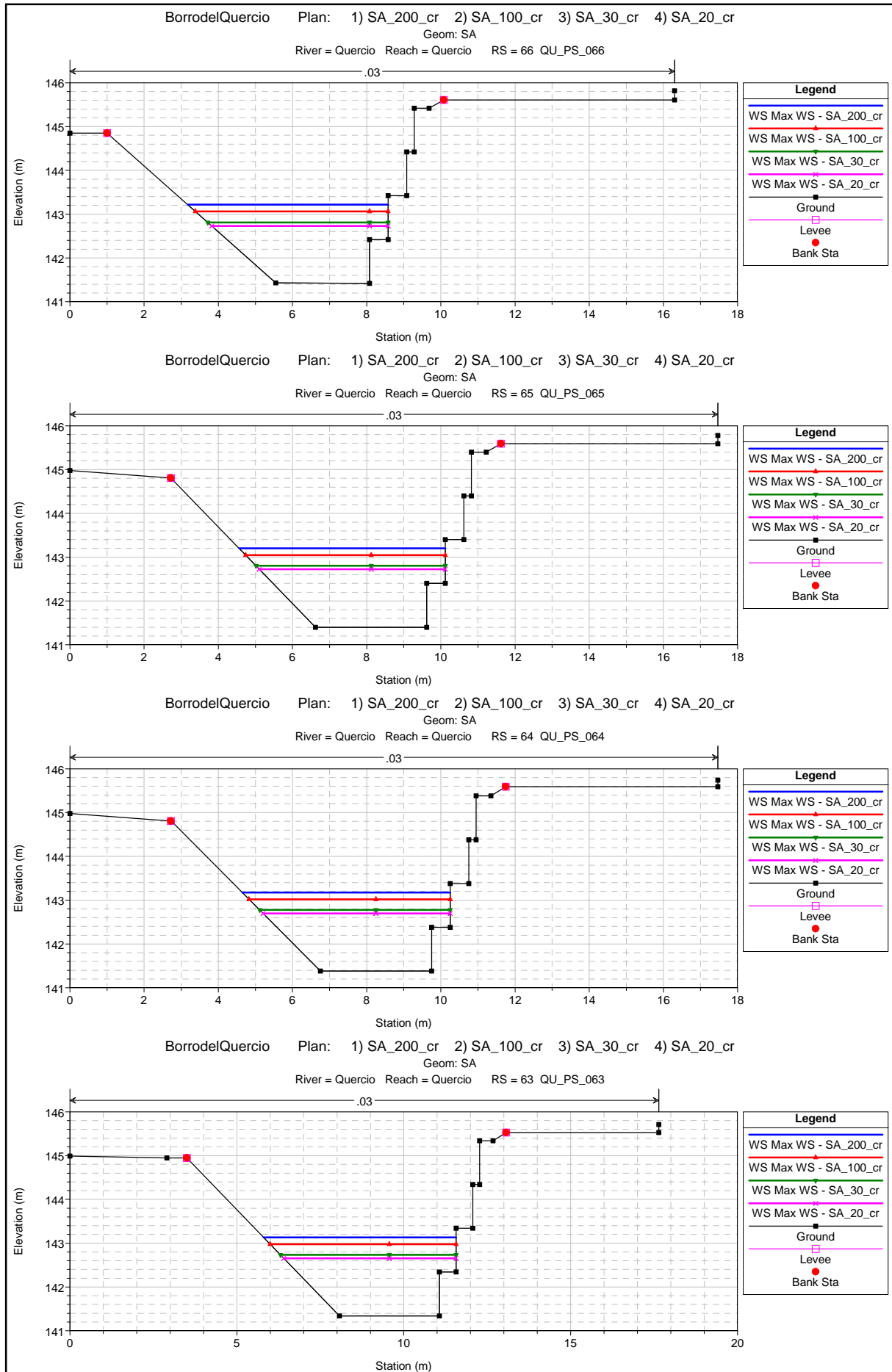
tabella di output del software Hec-ras 4.0

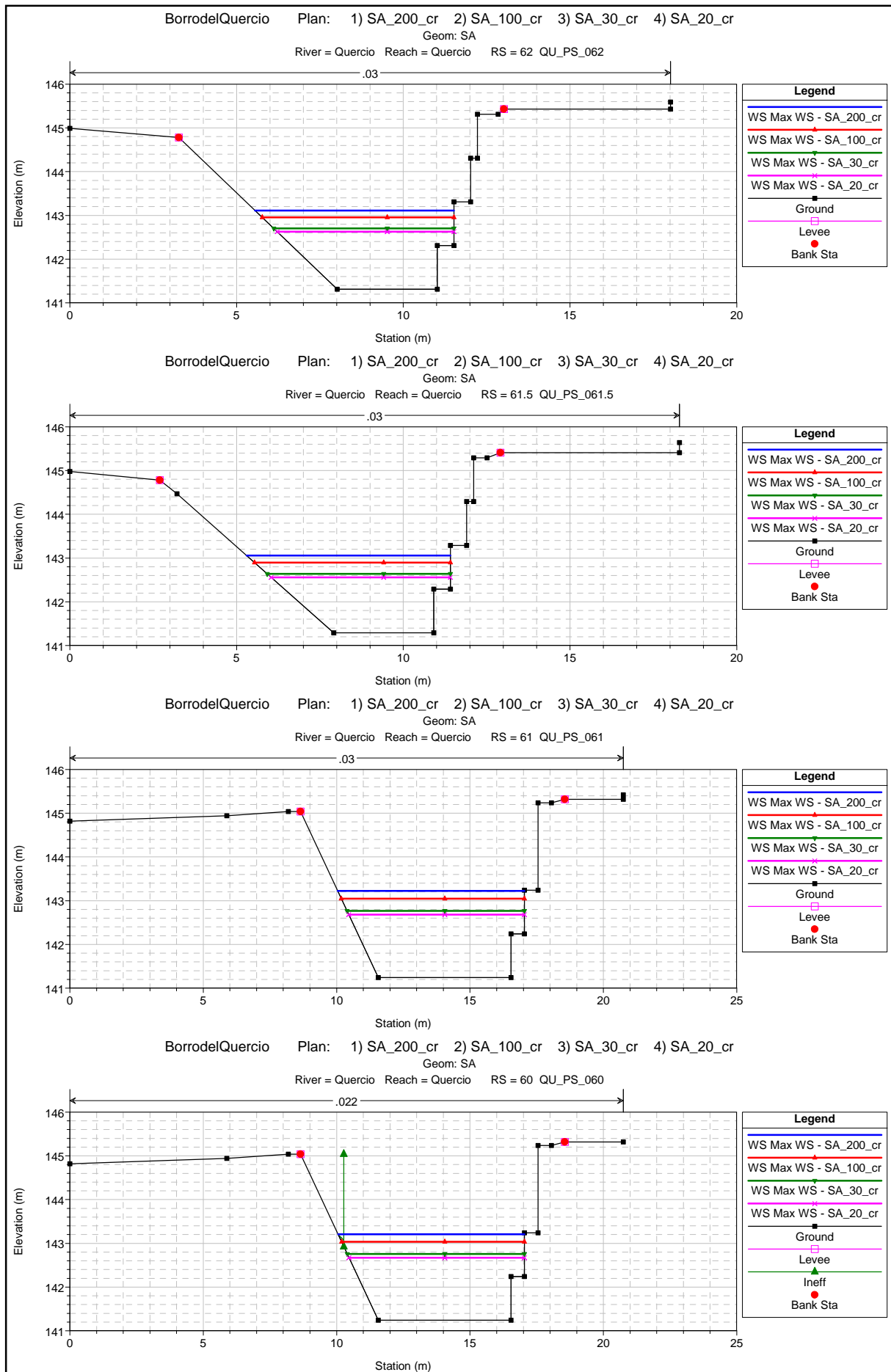
livelli e portate in ingresso alle aree di accumulo

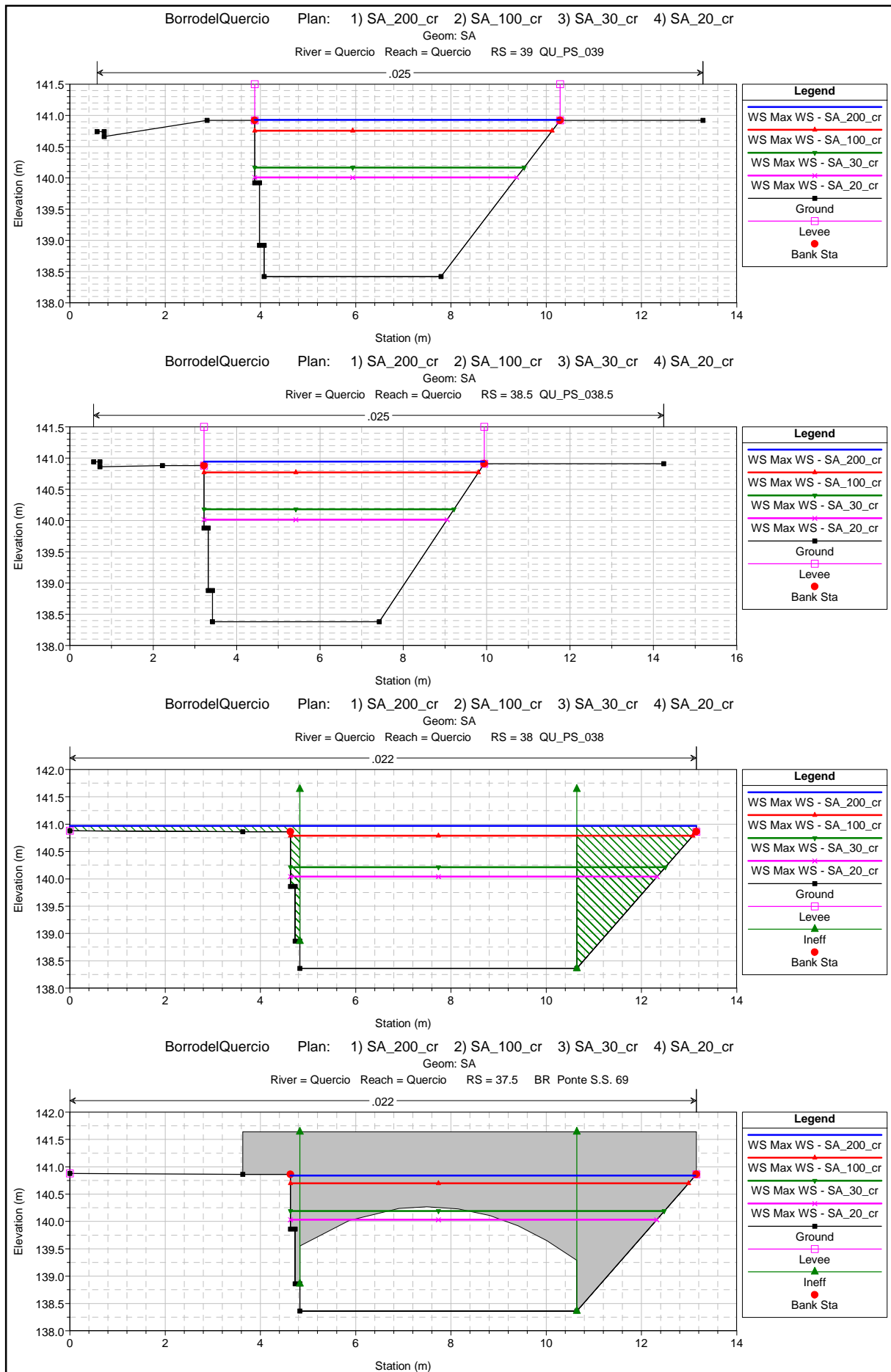
BorrodelaQuercio Plan: 1) SA_200_cr 2) SA_100_cr 3) SA_30_cr 4) SA_20_cr

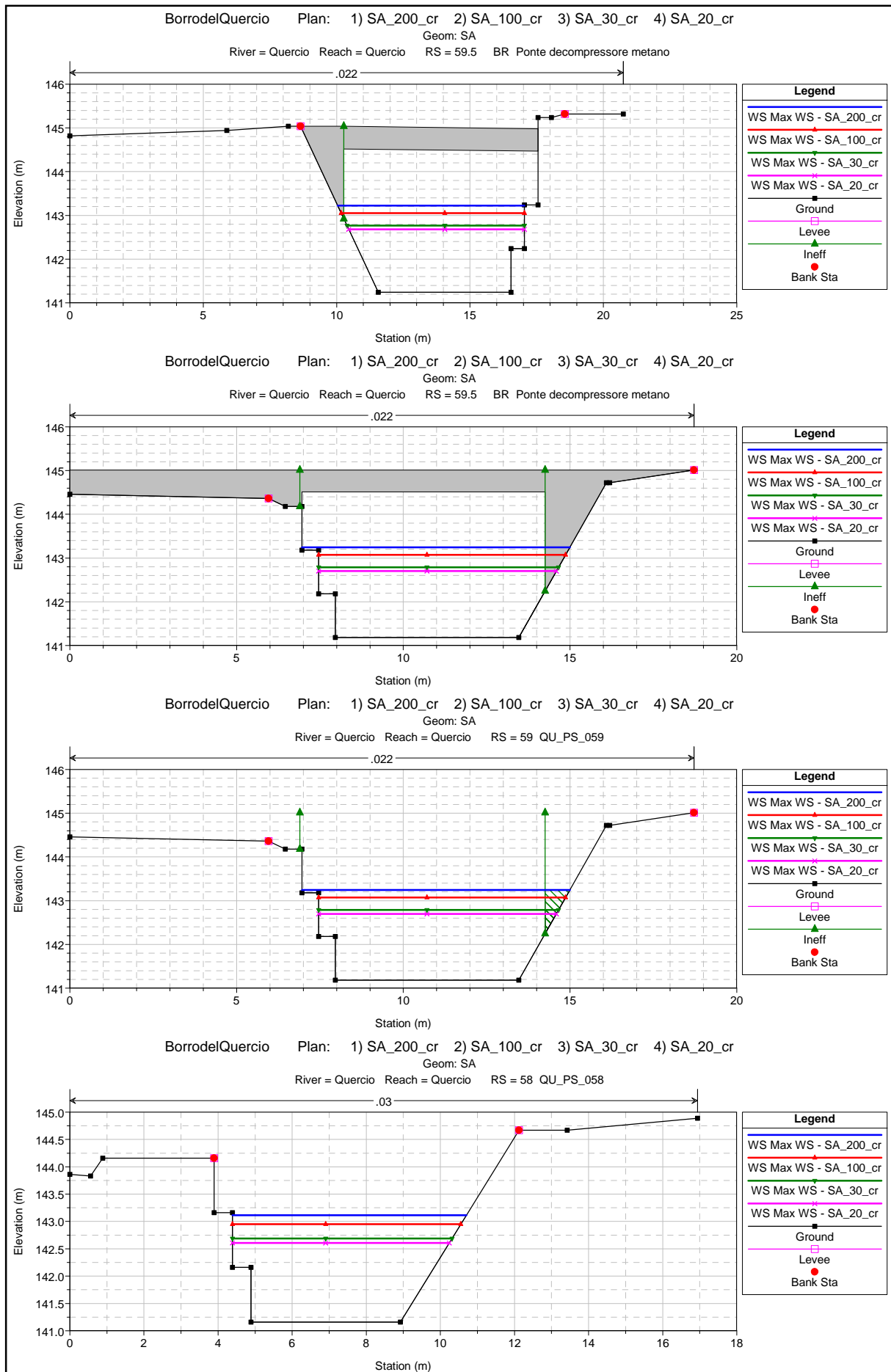
Geom: SA

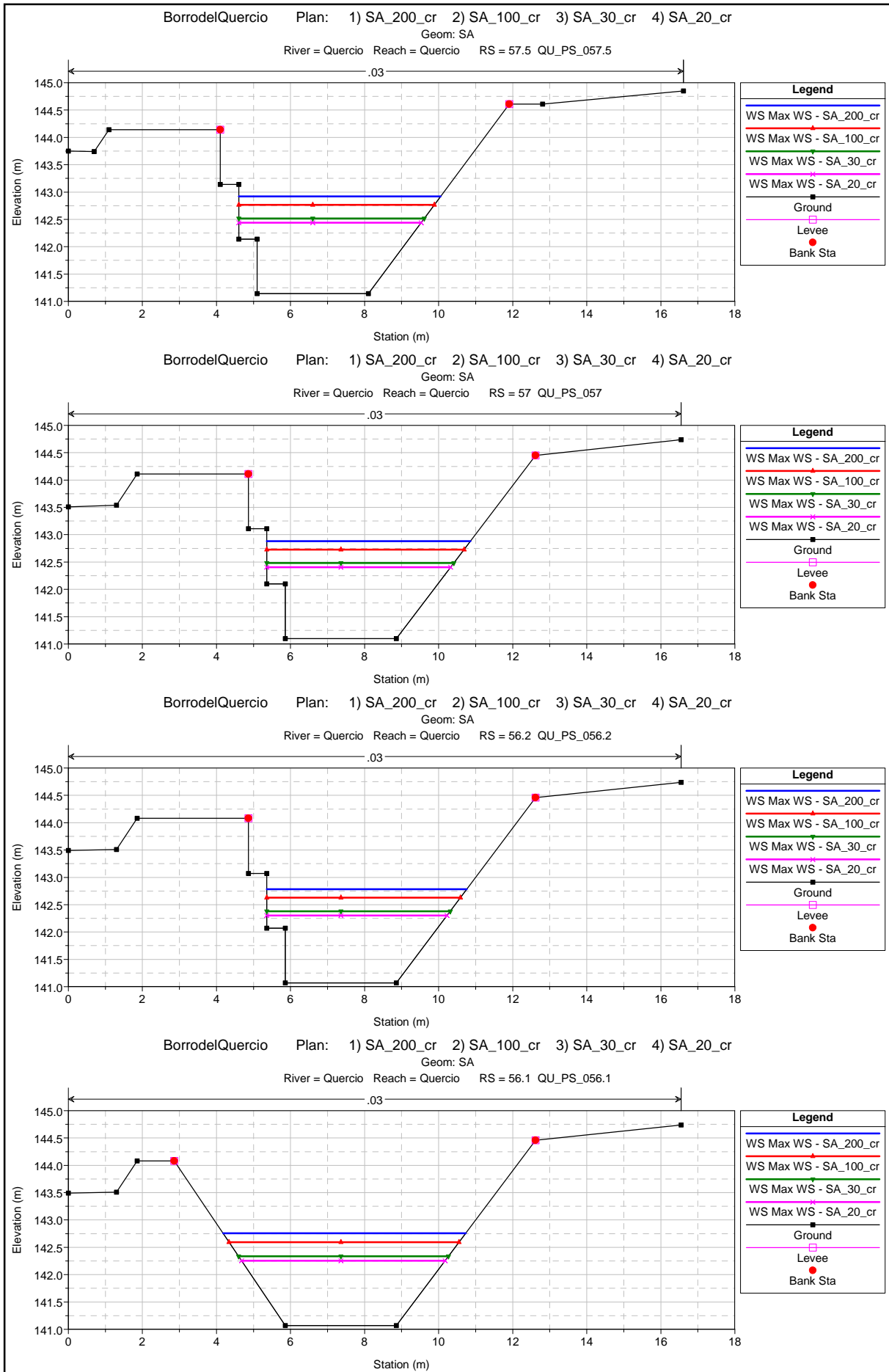


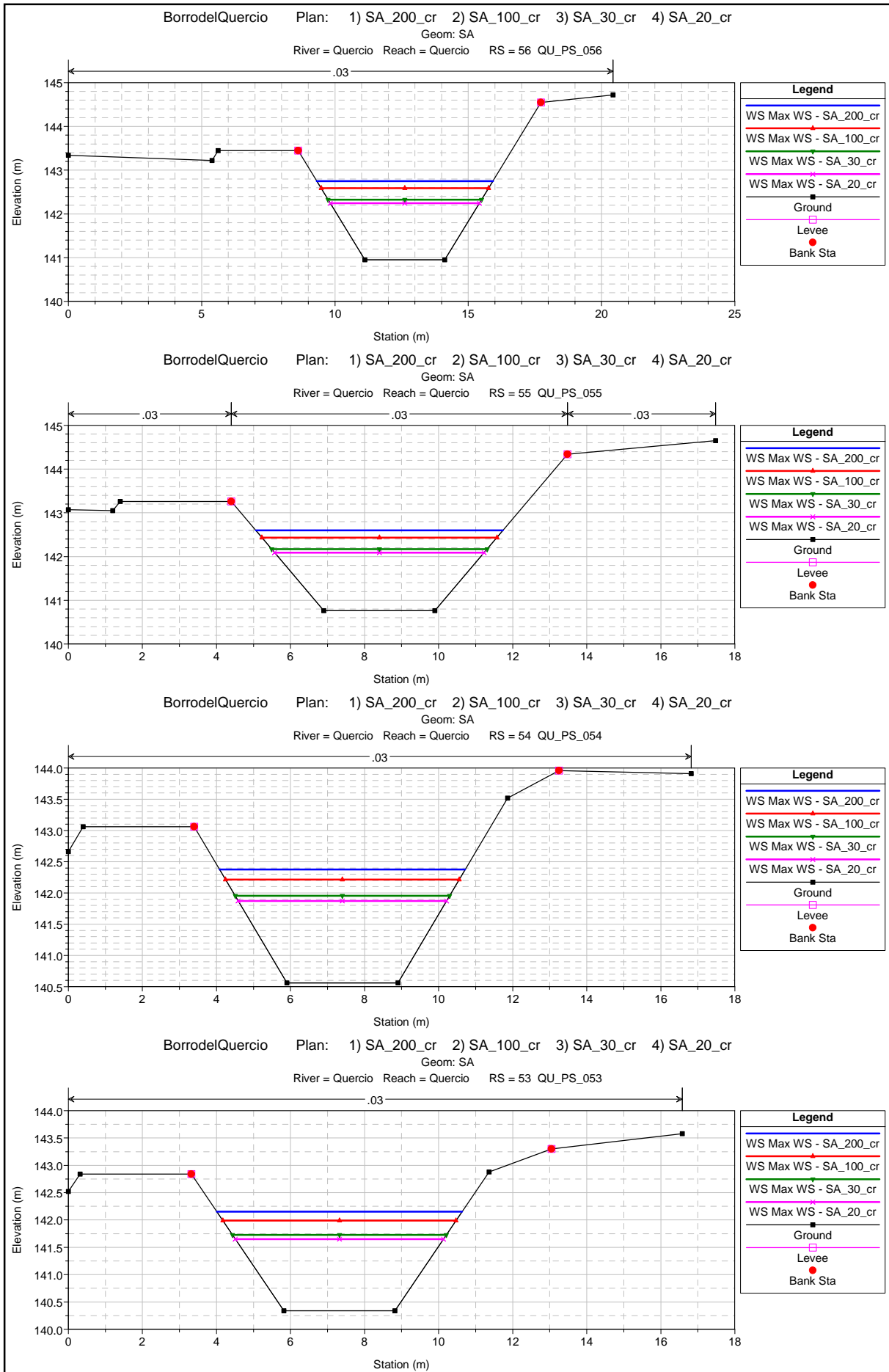


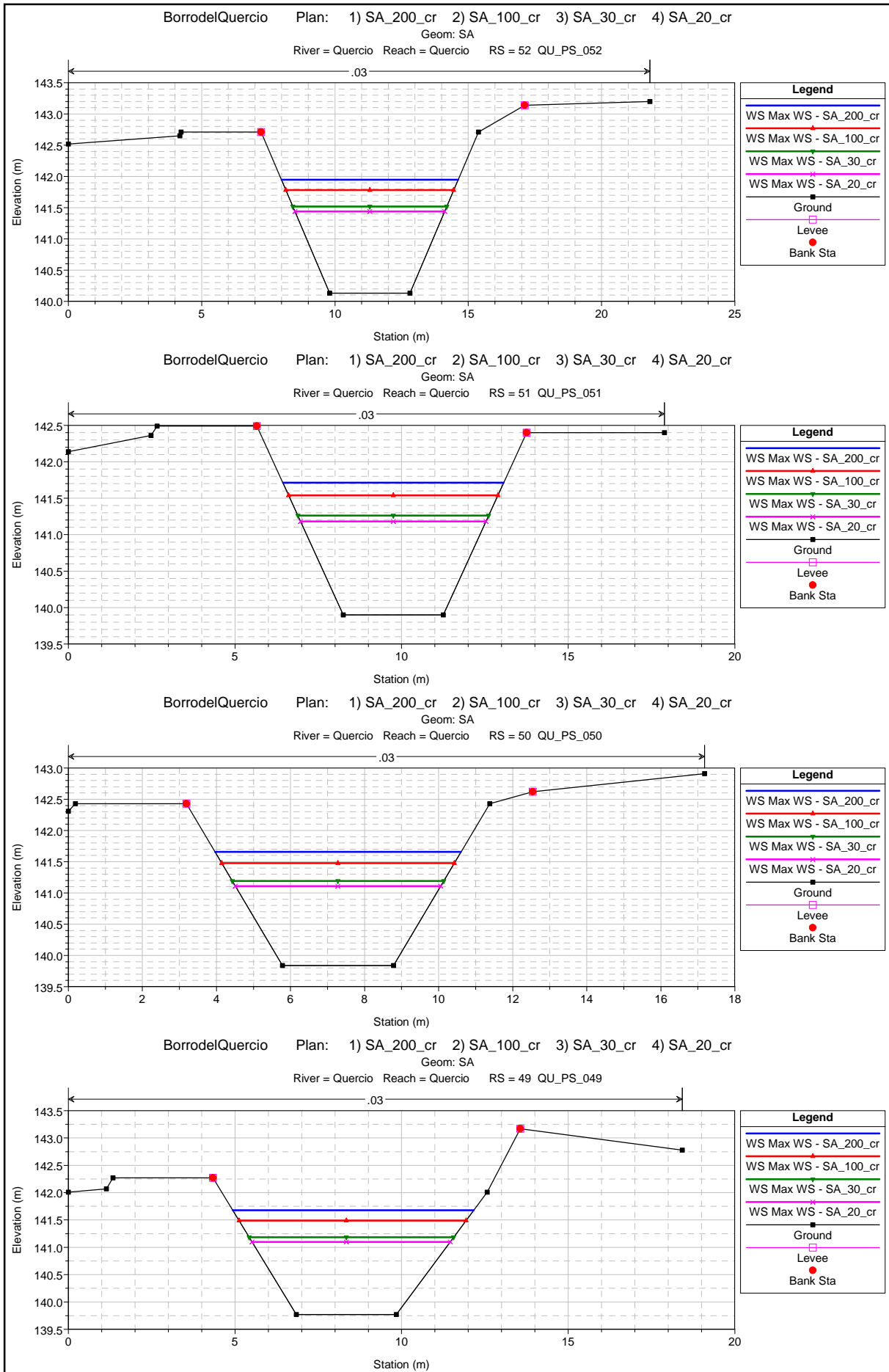


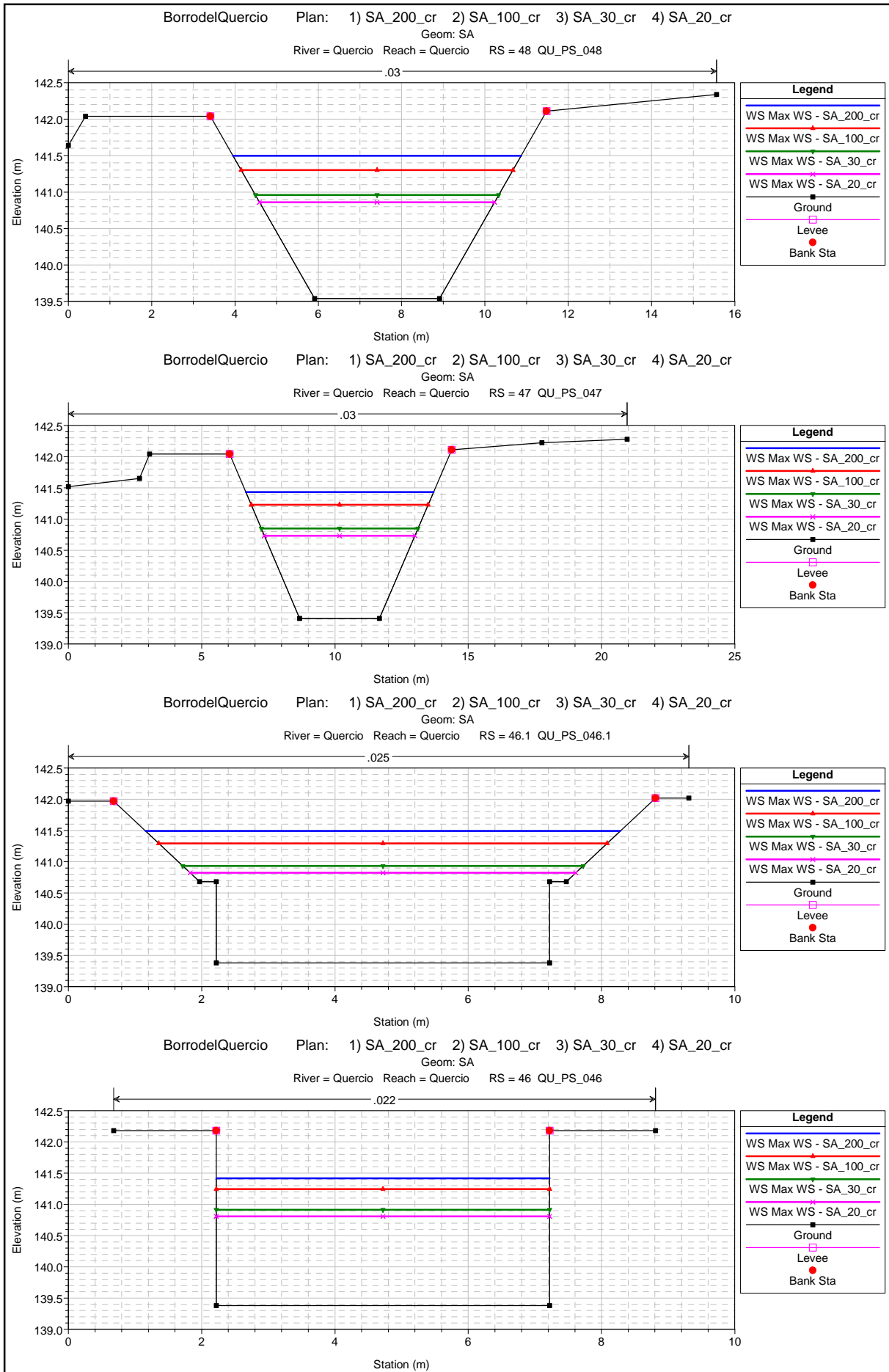


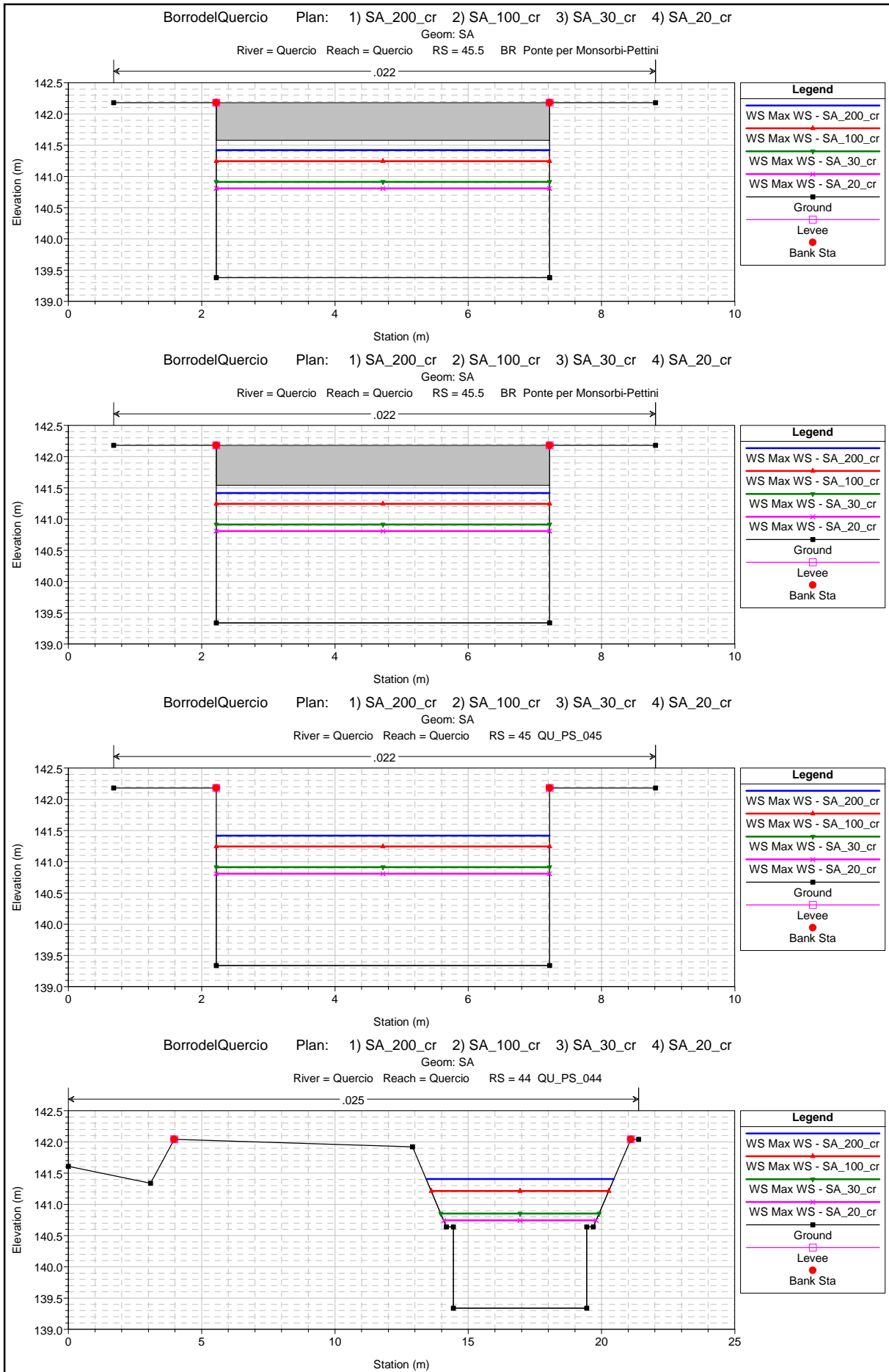


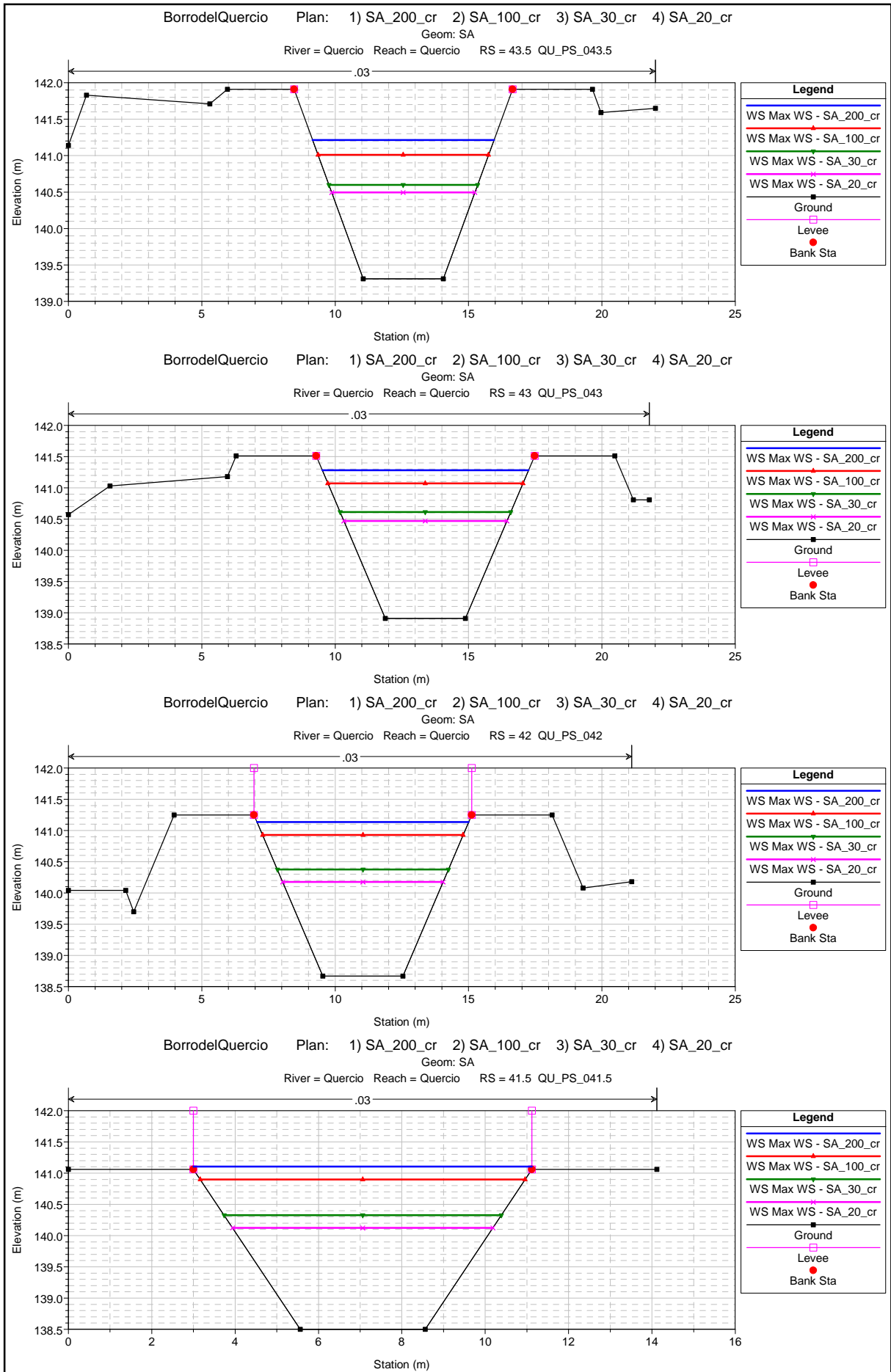


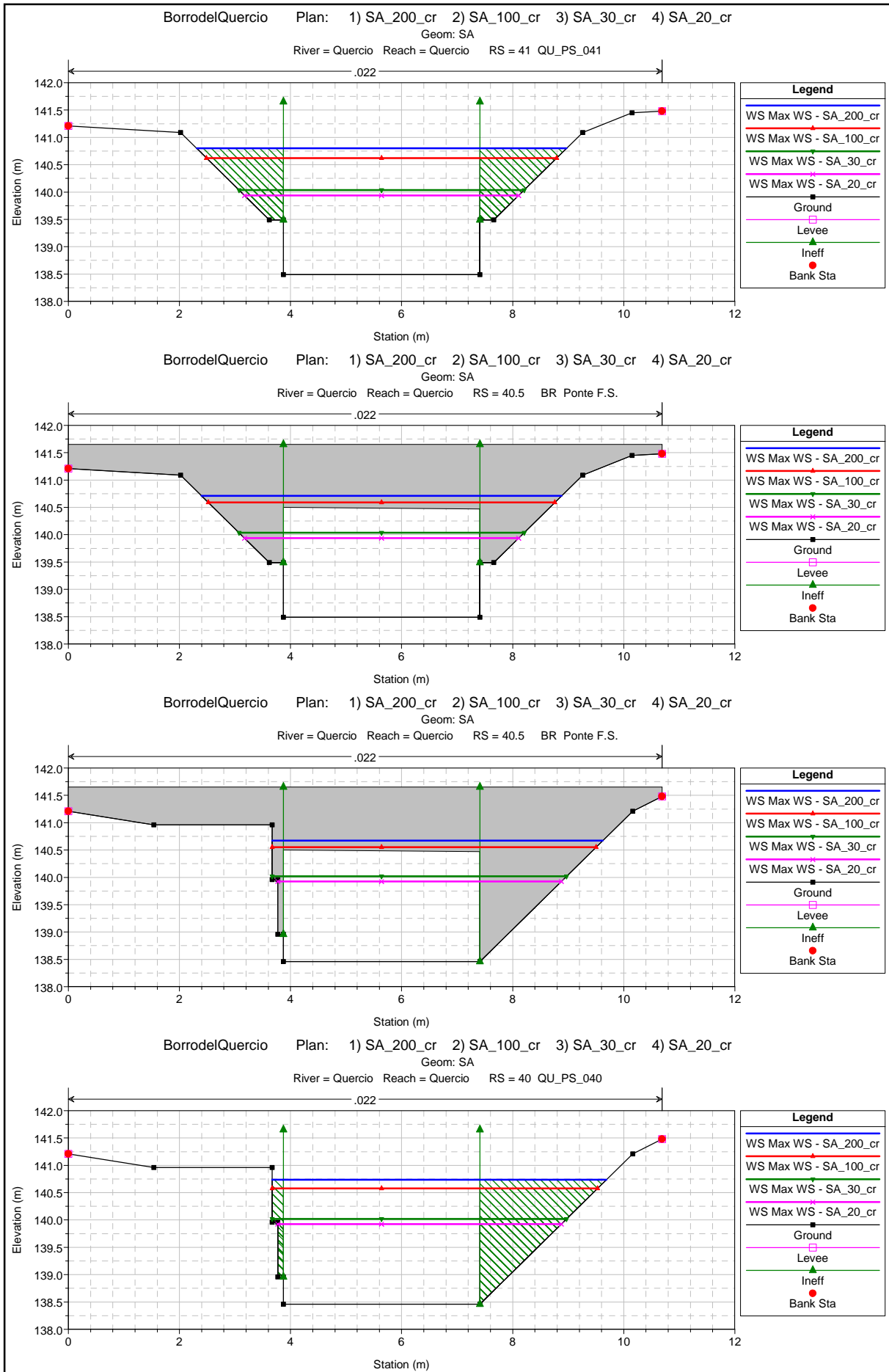


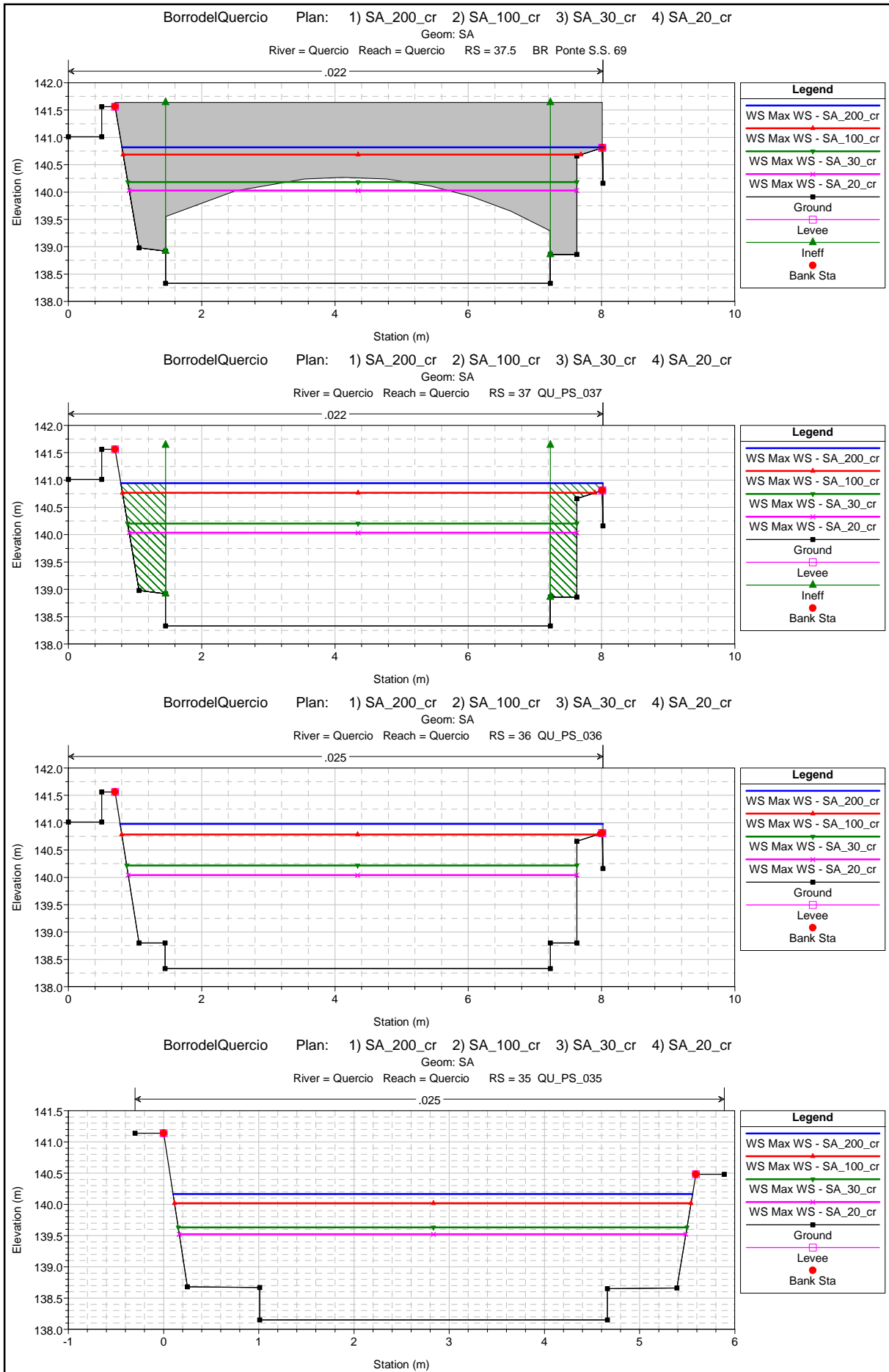


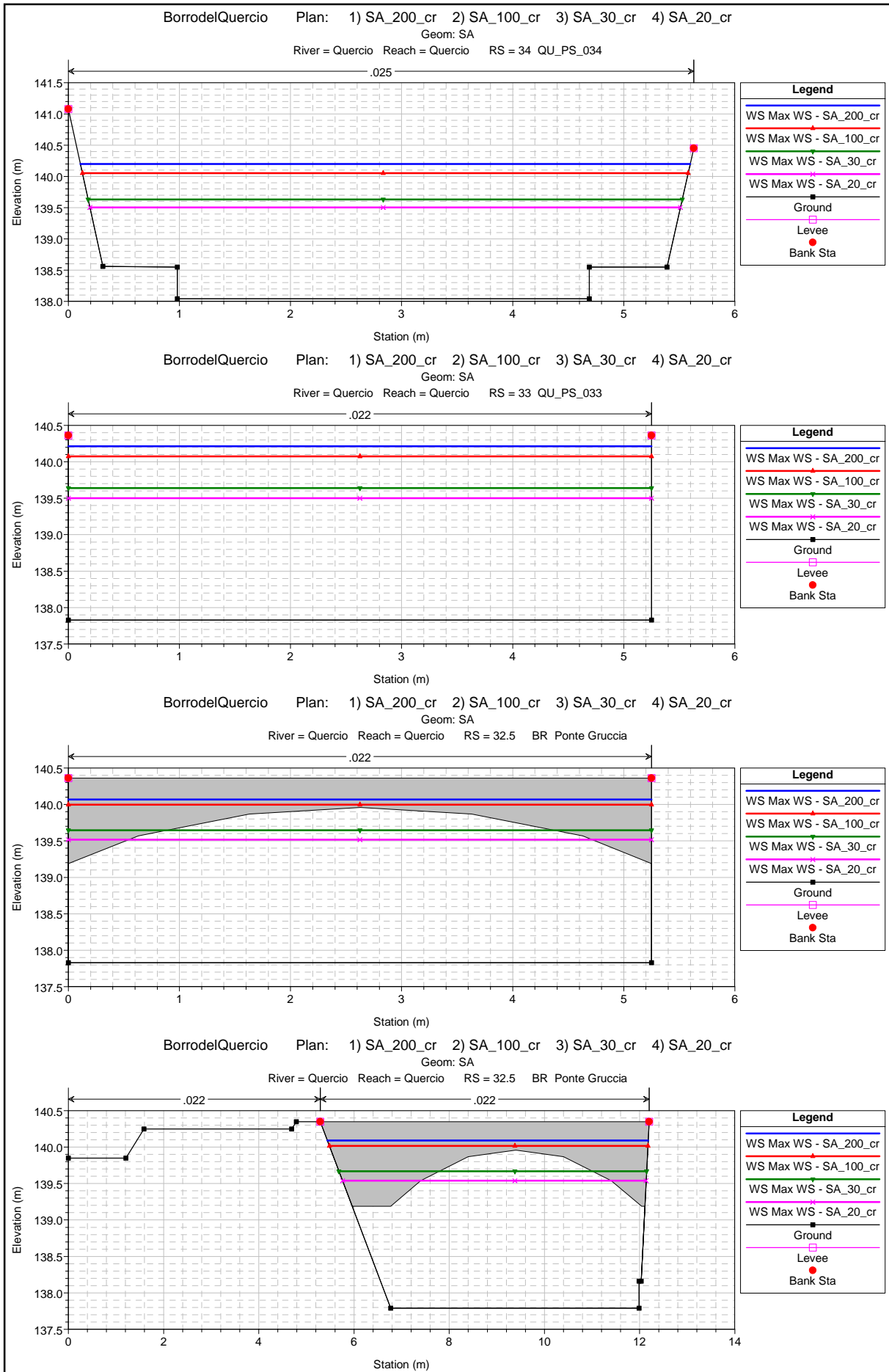


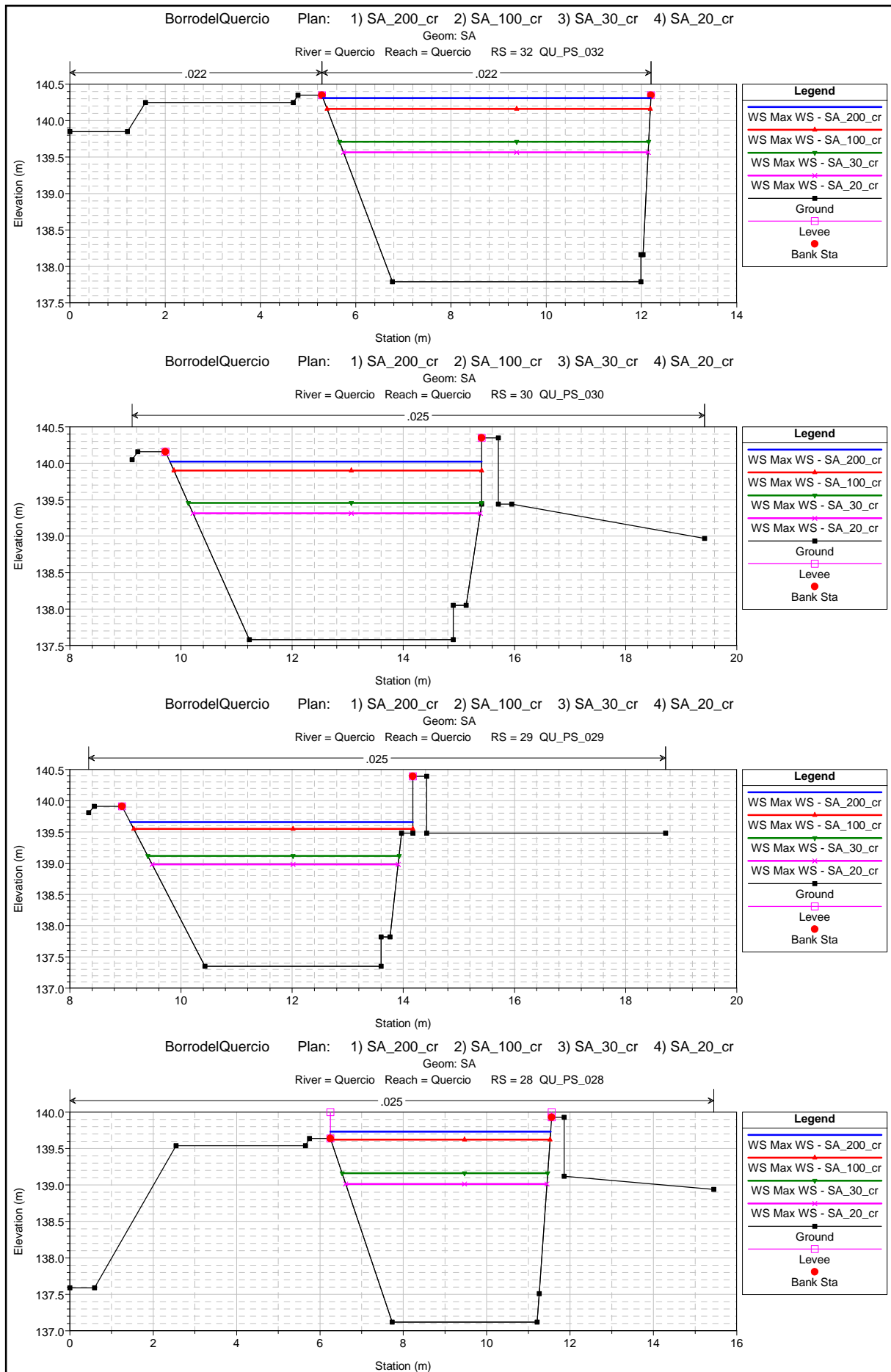


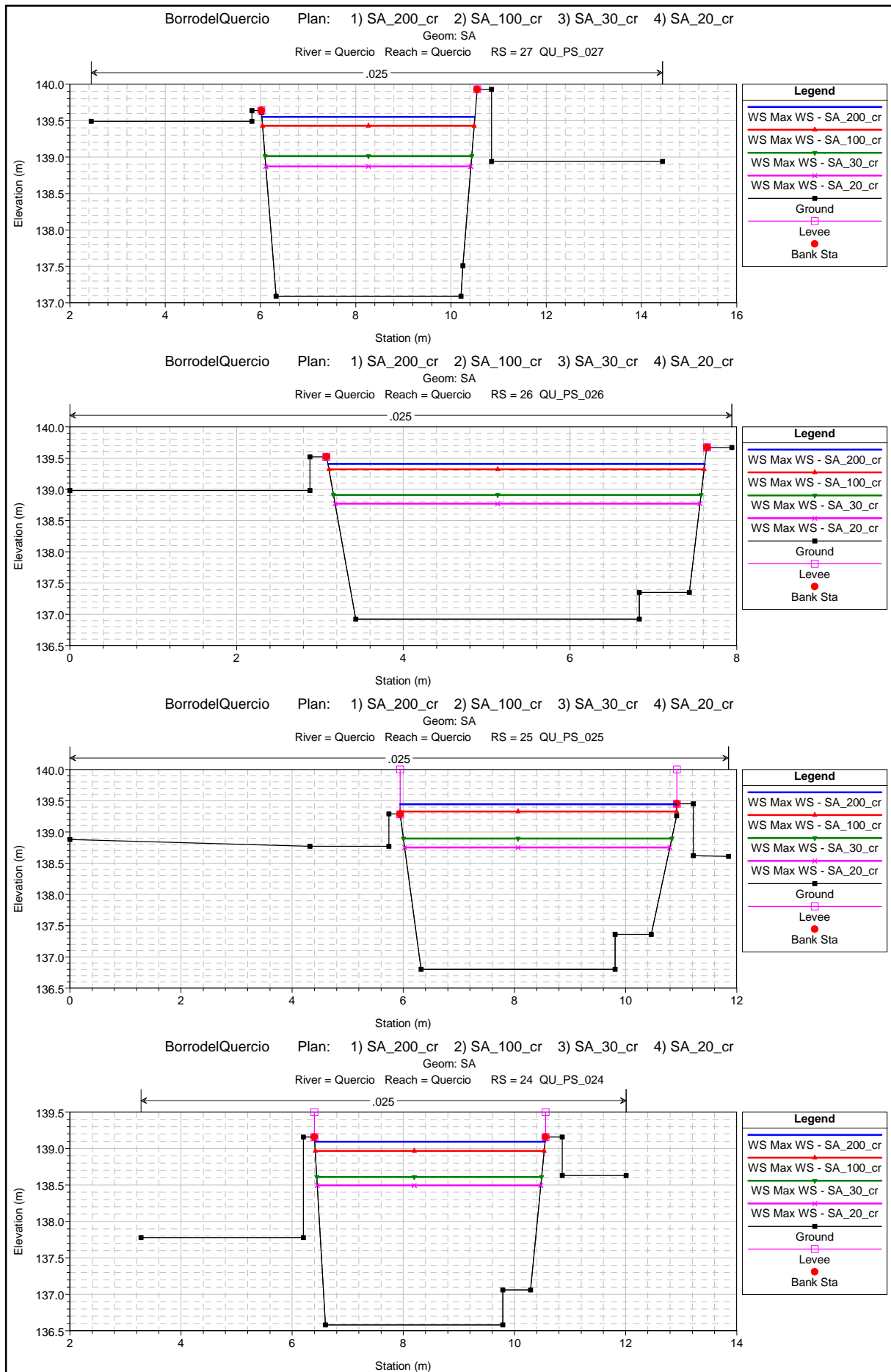


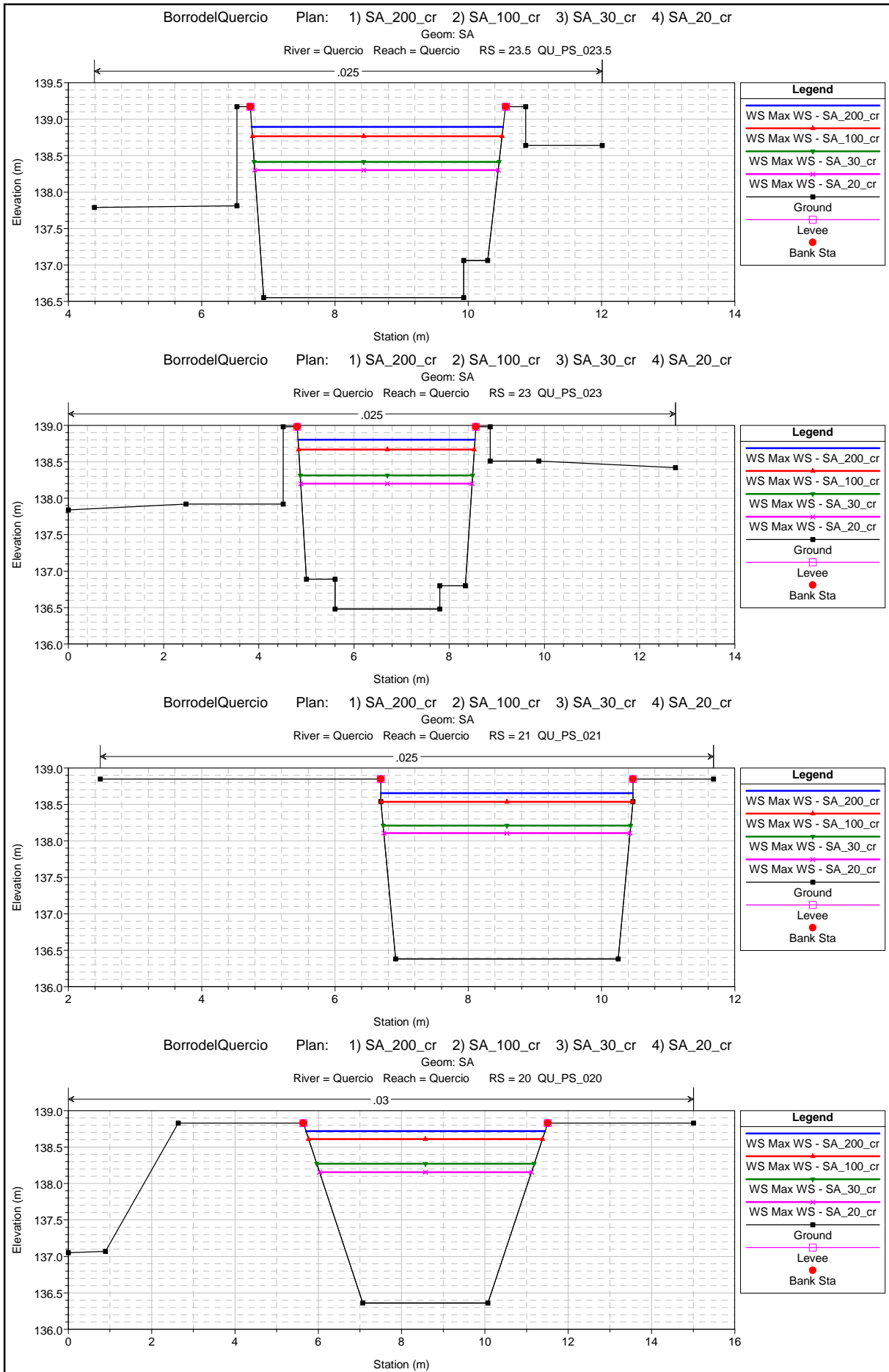


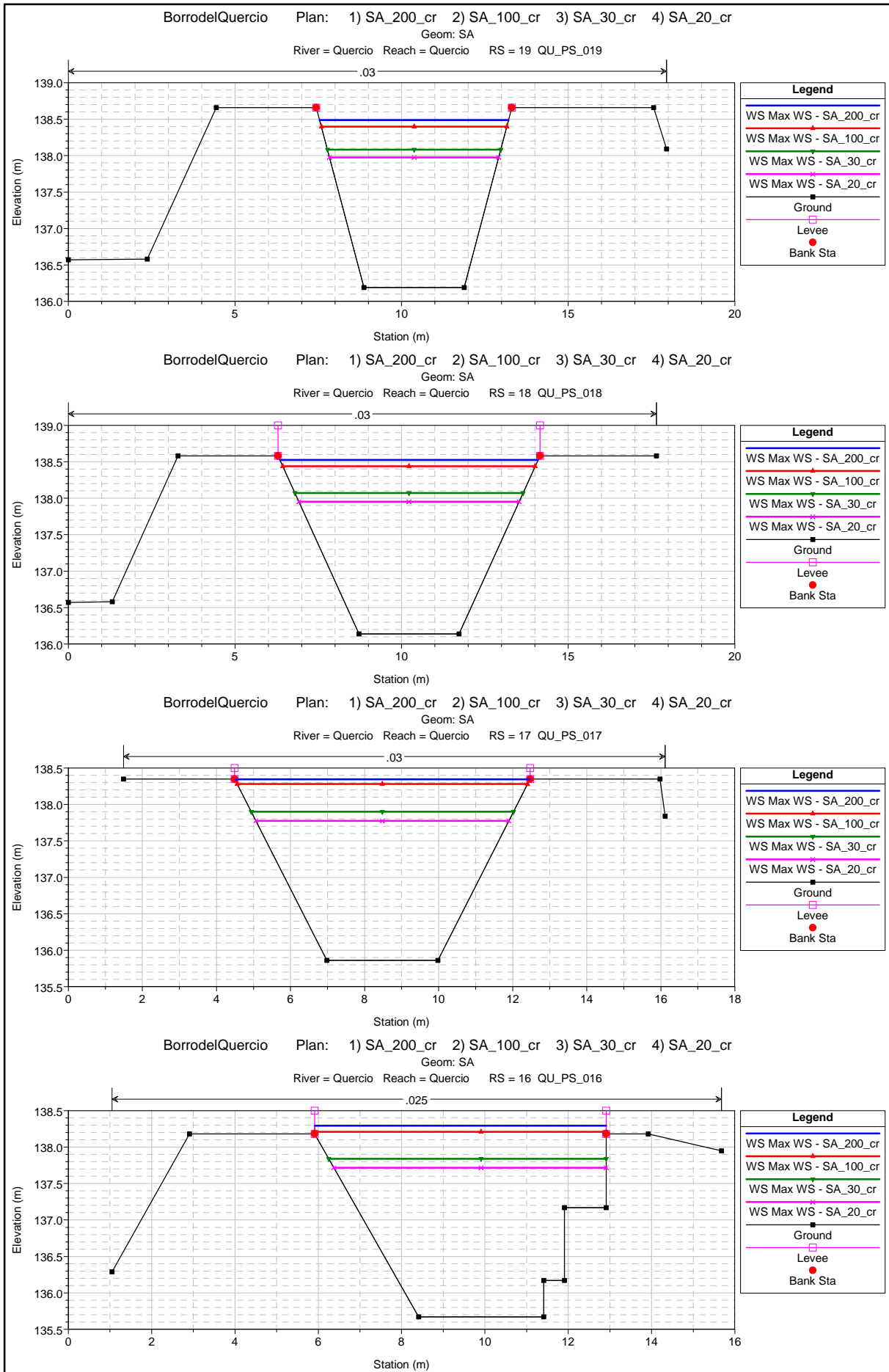


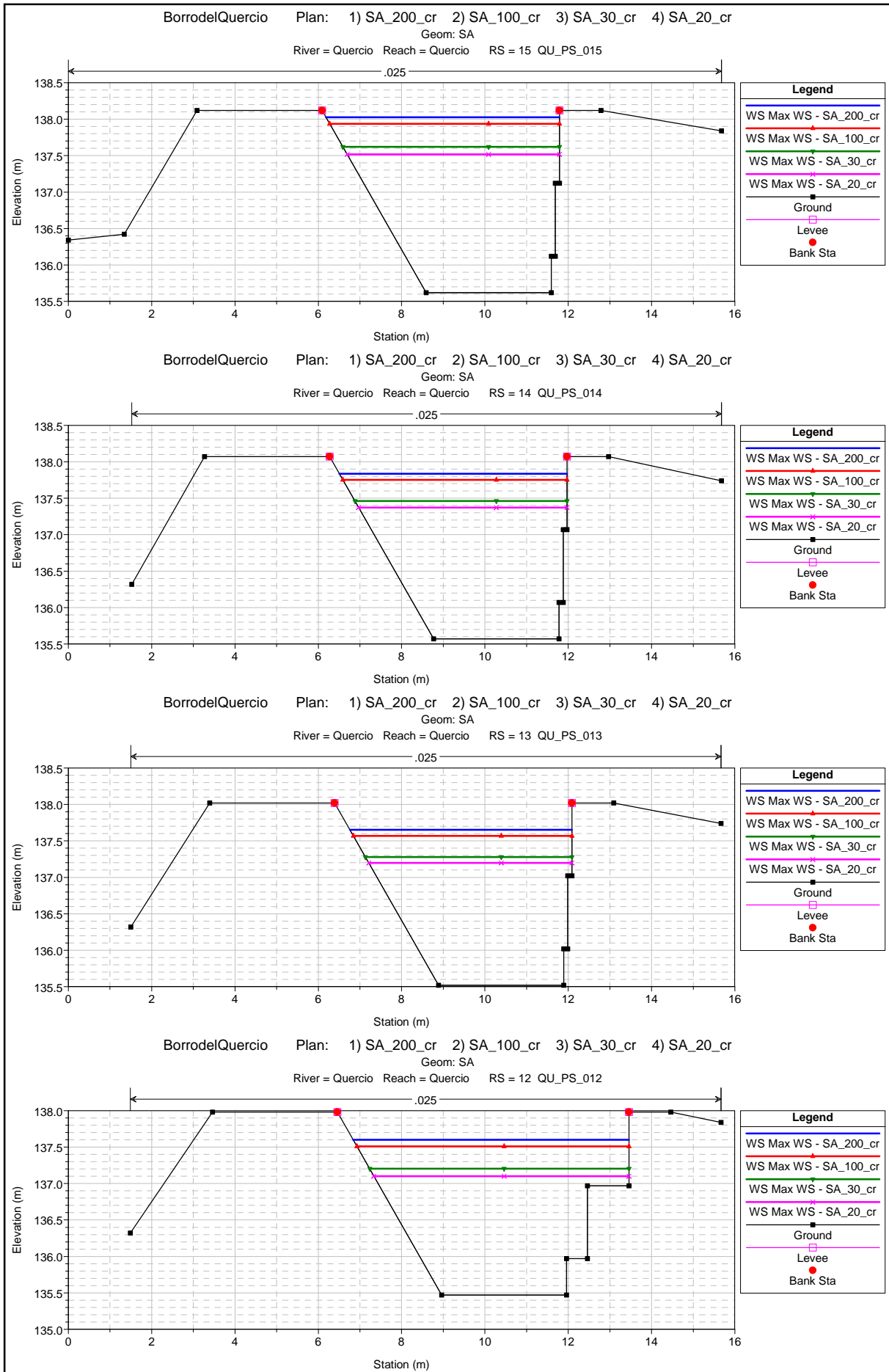


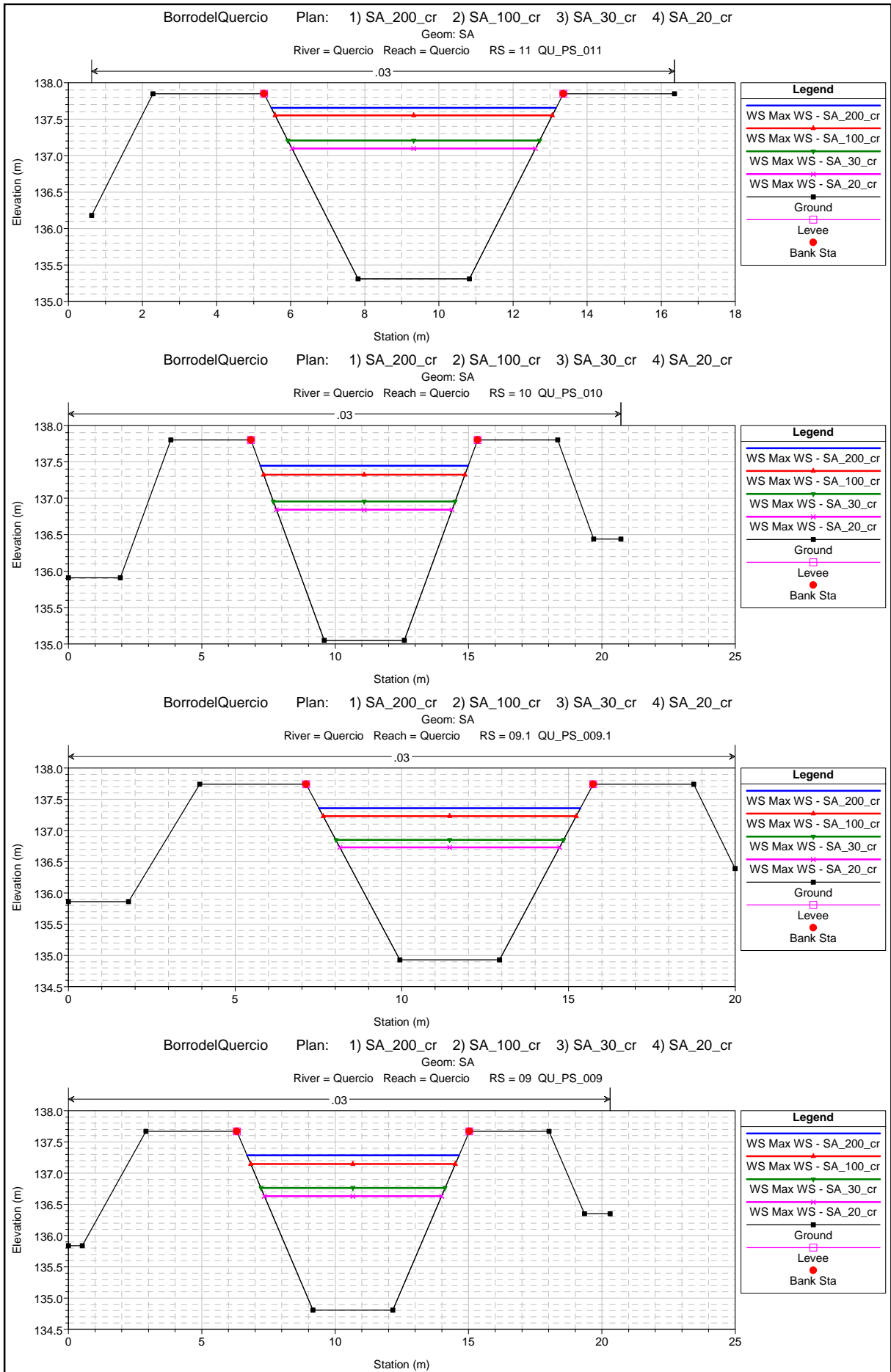


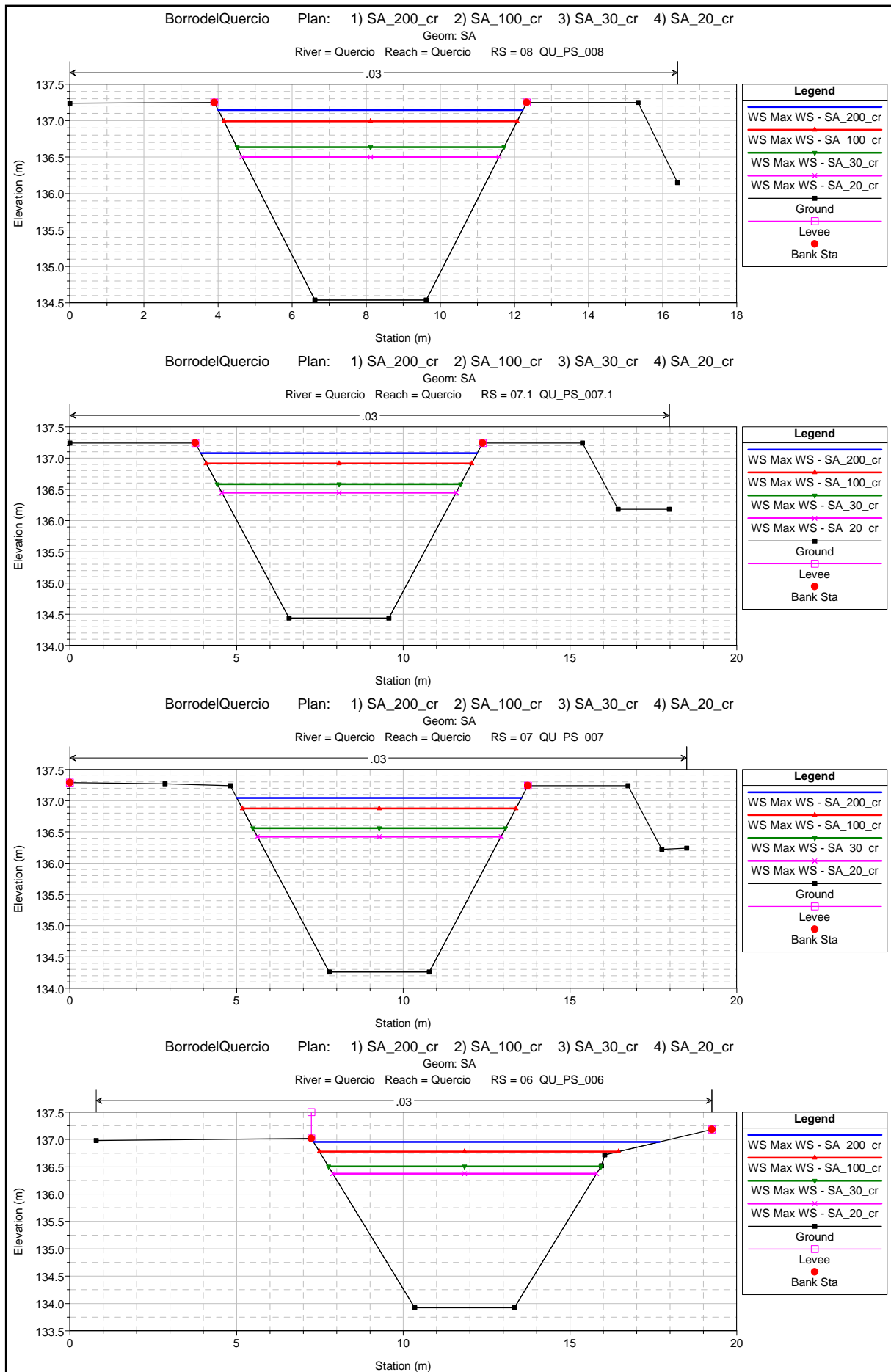


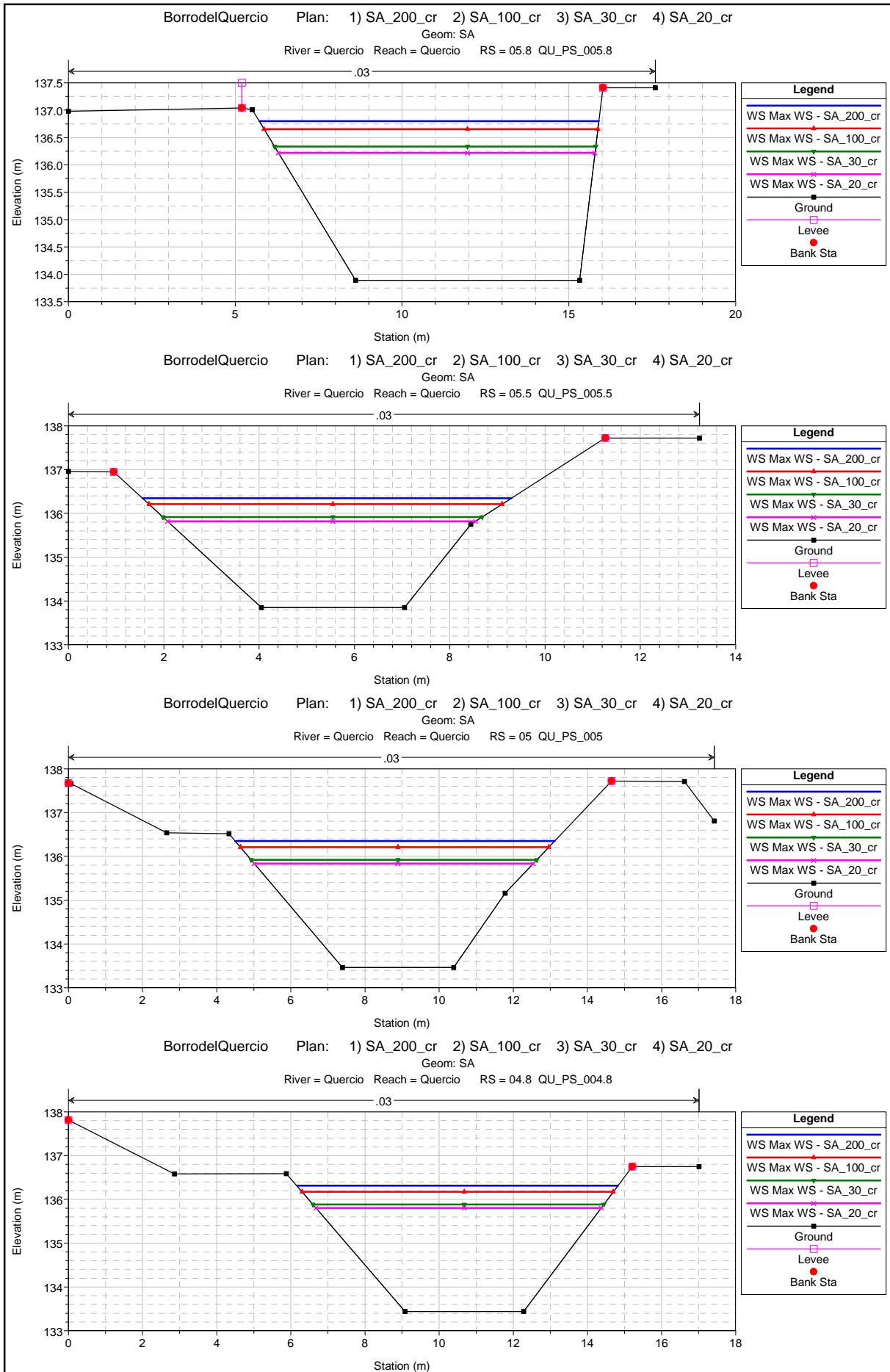


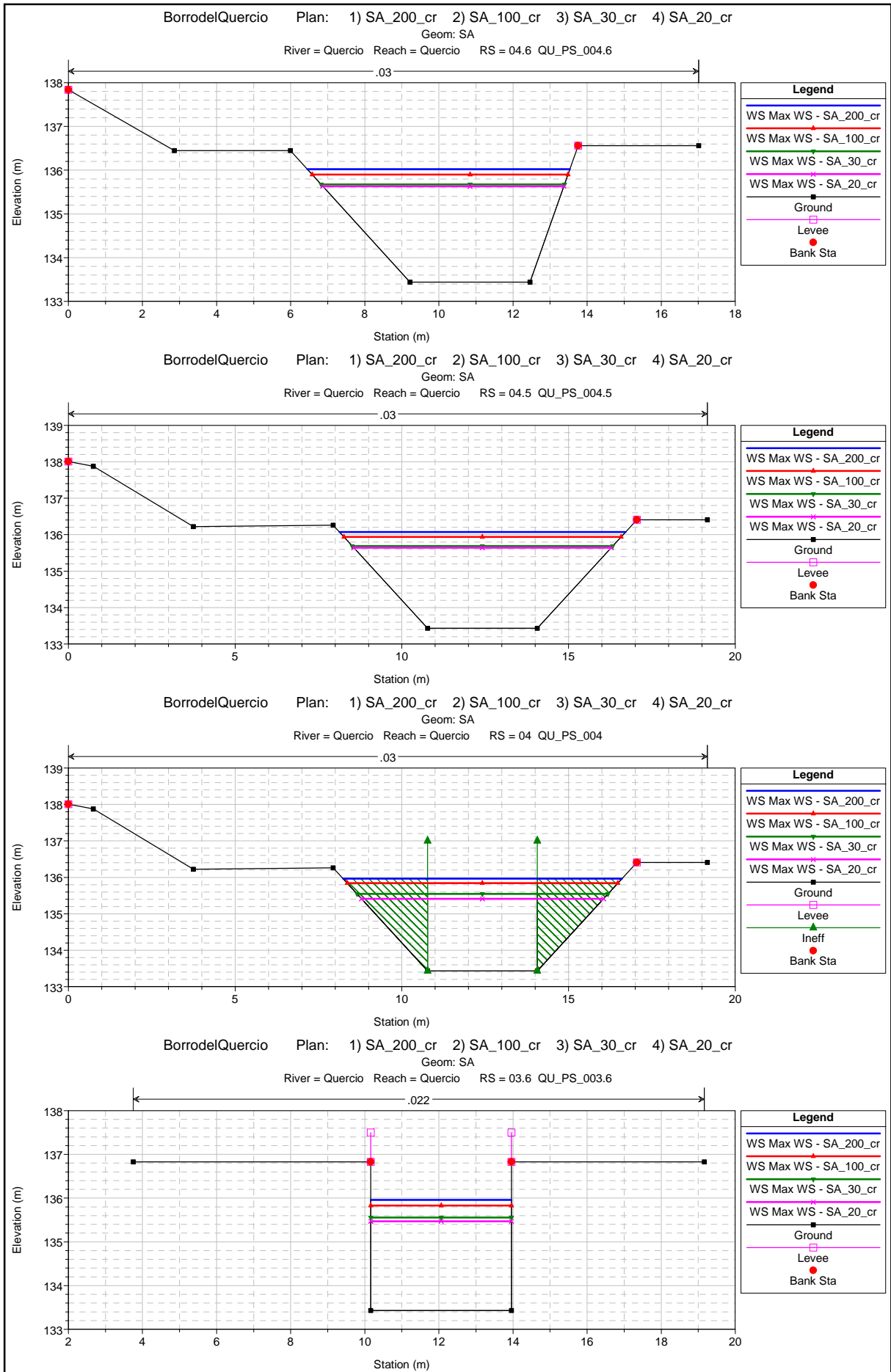


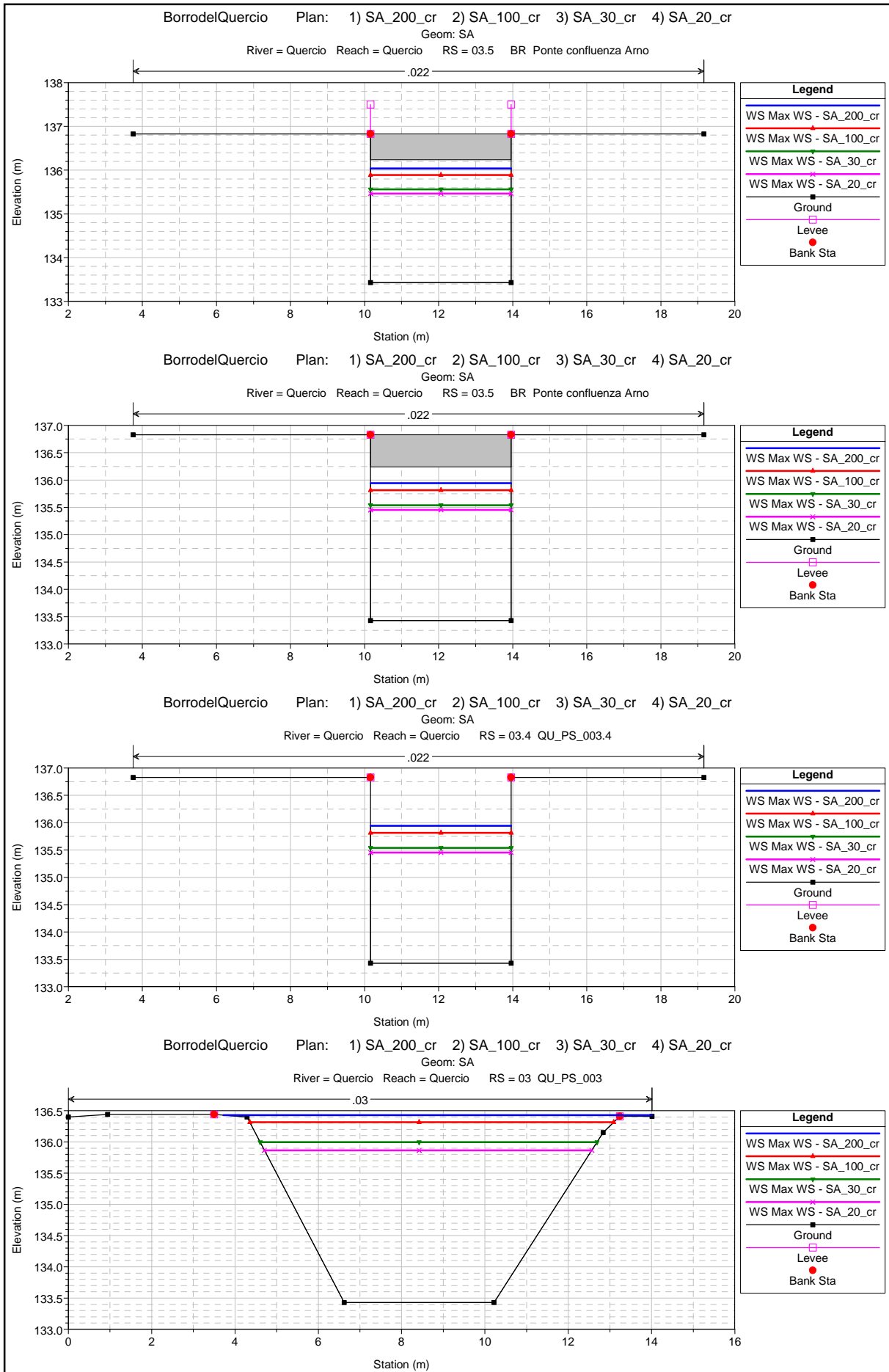


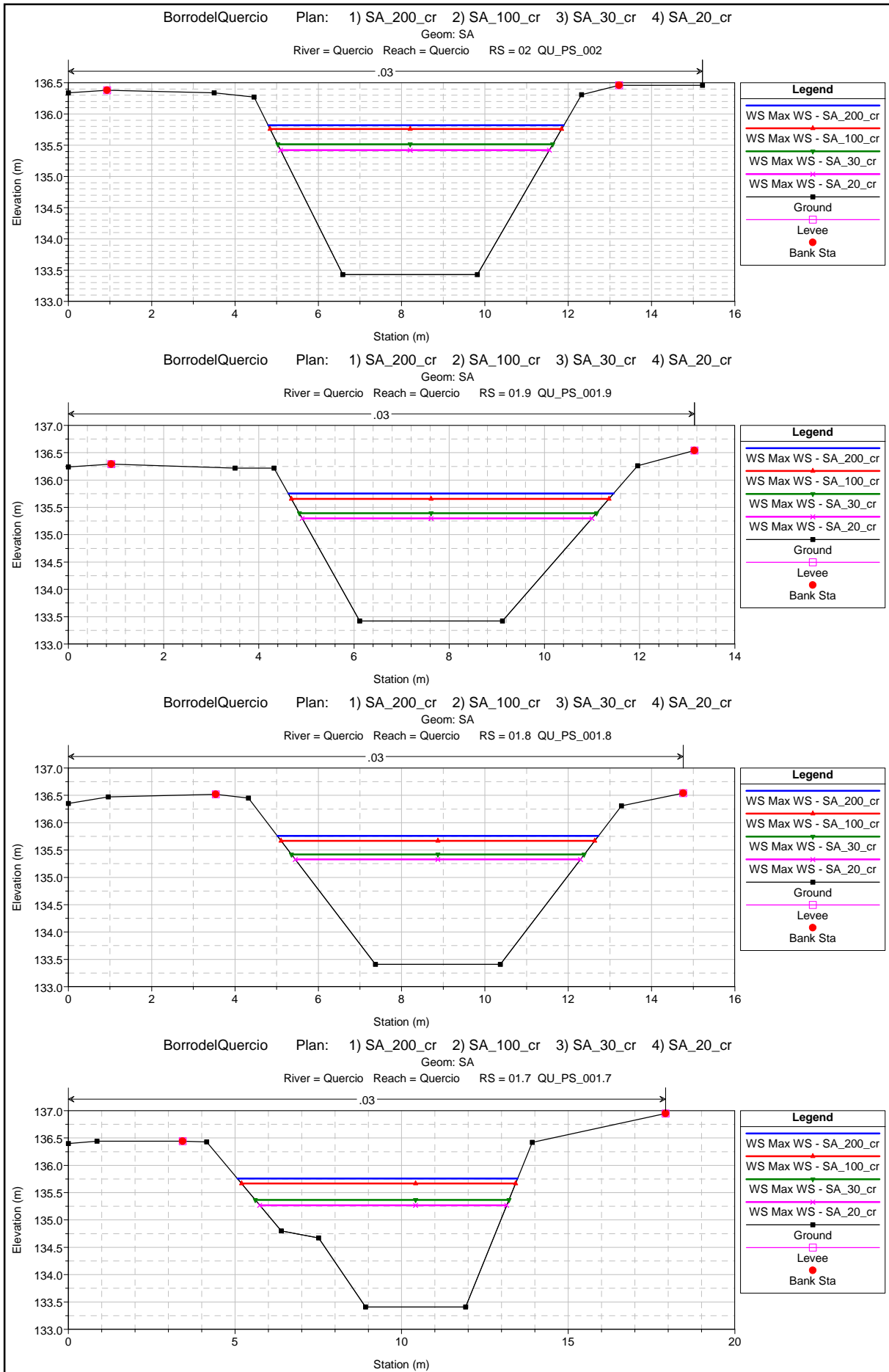


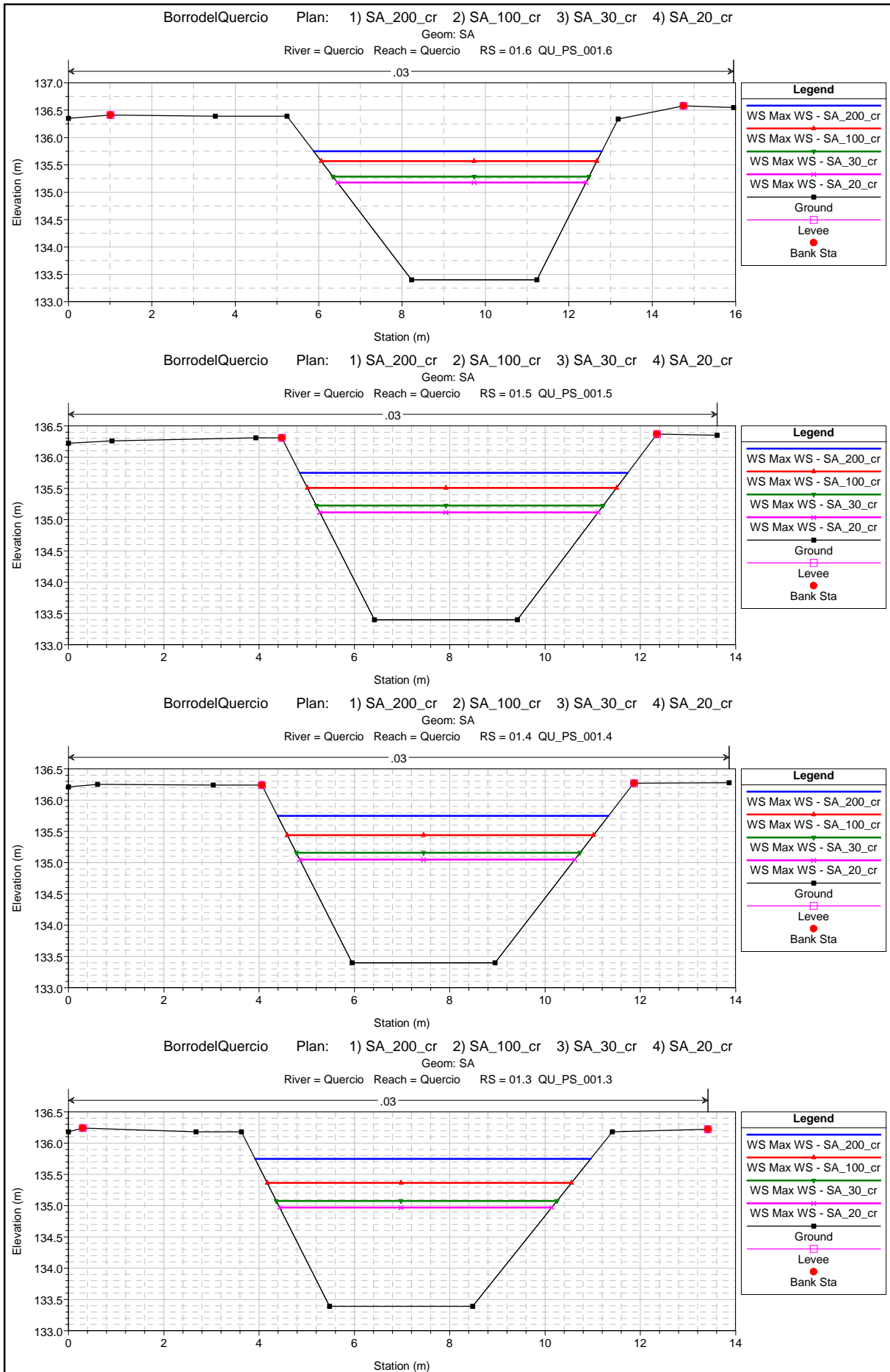


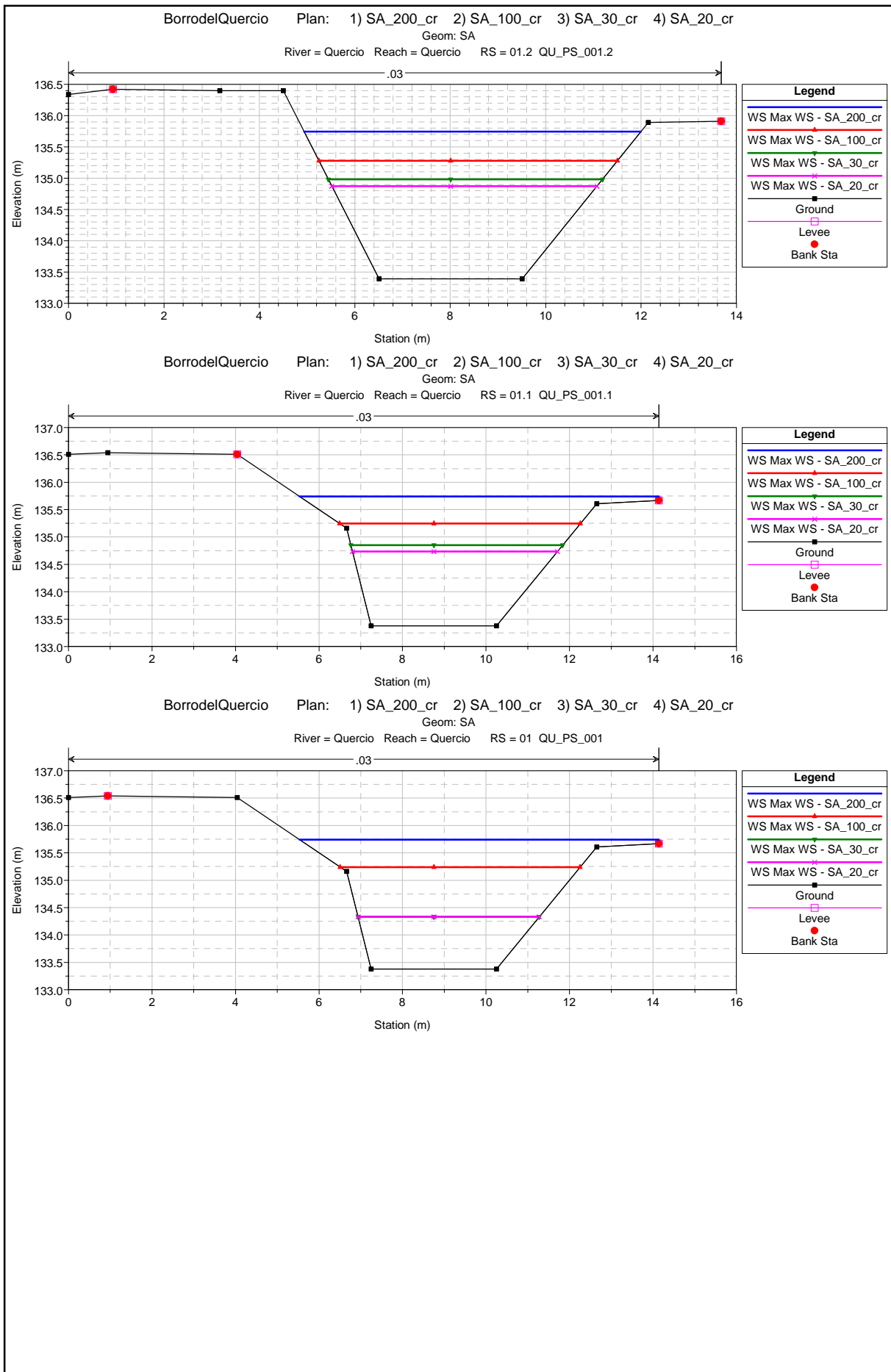












HEC-RAS River: Quercio Reach: Quercio Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	66	Max WS	SA_200_cr	24.63	141.42	143.22	143.20	143.84	0.012568	3.49	7.05	5.41	0.98
Quercio	66	Max WS	SA_100_cr	20.72	141.42	143.06	143.04	143.62	0.012529	3.33	6.22	5.20	0.97
Quercio	66	Max WS	SA_30_cr	15.14	141.42	142.81	142.78	143.28	0.012538	3.05	4.96	4.86	0.96
Quercio	66	Max WS	SA_20_cr	13.56	141.42	142.73	142.71	143.18	0.012579	2.96	4.58	4.76	0.96
Quercio	65	Max WS	SA_200_cr	24.63	141.40	143.20		143.73	0.009964	3.22	7.65	5.56	0.88
Quercio	65	Max WS	SA_100_cr	20.72	141.40	143.05		143.52	0.009700	3.04	6.81	5.38	0.86
Quercio	65	Max WS	SA_30_cr	15.14	141.40	142.80		143.18	0.009289	2.74	5.53	5.10	0.84
Quercio	65	Max WS	SA_20_cr	13.55	141.40	142.72		143.08	0.009171	2.64	5.14	5.01	0.83
Quercio	64	Max WS	SA_200_cr	24.63	141.38	143.17		143.70	0.009952	3.22	7.66	5.60	0.88
Quercio	64	Max WS	SA_100_cr	20.72	141.38	143.02		143.49	0.009716	3.04	6.82	5.42	0.86
Quercio	64	Max WS	SA_30_cr	15.14	141.38	142.78		143.16	0.009320	2.74	5.53	5.14	0.84
Quercio	64	Max WS	SA_20_cr	13.55	141.38	142.70		143.05	0.009200	2.64	5.14	5.05	0.83
Quercio	63	Max WS	SA_200_cr	24.63	141.34	143.13		143.64	0.009525	3.15	7.81	5.77	0.87
Quercio	63	Max WS	SA_100_cr	20.71	141.34	142.98		143.43	0.009358	2.99	6.94	5.57	0.85
Quercio	63	Max WS	SA_30_cr	15.14	141.34	142.73		143.10	0.009078	2.70	5.60	5.26	0.84
Quercio	63	Max WS	SA_20_cr	13.55	141.34	142.66		143.00	0.008987	2.61	5.20	5.16	0.83
Quercio	62	Max WS	SA_200_cr	24.63	141.31	143.11		143.59	0.008931	3.07	8.03	5.97	0.84
Quercio	62	Max WS	SA_100_cr	20.71	141.31	142.96		143.39	0.008818	2.91	7.12	5.75	0.84
Quercio	62	Max WS	SA_30_cr	15.13	141.31	142.70		143.06	0.008719	2.65	5.71	5.41	0.82
Quercio	62	Max WS	SA_20_cr	13.55	141.31	142.63		142.96	0.008646	2.56	5.29	5.30	0.82
Quercio	61.5	Max WS	SA_200_cr	24.63	141.29	143.06		143.54	0.009129	3.08	8.00	6.11	0.86
Quercio	61.5	Max WS	SA_100_cr	20.71	141.29	142.90		143.34	0.009244	2.95	7.03	5.87	0.86
Quercio	61.5	Max WS	SA_30_cr	15.13	141.29	142.64		143.02	0.009502	2.72	5.56	5.49	0.86
Quercio	61.5	Max WS	SA_20_cr	13.55	141.29	142.56		142.91	0.009603	2.65	5.12	5.37	0.86
Quercio	61	Max WS	SA_200_cr	24.63	141.24	143.22		143.44	0.003067	2.08	11.87	7.00	0.51
Quercio	61	Max WS	SA_100_cr	20.71	141.24	143.05		143.24	0.002937	1.94	10.66	6.87	0.50
Quercio	61	Max WS	SA_30_cr	15.13	141.24	142.77		142.92	0.002745	1.73	8.77	6.65	0.48
Quercio	61	Max WS	SA_20_cr	13.55	141.24	142.68		142.82	0.002687	1.66	8.19	6.58	0.47
Quercio	60	Max WS	SA_200_cr	24.63	141.24	143.21	142.56	143.43	0.001625	2.10	11.73	6.99	0.51
Quercio	60	Max WS	SA_100_cr	20.71	141.24	143.04	142.43	143.23	0.001590	1.96	10.57	6.85	0.50
Quercio	60	Max WS	SA_30_cr	15.13	141.24	142.76	142.20	142.91	0.001516	1.74	8.69	6.64	0.49

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	60	Max WS	SA_20_cr	13.55	141.24	142.67	142.13	142.81	0.001485	1.67	8.11	6.57	0.48
Quercio	59.5		Bridge										
Quercio	59	Max WS	SA_200_cr	24.63	141.18	143.25		143.43	0.001163	1.87	13.14	8.04	0.45
Quercio	59	Max WS	SA_100_cr	20.71	141.18	143.07		143.23	0.001036	1.74	11.92	7.41	0.42
Quercio	59	Max WS	SA_30_cr	15.13	141.18	142.79		142.91	0.000952	1.51	10.00	7.20	0.40
Quercio	59	Max WS	SA_20_cr	13.55	141.18	142.70		142.81	0.000928	1.44	9.40	7.13	0.39
Quercio	58	Max WS	SA_200_cr	24.62	141.16	143.11		143.42	0.004701	2.44	10.08	6.31	0.62
Quercio	58	Max WS	SA_100_cr	20.71	141.16	142.95		143.22	0.004457	2.28	9.08	6.16	0.60
Quercio	58	Max WS	SA_30_cr	15.13	141.16	142.69		142.90	0.004082	2.02	7.50	5.92	0.57
Quercio	58	Max WS	SA_20_cr	13.55	141.16	142.61		142.80	0.003967	1.93	7.01	5.85	0.56
Quercio	57.5	Max WS	SA_200_cr	24.62	141.14	142.92		143.47	0.010567	3.29	7.47	5.46	0.90
Quercio	57.5	Max WS	SA_100_cr	20.71	141.14	142.76		143.26	0.010389	3.12	6.64	5.28	0.89
Quercio	57.5	Max WS	SA_30_cr	15.12	141.14	142.52		142.92	0.010096	2.82	5.36	5.01	0.87
Quercio	57.5	Max WS	SA_20_cr	13.55	141.14	142.44		142.82	0.009999	2.72	4.97	4.93	0.87
Quercio	57	Max WS	SA_200_cr	24.62	141.10	142.88		143.43	0.010398	3.27	7.52	5.50	0.89
Quercio	57	Max WS	SA_100_cr	20.71	141.10	142.73		143.22	0.010207	3.10	6.68	5.33	0.88
Quercio	57	Max WS	SA_30_cr	15.12	141.10	142.48		142.88	0.009896	2.80	5.40	5.05	0.86
Quercio	57	Max WS	SA_20_cr	13.55	141.10	142.40		142.78	0.009774	2.70	5.02	4.96	0.86
Quercio	56.2	Max WS	SA_200_cr	24.62	141.07	142.78	142.75	143.39	0.012073	3.46	7.12	5.40	0.96
Quercio	56.2	Max WS	SA_100_cr	20.70	141.07	142.63	142.59	143.18	0.012034	3.29	6.30	5.23	0.96
Quercio	56.2	Max WS	SA_30_cr	15.12	141.07	142.38	142.34	142.84	0.012036	3.00	5.04	4.95	0.95
Quercio	56.2	Max WS	SA_20_cr	13.55	141.07	142.30	142.27	142.73	0.012038	2.91	4.66	4.87	0.95
Quercio	56.1	Max WS	SA_200_cr	24.62	141.07	142.76		143.23	0.008185	3.06	8.06	6.55	0.88
Quercio	56.1	Max WS	SA_100_cr	20.70	141.07	142.60		143.04	0.008425	2.95	7.02	6.21	0.88
Quercio	56.1	Max WS	SA_30_cr	15.12	141.07	142.34		142.72	0.008877	2.76	5.49	5.67	0.89
Quercio	56.1	Max WS	SA_20_cr	13.55	141.07	142.26		142.62	0.009048	2.69	5.04	5.50	0.90
Quercio	56	Max WS	SA_200_cr	24.62	140.95	142.75		143.16	0.006677	2.85	8.65	6.61	0.79
Quercio	56	Max WS	SA_100_cr	20.70	140.95	142.59		142.97	0.006714	2.72	7.60	6.28	0.79
Quercio	56	Max WS	SA_30_cr	15.12	140.95	142.33		142.65	0.006778	2.51	6.03	5.76	0.78
Quercio	56	Max WS	SA_20_cr	13.55	140.95	142.25		142.55	0.006788	2.44	5.56	5.59	0.78

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	55	Max WS	SA_200_cr	24.61	140.76	142.60		142.99	0.006204	2.77	8.88	6.67	0.77
Quercio	55	Max WS	SA_100_cr	20.70	140.76	142.43		142.79	0.006197	2.64	7.83	6.35	0.76
Quercio	55	Max WS	SA_30_cr	15.11	140.76	142.17		142.47	0.006180	2.43	6.23	5.82	0.75
Quercio	55	Max WS	SA_20_cr	13.55	140.76	142.09		142.37	0.006159	2.35	5.76	5.66	0.74
Quercio	54	Max WS	SA_200_cr	24.61	140.56	142.38		142.78	0.006454	2.81	8.75	6.63	0.78
Quercio	54	Max WS	SA_100_cr	20.69	140.56	142.22		142.58	0.006458	2.68	7.71	6.31	0.78
Quercio	54	Max WS	SA_30_cr	15.10	140.56	141.95		142.26	0.006450	2.46	6.13	5.79	0.76
Quercio	54	Max WS	SA_20_cr	13.55	140.56	141.87		142.16	0.006459	2.39	5.66	5.63	0.76
Quercio	53	Max WS	SA_200_cr	24.60	140.34	142.15		142.56	0.006511	2.82	8.72	6.63	0.78
Quercio	53	Max WS	SA_100_cr	20.68	140.34	141.99		142.36	0.006523	2.69	7.68	6.30	0.78
Quercio	53	Max WS	SA_30_cr	15.09	140.34	141.73		142.04	0.006559	2.48	6.09	5.78	0.77
Quercio	53	Max WS	SA_20_cr	13.55	140.34	141.65		141.94	0.006533	2.40	5.64	5.62	0.77
Quercio	52	Max WS	SA_200_cr	24.59	140.13	141.95		142.35	0.006454	2.81	8.75	6.63	0.78
Quercio	52	Max WS	SA_100_cr	20.67	140.13	141.78		142.15	0.006494	2.69	7.69	6.30	0.78
Quercio	52	Max WS	SA_30_cr	15.08	140.13	141.52		141.83	0.006536	2.47	6.09	5.77	0.77
Quercio	52	Max WS	SA_20_cr	13.55	140.13	141.44		141.73	0.006527	2.40	5.64	5.62	0.76
Quercio	51	Max WS	SA_200_cr	24.59	139.90	141.71		142.12	0.006490	2.82	8.73	6.63	0.78
Quercio	51	Max WS	SA_100_cr	20.66	139.90	141.54		141.92	0.006665	2.71	7.61	6.28	0.79
Quercio	51	Max WS	SA_30_cr	15.06	139.90	141.26		141.59	0.006986	2.53	5.94	5.72	0.79
Quercio	51	Max WS	SA_20_cr	13.55	139.90	141.18		141.49	0.007033	2.47	5.49	5.56	0.79
Quercio	50	Max WS	SA_200_cr	24.59	139.84	141.66		142.06	0.006445	2.81	8.75	6.64	0.78
Quercio	50	Max WS	SA_100_cr	20.66	139.84	141.48		141.85	0.006693	2.72	7.60	6.28	0.79
Quercio	50	Max WS	SA_30_cr	15.06	139.84	141.19		141.53	0.007183	2.56	5.88	5.71	0.80
Quercio	50	Max WS	SA_20_cr	13.55	139.84	141.11		141.43	0.007268	2.50	5.43	5.55	0.81
Quercio	49	Max WS	SA_200_cr	24.59	139.77	141.68		142.00	0.004918	2.52	9.75	7.23	0.69
Quercio	49	Max WS	SA_100_cr	20.66	139.77	141.49		141.79	0.005156	2.45	8.43	6.81	0.70
Quercio	49	Max WS	SA_30_cr	15.06	139.77	141.18		141.46	0.005677	2.33	6.46	6.14	0.72
Quercio	49	Max WS	SA_20_cr	13.55	139.77	141.10		141.36	0.005788	2.28	5.94	5.95	0.73
Quercio	48	Max WS	SA_200_cr	24.59	139.54	141.50		141.83	0.004856	2.53	9.71	6.92	0.68
Quercio	48	Max WS	SA_100_cr	20.60	139.54	141.30		141.61	0.005081	2.46	8.39	6.52	0.69

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	48	Max WS	SA_30_cr	15.06	139.54	140.96		141.25	0.006023	2.40	6.27	5.84	0.74
Quercio	48	Max WS	SA_20_cr	13.54	139.54	140.86		141.15	0.006330	2.37	5.70	5.64	0.75
Quercio	47	Max WS	SA_200_cr	24.53	139.41	141.43		141.73	0.004288	2.42	10.15	7.04	0.64
Quercio	47	Max WS	SA_100_cr	20.54	139.41	141.23		141.51	0.004491	2.35	8.76	6.64	0.65
Quercio	47	Max WS	SA_30_cr	15.04	139.41	140.85		141.13	0.005725	2.36	6.38	5.88	0.72
Quercio	47	Max WS	SA_20_cr	13.54	139.41	140.73		141.02	0.006314	2.37	5.71	5.64	0.75
Quercio	46.1	Max WS	SA_200_cr	24.53	139.38	141.49		141.72	0.002395	2.11	11.63	7.13	0.53
Quercio	46.1	Max WS	SA_100_cr	20.54	139.38	141.29		141.50	0.002378	2.00	10.24	6.72	0.52
Quercio	46.1	Max WS	SA_30_cr	15.06	139.38	140.93		141.12	0.002565	1.89	7.96	6.01	0.52
Quercio	46.1	Max WS	SA_20_cr	13.54	139.38	140.82		141.00	0.002629	1.85	7.31	5.79	0.53
Quercio	46	Max WS	SA_200_cr	24.48	139.38	141.42	140.72	141.71	0.002393	2.40	10.19	5.00	0.54
Quercio	46	Max WS	SA_100_cr	20.54	139.38	141.24	140.58	141.49	0.002152	2.20	9.32	5.00	0.52
Quercio	46	Max WS	SA_30_cr	15.06	139.38	140.91	140.35	141.11	0.001999	1.96	7.66	5.00	0.51
Quercio	46	Max WS	SA_20_cr	13.54	139.38	140.81	140.29	140.99	0.001975	1.90	7.14	5.00	0.51
Quercio	45.5		Bridge										
Quercio	45	Max WS	SA_200_cr	24.48	139.34	141.42		141.70	0.002275	2.36	10.38	5.00	0.52
Quercio	45	Max WS	SA_100_cr	20.54	139.34	141.24		141.48	0.002035	2.16	9.51	5.00	0.50
Quercio	45	Max WS	SA_30_cr	15.06	139.34	140.91		141.10	0.001861	1.92	7.86	5.00	0.49
Quercio	45	Max WS	SA_20_cr	13.54	139.34	140.81		140.98	0.001829	1.85	7.34	5.00	0.49
Quercio	44	Max WS	SA_200_cr	24.48	139.34	141.41		141.65	0.002571	2.16	11.32	7.05	0.54
Quercio	44	Max WS	SA_100_cr	20.54	139.34	141.21		141.43	0.002546	2.05	10.00	6.66	0.54
Quercio	44	Max WS	SA_30_cr	15.04	139.34	140.86		141.05	0.002774	1.94	7.73	5.94	0.54
Quercio	44	Max WS	SA_20_cr	13.53	139.34	140.74		140.93	0.002864	1.91	7.08	5.72	0.55
Quercio	43.5	Max WS	SA_200_cr	24.34	139.31	141.21		141.56	0.005306	2.61	9.33	6.80	0.71
Quercio	43.5	Max WS	SA_100_cr	20.35	139.31	141.01		141.34	0.005681	2.55	7.98	6.39	0.73
Quercio	43.5	Max WS	SA_30_cr	15.03	139.31	140.60		140.98	0.008565	2.73	5.51	5.57	0.87
Quercio	43.5	Max WS	SA_20_cr	13.54	139.31	140.49		140.88	0.009387	2.74	4.95	5.36	0.91
Quercio	43	Max WS	SA_200_cr	24.34	138.91	141.28		141.47	0.002289	1.91	12.73	7.73	0.48
Quercio	43	Max WS	SA_100_cr	20.35	138.91	141.07		141.24	0.002286	1.82	11.16	7.32	0.47
Quercio	43	Max WS	SA_30_cr	15.03	138.91	140.61		140.79	0.003085	1.88	7.99	6.40	0.54

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	43	Max WS	SA_20_cr	13.53	138.91	140.47		140.65	0.003443	1.90	7.11	6.11	0.56
Quercio	42.99			Lat Struct									
Quercio	42.98			Lat Struct									
Quercio	42	Max WS	SA_200_cr	24.19	138.67	141.14		141.30	0.001942	1.80	13.48	7.93	0.44
Quercio	42	Max WS	SA_100_cr	20.14	138.67	140.93		141.07	0.001897	1.70	11.86	7.51	0.43
Quercio	42	Max WS	SA_30_cr	14.77	138.67	140.38		140.55	0.002943	1.84	8.03	6.41	0.52
Quercio	42	Max WS	SA_20_cr	12.12	138.67	140.18		140.34	0.003145	1.79	6.78	6.01	0.54
Quercio	41.5	Max WS	SA_200_cr	24.11	138.50	141.11		141.25	0.001543	1.65	14.61	8.12	0.39
Quercio	41.5	Max WS	SA_100_cr	20.12	138.50	140.90		141.02	0.001496	1.55	12.95	7.80	0.39
Quercio	41.5	Max WS	SA_30_cr	14.63	138.50	140.33		140.47	0.002244	1.66	8.81	6.65	0.46
Quercio	41.5	Max WS	SA_20_cr	11.45	138.50	140.12		140.24	0.002126	1.53	7.51	6.25	0.44
Quercio	41	Max WS	SA_200_cr	21.49	138.49	140.80	140.05	141.15	0.001990	2.63	8.18	6.66	0.55
Quercio	41	Max WS	SA_100_cr	19.84	138.49	140.62	139.96	140.97	0.002213	2.63	7.55	6.31	0.57
Quercio	41	Max WS	SA_30_cr	14.24	138.49	140.04	139.67	140.38	0.003322	2.60	5.48	5.13	0.67
Quercio	41	Max WS	SA_20_cr	10.65	138.49	139.94	139.46	140.16	0.002327	2.08	5.12	4.93	0.55
Quercio	40.5			Bridge									
Quercio	40	Max WS	SA_200_cr	21.03	138.46	140.74		141.08	0.001311	2.61	8.06	6.02	0.55
Quercio	40	Max WS	SA_100_cr	19.56	138.46	140.58		140.92	0.001448	2.61	7.49	5.86	0.57
Quercio	40	Max WS	SA_30_cr	14.24	138.46	140.02		140.36	0.002131	2.58	5.51	5.30	0.66
Quercio	40	Max WS	SA_20_cr	10.65	138.46	139.93		140.14	0.001461	2.05	5.19	5.11	0.54
Quercio	39.99			Lat Struct									
Quercio	39.98			Lat Struct									
Quercio	39	Max WS	SA_200_cr	22.35	138.42	140.93		141.09	0.001380	1.75	12.76	6.41	0.40
Quercio	39	Max WS	SA_100_cr	19.84	138.42	140.76		140.90	0.001385	1.70	11.66	6.25	0.40
Quercio	39	Max WS	SA_30_cr	14.46	138.42	140.17		140.33	0.001959	1.77	8.15	5.66	0.47
Quercio	39	Max WS	SA_20_cr	10.65	138.42	140.01		140.12	0.001460	1.47	7.27	5.50	0.41
Quercio	38.5	Max WS	SA_200_cr	22.26	138.38	140.95		141.08	0.001098	1.61	13.85	6.72	0.36

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	38.5	Max WS	SA_100_cr	19.83	138.38	140.77		140.89	0.001110	1.56	12.68	6.58	0.36
Quercio	38.5	Max WS	SA_30_cr	14.46	138.38	140.18		140.31	0.001519	1.61	8.97	5.99	0.42
Quercio	38.5	Max WS	SA_20_cr	10.64	138.38	140.02		140.11	0.001130	1.33	8.01	5.83	0.36
Quercio	38	Max WS	SA_200_cr	22.94	138.36	140.97	139.53	141.09	0.000344	1.51	15.16	13.15	0.30
Quercio	38	Max WS	SA_100_cr	19.83	138.36	140.79	139.42	140.89	0.000327	1.41	14.10	8.45	0.29
Quercio	38	Max WS	SA_30_cr	14.46	138.36	140.21	139.22	140.30	0.000429	1.34	10.76	7.87	0.32
Quercio	38	Max WS	SA_20_cr	10.64	138.36	140.04	139.06	140.10	0.000322	1.09	9.76	7.70	0.27
Quercio	37.5			Bridge									
Quercio	37	Max WS	SA_200_cr	21.88	138.33	140.94		141.05	0.000358	1.45	15.08	7.23	0.29
Quercio	37	Max WS	SA_100_cr	19.83	138.33	140.77		140.87	0.000372	1.41	14.06	7.09	0.29
Quercio	37	Max WS	SA_30_cr	14.46	138.33	140.20		140.29	0.000475	1.34	10.81	6.74	0.31
Quercio	37	Max WS	SA_20_cr	10.64	138.33	140.04		140.10	0.000352	1.08	9.84	6.72	0.26
Quercio	36.99			Lat Struct									
Quercio	36	Max WS	SA_200_cr	22.27	138.33	140.98		141.06	0.000620	1.28	17.42	7.24	0.26
Quercio	36	Max WS	SA_100_cr	19.82	138.33	140.78		140.86	0.000629	1.24	16.03	7.14	0.26
Quercio	36	Max WS	SA_30_cr	14.45	138.33	140.22		140.29	0.000715	1.19	12.14	6.75	0.28
Quercio	36	Max WS	SA_20_cr	10.63	138.33	140.04		140.09	0.000518	0.97	10.98	6.73	0.24
Quercio	35	Max WS	SA_200_cr	35.79	138.15	140.16		140.84	0.007574	3.65	9.82	5.46	0.87
Quercio	35	Max WS	SA_100_cr	31.51	138.15	140.02		140.64	0.007446	3.49	9.03	5.43	0.86
Quercio	35	Max WS	SA_30_cr	23.30	138.15	139.63		140.21	0.008590	3.35	6.96	5.34	0.94
Quercio	35	Max WS	SA_20_cr	20.83	138.15	139.52	139.48	140.07	0.008923	3.28	6.36	5.32	0.96
Quercio	34	Max WS	SA_200_cr	35.79	138.04	140.20		140.78	0.006079	3.38	10.60	5.49	0.78
Quercio	34	Max WS	SA_100_cr	31.51	138.04	140.05		140.58	0.005855	3.21	9.81	5.45	0.76
Quercio	34	Max WS	SA_30_cr	23.30	138.04	139.63		140.12	0.006807	3.10	7.52	5.35	0.83
Quercio	34	Max WS	SA_20_cr	20.80	138.04	139.50		139.97	0.007115	3.04	6.85	5.32	0.85
Quercio	33	Max WS	SA_200_cr	35.79	137.83	140.21	139.51	140.63	0.002944	2.86	12.51	5.25	0.59
Quercio	33	Max WS	SA_100_cr	31.50	137.83	140.08	139.37	140.44	0.002680	2.67	11.79	5.25	0.57
Quercio	33	Max WS	SA_30_cr	23.27	137.83	139.64	139.09	139.94	0.002654	2.45	9.49	5.25	0.58
Quercio	33	Max WS	SA_20_cr	20.80	137.83	139.50	139.00	139.79	0.002649	2.37	8.77	5.25	0.59

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	32.5			Bridge									
Quercio	32	Max WS	SA_200_cr	35.79	137.79	140.31		140.59	0.001657	2.34	15.26	6.88	0.50
Quercio	32	Max WS	SA_100_cr	31.50	137.79	140.16		140.41	0.001555	2.21	14.24	6.79	0.49
Quercio	32	Max WS	SA_30_cr	23.29	137.79	139.71		139.93	0.001636	2.07	11.24	6.49	0.50
Quercio	32	Max WS	SA_20_cr	20.80	137.79	139.56		139.77	0.001667	2.02	10.31	6.40	0.51
Quercio	30	Max WS	SA_200_cr	34.64	137.58	140.02		140.48	0.004186	3.01	11.52	5.61	0.67
Quercio	30	Max WS	SA_100_cr	31.49	137.58	139.90		140.33	0.004077	2.91	10.84	5.54	0.66
Quercio	30	Max WS	SA_30_cr	23.27	137.58	139.46		139.84	0.004403	2.76	8.44	5.28	0.70
Quercio	30	Max WS	SA_20_cr	20.80	137.58	139.31		139.69	0.004544	2.70	7.70	5.17	0.71
Quercio	29	Max WS	SA_200_cr	34.62	137.35	139.66		140.35	0.007430	3.68	9.40	5.08	0.86
Quercio	29	Max WS	SA_100_cr	31.48	137.35	139.55		140.19	0.007246	3.56	8.85	5.02	0.86
Quercio	29	Max WS	SA_30_cr	23.27	137.35	139.12		139.71	0.007749	3.41	6.82	4.52	0.89
Quercio	29	Max WS	SA_20_cr	20.79	137.35	138.98		139.55	0.007943	3.34	6.22	4.43	0.90
Quercio	28.99			Lat Struct									
Quercio	28	Max WS	SA_200_cr	34.55	137.12	139.73		140.19	0.004124	3.00	11.52	5.29	0.65
Quercio	28	Max WS	SA_100_cr	31.46	137.12	139.62		140.04	0.003927	2.88	10.94	5.26	0.64
Quercio	28	Max WS	SA_30_cr	23.26	137.12	139.16		139.54	0.004094	2.71	8.60	4.94	0.65
Quercio	28	Max WS	SA_20_cr	20.79	137.12	139.01		139.37	0.004162	2.64	7.86	4.83	0.66
Quercio	27	Max WS	SA_200_cr	35.75	137.09	139.55		140.17	0.006196	3.48	10.27	4.47	0.73
Quercio	27	Max WS	SA_100_cr	31.46	137.09	139.43		139.96	0.005538	3.23	9.73	4.44	0.70
Quercio	27	Max WS	SA_30_cr	23.26	137.09	139.01		139.46	0.005300	2.95	7.89	4.34	0.70
Quercio	27	Max WS	SA_20_cr	20.79	137.09	138.87		139.29	0.005247	2.85	7.29	4.31	0.70
Quercio	26	Max WS	SA_200_cr	35.75	136.92	139.40		140.02	0.006318	3.48	10.29	4.52	0.74
Quercio	26	Max WS	SA_100_cr	31.46	136.92	139.32		139.83	0.005401	3.17	9.91	4.50	0.68
Quercio	26	Max WS	SA_30_cr	23.26	136.92	138.91		139.33	0.005122	2.88	8.08	4.41	0.68
Quercio	26	Max WS	SA_20_cr	20.78	136.92	138.77		139.17	0.005057	2.78	7.47	4.38	0.68
Quercio	25	Max WS	SA_200_cr	35.41	136.80	139.44		139.92	0.004424	3.04	11.64	4.98	0.64
Quercio	25	Max WS	SA_100_cr	31.44	136.80	139.33		139.74	0.004003	2.84	11.05	4.98	0.61
Quercio	25	Max WS	SA_30_cr	23.26	136.80	138.90		139.24	0.003905	2.60	8.93	4.83	0.61
Quercio	25	Max WS	SA_20_cr	20.78	136.80	138.75		139.08	0.003883	2.52	8.24	4.78	0.61

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	17.98			Lat Struct									
Quercio	17	Max WS	SA_200_cr	34.77	135.86	138.34		138.68	0.003896	2.55	13.62	7.97	0.62
Quercio	17	Max WS	SA_100_cr	31.37	135.86	138.28		138.57	0.003507	2.39	13.12	7.84	0.59
Quercio	17	Max WS	SA_30_cr	23.22	135.86	137.90		138.16	0.003720	2.26	10.28	7.08	0.60
Quercio	17	Max WS	SA_20_cr	20.74	135.86	137.77		138.02	0.003774	2.21	9.40	6.83	0.60
Quercio	16	Max WS	SA_200_cr	34.14	135.67	138.29		138.62	0.002982	2.53	13.47	7.00	0.58
Quercio	16	Max WS	SA_100_cr	31.36	135.67	138.21		138.51	0.002860	2.43	12.88	7.00	0.57
Quercio	16	Max WS	SA_30_cr	23.22	135.67	137.84		138.10	0.002894	2.24	10.35	6.66	0.57
Quercio	16	Max WS	SA_20_cr	20.74	135.67	137.72		137.96	0.002907	2.17	9.54	6.54	0.57
Quercio	15	Max WS	SA_200_cr	33.78	135.62	138.03		138.56	0.005458	3.25	10.39	5.61	0.76
Quercio	15	Max WS	SA_100_cr	31.33	135.62	137.94		138.45	0.005347	3.17	9.90	5.52	0.75
Quercio	15	Max WS	SA_30_cr	23.22	135.62	137.62		138.03	0.004879	2.83	8.20	5.20	0.72
Quercio	15	Max WS	SA_20_cr	20.74	135.62	137.52		137.89	0.004655	2.70	7.67	5.10	0.70
Quercio	14	Max WS	SA_200_cr	33.78	135.57	137.84		138.46	0.006672	3.51	9.64	5.47	0.84
Quercio	14	Max WS	SA_100_cr	31.33	135.57	137.75		138.35	0.006533	3.41	9.18	5.38	0.83
Quercio	14	Max WS	SA_30_cr	23.22	135.57	137.46		137.93	0.005861	3.03	7.66	5.09	0.79
Quercio	14	Max WS	SA_20_cr	20.73	135.57	137.37		137.79	0.005494	2.87	7.21	5.00	0.76
Quercio	13	Max WS	SA_200_cr	33.78	135.52	137.65		138.39	0.008266	3.80	8.90	5.33	0.94
Quercio	13	Max WS	SA_100_cr	31.33	135.52	137.57		138.27	0.008173	3.71	8.45	5.25	0.93
Quercio	13	Max WS	SA_30_cr	23.22	135.52	137.28		137.84	0.007563	3.33	6.97	4.96	0.90
Quercio	13	Max WS	SA_20_cr	20.73	135.52	137.20		137.70	0.007091	3.16	6.57	4.88	0.87
Quercio	12	Max WS	SA_200_cr	33.63	135.47	137.60		138.17	0.006517	3.33	10.10	6.62	0.86
Quercio	12	Max WS	SA_100_cr	31.33	135.47	137.51		138.06	0.006703	3.29	9.51	6.53	0.87
Quercio	12	Max WS	SA_30_cr	23.22	135.47	137.20		137.69	0.007134	3.08	7.54	6.23	0.89
Quercio	12	Max WS	SA_20_cr	20.72	135.47	137.10		137.56	0.007298	2.99	6.92	6.13	0.90
Quercio	11	Max WS	SA_200_cr	33.57	135.31	137.66		138.02	0.004544	2.68	12.53	7.69	0.67
Quercio	11	Max WS	SA_100_cr	31.28	135.31	137.55		137.91	0.004697	2.66	11.75	7.48	0.68
Quercio	11	Max WS	SA_30_cr	23.19	135.31	137.21		137.53	0.004860	2.49	9.30	6.80	0.68
Quercio	11	Max WS	SA_20_cr	20.72	135.31	137.10		137.40	0.004878	2.42	8.55	6.57	0.68
Quercio	10	Max WS	SA_200_cr	33.49	135.05	137.44		137.79	0.004170	2.59	12.92	7.79	0.64

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	10	Max WS	SA_100_cr	31.06	135.05	137.32		137.67	0.004384	2.59	11.99	7.55	0.66
Quercio	10	Max WS	SA_30_cr	23.12	135.05	136.96		137.27	0.004752	2.47	9.36	6.81	0.67
Quercio	10	Max WS	SA_20_cr	20.67	135.05	136.84		137.14	0.004795	2.41	8.59	6.58	0.67
Quercio	09.1	Max WS	SA_200_cr	33.39	134.93	137.36		137.69	0.003945	2.54	13.16	7.85	0.63
Quercio	09.1	Max WS	SA_100_cr	31.06	134.93	137.23		137.56	0.004225	2.56	12.16	7.59	0.64
Quercio	09.1	Max WS	SA_30_cr	22.77	134.93	136.85		137.15	0.004538	2.42	9.41	6.83	0.66
Quercio	09.1	Max WS	SA_20_cr	20.51	134.93	136.73		137.02	0.004669	2.38	8.62	6.59	0.66
Quercio	09	Max WS	SA_200_cr	33.39	134.81	137.28		137.59	0.003659	2.47	13.53	7.95	0.60
Quercio	09	Max WS	SA_100_cr	30.91	134.81	137.15		137.46	0.003925	2.48	12.45	7.67	0.62
Quercio	09	Max WS	SA_30_cr	21.63	134.81	136.76		137.02	0.003820	2.24	9.66	6.90	0.60
Quercio	09	Max WS	SA_20_cr	19.59	134.81	136.63		136.89	0.004054	2.23	8.78	6.64	0.62
Quercio	08	Max WS	SA_200_cr	33.29	134.54	137.15		137.41	0.002943	2.27	14.64	8.22	0.54
Quercio	08	Max WS	SA_100_cr	30.90	134.54	136.99		137.26	0.003226	2.31	13.38	7.91	0.57
Quercio	08	Max WS	SA_30_cr	20.42	134.54	136.63		136.82	0.002581	1.91	10.69	7.20	0.50
Quercio	08	Max WS	SA_20_cr	17.98	134.54	136.50		136.67	0.002569	1.84	9.75	6.93	0.50
Quercio	07.1	Max WS	SA_200_cr	33.28	134.44	137.08		137.33	0.002807	2.23	14.90	8.30	0.53
Quercio	07.1	Max WS	SA_100_cr	30.75	134.44	136.91		137.18	0.003084	2.27	13.56	7.97	0.55
Quercio	07.1	Max WS	SA_30_cr	19.78	134.44	136.58		136.75	0.002229	1.79	11.03	7.30	0.47
Quercio	07.1	Max WS	SA_20_cr	17.42	134.44	136.45		136.60	0.002206	1.73	10.08	7.03	0.46
Quercio	07	Max WS	SA_200_cr	33.28	134.26	137.05		137.26	0.002286	2.07	16.08	8.54	0.48
Quercio	07	Max WS	SA_100_cr	30.74	134.26	136.88		137.10	0.002497	2.10	14.66	8.21	0.50
Quercio	07	Max WS	SA_30_cr	19.77	134.26	136.56		136.69	0.001712	1.63	12.15	7.57	0.41
Quercio	07	Max WS	SA_20_cr	17.42	134.26	136.43		136.55	0.001669	1.56	11.17	7.31	0.40
Quercio	06	Max WS	SA_200_cr	33.27	133.92	136.96		137.12	0.001809	1.80	18.45	10.39	0.43
Quercio	06	Max WS	SA_100_cr	30.74	133.92	136.78		136.95	0.001810	1.84	16.74	8.98	0.43
Quercio	06	Max WS	SA_30_cr	19.11	133.92	136.51		136.60	0.001008	1.32	14.43	8.17	0.32
Quercio	06	Max WS	SA_20_cr	16.81	133.92	136.37		136.46	0.000957	1.26	13.38	7.91	0.31
Quercio	05.8	Max WS	SA_200_cr	44.98	133.89	136.80		136.97	0.001392	1.83	24.59	10.18	0.38
Quercio	05.8	Max WS	SA_100_cr	40.62	133.89	136.66		136.81	0.001347	1.76	23.12	10.01	0.37
Quercio	05.8	Max WS	SA_30_cr	31.46	133.89	136.34		136.46	0.001211	1.57	19.99	9.63	0.35
Quercio	05.8	Max WS	SA_20_cr	28.03	133.89	136.22		136.33	0.001129	1.48	18.88	9.49	0.34

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	03.4	Max WS	SA_200_cr	44.97	133.43	135.94	135.86	137.07	0.009662	4.71	9.55	3.80	0.95
Quercio	03.4	Max WS	SA_100_cr	40.59	133.43	135.81		136.84	0.009010	4.48	9.06	3.80	0.93
Quercio	03.4	Max WS	SA_30_cr	31.45	133.43	135.54		136.32	0.007443	3.92	8.02	3.80	0.86
Quercio	03.4	Max WS	SA_20_cr	28.01	133.43	135.45		136.13	0.006599	3.64	7.69	3.80	0.82
Quercio	03	Max WS	SA_200_cr	44.96	133.43	136.43		136.72	0.002950	2.41	18.70	10.29	0.55
Quercio	03	Max WS	SA_100_cr	40.59	133.43	136.31		136.58	0.002632	2.30	17.67	8.74	0.52
Quercio	03	Max WS	SA_30_cr	31.45	133.43	136.00		136.22	0.002439	2.10	14.99	8.09	0.49
Quercio	03	Max WS	SA_20_cr	28.02	133.43	135.87		136.07	0.002349	2.01	13.96	7.86	0.48
Quercio	2.9			Lat Struct									
Quercio	2.8			Lat Struct									
Quercio	02	Max WS	SA_200_cr	44.88	133.43	135.82		136.49	0.008276	3.64	12.33	7.09	0.88
Quercio	02	Max WS	SA_100_cr	40.56	133.43	135.76		136.35	0.007409	3.40	11.92	7.00	0.83
Quercio	02	Max WS	SA_30_cr	31.45	133.43	135.51		135.99	0.006704	3.07	10.25	6.60	0.79
Quercio	02	Max WS	SA_20_cr	28.01	133.43	135.42		135.85	0.006266	2.90	9.65	6.45	0.76
Quercio	01.9	Max WS	SA_200_cr	7.99	133.42	135.75		135.78	0.000318	0.70	11.48	6.84	0.17
Quercio	01.9	Max WS	SA_100_cr	40.59	133.42	135.66	135.58	136.37	0.009658	3.75	10.82	6.67	0.94
Quercio	01.9	Max WS	SA_30_cr	31.45	133.42	135.40		136.00	0.009165	3.44	9.13	6.25	0.91
Quercio	01.9	Max WS	SA_20_cr	28.01	133.42	135.30		135.85	0.008741	3.28	8.53	6.09	0.89
Quercio	01.8	Max WS	SA_200_cr	7.99	133.41	135.76		135.78	0.000255	0.64	12.57	7.71	0.16
Quercio	01.8	Max WS	SA_100_cr	32.51	133.41	135.67		136.05	0.004919	2.73	11.89	7.53	0.69
Quercio	01.8	Max WS	SA_30_cr	31.45	133.41	135.42		135.91	0.007227	3.13	10.06	7.03	0.83
Quercio	01.8	Max WS	SA_20_cr	28.01	133.41	135.33		135.78	0.006824	2.97	9.44	6.85	0.81
Quercio	01.7	Max WS	SA_200_cr	7.99	133.41	135.76		135.78	0.000250	0.61	13.07	8.41	0.16
Quercio	01.7	Max WS	SA_100_cr	32.51	133.41	135.67		136.02	0.004876	2.64	12.32	8.22	0.69
Quercio	01.7	Max WS	SA_30_cr	31.45	133.41	135.37		135.88	0.008274	3.16	9.94	7.61	0.88
Quercio	01.7	Max WS	SA_20_cr	28.01	133.41	135.27		135.74	0.008119	3.04	9.21	7.41	0.87
Quercio	01.6	Max WS	SA_200_cr	7.99	133.40	135.75		135.78	0.000306	0.69	11.65	6.91	0.17
Quercio	01.6	Max WS	SA_100_cr	40.59	133.40	135.57	135.56	136.34	0.010695	3.90	10.42	6.61	0.99
Quercio	01.6	Max WS	SA_30_cr	31.45	133.40	135.29	135.27	135.96	0.010706	3.65	8.62	6.14	0.98
Quercio	01.6	Max WS	SA_20_cr	28.01	133.40	135.18	135.15	135.81	0.010545	3.52	7.96	5.96	0.97

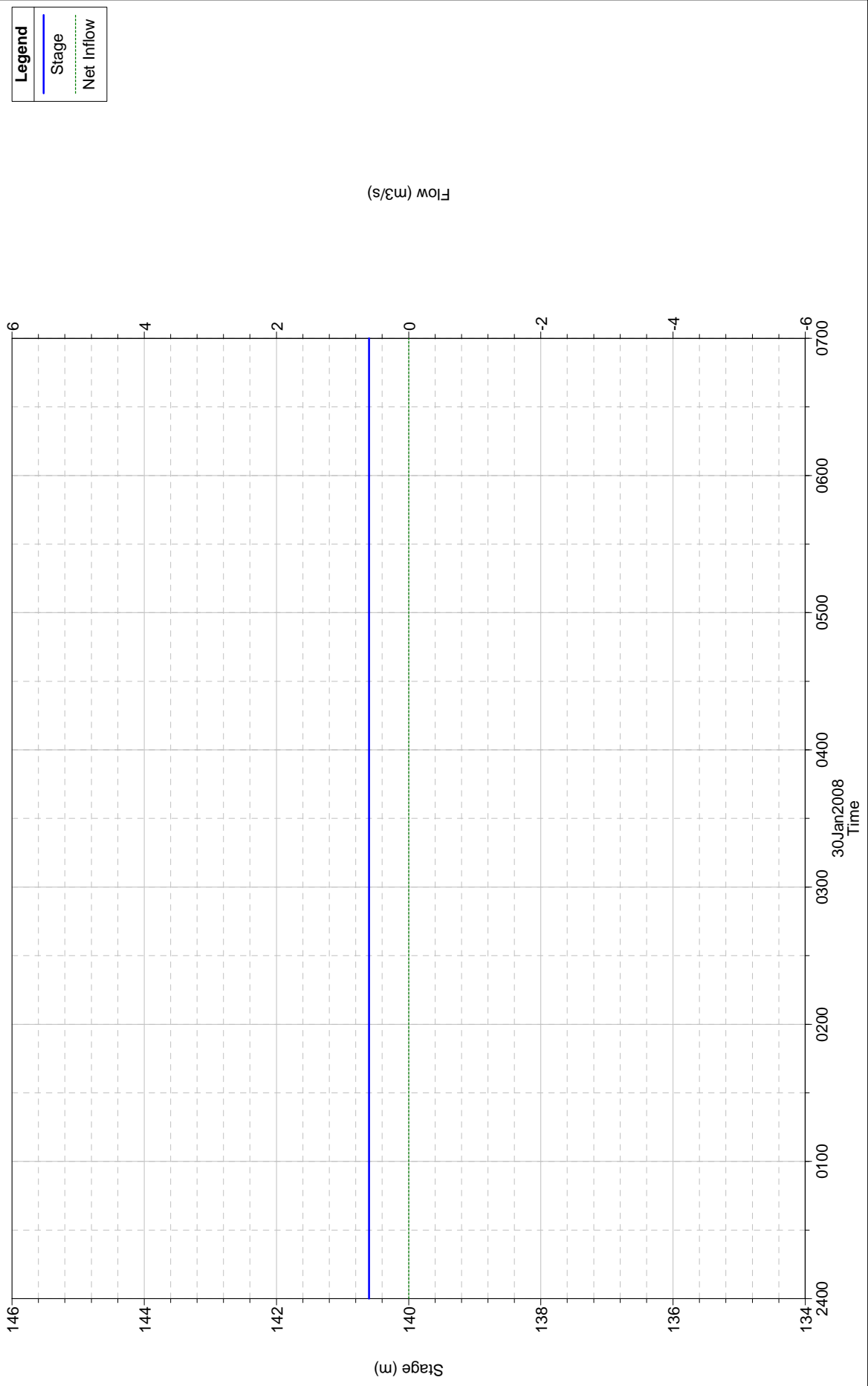
HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	01.5	Max WS	SA_200_cr	7.99	133.40	135.75		135.77	0.000309	0.69	11.61	6.88	0.17
Quercio	01.5	Max WS	SA_100_cr	40.59	133.40	135.51	135.56	136.35	0.011944	4.06	10.00	6.48	1.04
Quercio	01.5	Max WS	SA_30_cr	31.45	133.40	135.23	135.27	135.97	0.012133	3.82	8.23	6.02	1.04
Quercio	01.5	Max WS	SA_20_cr	28.01	133.40	135.12	135.15	135.81	0.012000	3.69	7.59	5.84	1.03
Quercio	01.4	Max WS	SA_200_cr	7.99	133.40	135.75		135.77	0.000305	0.68	11.67	6.94	0.17
Quercio	01.4	Max WS	SA_100_cr	40.59	133.40	135.44	135.56	136.35	0.013307	4.22	9.61	6.43	1.10
Quercio	01.4	Max WS	SA_30_cr	31.45	133.40	135.16	135.27	135.97	0.013805	4.00	7.86	5.95	1.11
Quercio	01.4	Max WS	SA_20_cr	28.01	133.40	135.05	135.15	135.81	0.013771	3.88	7.23	5.77	1.11
Quercio	01.3	Max WS	SA_200_cr	7.99	133.39	135.75		135.77	0.000295	0.68	11.83	7.04	0.17
Quercio	01.3	Max WS	SA_100_cr	40.59	133.39	135.36	135.54	136.34	0.014763	4.38	9.26	6.38	1.16
Quercio	01.3	Max WS	SA_30_cr	31.44	133.39	135.08	135.25	135.97	0.015752	4.19	7.50	5.89	1.19
Quercio	01.3	Max WS	SA_20_cr	28.01	133.39	134.97	135.13	135.82	0.015852	4.07	6.87	5.71	1.19
Quercio	01.2	Max WS	SA_200_cr	7.99	133.39	135.75		135.77	0.000294	0.67	11.85	7.06	0.17
Quercio	01.2	Max WS	SA_100_cr	40.59	133.39	135.28	135.54	136.38	0.017312	4.64	8.74	6.25	1.25
Quercio	01.2	Max WS	SA_30_cr	31.44	133.39	134.98	135.25	136.02	0.019295	4.52	6.96	5.75	1.31
Quercio	01.2	Max WS	SA_20_cr	28.01	133.39	134.87	135.13	135.87	0.019748	4.41	6.35	5.56	1.32
Quercio	01.1	Max WS	SA_200_cr	7.97	133.38	135.74		135.77	0.000415	0.70	11.43	8.61	0.19
Quercio	01.1	Max WS	SA_100_cr	7.97	133.38	135.24		135.29	0.000847	0.99	8.05	5.76	0.27
Quercio	01.1	Max WS	SA_30_cr	31.44	133.38	134.85	135.31	136.28	0.029741	5.30	5.94	5.07	1.56
Quercio	01.1	Max WS	SA_20_cr	28.01	133.38	134.74	135.17	136.12	0.031146	5.22	5.37	4.91	1.59
Quercio	01	Max WS	SA_200_cr	7.97	133.38	135.74	134.22	135.76	0.000417	0.70	11.41	8.61	0.19
Quercio	01	Max WS	SA_100_cr	7.97	133.38	135.24	134.22	135.29	0.000854	0.99	8.02	5.75	0.27
Quercio	01	Max WS	SA_30_cr	7.99	133.38	134.33	134.22	134.60	0.008474	2.29	3.49	4.34	0.82
Quercio	01	Max WS	SA_20_cr	7.99	133.38	134.33	134.22	134.60	0.008474	2.29	3.49	4.34	0.82

HEC-RAS Profile: Max WS

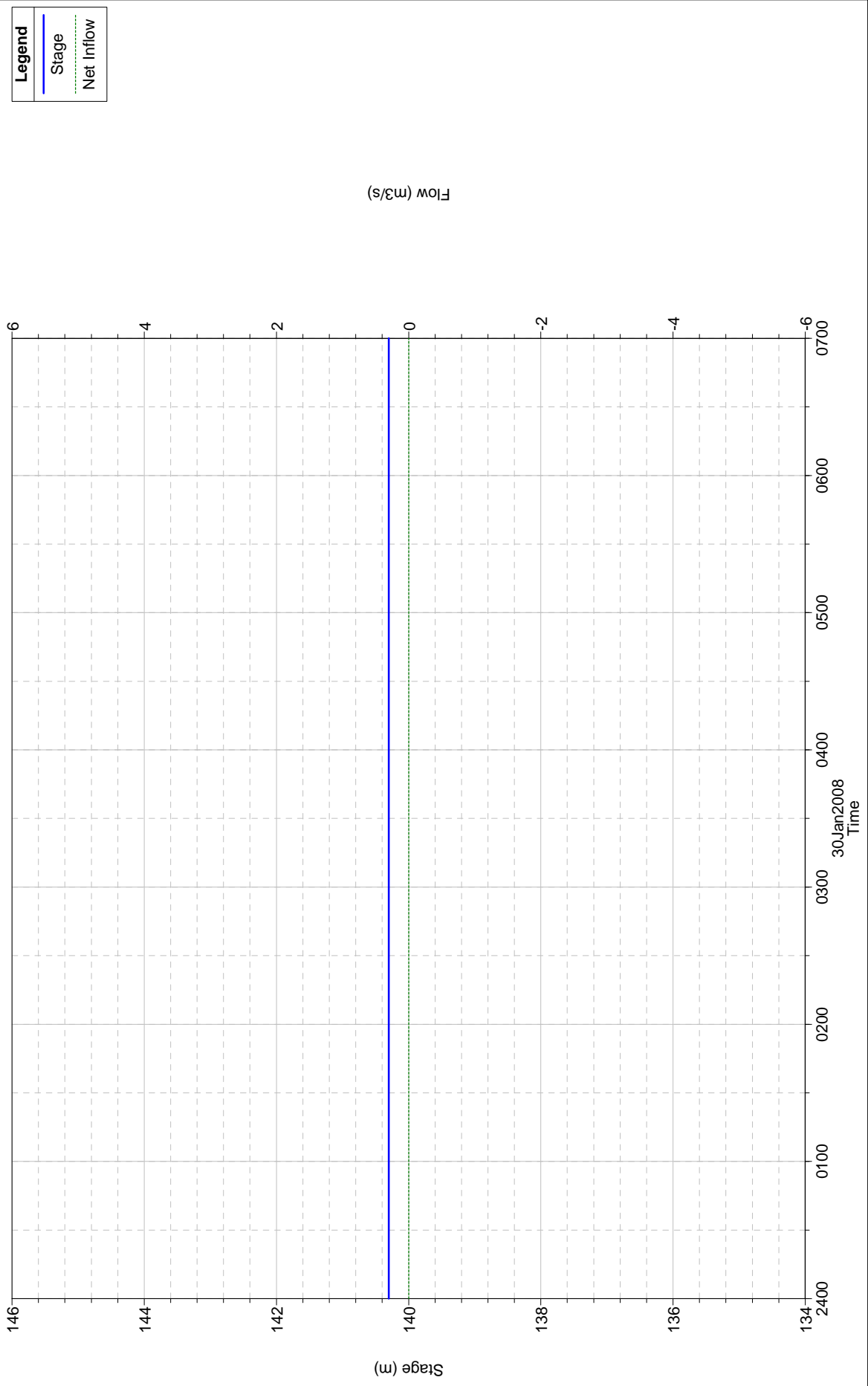
Storage Area	Profile	Plan	W.S. Elev (m)	SA Min EI (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
	Max WS	SA_200_cr	140.60	140.60	0.05	12.00	0.02
	Max WS	SA_100_cr	140.60	140.60	0.00	12.00	0.00
	Max WS	SA_30_cr	140.60	140.60	0.00	12.00	0.00
	Max WS	SA_20_cr	140.60	140.60	0.00	12.00	0.00
	Max WS	SA_200_cr	140.37	140.30	0.20	2.00	0.15
	Max WS	SA_100_cr	140.30	140.30	0.00	2.00	0.00
	Max WS	SA_30_cr	140.30	140.30	0.00	2.00	0.00
	Max WS	SA_20_cr	140.30	140.30	0.00	2.00	0.00
	Max WS	SA_200_cr	138.80	138.70	1.27	11.60	1.21
	Max WS	SA_100_cr	138.70	138.70	0.00	11.60	0.00
	Max WS	SA_30_cr	138.70	138.70	0.00	11.60	0.00
	Max WS	SA_20_cr	138.70	138.70	0.00	11.60	0.00
	Max WS	SA_200_cr	136.27	136.10	0.49	3.24	0.57
	Max WS	SA_100_cr	136.10	136.10	0.02	3.24	0.01
	Max WS	SA_30_cr	136.10	136.10	0.00	3.24	0.00
	Max WS	SA_20_cr	136.10	136.10	0.00	3.24	0.00
	Max WS	SA_200_cr	134.02	132.89	0.49	23.15	0.71
	Max WS	SA_100_cr	133.04	132.89	0.02	0.08	0.00
	Max WS	SA_30_cr	132.89	132.89	0.00	0.01	0.00
	Max WS	SA_20_cr	132.89	132.89	0.00	0.01	0.00

Plan: SA_20_cr Storage Area: Dx_ferrovia



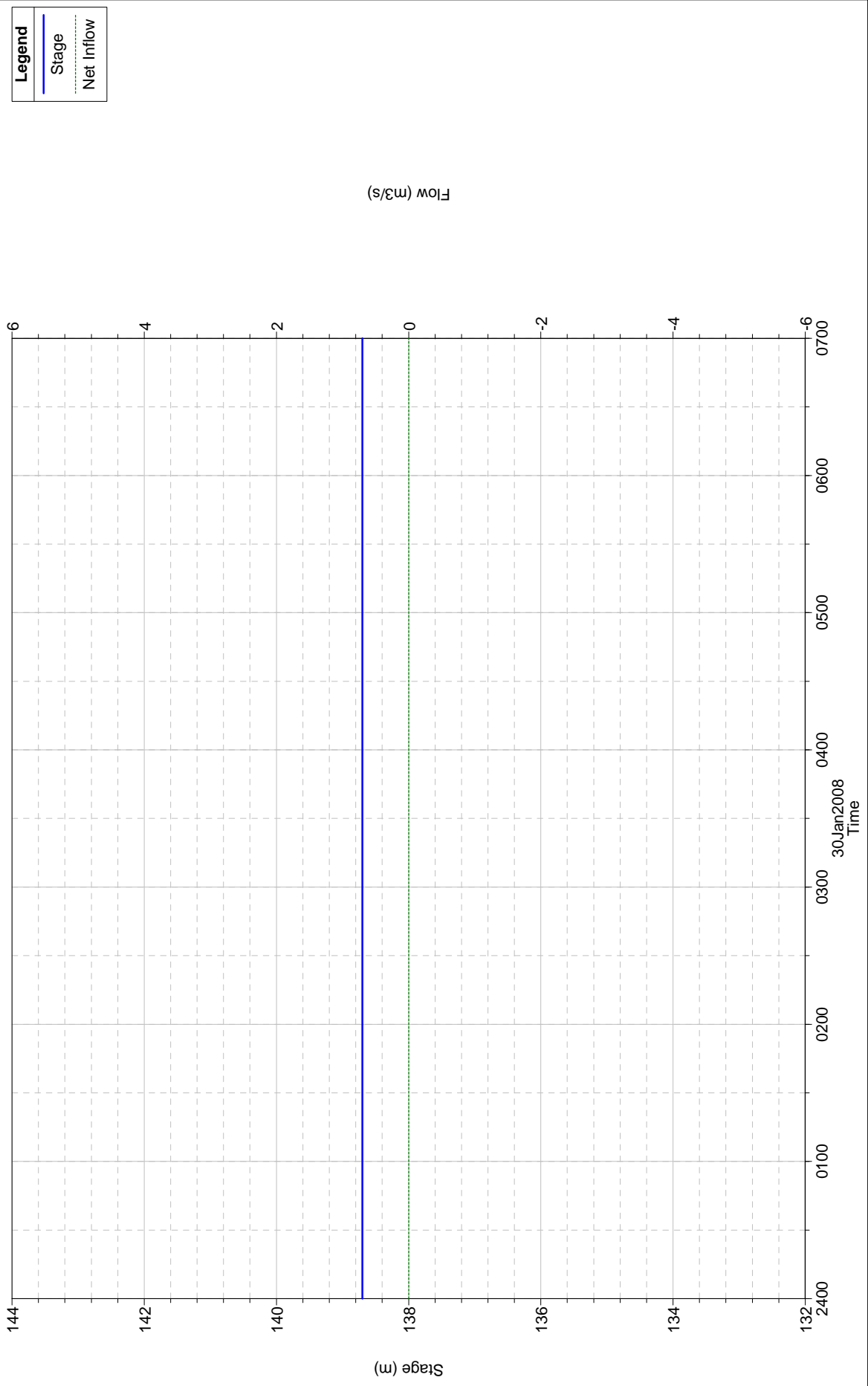
Legend	
—	Stage
...	Net Inflow

Plan: SA_20_cr Storage Area: Dx_ss69



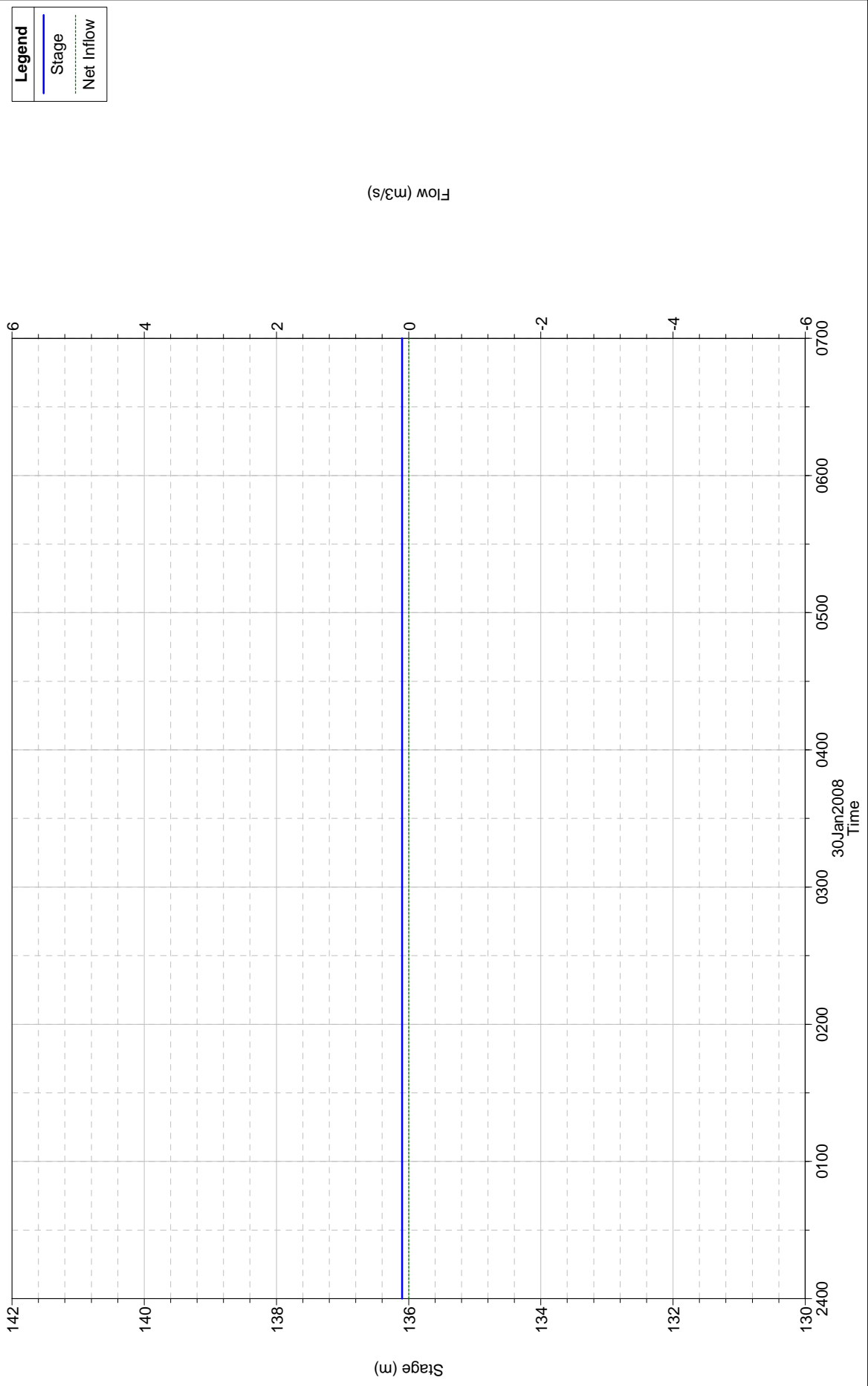
Legend	
—	Stage
- - -	Net Inflow

Plan: SA_20_cr Storage Area: Dx_valless69



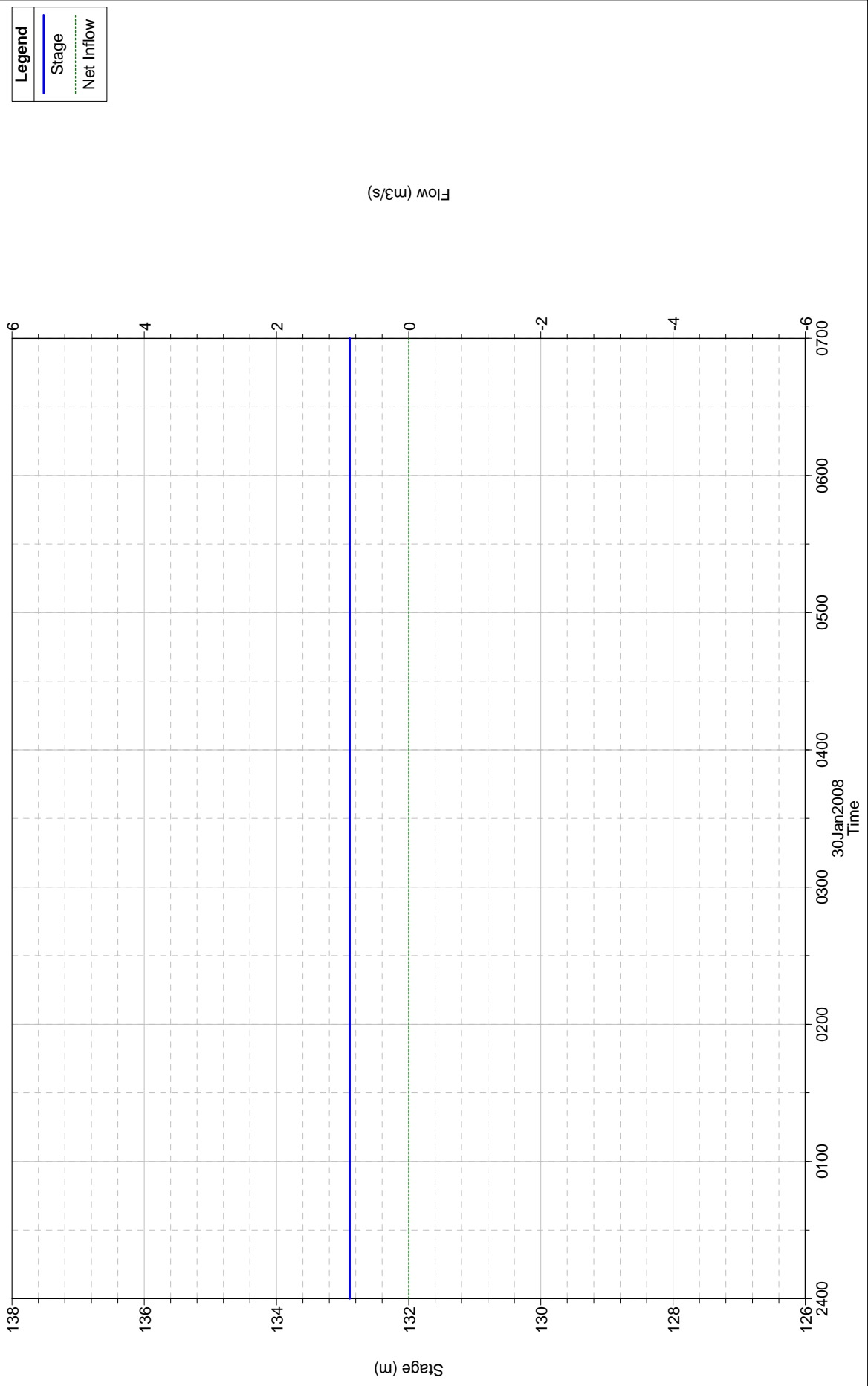
Legend	
—	Stage
- - -	Net Inflow

Plan: SA_20_cr Storage Area: St_Quercio_Dx

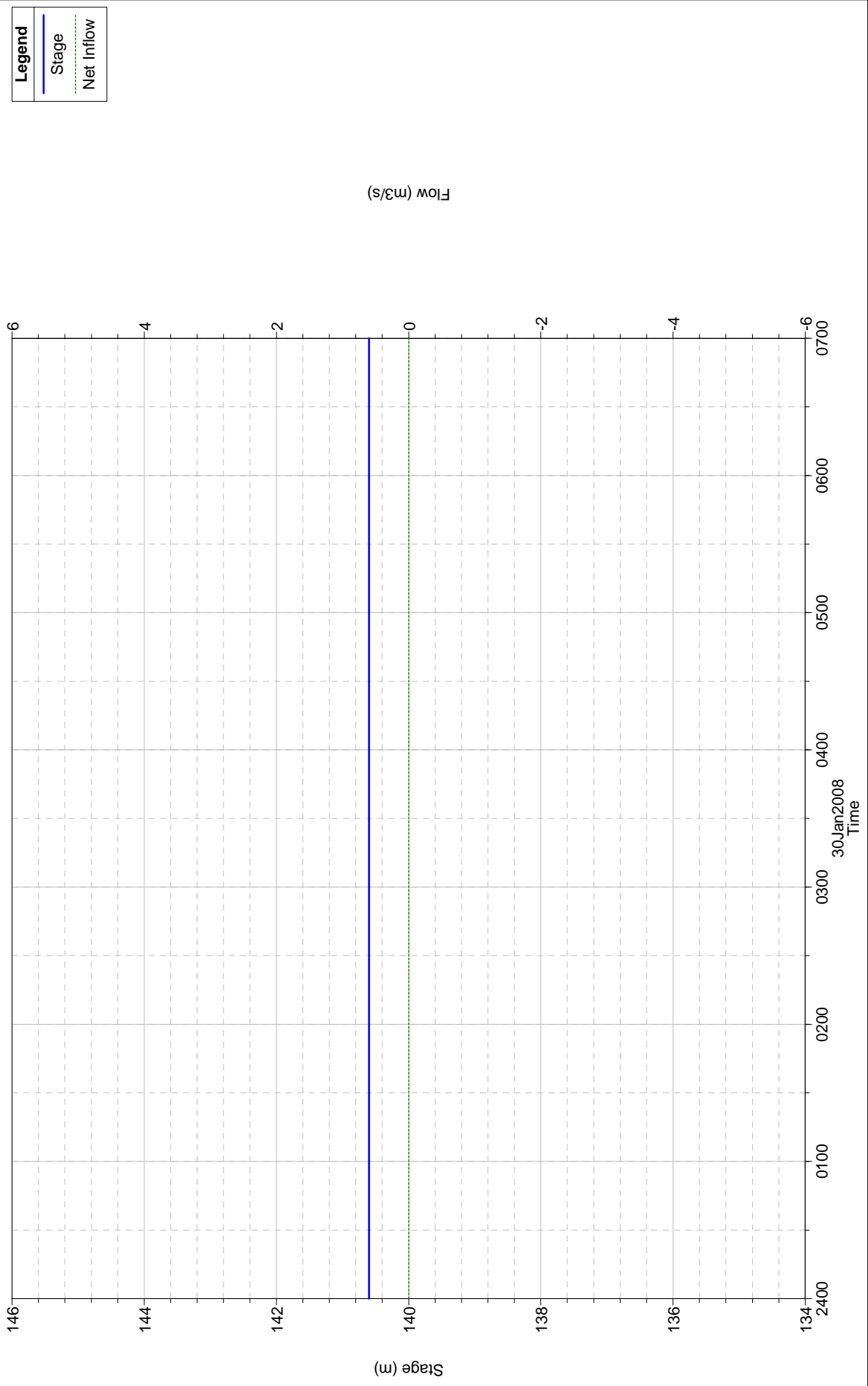


Legend	
—	Stage
- - -	Net Inflow

Plan: SA_20_cr Storage Area: St_Quercio_Sn

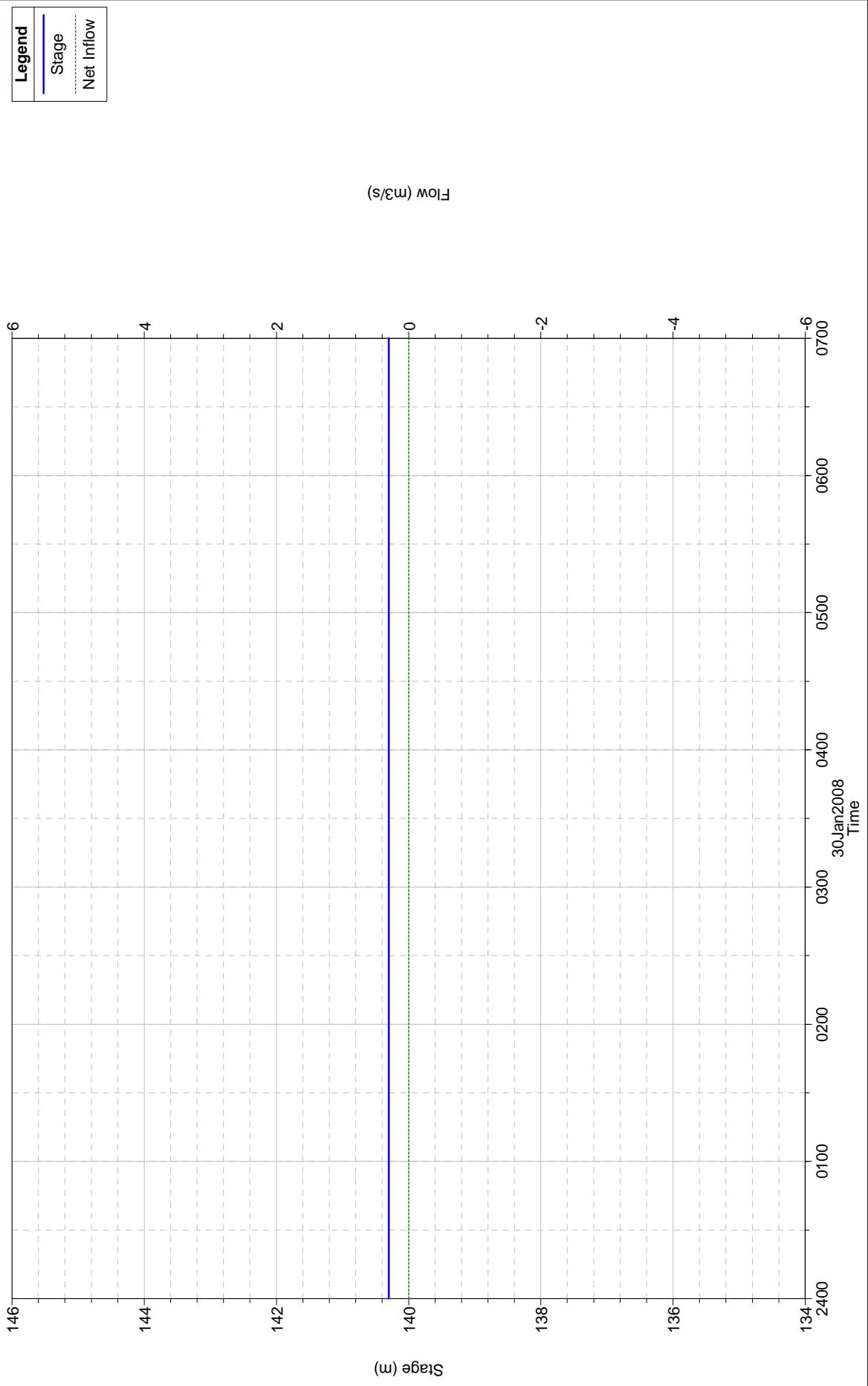


Plan: SA_30_cr Storage Area: Dx_ferrovia



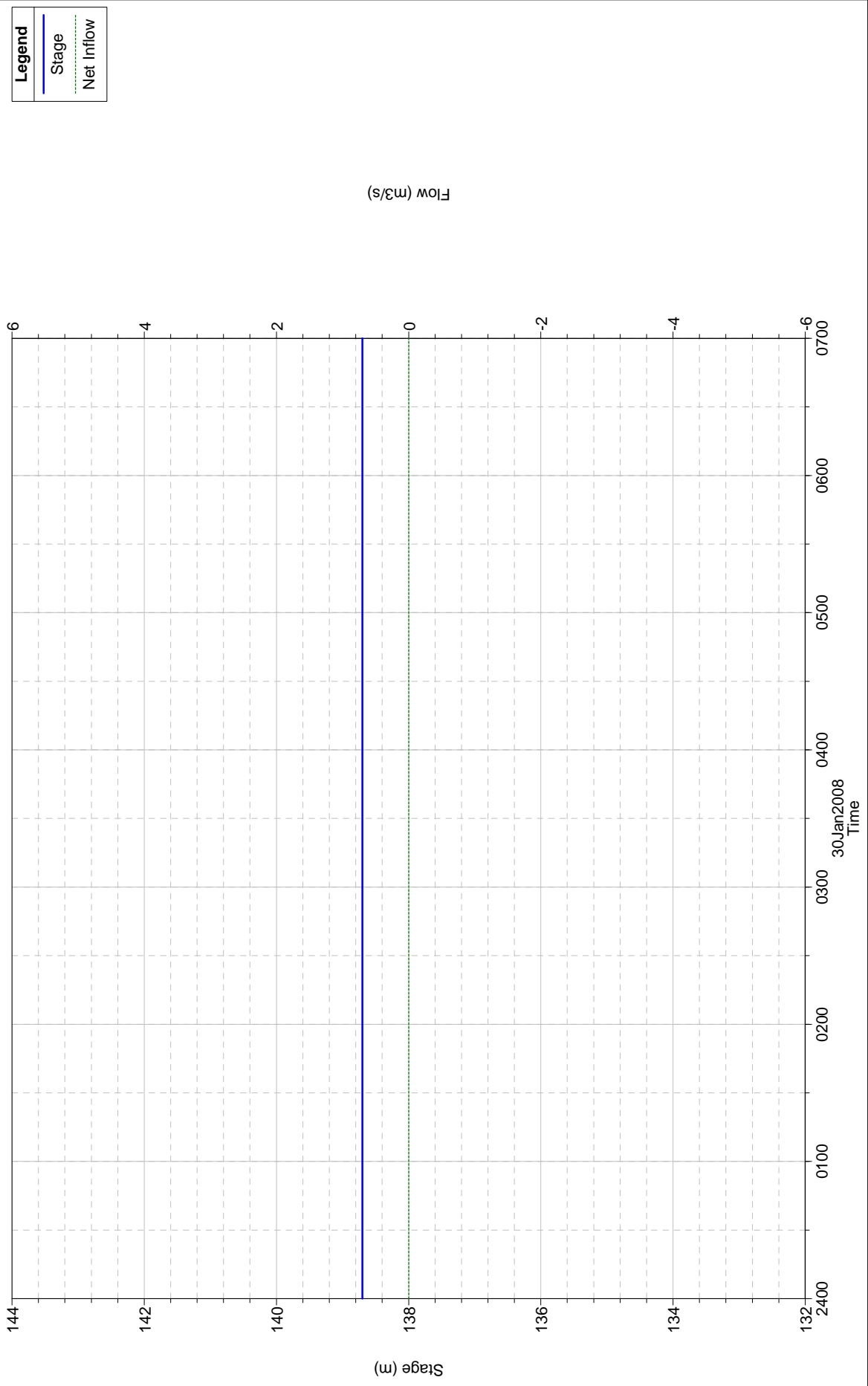
Legend
— Stage
- - - Net Inflow

Plan: SA_30_cr Storage Area: Dx_ss69



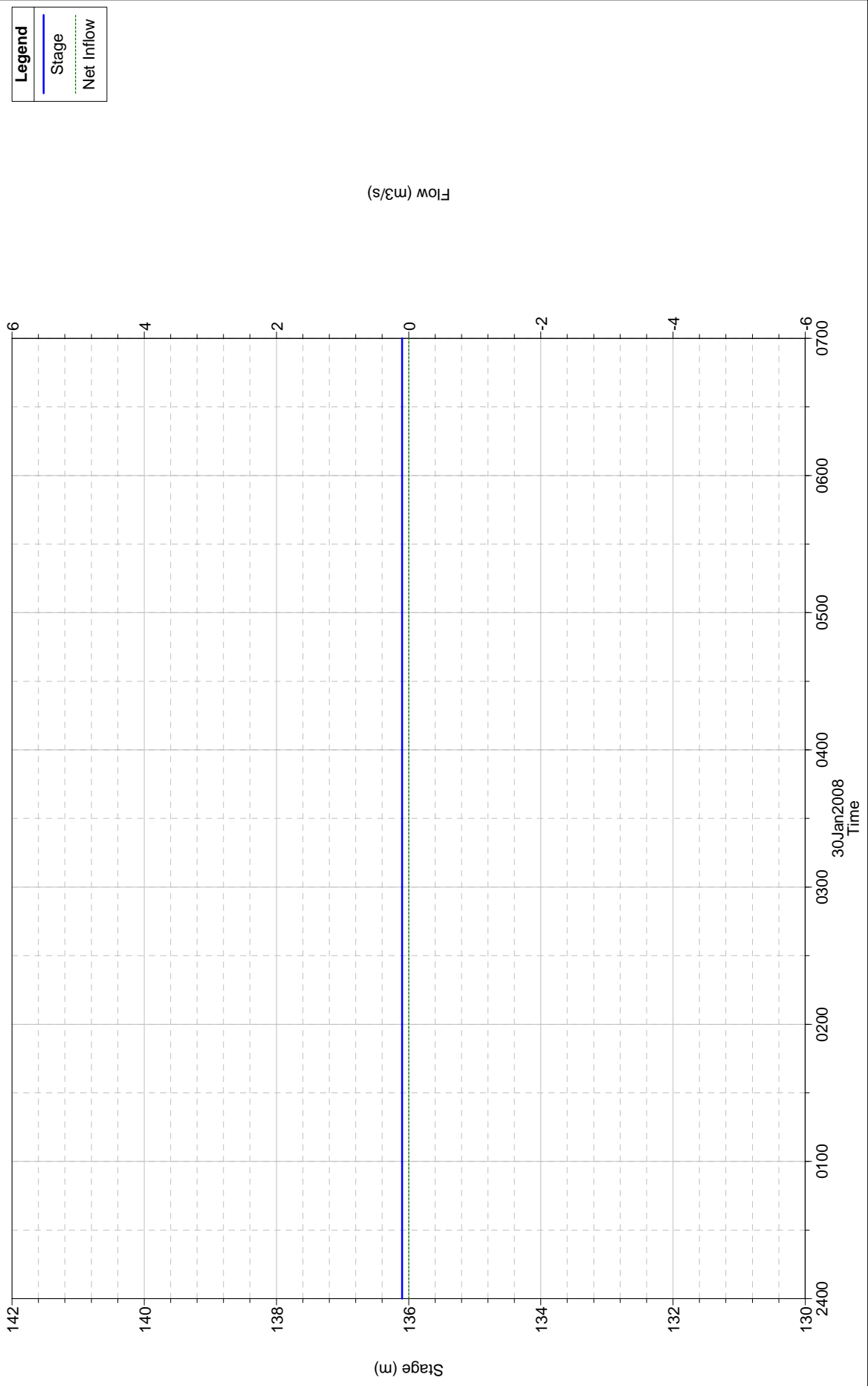
Legend
— Stage
- - - Net Inflow

Plan: SA_30_cr Storage Area: Dx_valless69



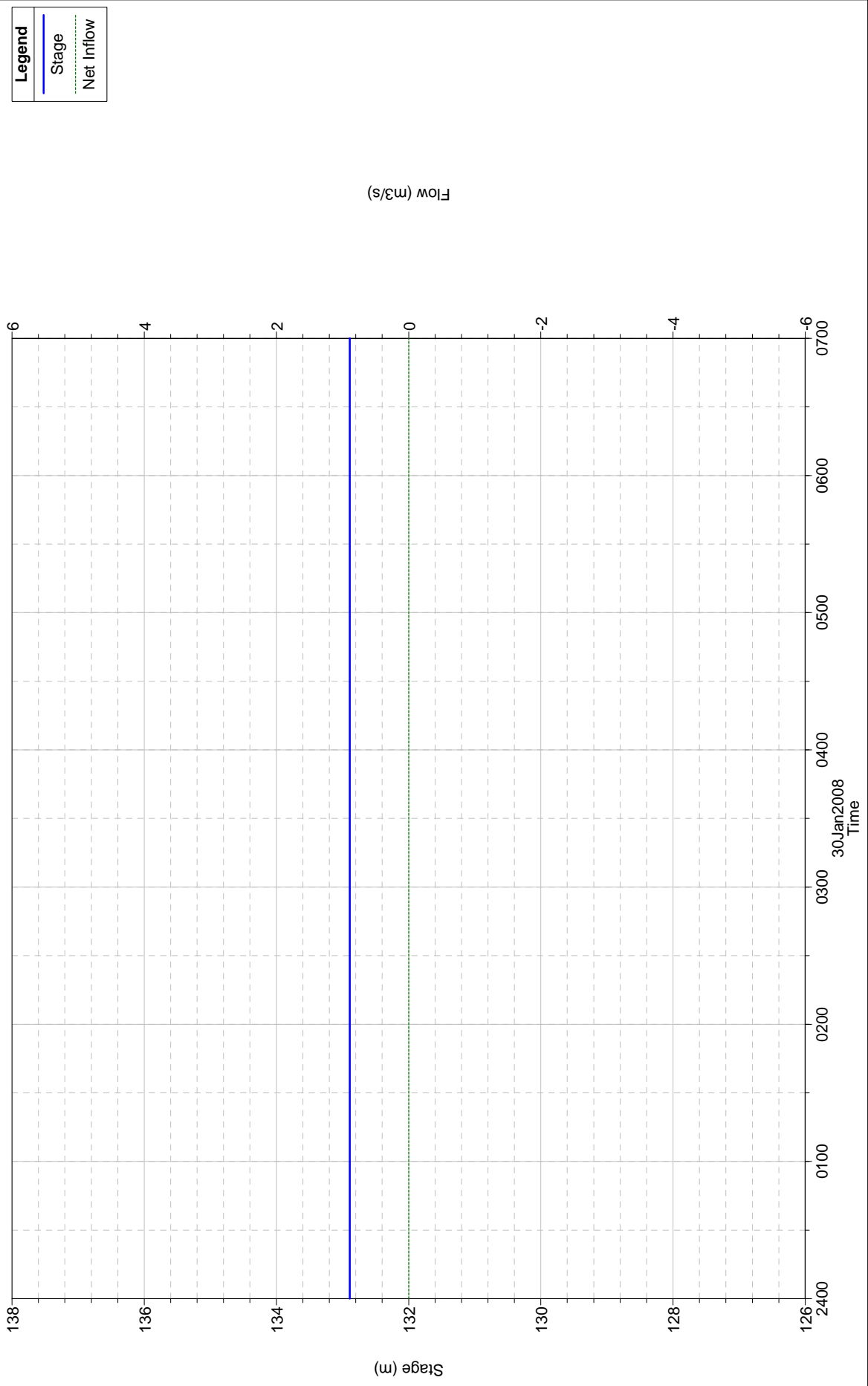
Legend	
—	Stage
- - -	Net Inflow

Plan: SA_30_cr Storage Area: St_Quercio_Dx

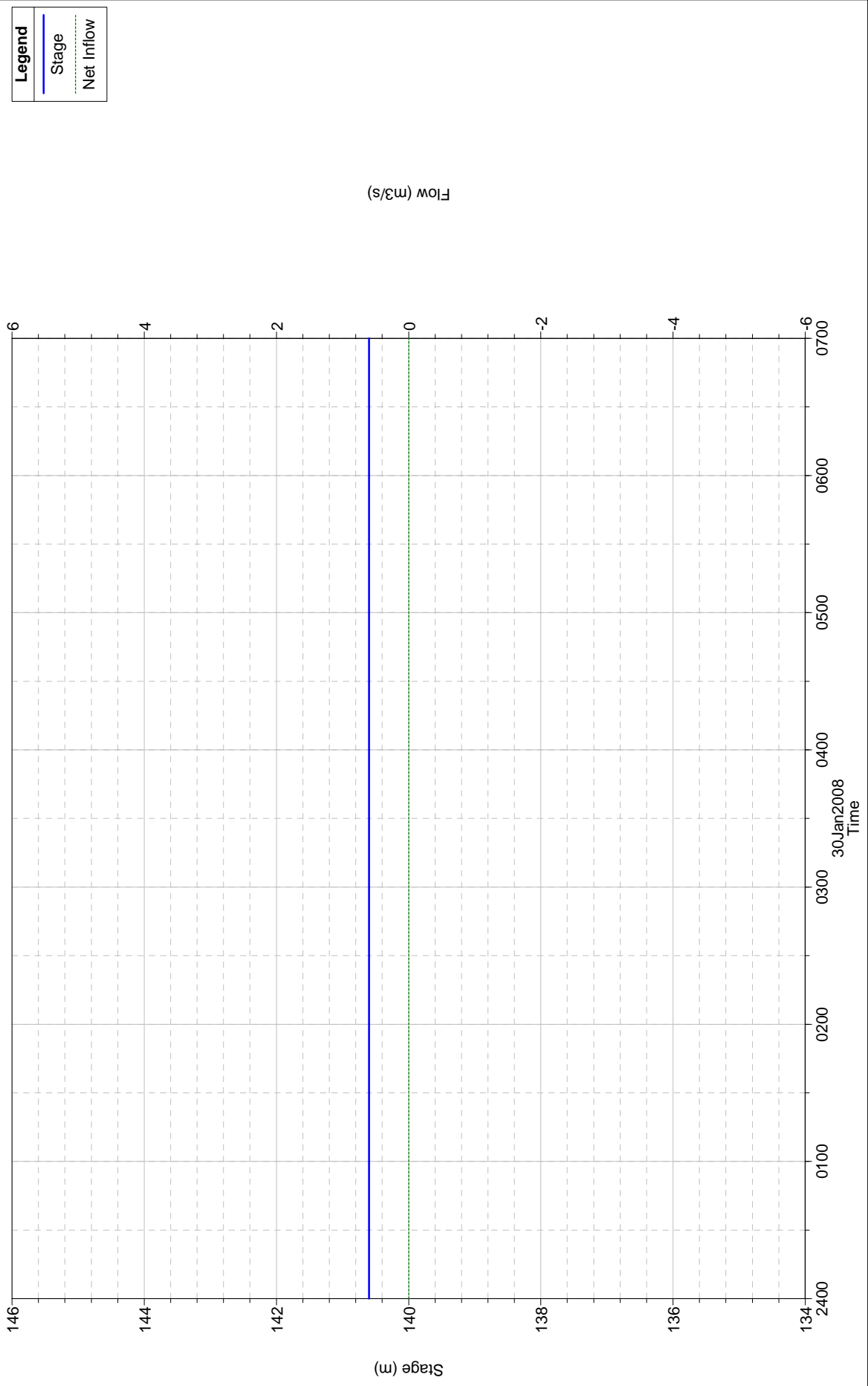


Legend	
—	Stage
- - -	Net Inflow

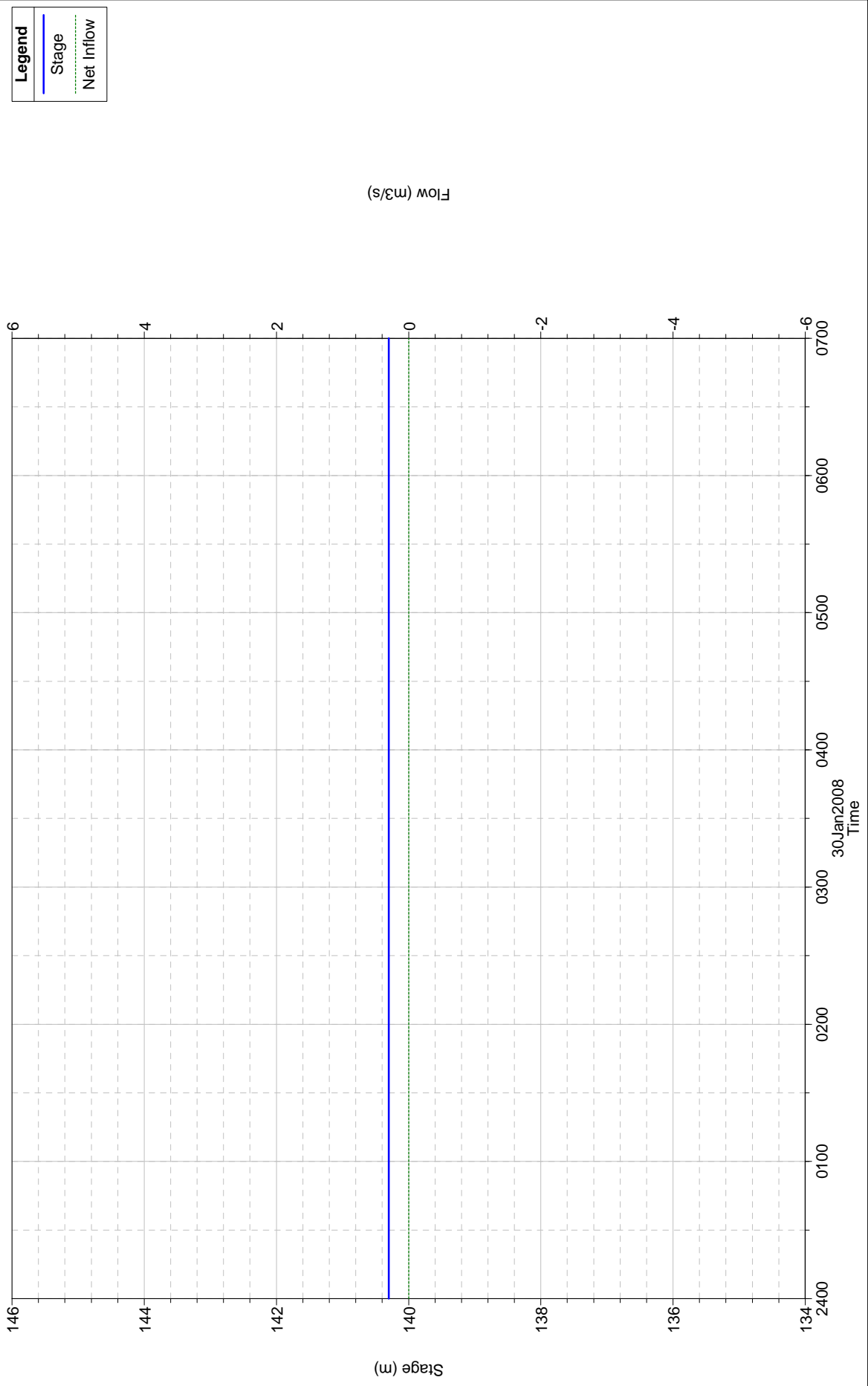
Plan: SA_30_cr Storage Area: St_Quercio_Sn



Plan: SA_100_cr Storage Area: Dx_ferrovia

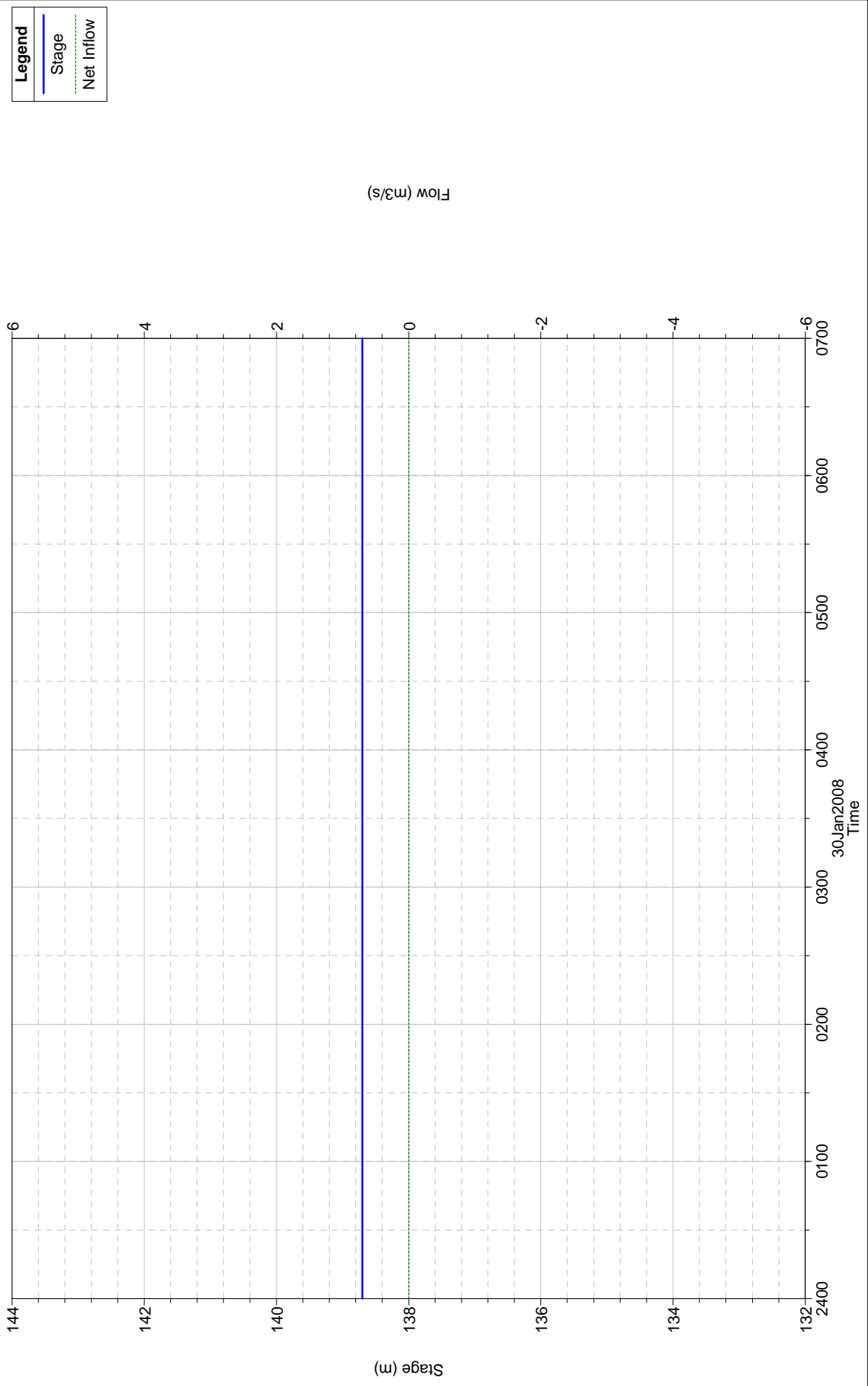


Plan: SA_100_cr Storage Area: Dx_ss69



Legend	
—	Stage
- - -	Net Inflow

Plan: SA_100_cr Storage Area: Dx_valless69

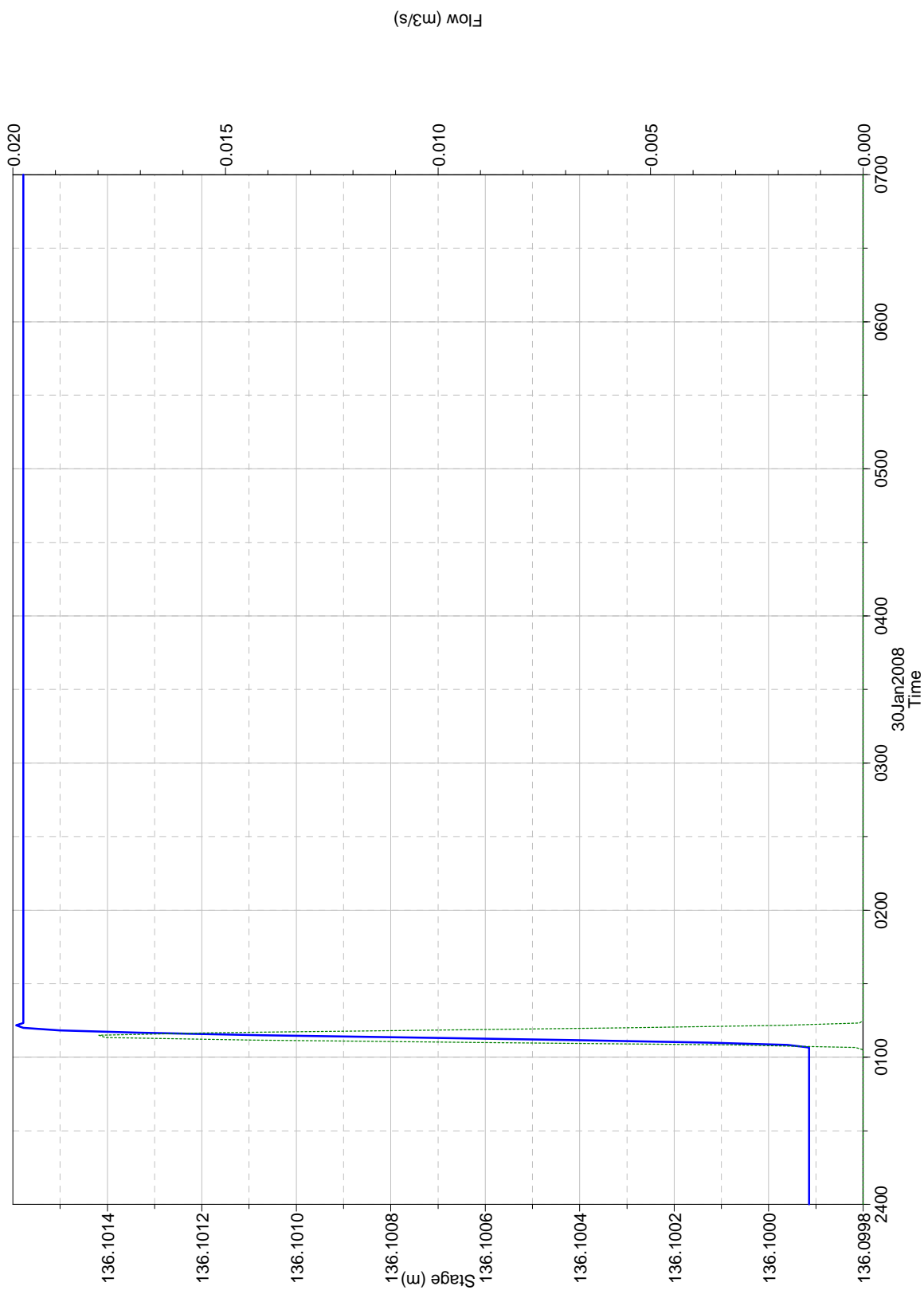


Legend
— Stage
... Net Inflow

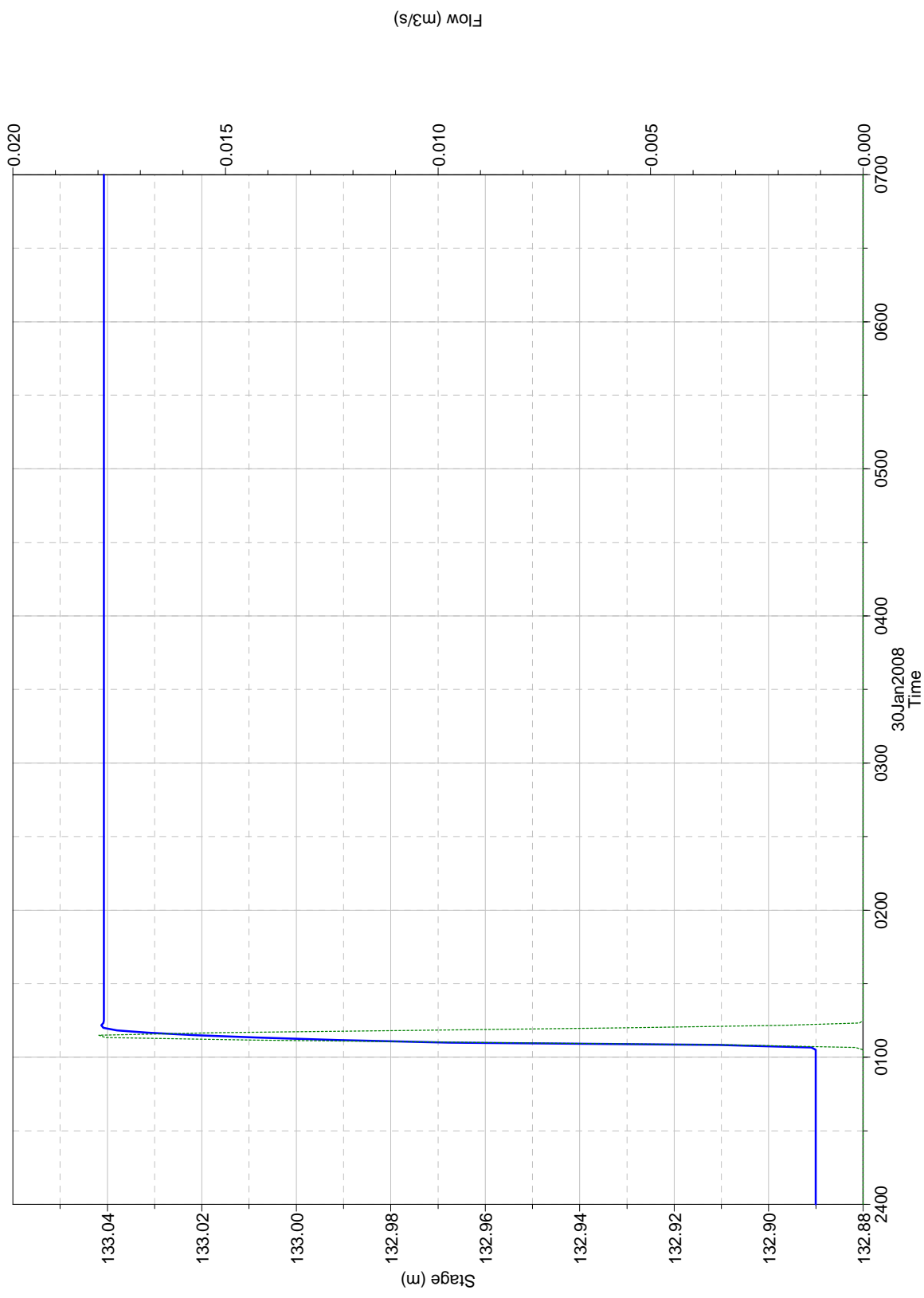
Plan: SA_100_cr Storage Area: St_Quercio_Dx

Legend

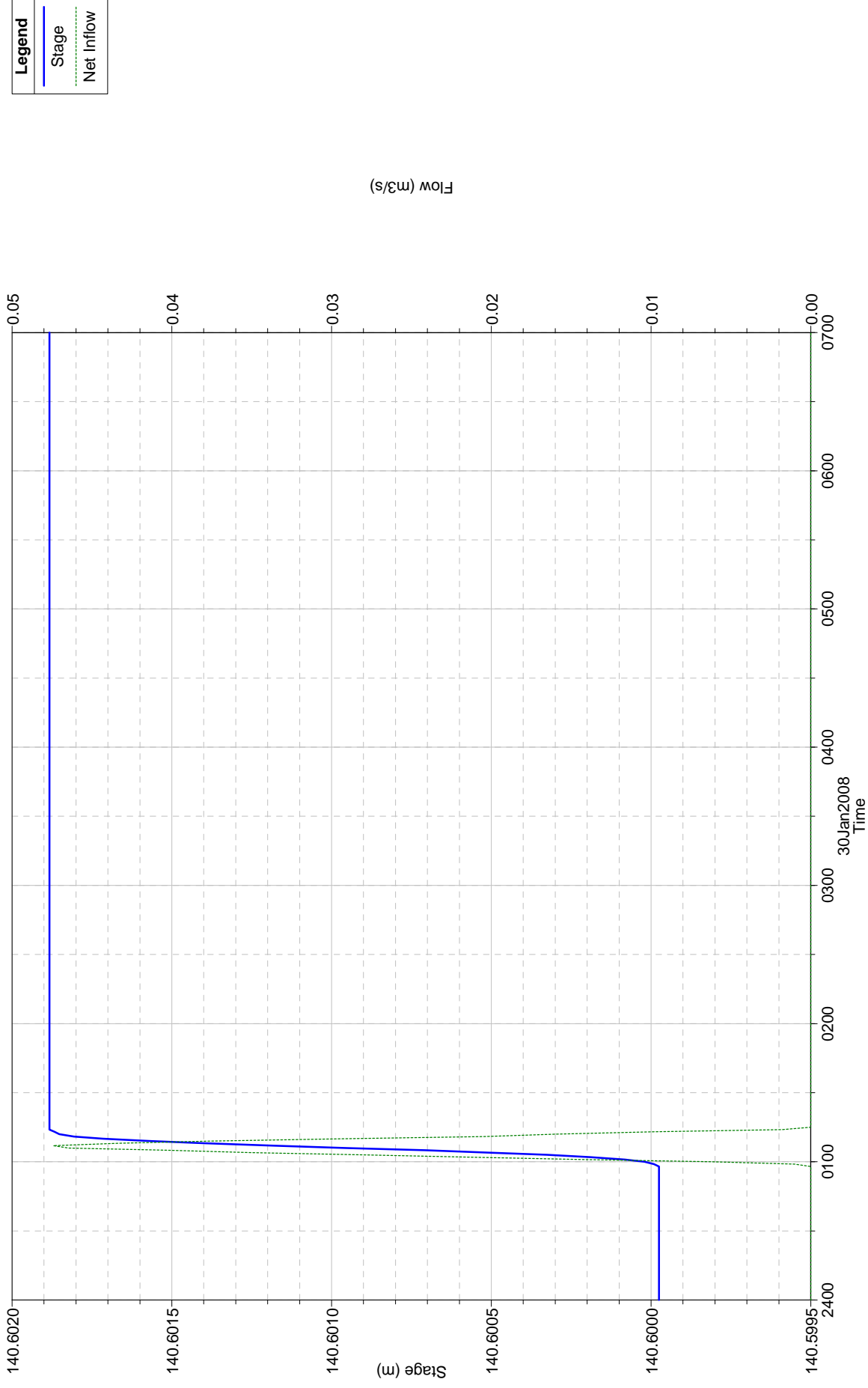
- Stage
- Net Inflow



Plan: SA_100_cr Storage Area: St_Quercio_Sn

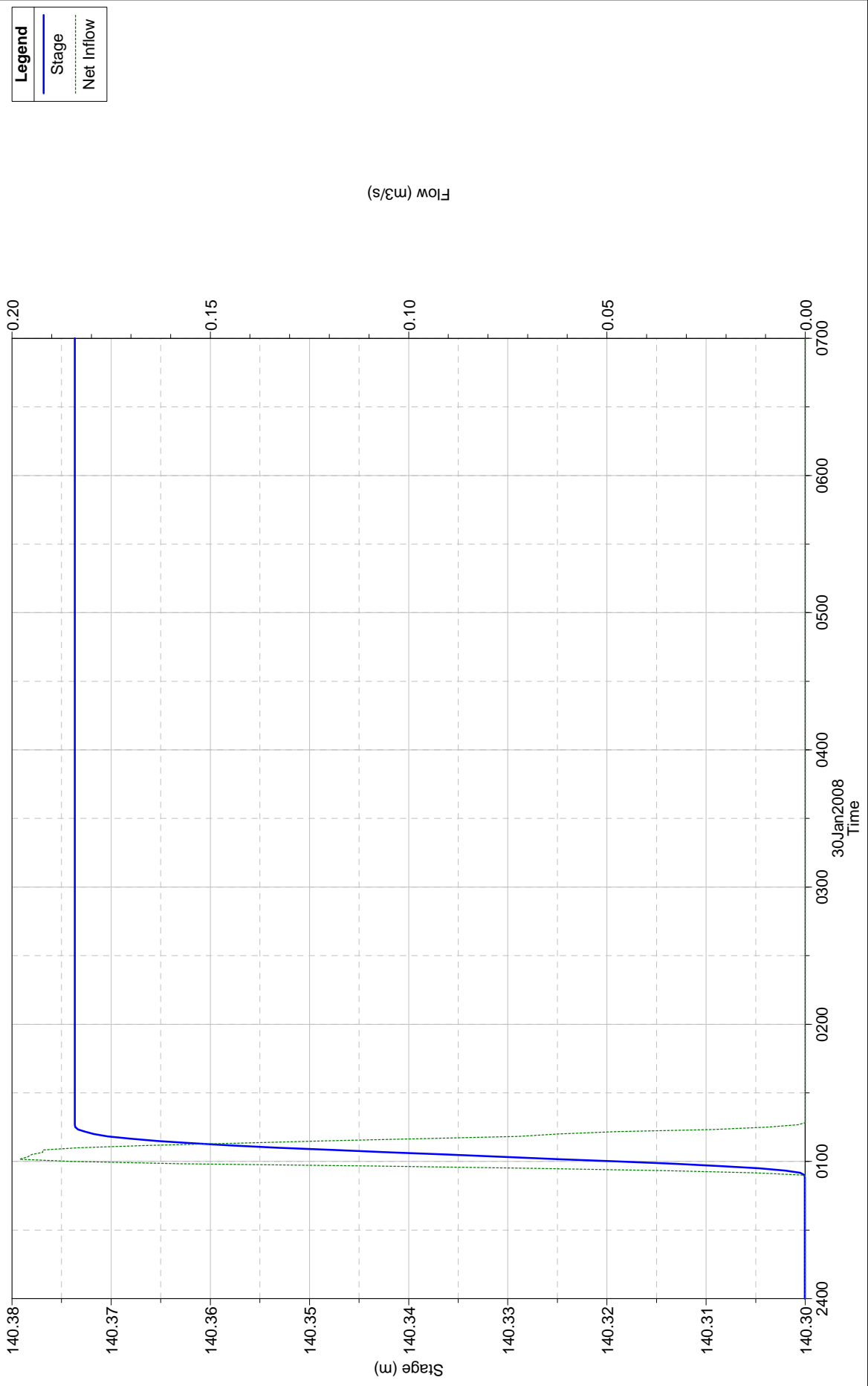


Plan: SA_200_cr Storage Area: Dx_ferrovia

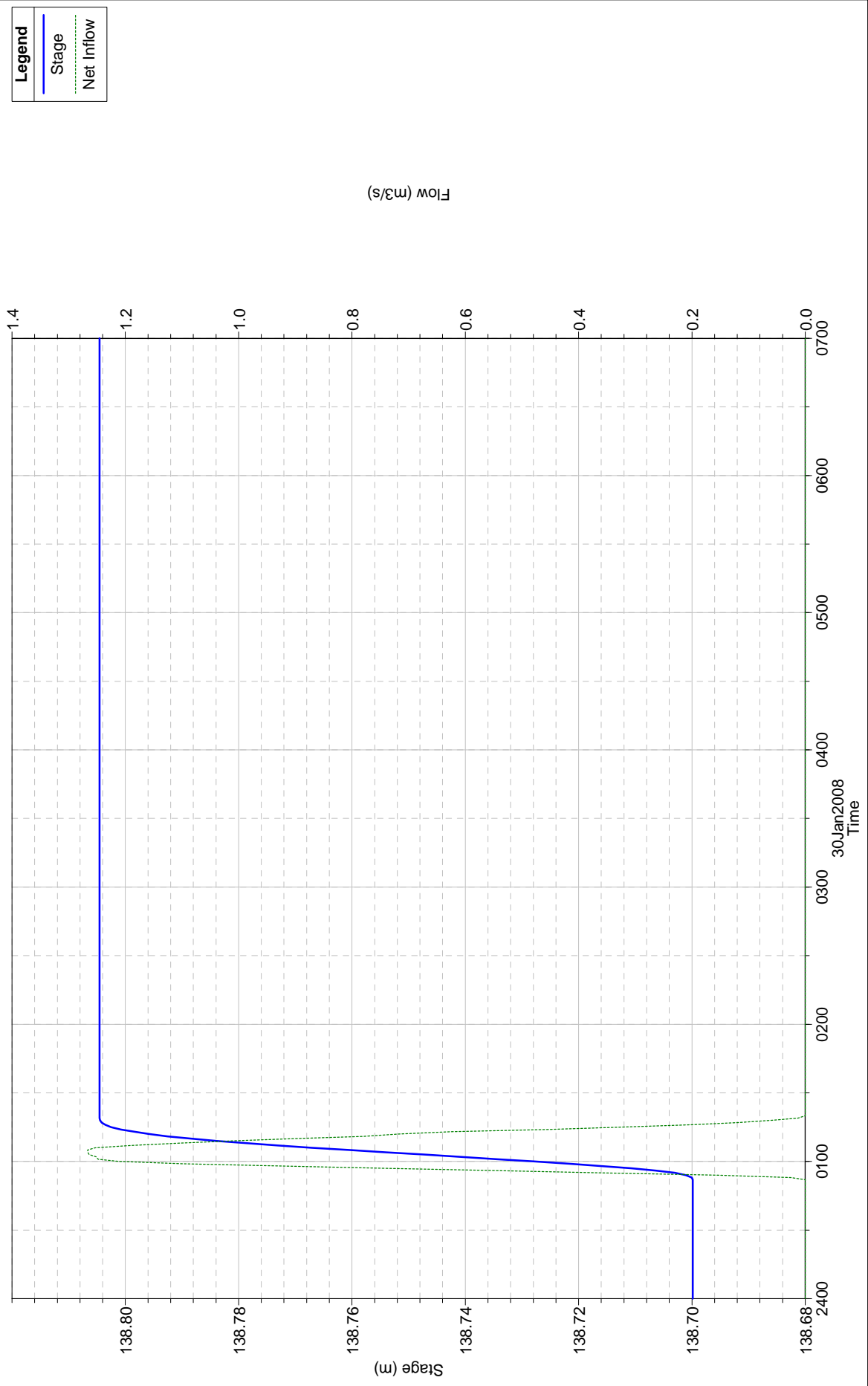


Legend
Stage
Net Inflow

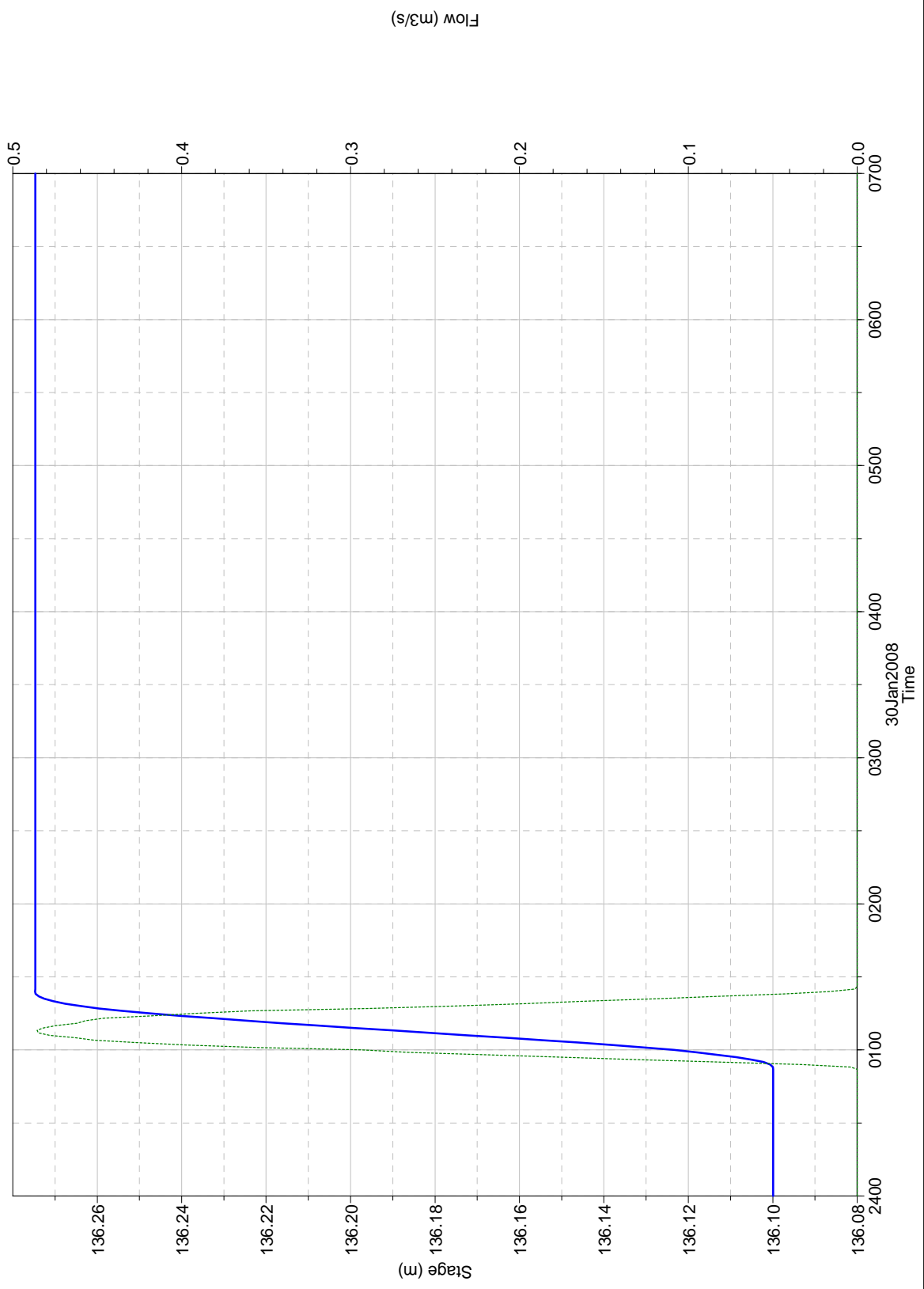
Plan: SA_200_cr Storage Area: Dx_ss69



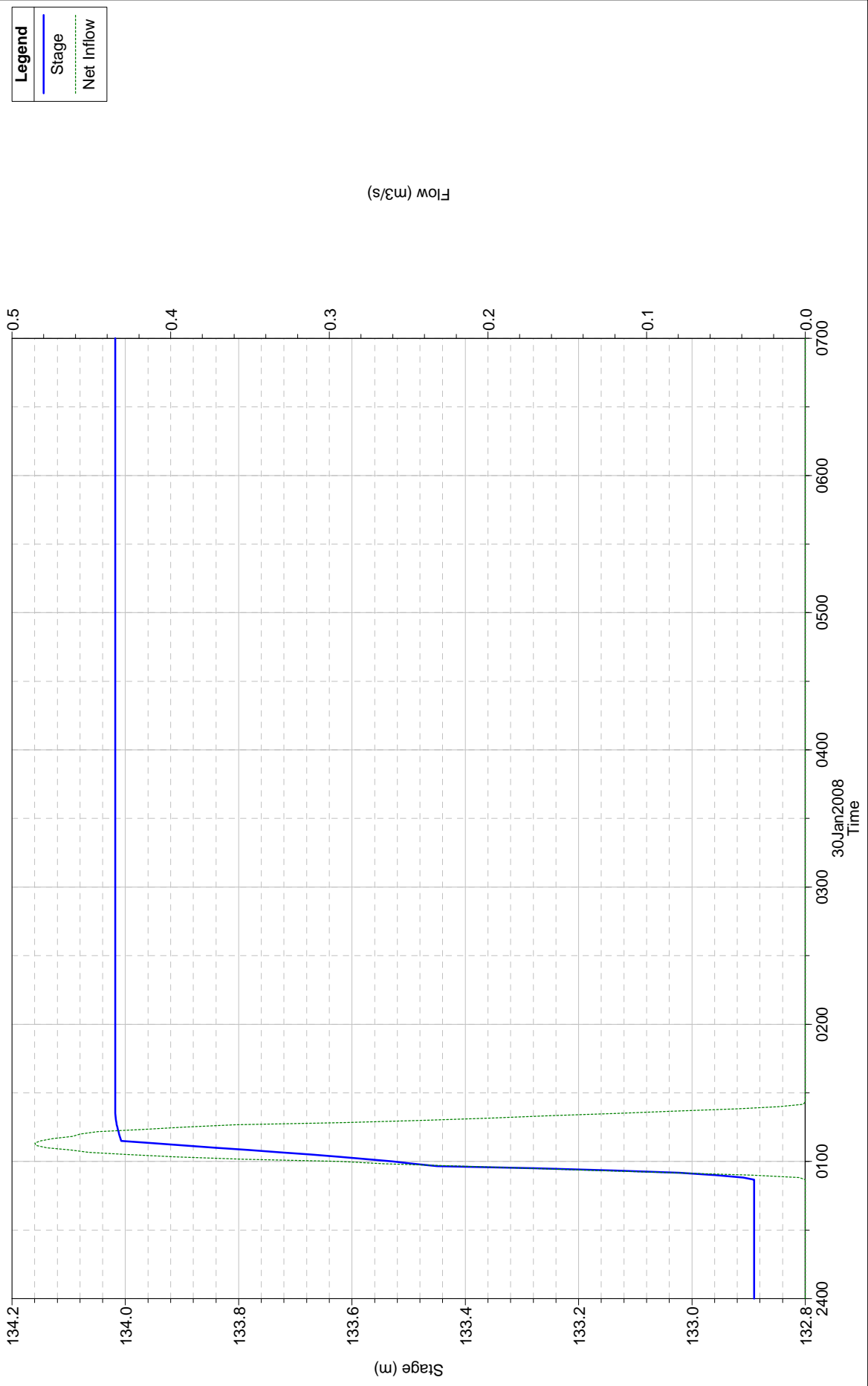
Plan: SA_200_cr Storage Area: Dx_valless69



Plan: SA_200_cr Storage Area: St_Quercio_Dx

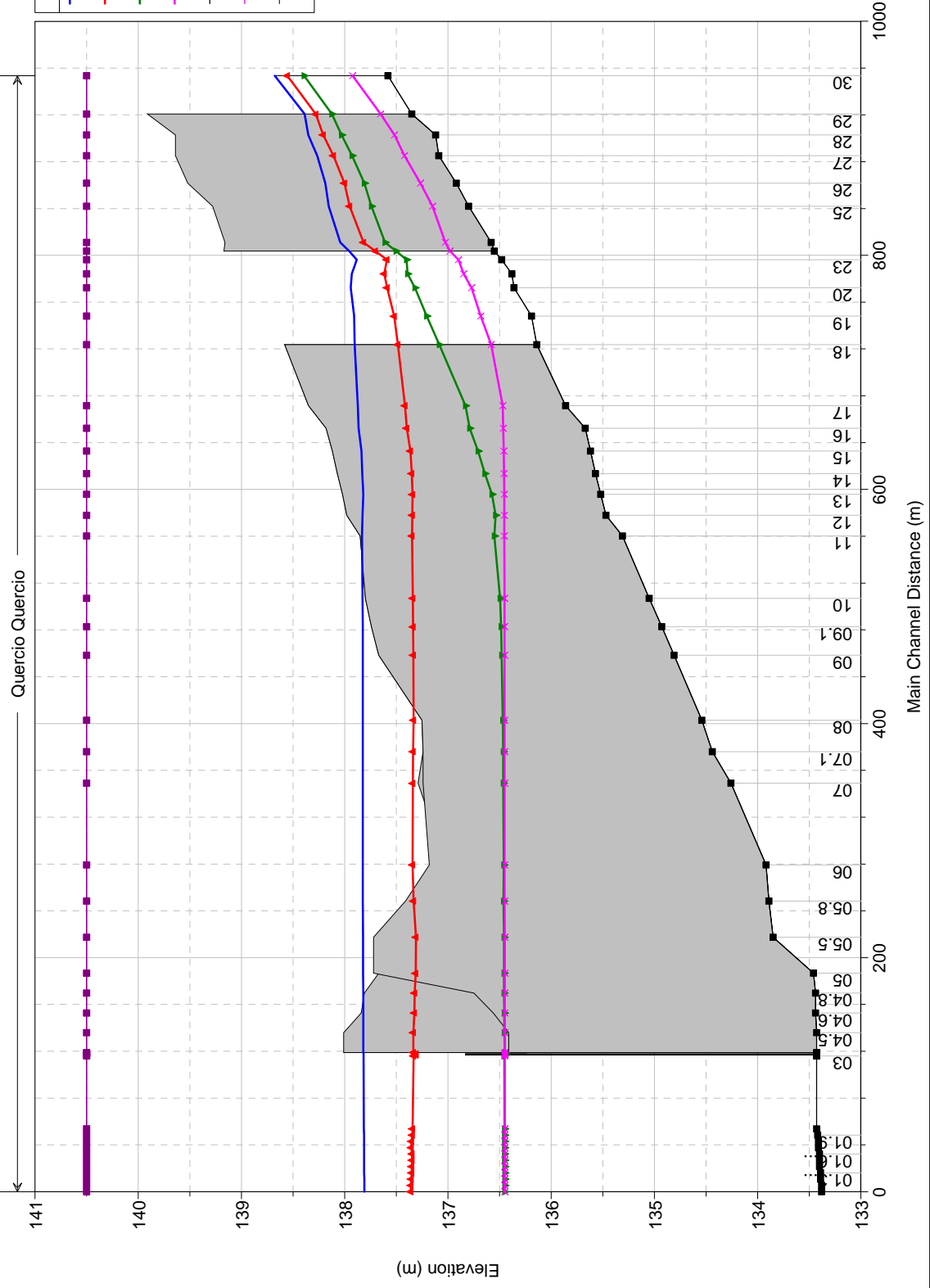


Plan: SA_200_cr Storage Area: St_Quercio_Sn

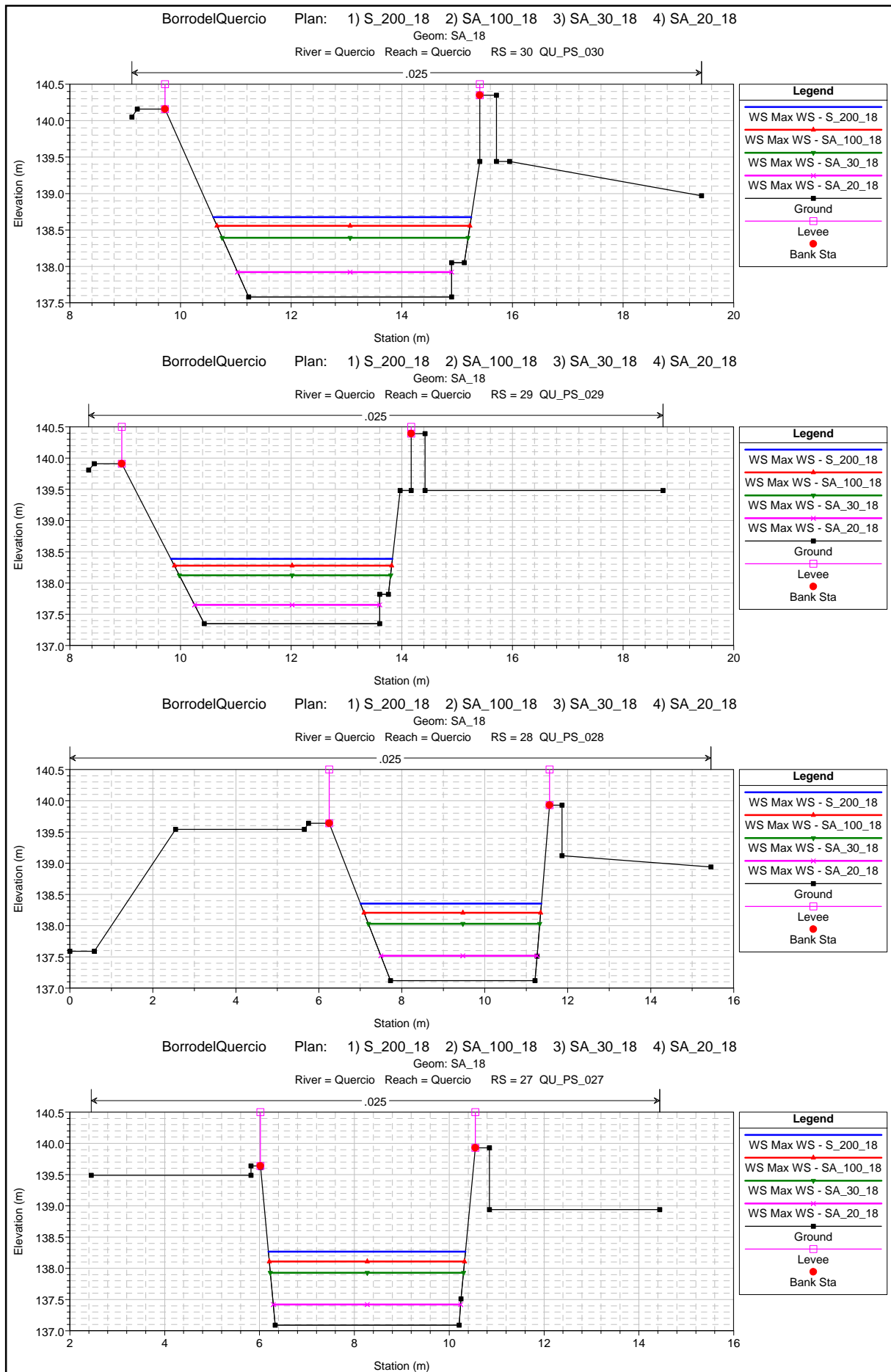


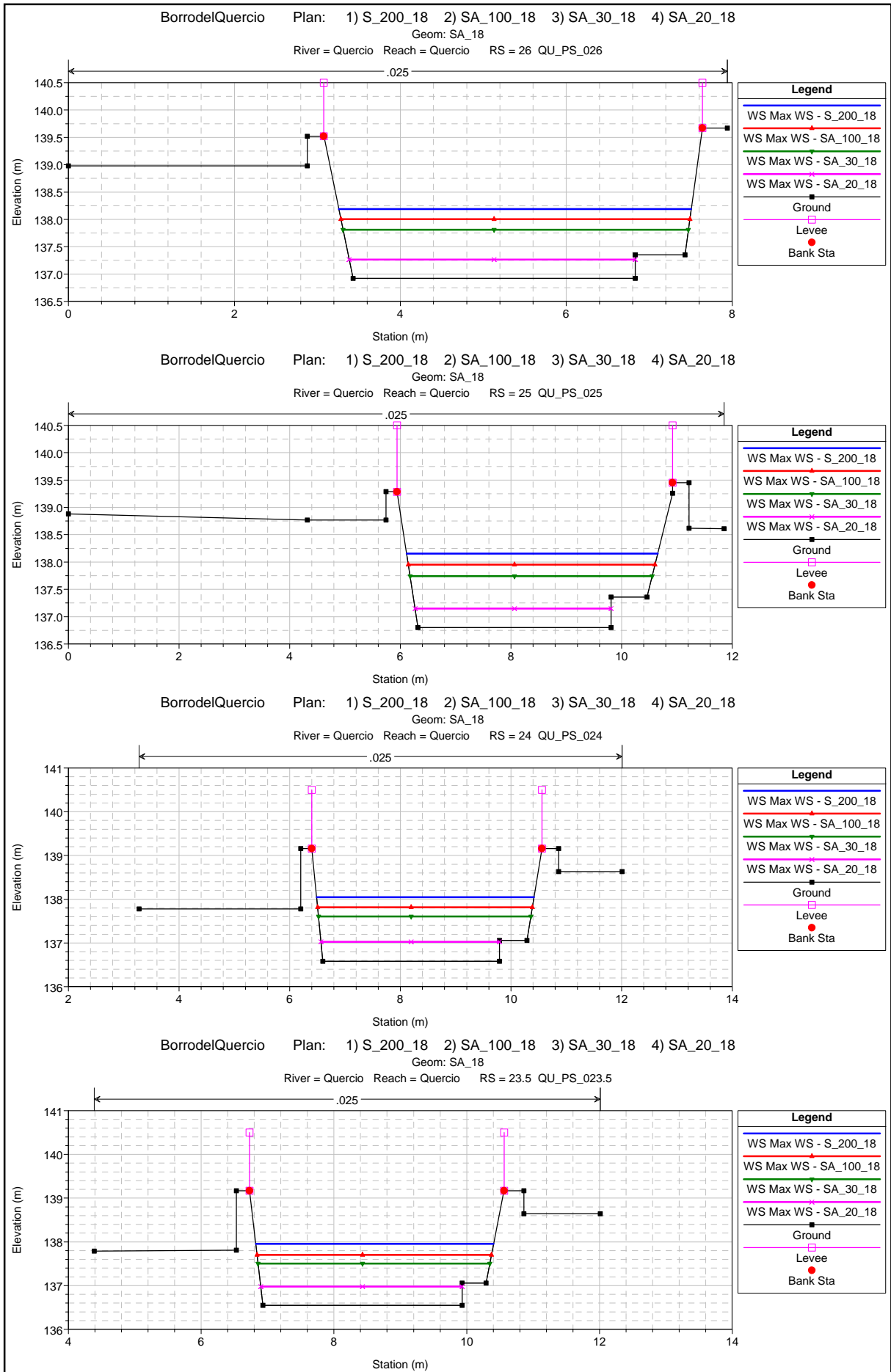
BorrodelQuercio Plan: 1) S_200_18 2) SA_100_18 3) SA_30_18 4) SA_20_18

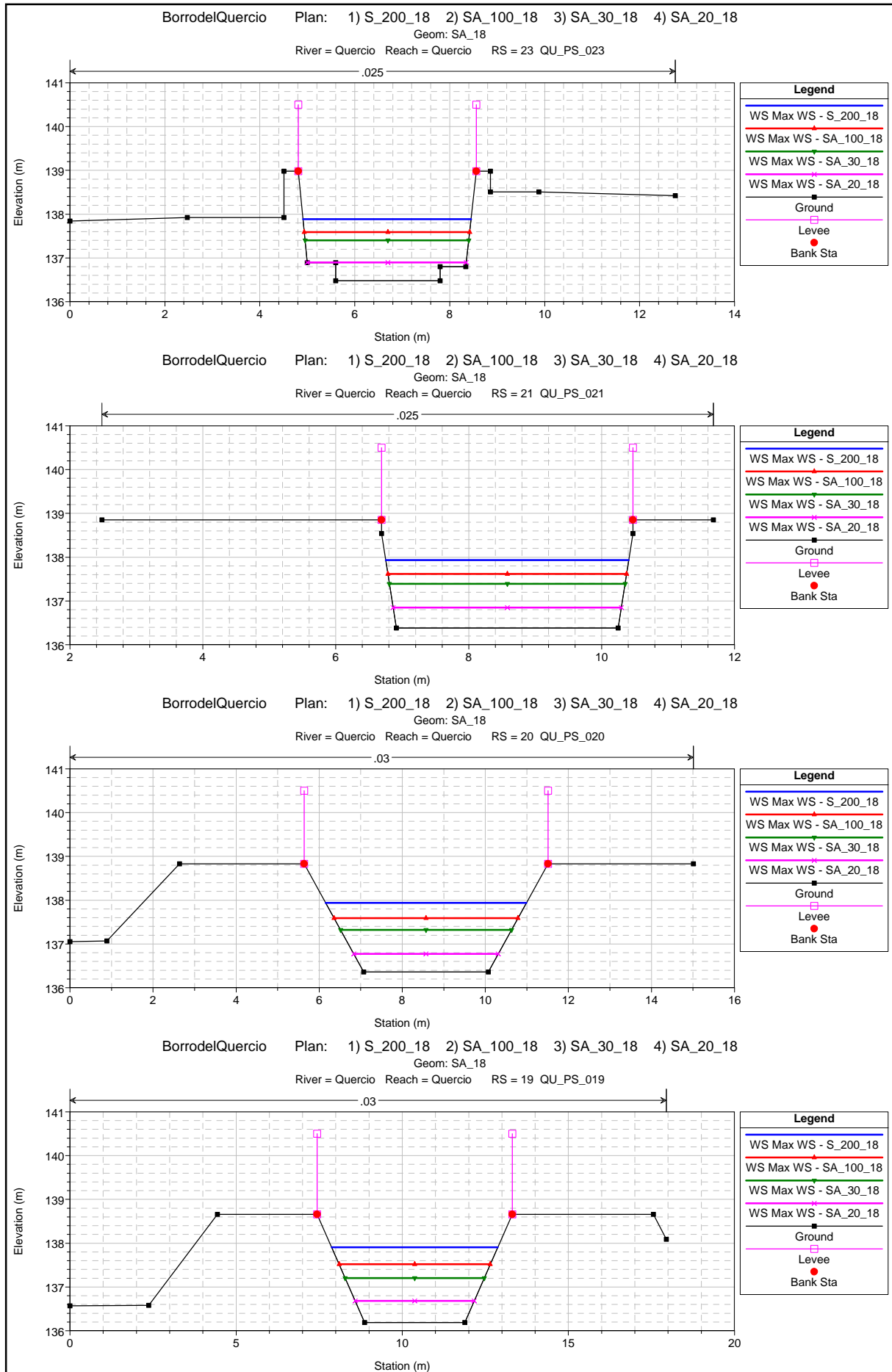
Geom: SA_18

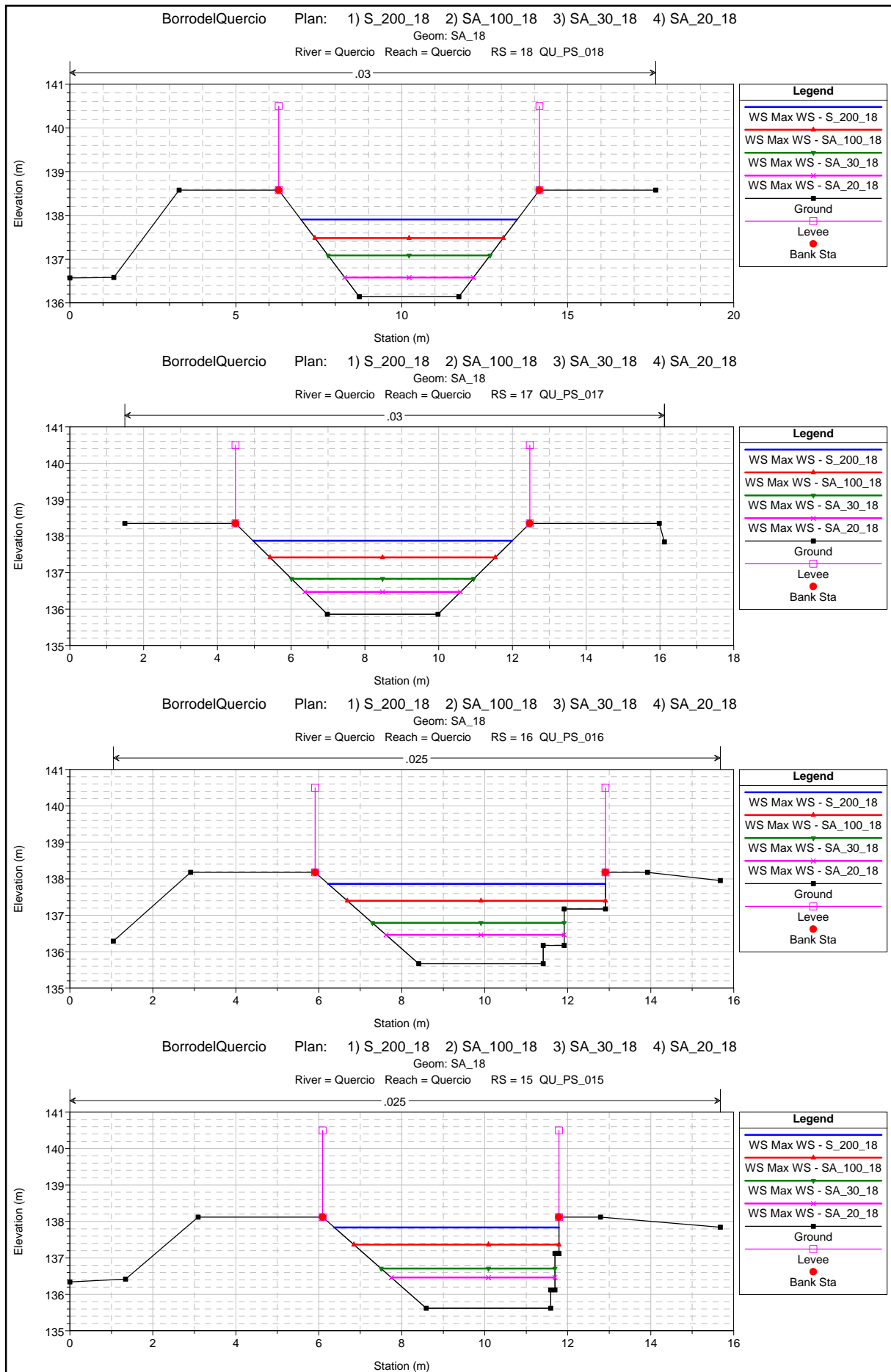


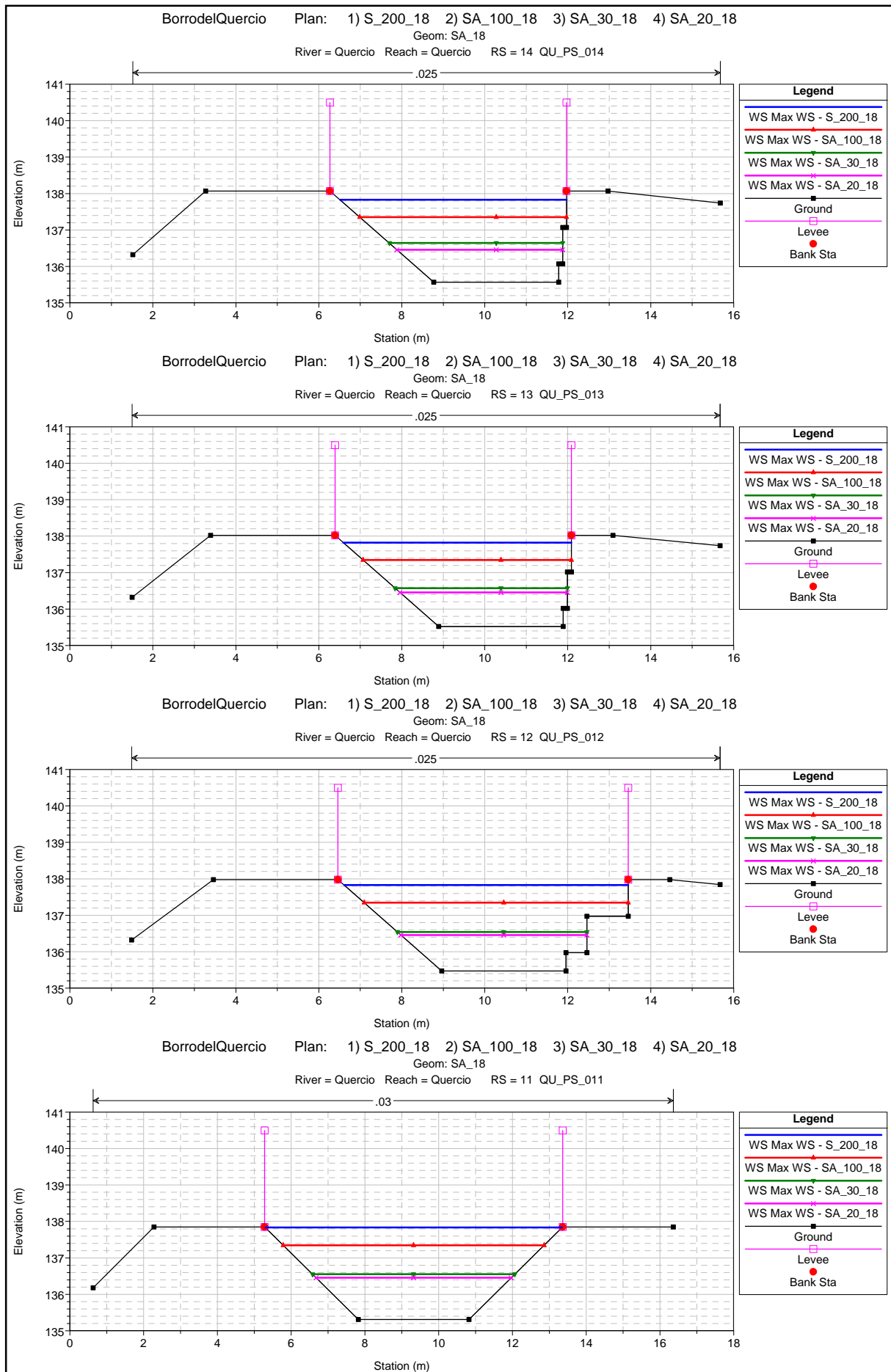
Legend	
WS Max WS - S_200_18	(Blue line with circles)
WS Max WS - SA_100_18	(Red line with triangles)
WS Max WS - SA_30_18	(Green line with diamonds)
WS Max WS - SA_20_18	(Magenta line with crosses)
Ground	(Black line with squares)
Left Levee	(Magenta line with squares)
Right Levee	(Purple line with squares)

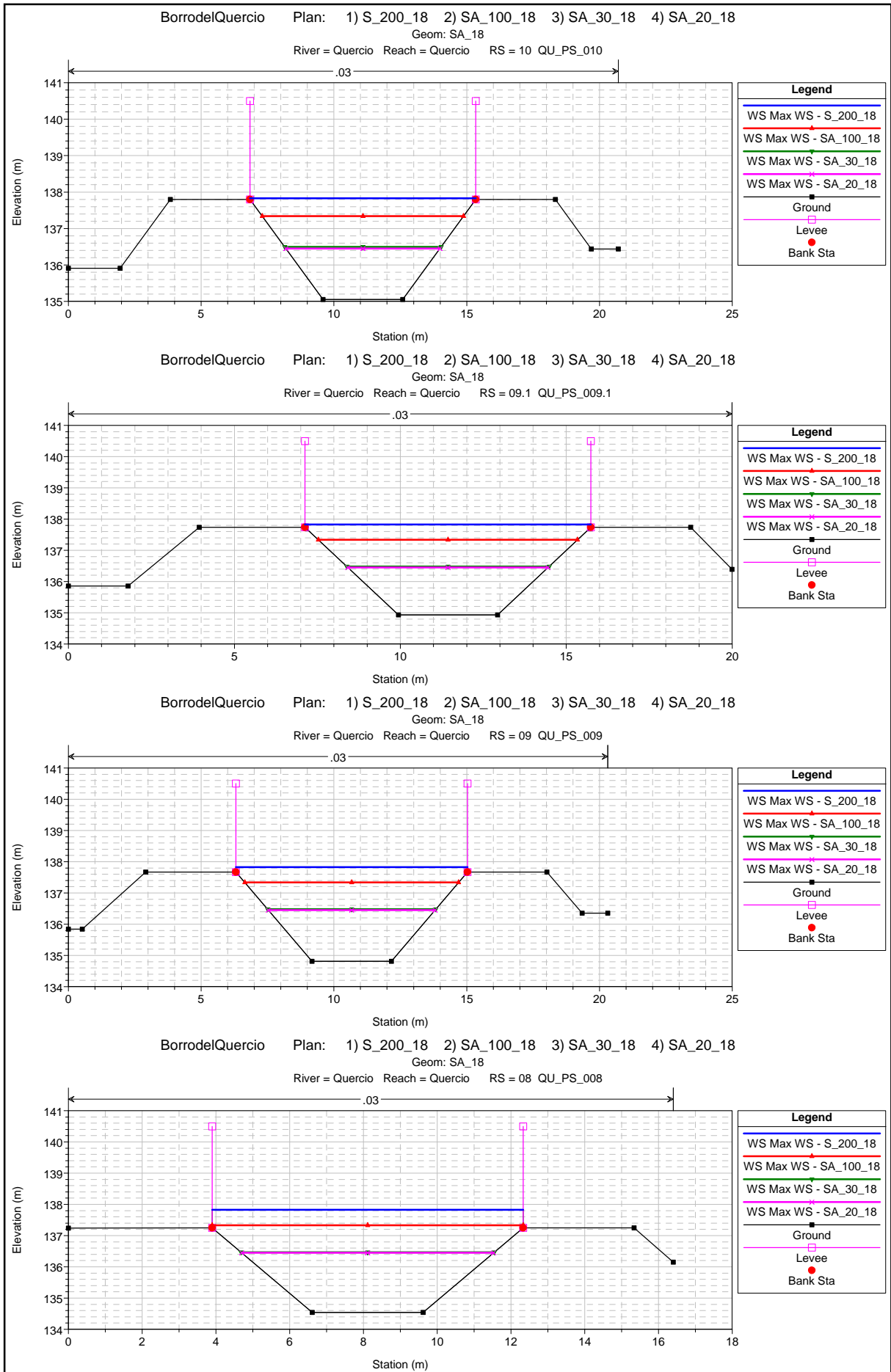


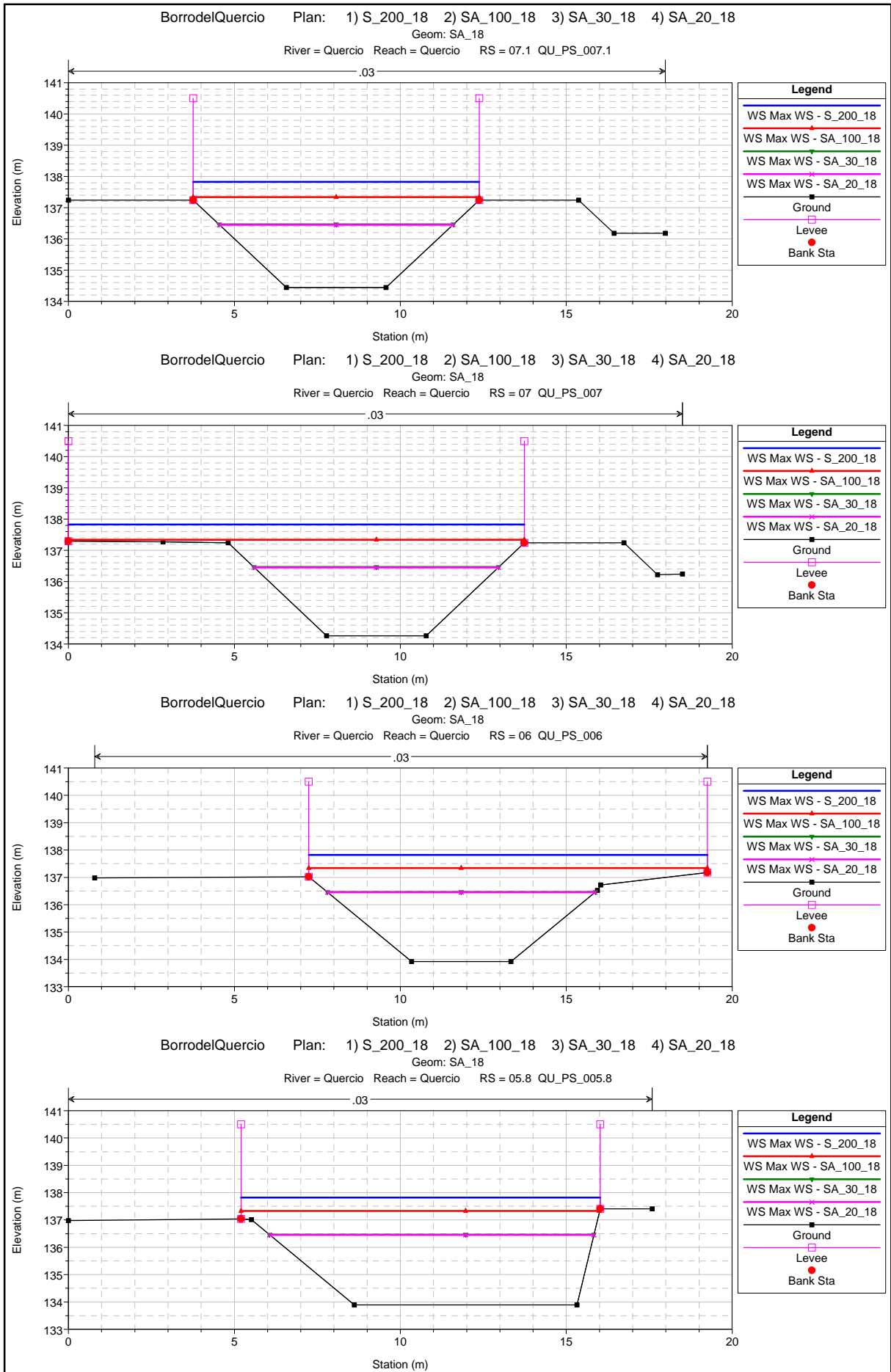


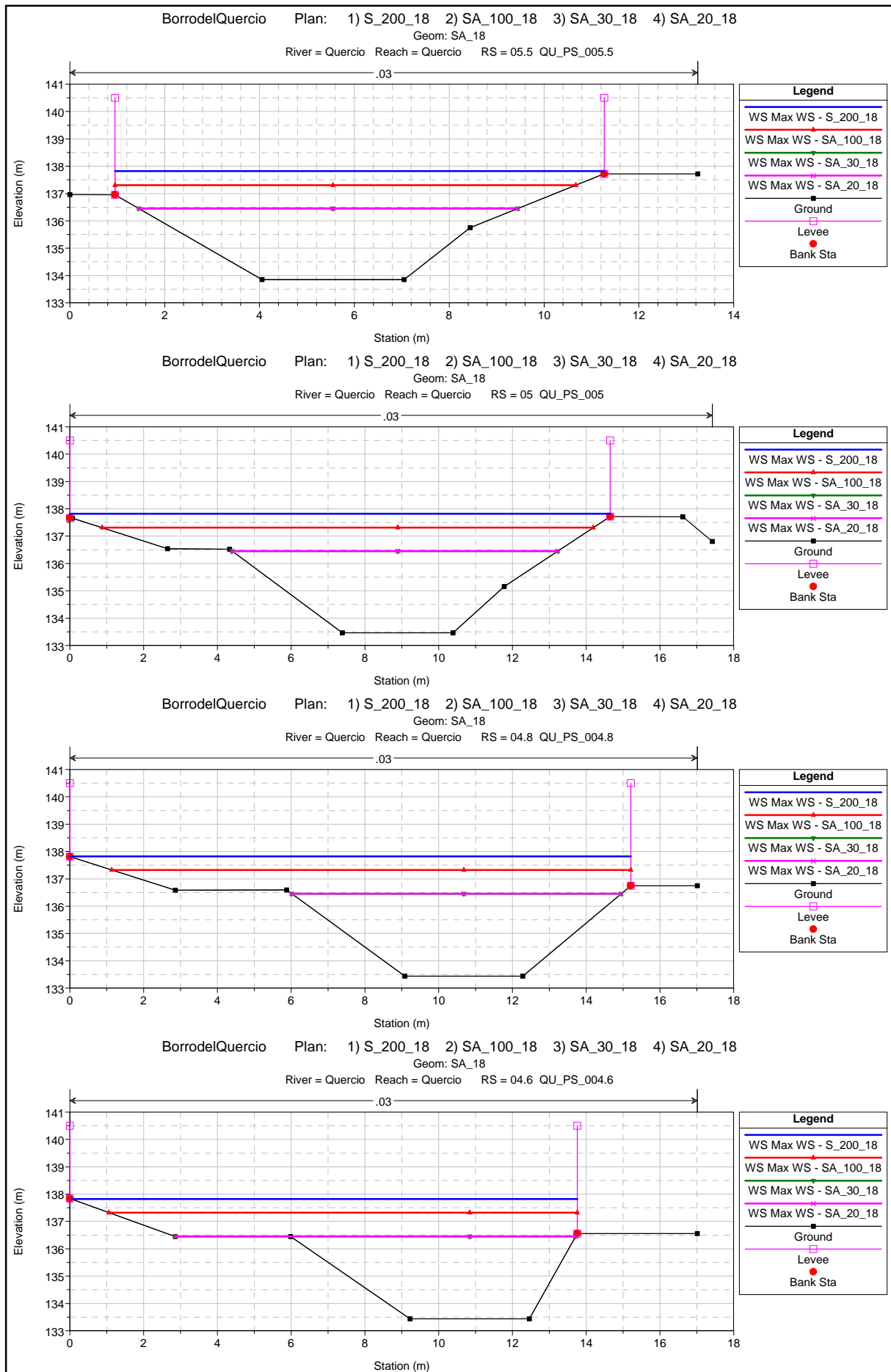


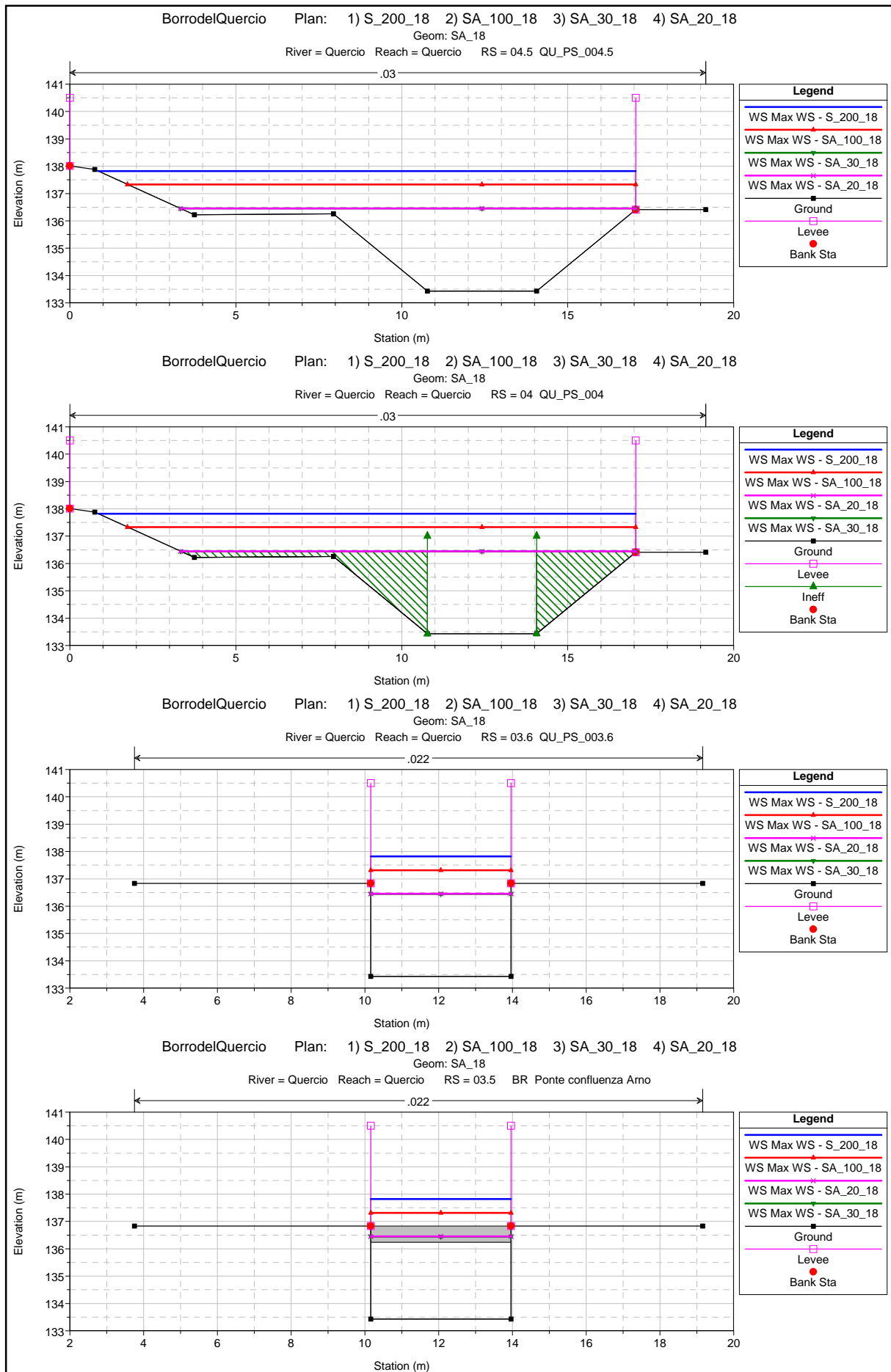


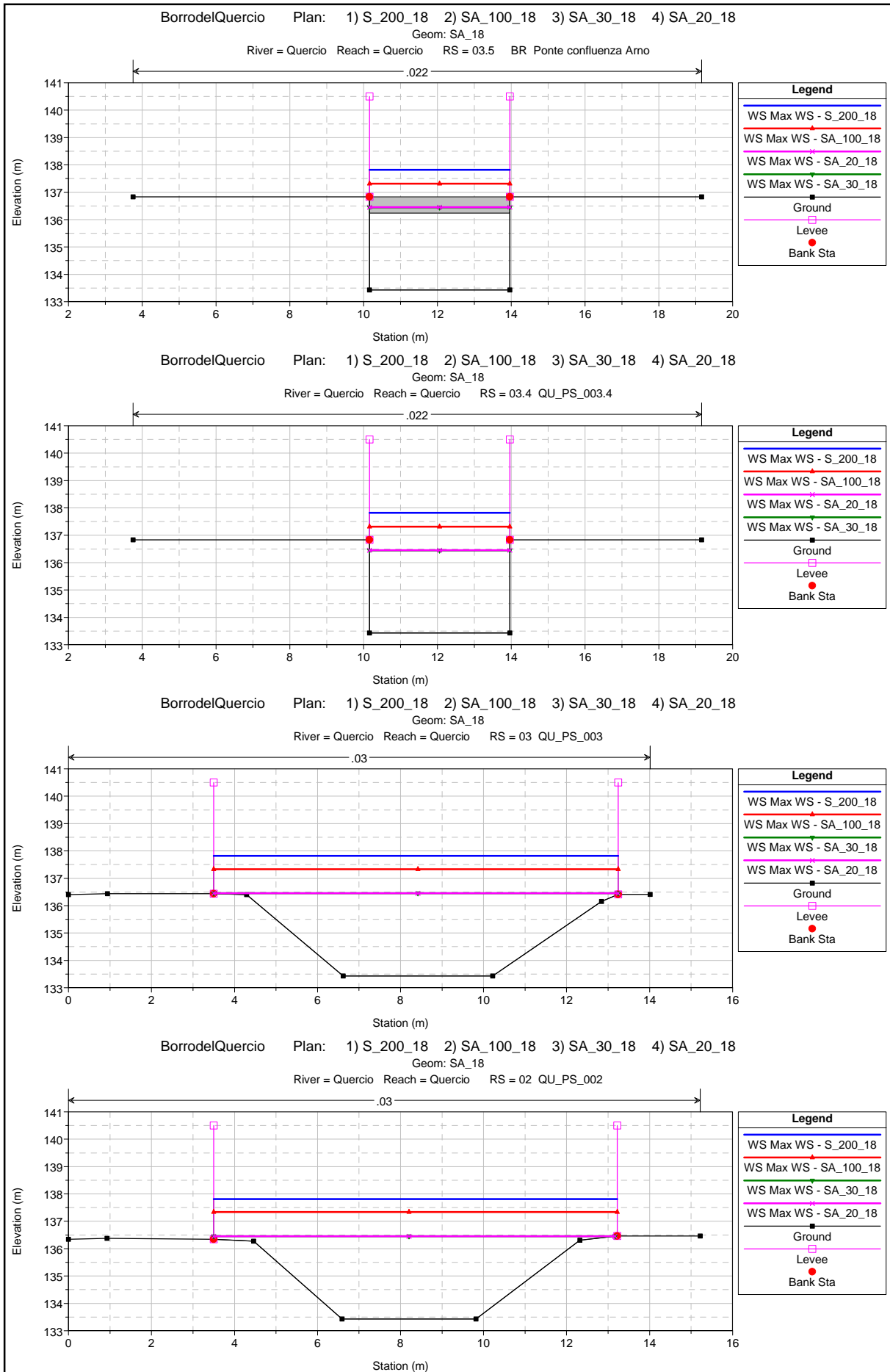


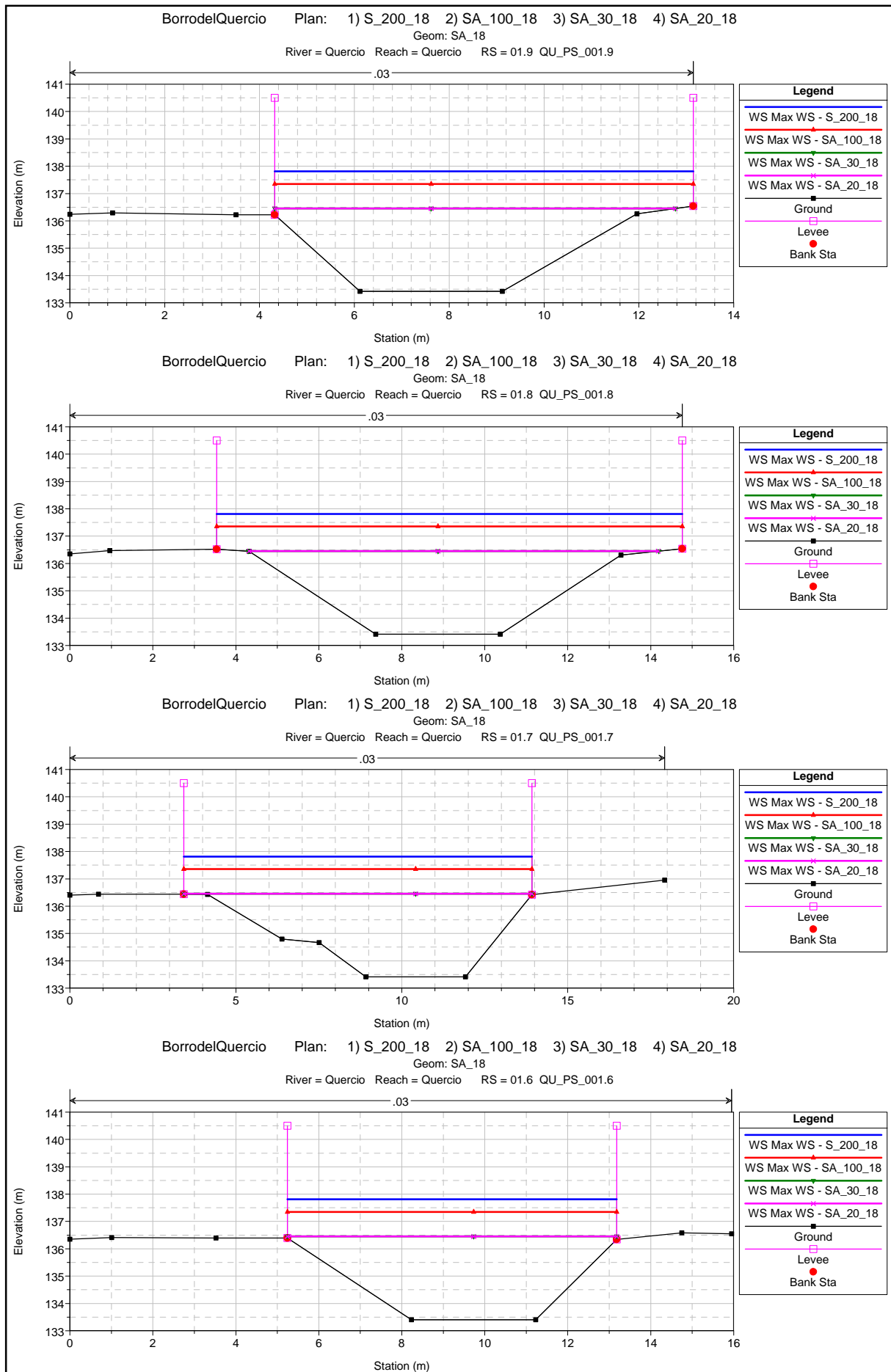


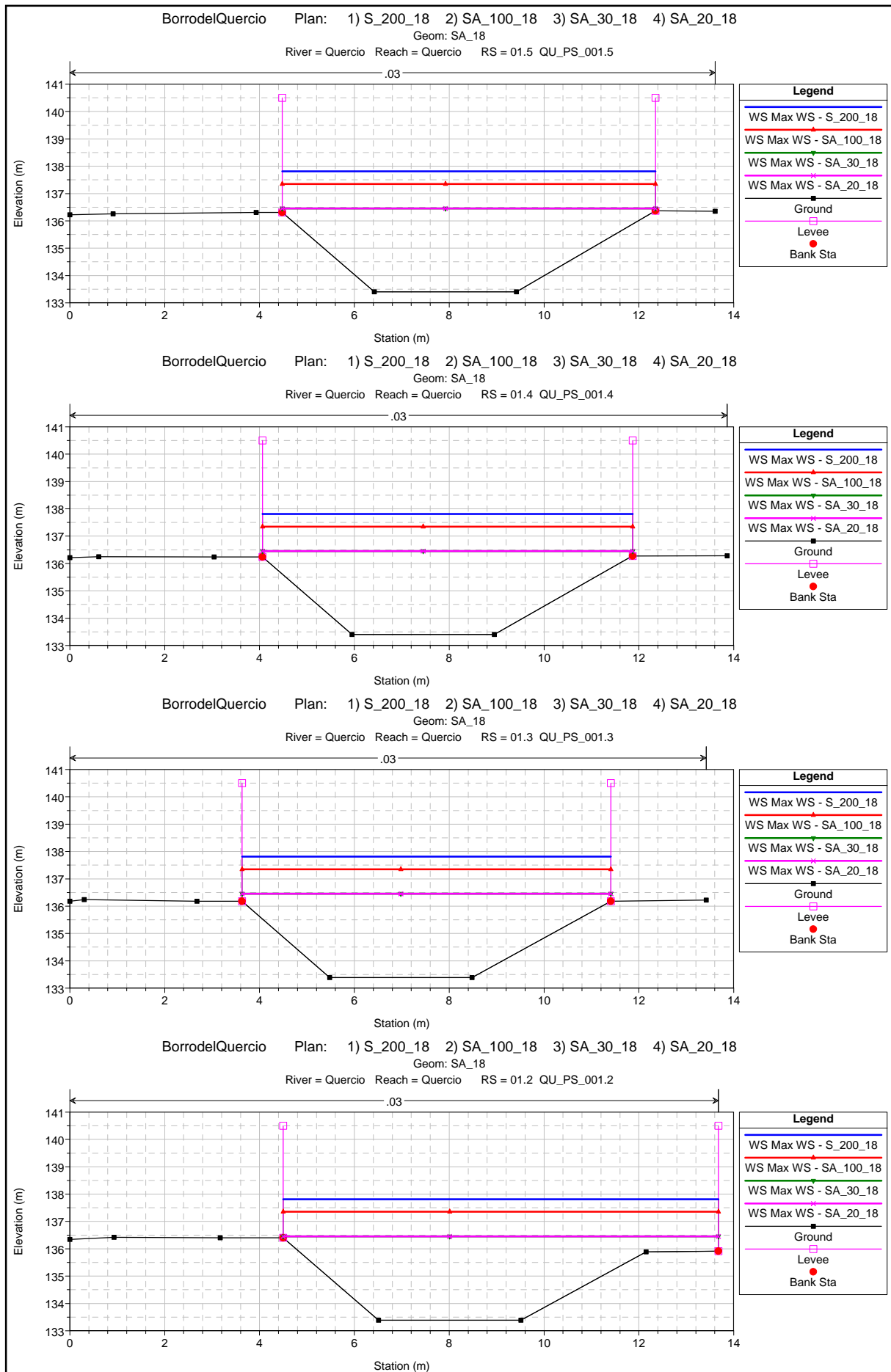


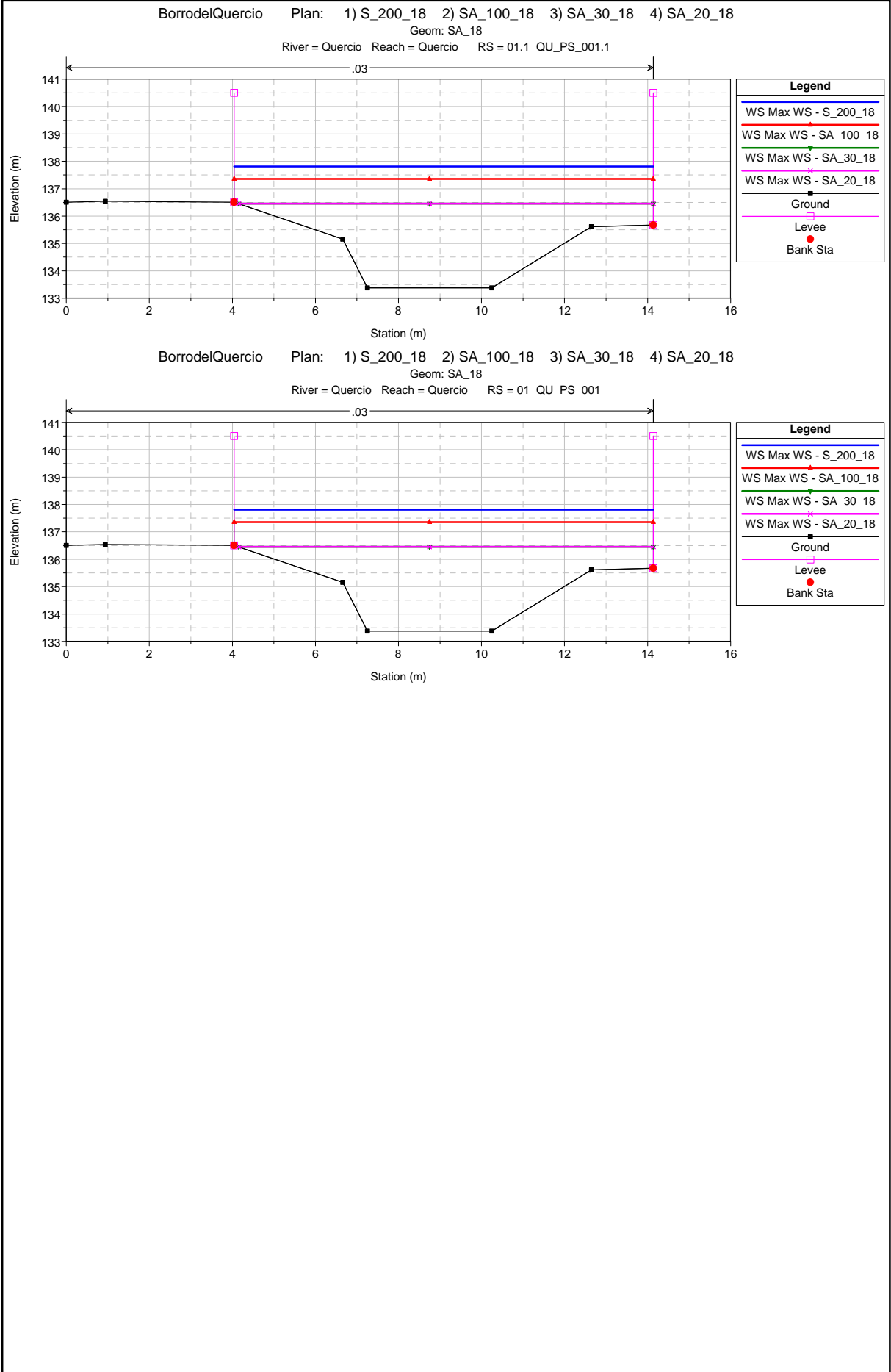












HEC-RAS River: Quercio Reach: Quercio Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	30	Max WS	S_200_18	10.54	137.58	138.68		138.95	0.005115	2.31	4.56	4.67	0.75
Quercio	30	Max WS	SA_100_18	9.00	137.58	138.56		138.81	0.005436	2.25	4.00	4.57	0.77
Quercio	30	Max WS	SA_30_18	6.83	137.58	138.39		138.62	0.005656	2.09	3.27	4.45	0.78
Quercio	30	Max WS	SA_20_18	1.69	137.58	137.92		138.01	0.005490	1.31	1.29	3.87	0.72
Quercio	29	Max WS	S_200_18	10.54	137.35	138.39		138.80	0.008619	2.83	3.72	4.01	0.94
Quercio	29	Max WS	SA_100_18	9.00	137.35	138.28	138.25	138.66	0.008953	2.74	3.29	3.93	0.96
Quercio	29	Max WS	SA_30_18	6.83	137.35	138.12	138.11	138.45	0.009262	2.54	2.69	3.82	0.97
Quercio	29	Max WS	SA_20_18	1.69	137.35	137.65	137.65	137.80	0.011375	1.72	0.98	3.35	1.02
Quercio	28.99			Lat Struct									
Quercio	28	Max WS	S_200_18	10.54	137.12	138.35		138.60	0.004095	2.18	4.84	4.36	0.66
Quercio	28	Max WS	SA_100_18	9.01	137.12	138.21		138.44	0.004437	2.14	4.21	4.26	0.69
Quercio	28	Max WS	SA_30_18	6.84	137.12	138.03		138.23	0.004474	1.98	3.46	4.13	0.69
Quercio	28	Max WS	SA_20_18	1.69	137.12	137.52		137.59	0.003739	1.17	1.44	3.76	0.60
Quercio	27	Max WS	S_200_18	10.54	137.09	138.27		138.52	0.004531	2.23	4.72	4.16	0.67
Quercio	27	Max WS	SA_100_18	9.01	137.09	138.11		138.36	0.005066	2.21	4.07	4.12	0.71
Quercio	27	Max WS	SA_30_18	6.84	137.09	137.93		138.14	0.005188	2.05	3.34	4.07	0.72
Quercio	27	Max WS	SA_20_18	1.69	137.09	137.42		137.51	0.005586	1.30	1.30	3.95	0.72
Quercio	26	Max WS	S_200_18	10.54	136.92	138.19		138.42	0.004121	2.13	4.95	4.25	0.63
Quercio	26	Max WS	SA_100_18	9.00	136.92	138.00		138.24	0.004926	2.16	4.17	4.20	0.69
Quercio	26	Max WS	SA_30_18	6.83	136.92	137.81		138.02	0.005321	2.03	3.36	4.16	0.72
Quercio	26	Max WS	SA_20_18	1.69	136.92	137.27		137.37	0.006682	1.43	1.18	3.45	0.78
Quercio	25	Max WS	S_200_18	10.54	136.80	138.16		138.35	0.003167	1.93	5.46	4.54	0.56
Quercio	25	Max WS	SA_100_18	9.00	136.80	137.95		138.15	0.003931	1.98	4.54	4.46	0.63
Quercio	25	Max WS	SA_30_18	6.83	136.80	137.74		137.92	0.004434	1.89	3.61	4.38	0.66
Quercio	25	Max WS	SA_20_18	1.69	136.80	137.15		137.25	0.006053	1.37	1.23	3.54	0.74
Quercio	24	Max WS	S_200_18	10.54	136.58	138.04		138.25	0.003315	1.99	5.31	3.93	0.55
Quercio	24	Max WS	SA_100_18	9.00	136.58	137.82		138.03	0.004053	2.04	4.42	3.88	0.61
Quercio	24	Max WS	SA_30_18	6.83	136.58	137.61		137.79	0.004153	1.89	3.61	3.84	0.62
Quercio	24	Max WS	SA_20_18	1.69	136.58	137.03		137.10	0.003522	1.18	1.43	3.22	0.57
Quercio	23.5	Max WS	S_200_18	10.54	136.55	137.96		138.22	0.004625	2.26	4.67	3.58	0.63

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	23.5	Max WS	SA_100_18	9.00	136.55	137.70		137.99	0.006142	2.39	3.77	3.53	0.74
Quercio	23.5	Max WS	SA_30_18	6.83	136.55	137.50		137.76	0.006392	2.23	3.07	3.49	0.76
Quercio	23.5	Max WS	SA_20_18	1.69	136.55	136.98		137.07	0.004578	1.31	1.29	3.03	0.64
Quercio	23	Max WS	S_200_18	10.54	136.48	137.88		138.18	0.005732	2.41	4.37	3.54	0.69
Quercio	23	Max WS	SA_100_18	9.00	136.48	137.59		137.96	0.008922	2.69	3.35	3.48	0.88
Quercio	23	Max WS	SA_30_18	6.83	136.48	137.40		137.73	0.009724	2.54	2.69	3.45	0.92
Quercio	23	Max WS	SA_20_18	1.69	136.48	136.90	136.90	137.05	0.013085	1.74	0.98	3.35	1.03
Quercio	21	Max WS	S_200_18	10.54	136.38	137.93		138.12	0.002975	1.94	5.43	3.66	0.51
Quercio	21	Max WS	SA_100_18	9.00	136.38	137.62		137.84	0.004151	2.10	4.29	3.59	0.61
Quercio	21	Max WS	SA_30_18	6.83	136.38	137.39		137.59	0.004290	1.96	3.48	3.55	0.63
Quercio	21	Max WS	SA_20_18	1.69	136.38	136.85		136.91	0.002692	1.07	1.58	3.44	0.50
Quercio	20	Max WS	S_200_18	10.54	136.36	137.94		138.09	0.002869	1.70	6.19	4.84	0.48
Quercio	20	Max WS	SA_100_18	9.00	136.36	137.59		137.79	0.004854	1.97	4.57	4.43	0.62
Quercio	20	Max WS	SA_30_18	6.83	136.36	137.32		137.52	0.006324	2.00	3.42	4.12	0.70
Quercio	20	Max WS	SA_20_18	1.69	136.36	136.77		136.85	0.006152	1.27	1.33	3.48	0.65
Quercio	19	Max WS	S_200_18	10.54	136.19	137.91		138.03	0.002155	1.53	6.88	5.00	0.42
Quercio	19	Max WS	SA_100_18	9.00	136.19	137.52		137.68	0.003722	1.79	5.03	4.55	0.54
Quercio	19	Max WS	SA_30_18	6.83	136.19	137.21		137.38	0.005249	1.87	3.65	4.19	0.64
Quercio	19	Max WS	SA_20_18	1.69	136.19	136.68		136.74	0.003417	1.04	1.62	3.58	0.49
Quercio	18	Max WS	S_200_18	10.54	136.14	137.90		137.98	0.001327	1.26	8.39	6.51	0.35
Quercio	18	Max WS	SA_100_18	9.00	136.14	137.48		137.61	0.002624	1.54	5.83	5.68	0.49
Quercio	18	Max WS	SA_30_18	6.83	136.14	137.08		137.26	0.005349	1.84	3.71	4.88	0.67
Quercio	18	Max WS	SA_20_18	1.69	136.14	136.58		136.64	0.004403	1.11	1.52	3.88	0.57
Quercio	17.99			Lat Struct									
Quercio	17.98			Lat Struct									
Quercio	17	Max WS	S_200_18	10.54	135.86	137.87		137.93	0.000804	1.04	10.09	7.03	0.28
Quercio	17	Max WS	SA_100_18	8.99	135.86	137.42		137.50	0.001537	1.27	7.08	6.11	0.38
Quercio	17	Max WS	SA_30_18	6.83	135.86	136.83		136.99	0.004812	1.77	3.85	4.94	0.64
Quercio	17	Max WS	SA_20_18	1.22	135.86	136.47		136.48	0.000778	0.56	2.20	4.22	0.25

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	16	Max WS	S_200_18	10.54	135.67	137.86		137.92	0.000570	1.00	10.52	6.69	0.25
Quercio	16	Max WS	SA_100_18	8.99	135.67	137.40		137.47	0.001081	1.20	7.52	6.22	0.35
Quercio	16	Max WS	SA_30_18	6.83	135.67	136.79		136.92	0.002584	1.59	4.29	4.61	0.53
Quercio	16	Max WS	SA_20_18	1.22	135.67	136.46		136.47	0.000273	0.43	2.85	4.29	0.17
Quercio	15	Max WS	S_200_18	10.54	135.62	137.84		137.90	0.000703	1.13	9.36	5.42	0.27
Quercio	15	Max WS	SA_100_18	8.99	135.62	137.36		137.45	0.001166	1.30	6.90	4.94	0.35
Quercio	15	Max WS	SA_30_18	6.83	135.62	136.71		136.86	0.003153	1.74	3.92	4.19	0.58
Quercio	15	Max WS	SA_20_18	1.22	135.62	136.46		136.47	0.000236	0.42	2.91	3.94	0.16
Quercio	14	Max WS	S_200_18	10.54	135.57	137.83		137.89	0.000657	1.10	9.59	5.46	0.26
Quercio	14	Max WS	SA_100_18	7.00	135.57	137.35		137.40	0.000652	0.98	7.10	4.98	0.26
Quercio	14	Max WS	SA_30_18	6.83	135.57	136.64		136.80	0.003300	1.77	3.85	4.18	0.59
Quercio	14	Max WS	SA_20_18	1.22	135.57	136.46		136.47	0.000196	0.39	3.10	4.00	0.14
Quercio	13	Max WS	S_200_18	8.07	135.52	137.82		137.85	0.000363	0.82	9.81	5.50	0.20
Quercio	13	Max WS	SA_100_18	7.00	135.52	137.34		137.39	0.000607	0.96	7.29	5.02	0.25
Quercio	13	Max WS	SA_30_18	6.82	135.52	136.57		136.74	0.003498	1.81	3.77	4.15	0.61
Quercio	13	Max WS	SA_20_18	1.22	135.52	136.46		136.46	0.000166	0.37	3.29	4.04	0.13
Quercio	12	Max WS	S_200_18	10.54	135.47	137.83		137.87	0.000430	0.91	11.63	6.85	0.22
Quercio	12	Max WS	SA_100_18	7.00	135.47	137.35		137.38	0.000469	0.83	8.44	6.37	0.23
Quercio	12	Max WS	SA_30_18	6.82	135.47	136.54		136.68	0.003018	1.68	4.06	4.56	0.57
Quercio	12	Max WS	SA_20_18	1.23	135.47	136.45		136.46	0.000130	0.33	3.68	4.48	0.12
Quercio	11	Max WS	S_200_18	10.54	135.31	137.83		137.86	0.000337	0.76	13.94	8.05	0.18
Quercio	11	Max WS	SA_100_18	7.00	135.31	137.35		137.37	0.000338	0.68	10.28	7.08	0.18
Quercio	11	Max WS	SA_30_18	6.81	135.31	136.55		136.64	0.001997	1.29	5.27	5.48	0.42
Quercio	11	Max WS	SA_20_18	1.23	135.31	136.45		136.46	0.000087	0.26	4.74	5.29	0.09
Quercio	10	Max WS	S_200_18	10.42	135.05	137.83		137.85	0.000225	0.65	16.04	8.50	0.15
Quercio	10	Max WS	SA_100_18	7.00	135.05	137.34		137.36	0.000216	0.58	12.12	7.58	0.15
Quercio	10	Max WS	SA_30_18	6.80	135.05	136.50		136.55	0.001148	1.06	6.43	5.89	0.32
Quercio	10	Max WS	SA_20_18	1.22	135.05	136.45		136.45	0.000042	0.20	6.18	5.81	0.06
Quercio	09.1	Max WS	S_200_18	10.15	134.93	137.83		137.84	0.000181	0.60	17.03	8.61	0.14
Quercio	09.1	Max WS	SA_100_18	6.99	134.93	137.34		137.35	0.000179	0.54	13.00	7.81	0.13
Quercio	09.1	Max WS	SA_30_18	5.34	134.93	136.48		136.51	0.000546	0.76	7.06	6.10	0.22

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	09.1	Max WS	SA_20_18	1.22	134.93	136.45		136.45	0.000031	0.18	6.87	6.03	0.05
Quercio	09	Max WS	S_200_18	9.90	134.81	137.83		137.84	0.000146	0.55	18.10	8.72	0.12
Quercio	09	Max WS	SA_100_18	6.99	134.81	137.34		137.35	0.000148	0.50	13.95	8.05	0.12
Quercio	09	Max WS	SA_30_18	5.32	134.81	136.48		136.50	0.000416	0.68	7.78	6.33	0.20
Quercio	09	Max WS	SA_20_18	1.22	134.81	136.45		136.45	0.000023	0.16	7.61	6.28	0.05
Quercio	08	Max WS	S_200_18	9.04	134.54	137.83		137.84	0.000086	0.44	20.36	8.43	0.09
Quercio	08	Max WS	SA_100_18	6.82	134.54	137.33		137.34	0.000093	0.42	16.21	8.43	0.10
Quercio	08	Max WS	SA_30_18	5.32	134.54	136.47		136.48	0.000240	0.56	9.53	6.87	0.15
Quercio	08	Max WS	SA_20_18	1.22	134.54	136.45		136.45	0.000013	0.13	9.41	6.83	0.04
Quercio	07.1	Max WS	S_200_18	8.77	134.44	137.83		137.83	0.000072	0.41	21.31	8.62	0.08
Quercio	07.1	Max WS	SA_100_18	5.69	134.44	137.34		137.34	0.000056	0.33	17.11	8.62	0.08
Quercio	07.1	Max WS	SA_30_18	5.32	134.44	136.46		136.48	0.000200	0.52	10.19	7.06	0.14
Quercio	07.1	Max WS	SA_20_18	1.22	134.44	136.45		136.45	0.000011	0.12	10.09	7.04	0.03
Quercio	07	Max WS	S_200_18	8.52	134.26	137.83		137.83	0.000059	0.33	25.68	13.74	0.08
Quercio	07	Max WS	SA_100_18	4.45	134.26	137.34		137.34	0.000040	0.23	19.02	13.74	0.06
Quercio	07	Max WS	SA_30_18	5.32	134.26	136.46		136.47	0.000146	0.46	11.44	7.38	0.12
Quercio	07	Max WS	SA_20_18	1.22	134.26	136.45		136.45	0.000008	0.11	11.35	7.36	0.03
Quercio	06	Max WS	S_200_18	8.41	133.92	137.82		137.83	0.000035	0.29	28.69	12.01	0.06
Quercio	06	Max WS	SA_100_18	-4.45	133.92	137.34		137.34	0.000019	-0.19	22.90	12.01	0.04
Quercio	06	Max WS	SA_30_18	5.33	133.92	136.46		136.47	0.000084	0.38	14.05	8.08	0.09
Quercio	06	Max WS	SA_20_18	1.21	133.92	136.45		136.45	0.000004	0.09	13.98	8.06	0.02
Quercio	05.8	Max WS	S_200_18	8.39	133.89	137.82		137.83	0.000018	0.24	35.53	10.82	0.04
Quercio	05.8	Max WS	SA_100_18	-10.64	133.89	137.33		137.34	0.000045	-0.35	30.20	10.80	0.07
Quercio	05.8	Max WS	SA_30_18	5.33	133.89	136.46		136.46	0.000030	0.25	21.20	9.78	0.05
Quercio	05.8	Max WS	SA_20_18	1.21	133.89	136.45		136.45	0.000002	0.06	21.09	9.76	0.01
Quercio	05.5	Max WS	S_200_18	8.40	133.85	137.82		137.83	0.000038	0.31	26.69	10.32	0.06
Quercio	05.5	Max WS	SA_100_18	-10.68	133.85	137.31		137.32	0.000111	-0.50	21.52	9.72	0.11
Quercio	05.5	Max WS	SA_30_18	5.33	133.85	136.46		136.46	0.000089	0.38	13.87	8.01	0.09
Quercio	05.5	Max WS	SA_20_18	1.21	133.85	136.45		136.45	0.000005	0.09	13.83	7.99	0.02
Quercio	05	Max WS	S_200_18	9.15	133.46	137.82		137.83	0.000027	0.26	34.64	14.65	0.05

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	05	Max WS	SA_100_18	-16.43	133.46	137.31		137.33	0.000162	-0.60	27.43	13.32	0.13
Quercio	05	Max WS	SA_30_18	5.33	133.46	136.46		136.46	0.000048	0.31	17.41	8.84	0.07
Quercio	05	Max WS	SA_20_18	1.21	133.46	136.45		136.45	0.000002	0.07	17.35	8.83	0.02
Quercio	04.8	Max WS	S_200_18	9.57	133.44	137.82		137.82	0.000026	0.26	36.51	15.21	0.05
Quercio	04.8	Max WS	SA_100_18	-17.34	133.44	137.32		137.34	0.000161	-0.59	29.19	14.07	0.13
Quercio	04.8	Max WS	SA_30_18	5.34	133.44	136.46		136.46	0.000041	0.29	18.30	8.93	0.07
Quercio	04.8	Max WS	SA_20_18	1.21	133.44	136.45		136.45	0.000002	0.07	18.25	8.92	0.01
Quercio	04.6	Max WS	S_200_18	2.78	133.44	137.82		137.82	0.000003	0.08	33.35	13.72	0.02
Quercio	04.6	Max WS	SA_100_18	-16.39	133.44	137.33		137.34	0.000182	-0.61	26.83	12.70	0.13
Quercio	04.6	Max WS	SA_30_18	5.34	133.44	136.45		136.46	0.000075	0.32	16.55	10.87	0.08
Quercio	04.6	Max WS	SA_20_18	1.21	133.44	136.45		136.45	0.000003	0.07	16.50	7.72	0.02
Quercio	04.5	Max WS	S_200_18	10.18	133.43	137.82		137.82	0.000023	0.25	40.46	16.19	0.05
Quercio	04.5	Max WS	SA_100_18	-16.32	133.43	137.33		137.35	0.000107	-0.50	32.81	15.31	0.11
Quercio	04.5	Max WS	SA_30_18	5.31	133.43	136.46		136.46	0.000048	0.27	20.05	13.73	0.07
Quercio	04.5	Max WS	SA_20_18	1.18	133.43	136.45		136.45	0.000002	0.06	19.98	13.72	0.02
Quercio	04	Max WS	S_200_18	10.54	133.43	137.82		137.82	0.000025	0.26	40.45	16.19	0.05
Quercio	04	Max WS	SA_100_18	-16.26	133.43	137.34		137.35	0.000106	-0.50	32.83	15.31	0.11
Quercio	04	Max WS	SA_30_18	5.16	133.43	136.45		136.46	0.000056	0.52	9.93	13.71	0.10
Quercio	04	Max WS	SA_20_18	1.02	133.43	136.45		136.45	0.000002	0.10	9.95	13.72	0.02
Quercio	03.6	Max WS	S_200_18	0.98	133.43	137.82	133.62	137.82	0.000001	0.06	16.67	3.80	0.01
Quercio	03.6	Max WS	SA_100_18	-9.34	133.43	137.31		137.33	0.000140	-0.63	14.74	3.80	0.10
Quercio	03.6	Max WS	SA_30_18	5.16	133.43	136.45	134.00	136.46	0.000080	0.45	11.47	3.80	0.08
Quercio	03.6	Max WS	SA_20_18	1.02	133.43	136.45	133.62	136.45	0.000003	0.09	11.48	3.80	0.02
Quercio	03.5			Bridge									
Quercio	03.4	Max WS	S_200_18	0.98	133.43	137.82		137.82	0.000001	0.06	16.67	3.80	0.01
Quercio	03.4	Max WS	SA_100_18	-9.34	133.43	137.31		137.33	0.000140	-0.63	14.75	3.80	0.10
Quercio	03.4	Max WS	SA_30_18	5.16	133.43	136.45		136.46	0.000080	0.45	11.47	3.80	0.08
Quercio	03.4	Max WS	SA_20_18	1.02	133.43	136.45		136.45	0.000003	0.09	11.48	3.80	0.02
Quercio	03	Max WS	S_200_18	2.55	133.43	137.82		137.82	0.000002	0.08	32.21	9.74	0.01
Quercio	03	Max WS	SA_100_18	-16.11	133.43	137.33		137.35	0.000128	-0.59	27.50	9.74	0.11

HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	03	Max WS	SA_30_18	5.16	133.43	136.46		136.46	0.000038	0.27	18.94	9.74	0.06
Quercio	03	Max WS	SA_20_18	1.02	133.43	136.45		136.45	0.000002	0.05	18.89	9.74	0.01
Quercio	02	Max WS	S_200_18	1.77	133.43	137.81		137.81	0.000001	0.06	30.56	9.72	0.01
Quercio	02	Max WS	SA_100_18	-16.78	133.43	137.34		137.36	0.000170	-0.65	25.99	9.72	0.13
Quercio	02	Max WS	SA_30_18	5.16	133.43	136.45		136.46	0.000052	0.30	17.33	9.67	0.07
Quercio	02	Max WS	SA_20_18	1.00	133.43	136.45		136.45	0.000002	0.06	17.31	9.66	0.01
Quercio	01.9	Max WS	S_200_18	1.77	133.42	137.81		137.81	0.000001	0.06	28.69	8.83	0.01
Quercio	01.9	Max WS	SA_100_18	-16.78	133.42	137.35		137.37	0.000189	-0.68	24.56	8.83	0.13
Quercio	01.9	Max WS	SA_30_18	5.16	133.42	136.45		136.46	0.000052	0.31	16.68	8.45	0.07
Quercio	01.9	Max WS	SA_20_18	1.00	133.42	136.45		136.45	0.000002	0.06	16.67	8.45	0.01
Quercio	01.8	Max WS	S_200_18	3.05	133.41	137.81		137.81	0.000003	0.09	33.68	11.22	0.02
Quercio	01.8	Max WS	SA_100_18	-16.78	133.41	137.35		137.37	0.000136	-0.59	28.52	11.22	0.12
Quercio	01.8	Max WS	SA_30_18	5.16	133.41	136.45		136.46	0.000041	0.28	18.47	9.89	0.07
Quercio	01.8	Max WS	SA_20_18	1.00	133.41	136.45		136.45	0.000002	0.05	18.45	9.86	0.01
Quercio	01.7	Max WS	S_200_18	10.53	133.41	137.81		137.82	0.000032	0.31	33.69	10.49	0.06
Quercio	01.7	Max WS	SA_100_18	-16.78	133.41	137.35		137.37	0.000127	-0.58	28.88	10.49	0.11
Quercio	01.7	Max WS	SA_30_18	5.16	133.41	136.45		136.46	0.000038	0.27	19.41	10.49	0.06
Quercio	01.7	Max WS	SA_20_18	1.00	133.41	136.45		136.45	0.000001	0.05	19.39	10.49	0.01
Quercio	01.6	Max WS	S_200_18	1.24	133.40	137.81		137.81	0.000001	0.04	27.70	7.94	0.01
Quercio	01.6	Max WS	SA_100_18	-16.78	133.40	137.35		137.37	0.000188	-0.70	24.01	7.94	0.13
Quercio	01.6	Max WS	SA_30_18	5.16	133.40	136.45		136.46	0.000047	0.31	16.89	7.94	0.07
Quercio	01.6	Max WS	SA_20_18	1.00	133.40	136.45		136.45	0.000002	0.06	16.88	7.94	0.01
Quercio	01.5	Max WS	S_200_18	0.98	133.40	137.81		137.81	0.000000	0.04	27.55	7.87	0.01
Quercio	01.5	Max WS	SA_100_18	-16.78	133.40	137.35		137.37	0.000191	-0.70	23.90	7.87	0.13
Quercio	01.5	Max WS	SA_30_18	5.16	133.40	136.45		136.46	0.000047	0.31	16.84	7.87	0.07
Quercio	01.5	Max WS	SA_20_18	1.00	133.40	136.45		136.45	0.000002	0.06	16.83	7.87	0.01
Quercio	01.4	Max WS	S_200_18	0.98	133.40	137.81		137.81	0.000000	0.04	27.57	7.81	0.01
Quercio	01.4	Max WS	SA_100_18	-16.78	133.40	137.35		137.37	0.000189	-0.70	23.96	7.81	0.13
Quercio	01.4	Max WS	SA_30_18	5.16	133.40	136.45		136.46	0.000046	0.30	16.94	7.81	0.07
Quercio	01.4	Max WS	SA_20_18	1.00	133.40	136.45		136.45	0.000002	0.06	16.93	7.81	0.01

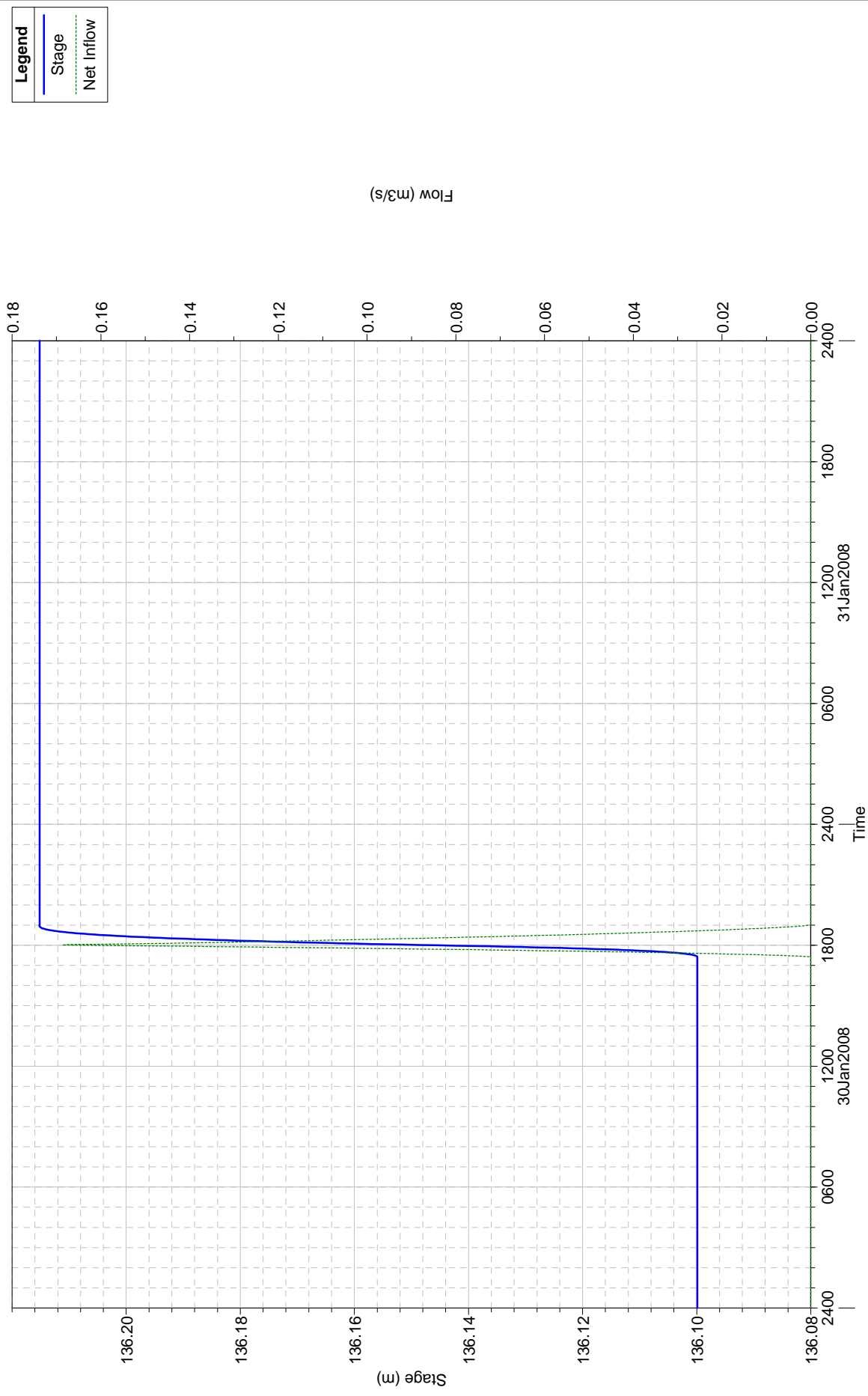
HEC-RAS River: Quercio Reach: Quercio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Quercio	01.3	Max WS	S_200_18	0.72	133.39	137.81		137.81	0.000000	0.03	27.73	7.78	0.00
Quercio	01.3	Max WS	SA_100_18	-16.78	133.39	137.35		137.38	0.000185	-0.69	24.15	7.78	0.13
Quercio	01.3	Max WS	SA_30_18	5.16	133.39	136.45		136.46	0.000045	0.30	17.14	7.78	0.06
Quercio	01.3	Max WS	SA_20_18	1.00	133.39	136.45		136.45	0.000002	0.06	17.14	7.78	0.01
Quercio	01.2	Max WS	S_200_18	1.77	133.39	137.81		137.81	0.000001	0.06	30.42	9.18	0.01
Quercio	01.2	Max WS	SA_100_18	-16.78	133.39	137.36		137.38	0.000162	-0.64	26.25	9.18	0.12
Quercio	01.2	Max WS	SA_30_18	5.16	133.39	136.45		136.45	0.000045	0.29	17.93	9.18	0.07
Quercio	01.2	Max WS	SA_20_18	1.00	133.39	136.45		136.45	0.000002	0.06	17.93	9.18	0.01
Quercio	01.1	Max WS	S_200_18	1.24	133.38	137.81		137.81	0.000001	0.04	31.75	10.10	0.01
Quercio	01.1	Max WS	SA_100_18	-16.78	133.38	137.36		137.38	0.000157	-0.62	27.19	10.10	0.12
Quercio	01.1	Max WS	SA_30_18	5.16	133.38	136.45		136.45	0.000049	0.29	18.02	9.98	0.07
Quercio	01.1	Max WS	SA_20_18	1.00	133.38	136.45		136.45	0.000002	0.06	18.01	9.98	0.01
Quercio	01	Max WS	S_200_18	-51.88	133.38	137.81	135.98	137.95	0.000966	-1.63	31.74	10.10	0.29
Quercio	01	Max WS	SA_100_18	-16.78	133.38	137.36	134.70	137.38	0.000157	-0.62	27.20	10.10	0.12
Quercio	01	Max WS	SA_30_18	5.16	133.38	136.45	134.01	136.45	0.000049	0.29	18.01	9.98	0.07
Quercio	01	Max WS	SA_20_18	0.99	133.38	136.45	133.60	136.45	0.000002	0.06	18.01	9.98	0.01

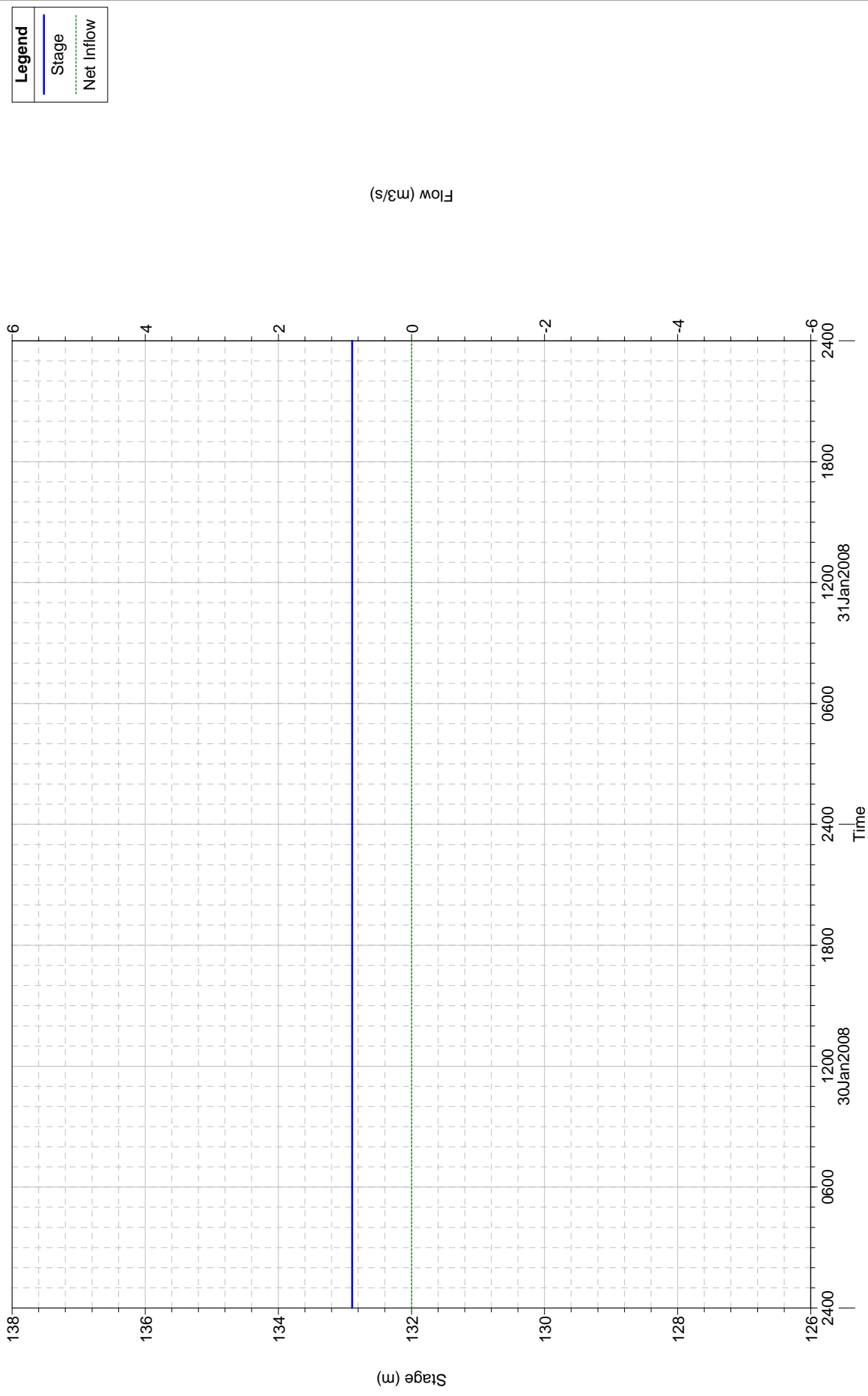
HEC-RAS Profile: Max WS

Storage Area	Profile	Plan	W.S. Elev (m)	SA Min El (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
St_Quercio_Dx	Max WS	S_200_18	137.82	136.10	0.16	483.12	376.26
St_Quercio_Dx	Max WS	SA_100_18	137.33	136.10	1.44	321.21	166.03
St_Quercio_Dx	Max WS	SA_30_18	136.23	136.10	0.18	3.24	0.41
St_Quercio_Dx	Max WS	SA_20_18	136.22	136.10	0.17	3.24	0.37
St_Quercio_Sn	Max WS	S_200_18	137.82	132.89	-0.18	708.60	1603.56
St_Quercio_Sn	Max WS	SA_100_18	135.59	132.89	21.85	439.64	247.55
St_Quercio_Sn	Max WS	SA_30_18	132.89	132.89	0.00	0.01	0.00
St_Quercio_Sn	Max WS	SA_20_18	132.89	132.89	0.00	0.01	0.00

Plan: SA_20_18 Storage Area: St_Quercio_Dx

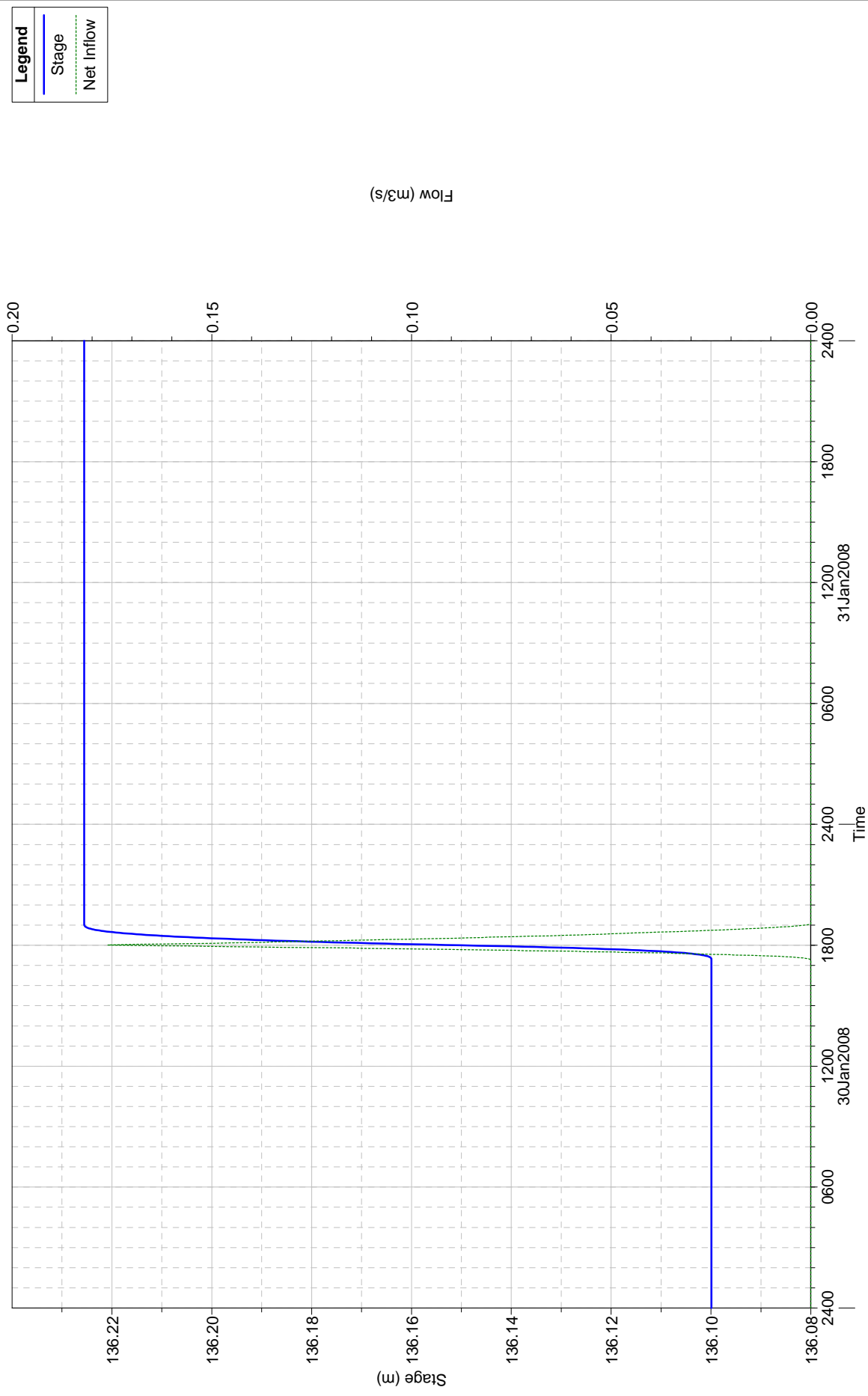


Plan: SA_20_18 Storage Area: St_Quercio_Sn

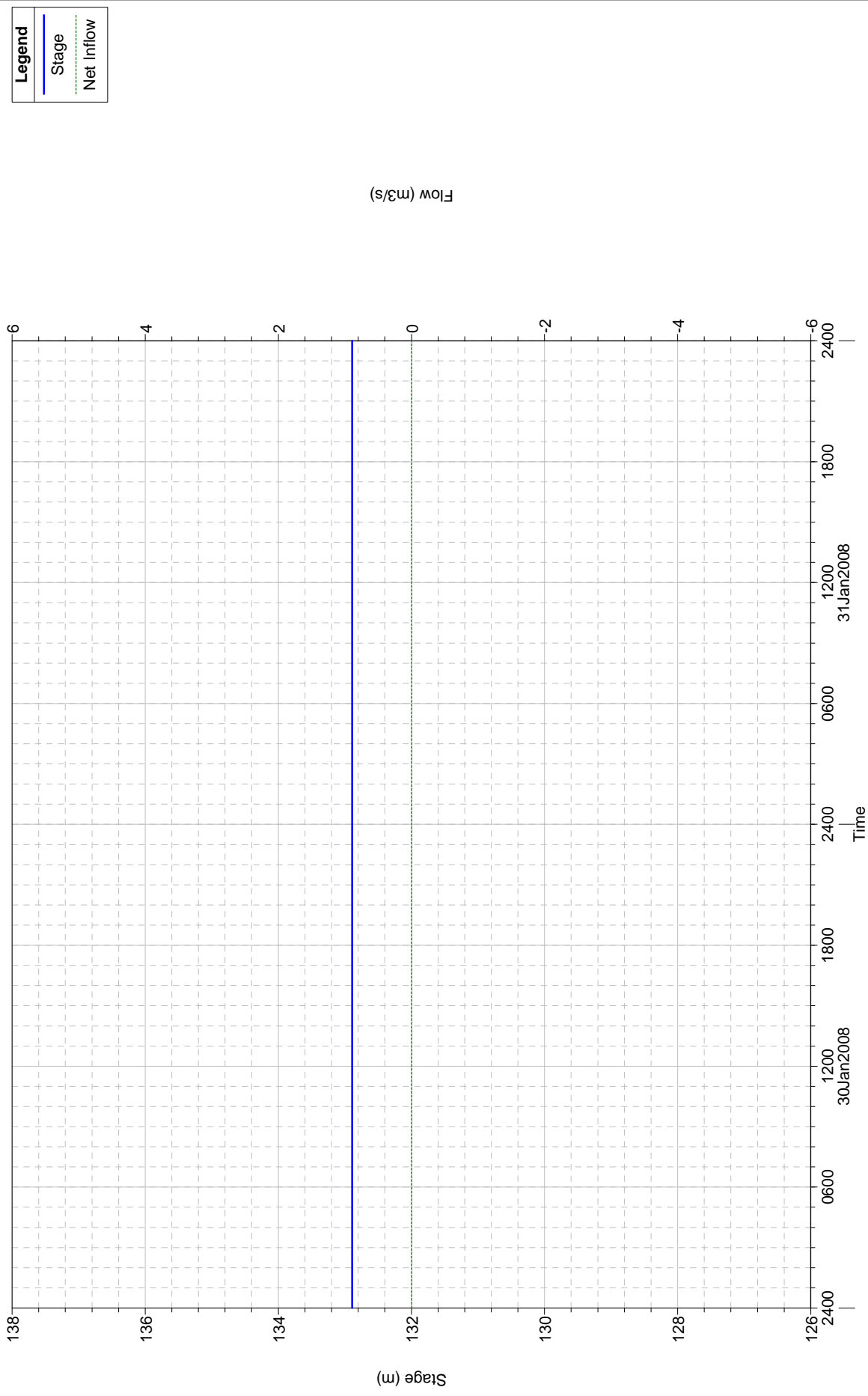


Legend
— Stage
- - - Net Inflow

Plan: SA_30_18 Storage Area: St_Quercio_Dx

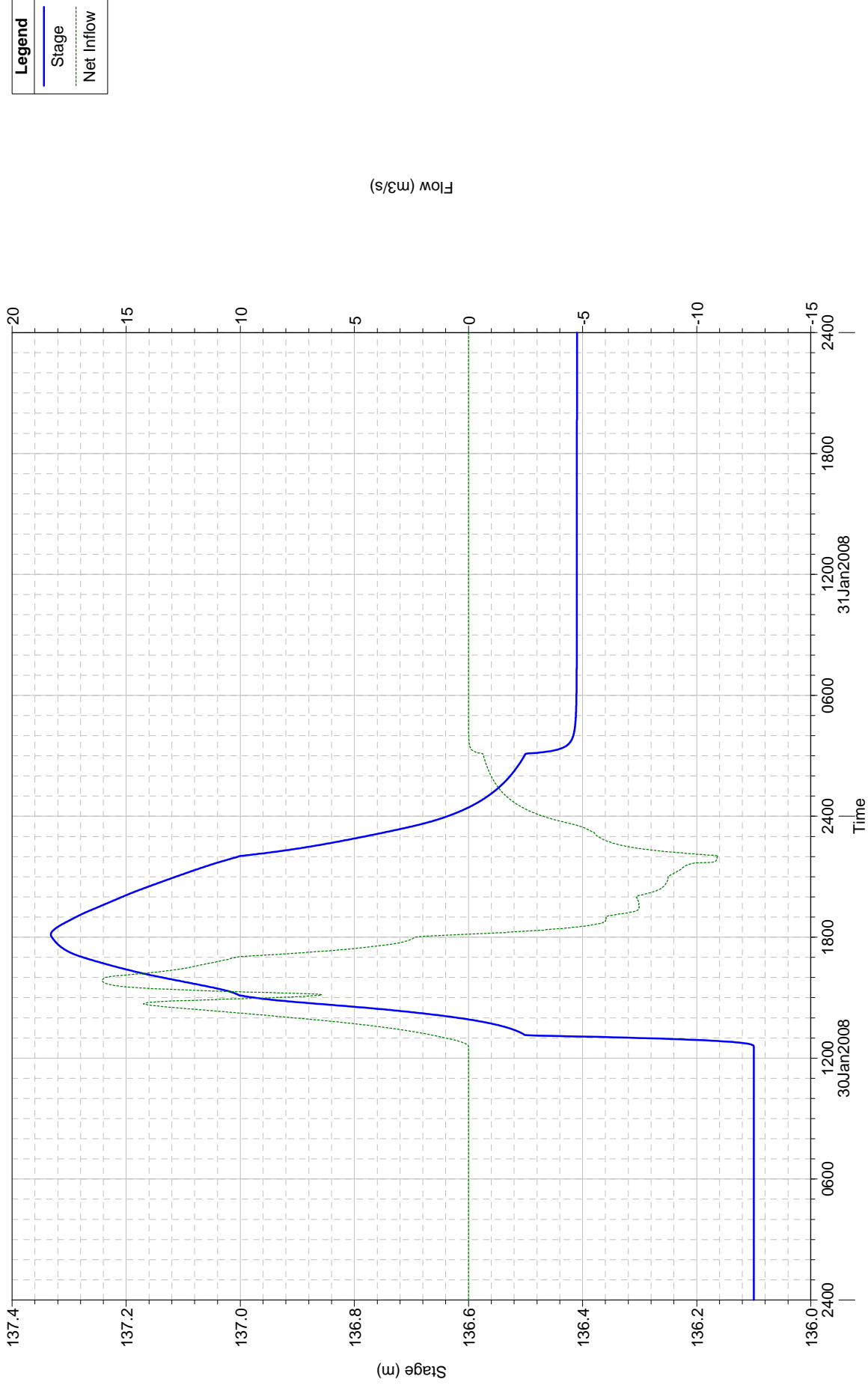


Plan: SA_30_18 Storage Area: St_Quercio_Sn



Legend	
—	Stage
...	Net Inflow

Plan: SA_100_18 Storage Area: St_Quercio_Dx



Legend
Stage
Net Inflow

Flow (m3/s)

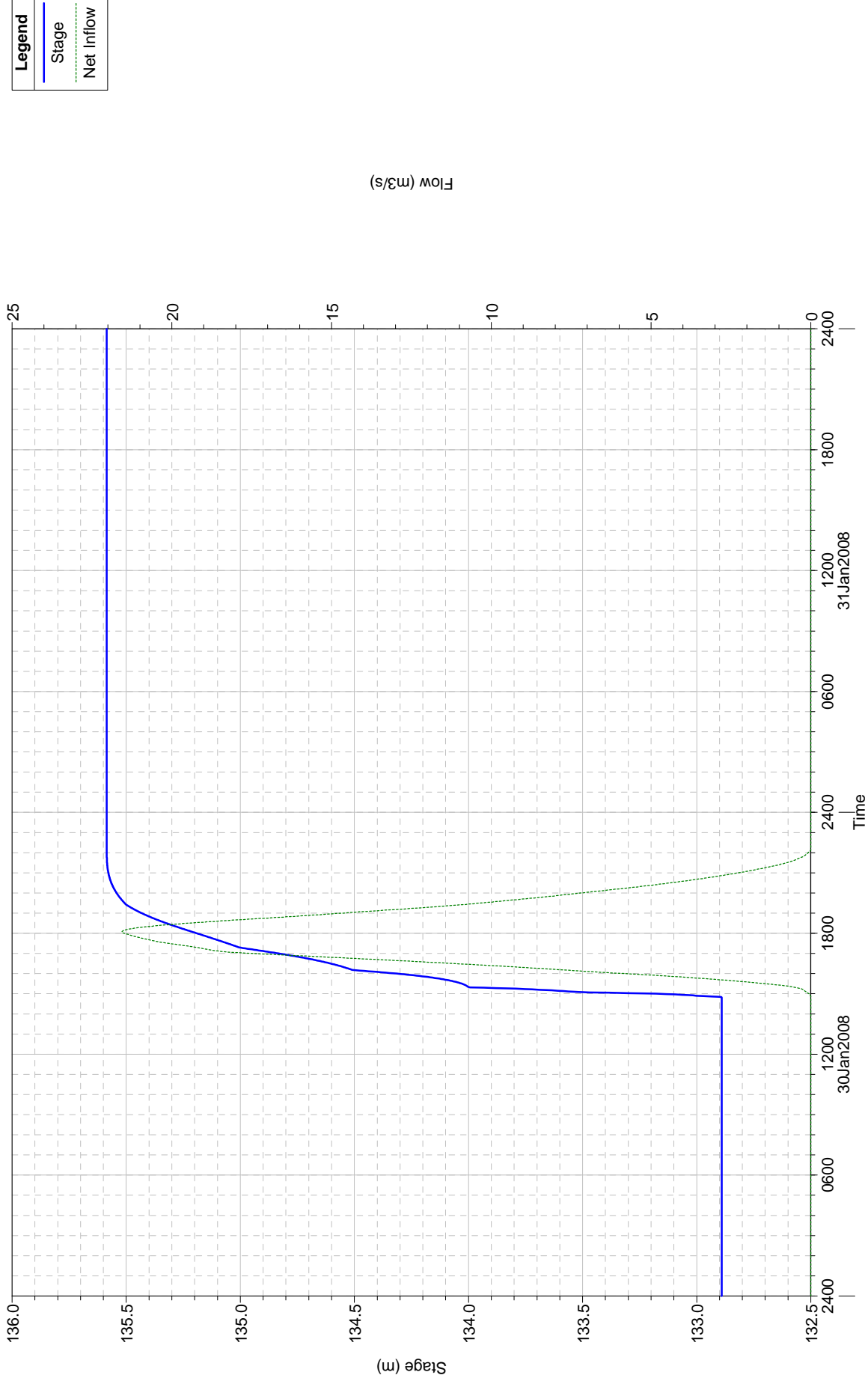
20 15 10 5 0 -5 -10 -15 2400 1800 1200 31Jan2008 0600 2400 30Jan2008

137.4 137.2 137.0 136.8 136.6 136.4 136.2 136.0 2400 1200 30Jan2008 0600 2400 31Jan2008

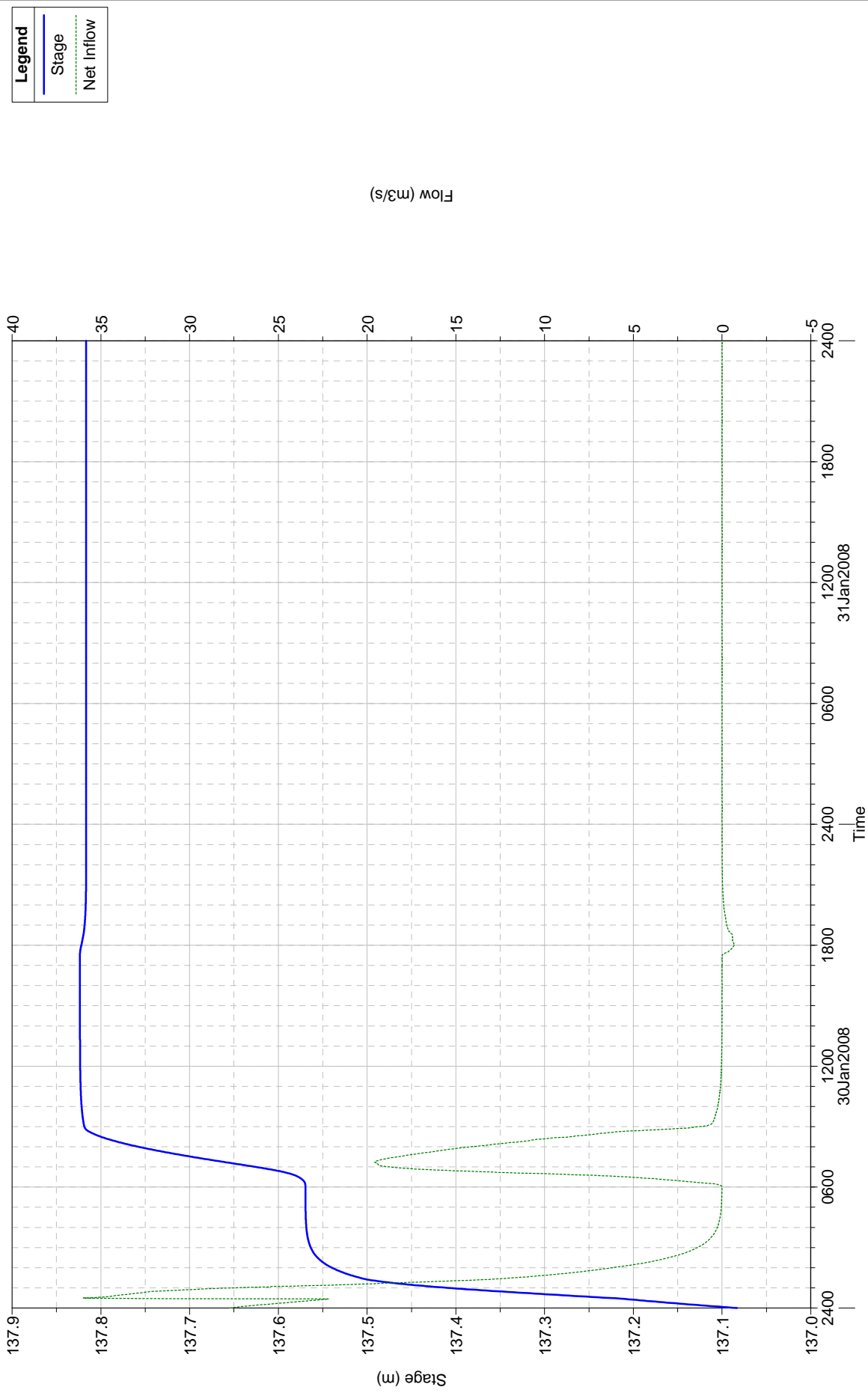
Stage (m)

Time

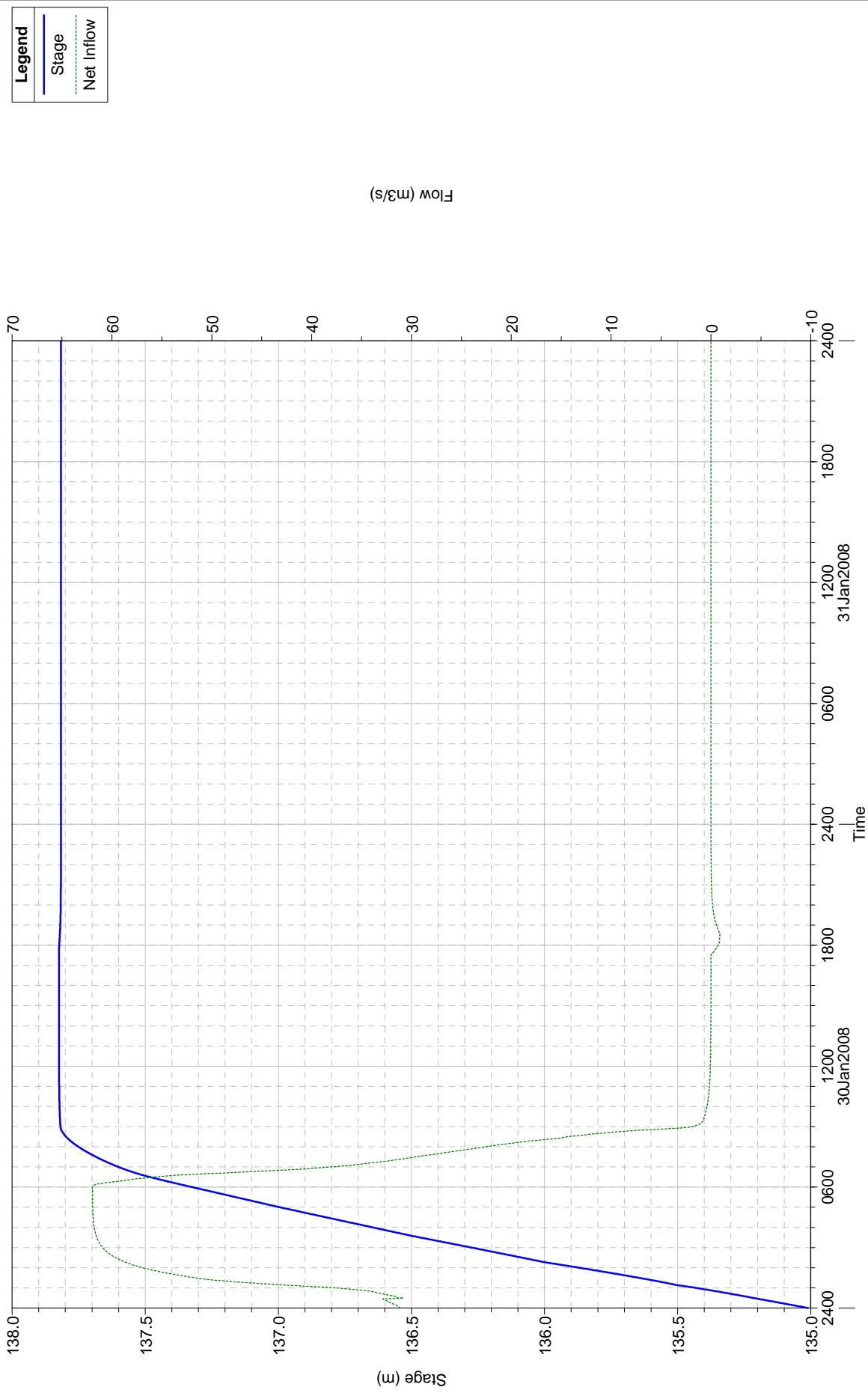
Plan: SA_100_18 Storage Area: St_Quercio_Sn



Plan: S_200_18 Storage Area: St_Quercio_Dx



Plan: S_200_18 Storage Area: St_Quercio_Sn



borro dello Spedaluzzo

verifiche con Tpioggia critico per il Borro dello Spedaluzzo

- moto vario

Tr=200, 100, 30 e 20 anni

profilo

livelli idrici nelle sezioni di verifica

tabella di output del software Hec-ras 4.0

livelli e portate in ingresso alle aree di accumulo

verifiche con Tpioggia critico per il Fiume Arno

- moto permanente

Tr=200, 100, 30 e 20 anni

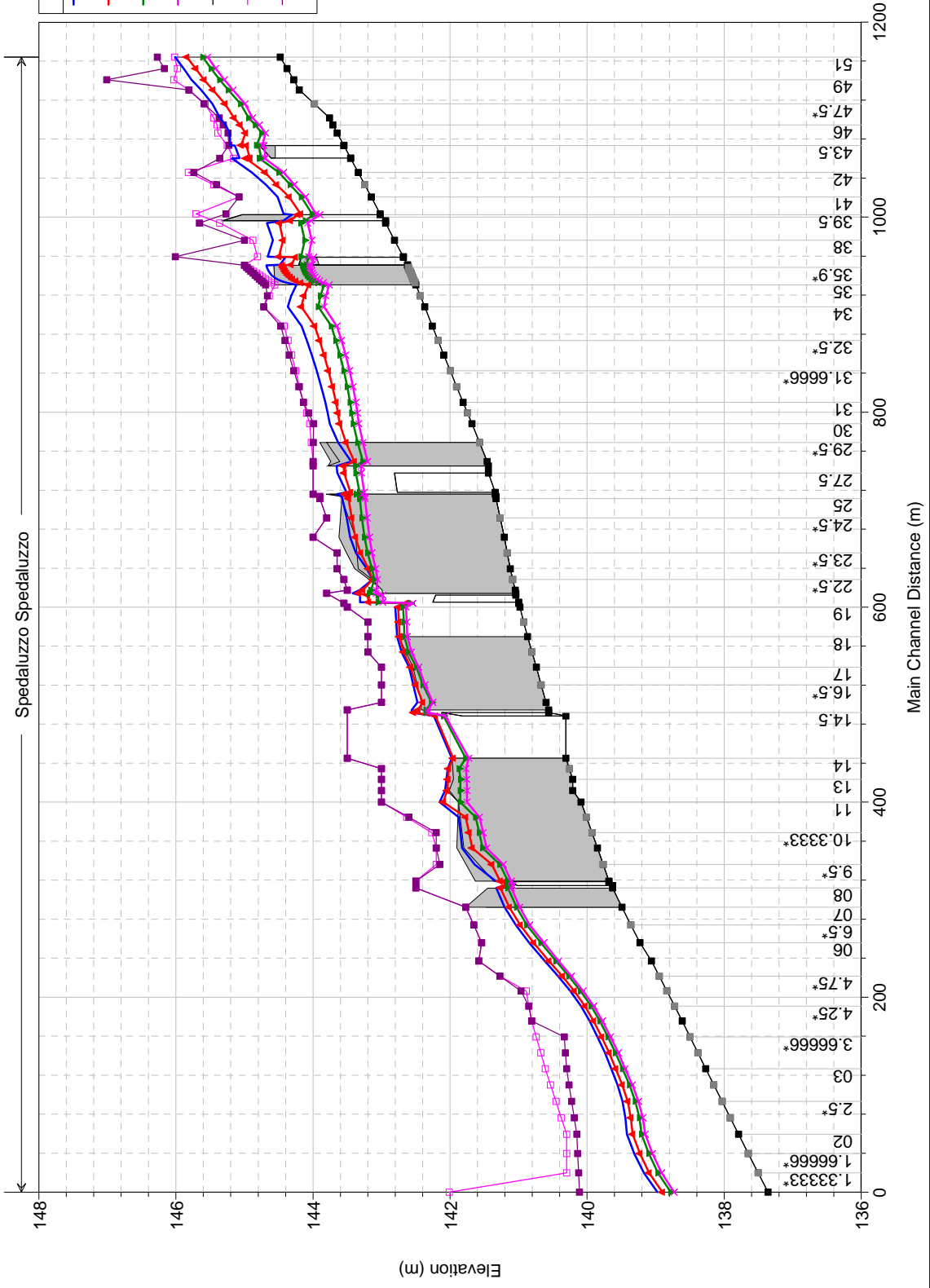
profilo

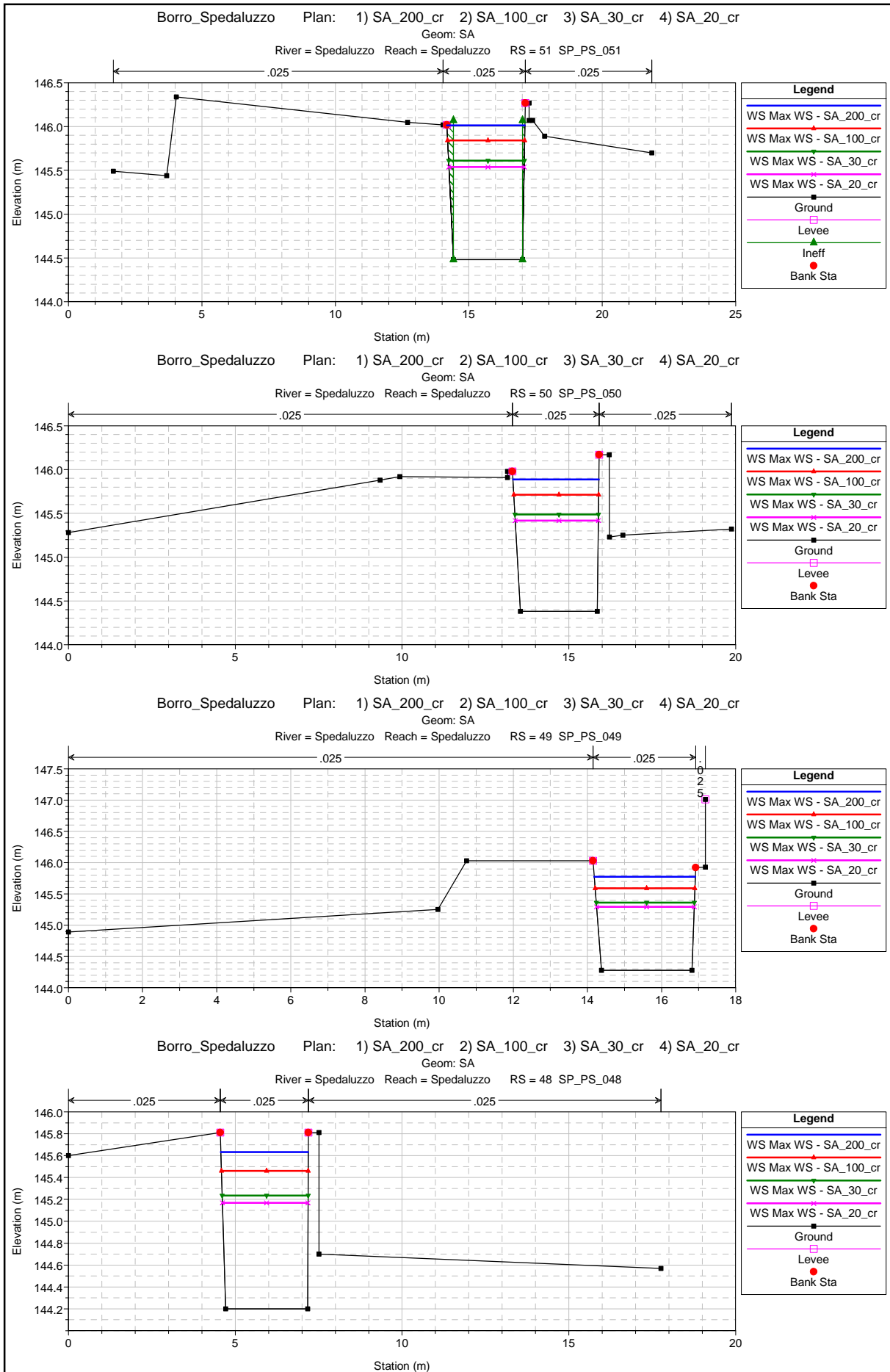
livelli idrici nelle sezioni di verifica

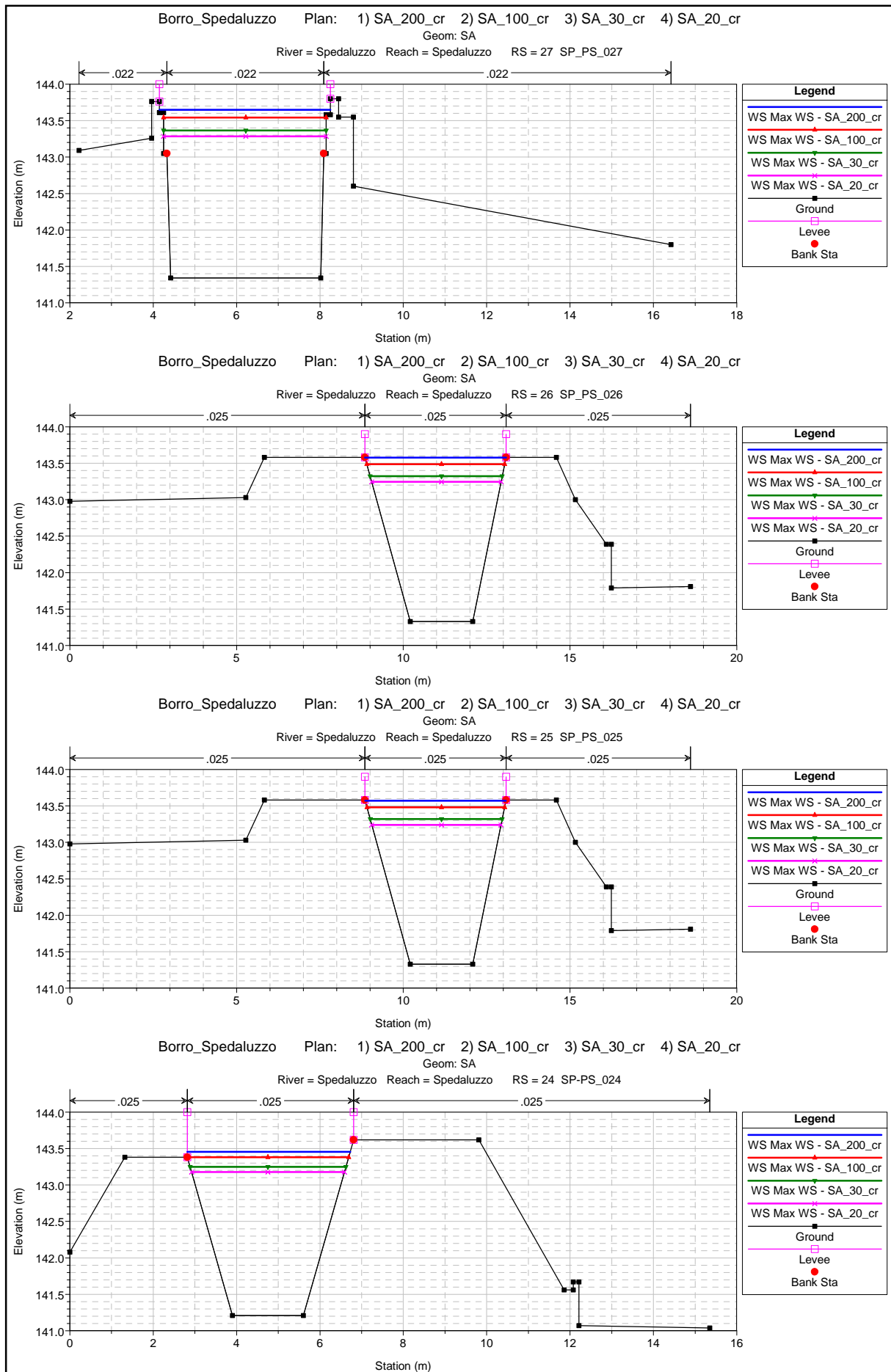
tabella di output del software Hec-ras 4.0

Borro_Spedaluzzo Plan: 1) SA_200_cr 2) SA_100_cr 3) SA_30_cr 4) SA_20_cr

Geom: SA



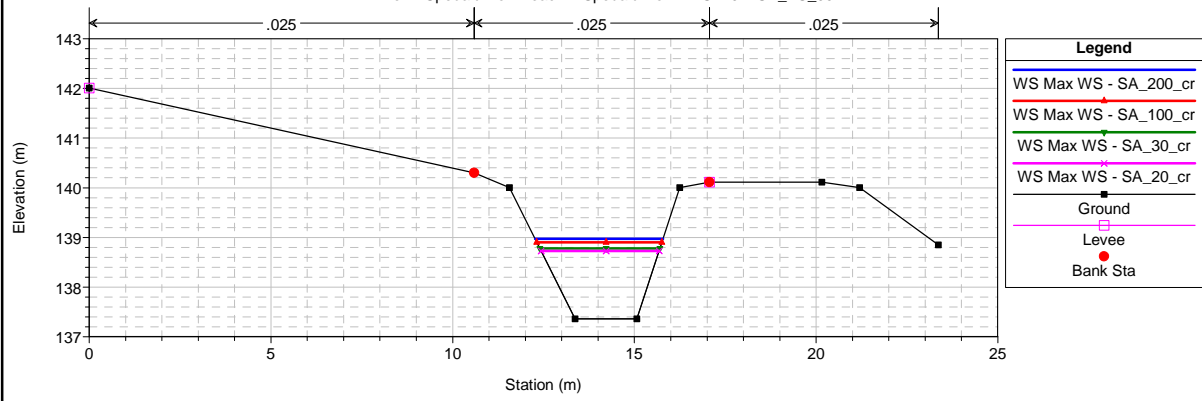


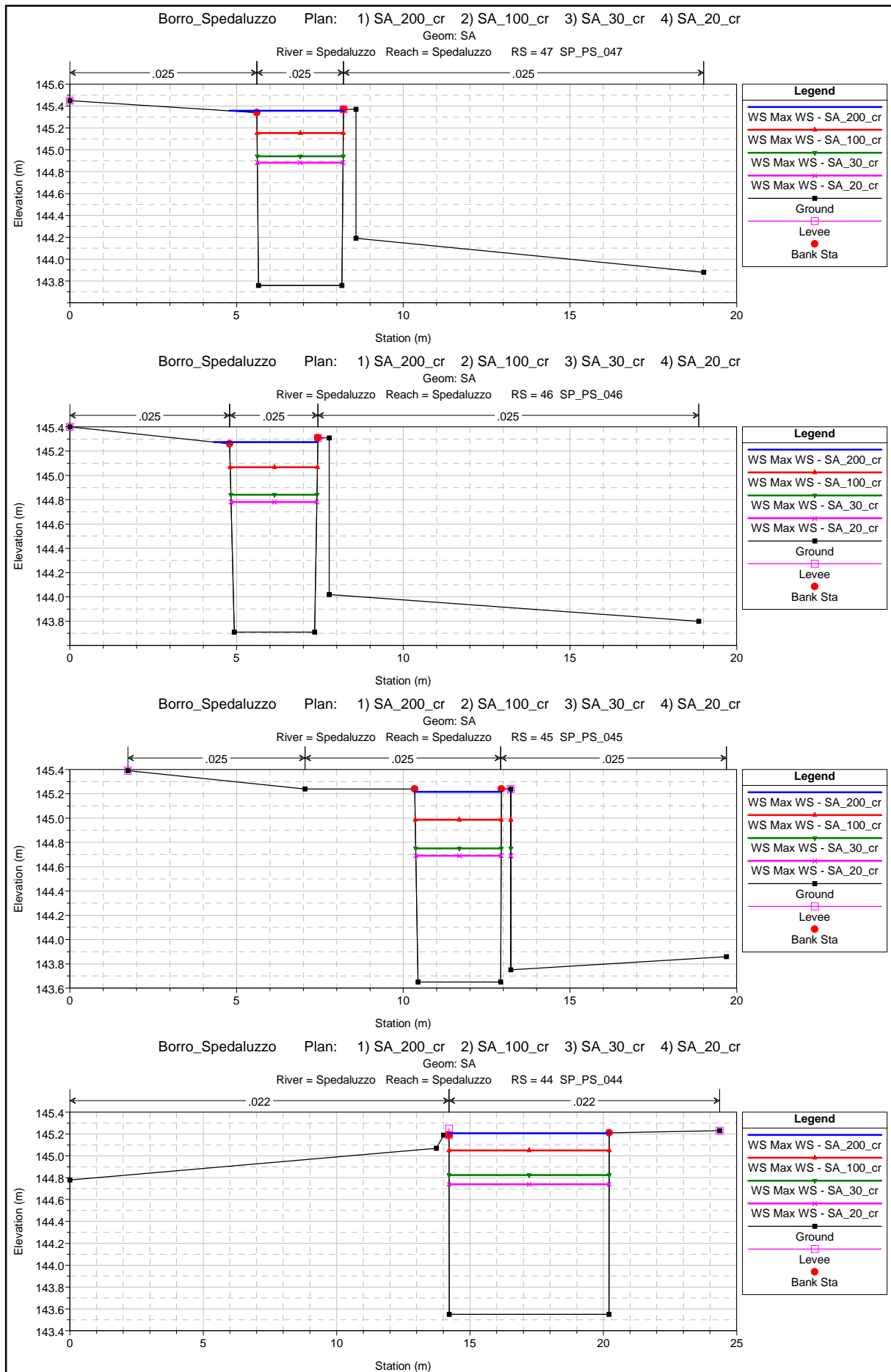


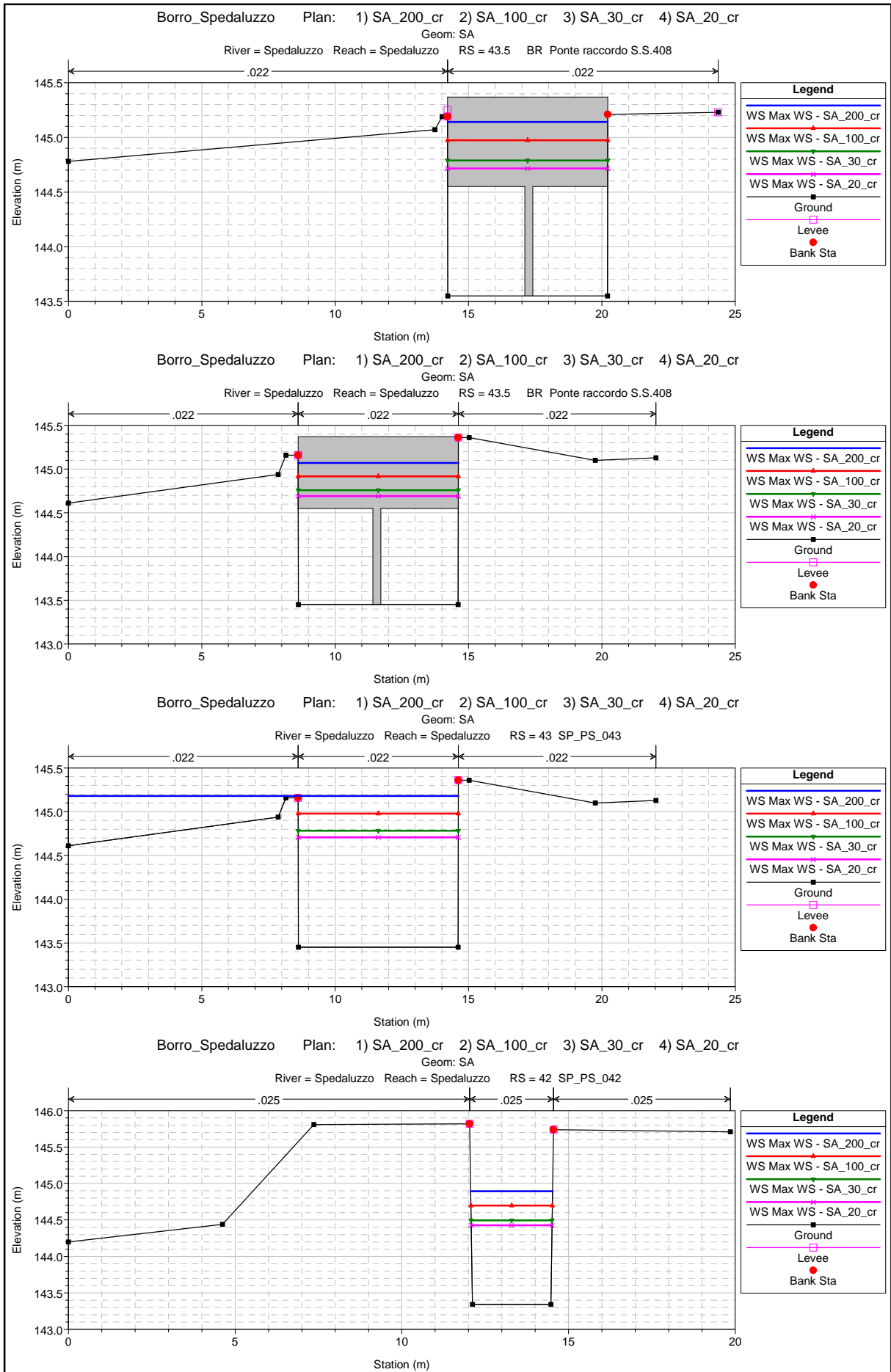
Borro_Spedaluzzo Plan: 1) SA_200_cr 2) SA_100_cr 3) SA_30_cr 4) SA_20_cr

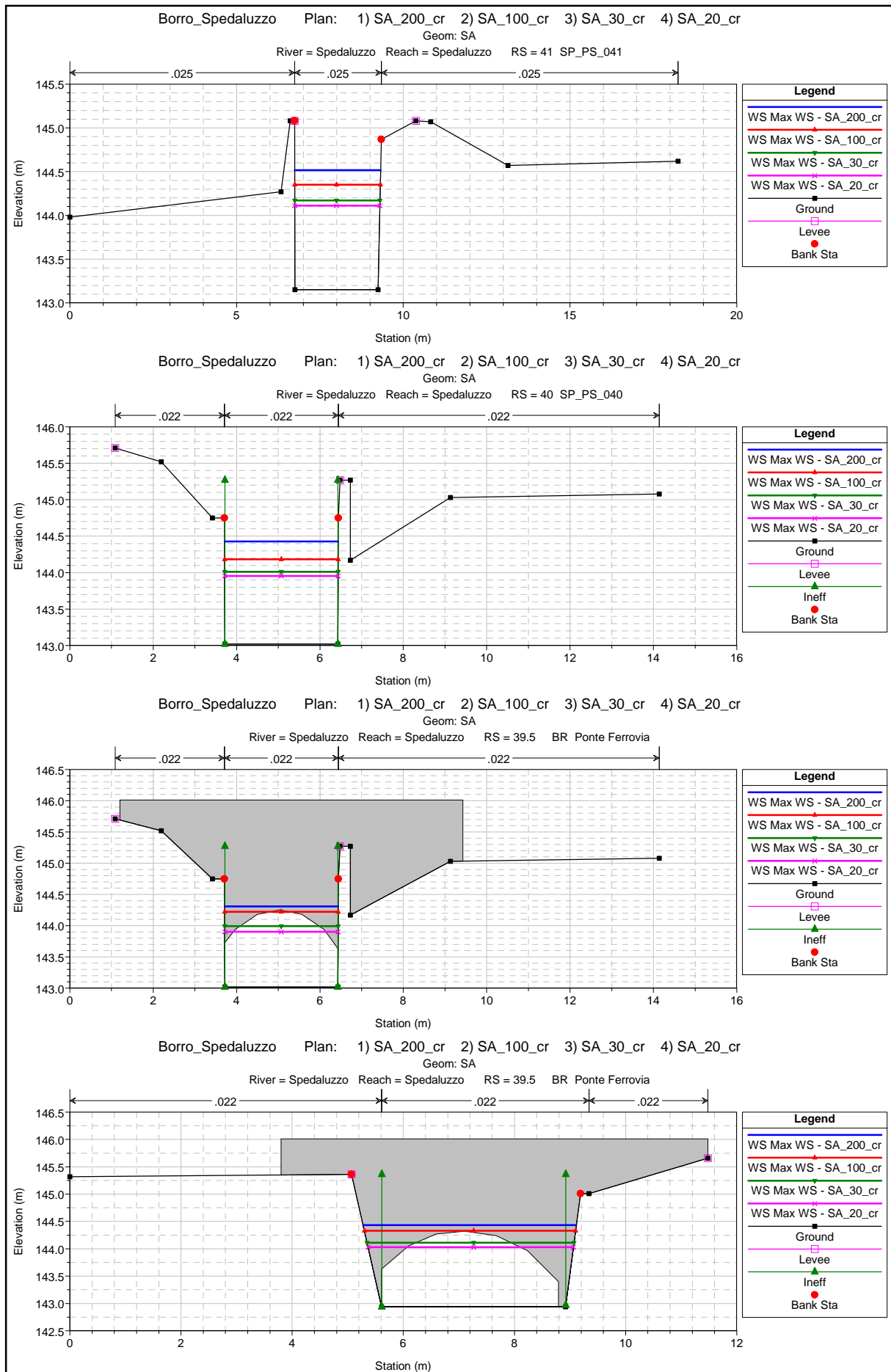
Geom: SA

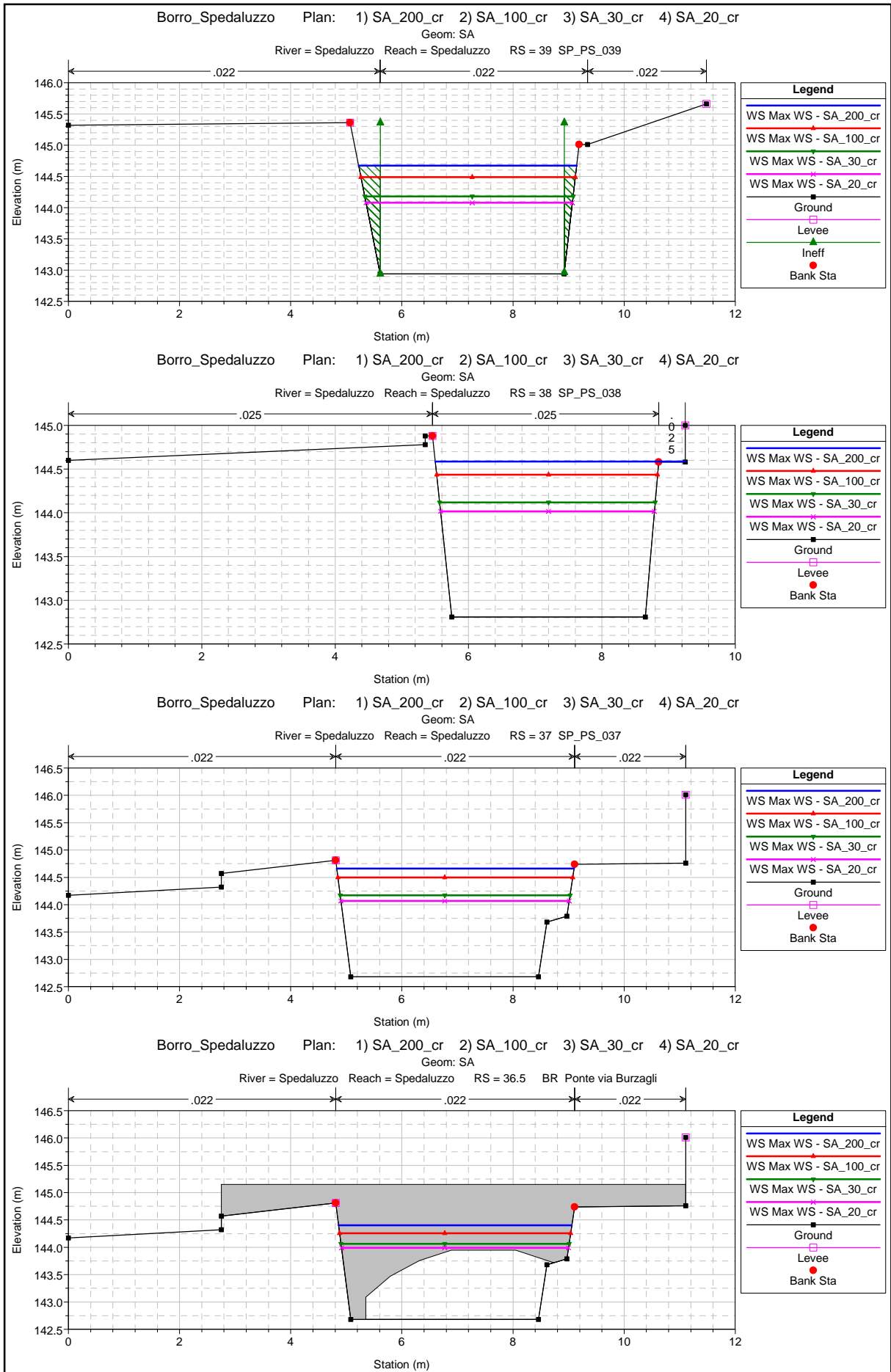
River = Spedaluzzo Reach = Spedaluzzo RS = 01 SP_PS_001

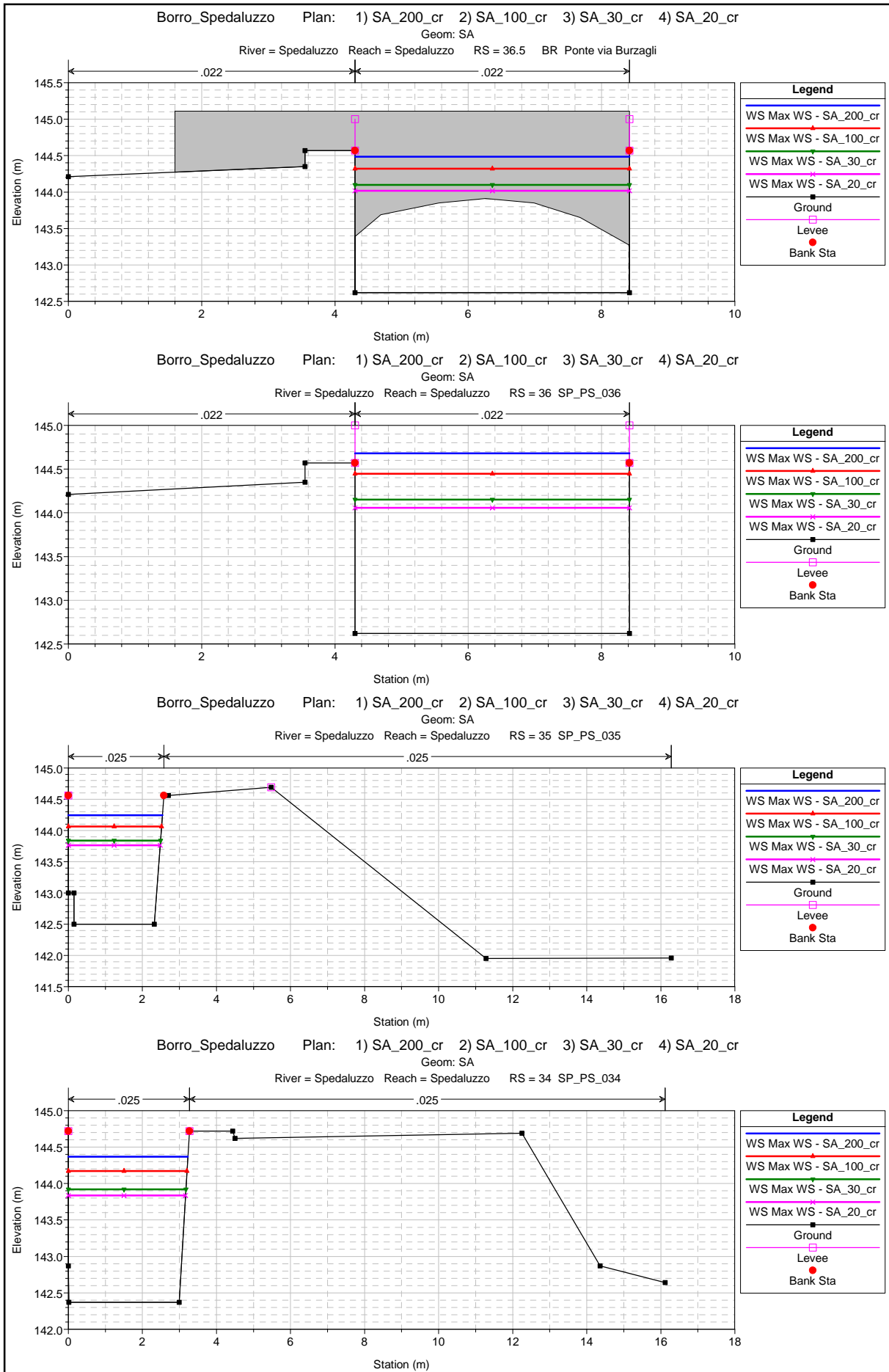


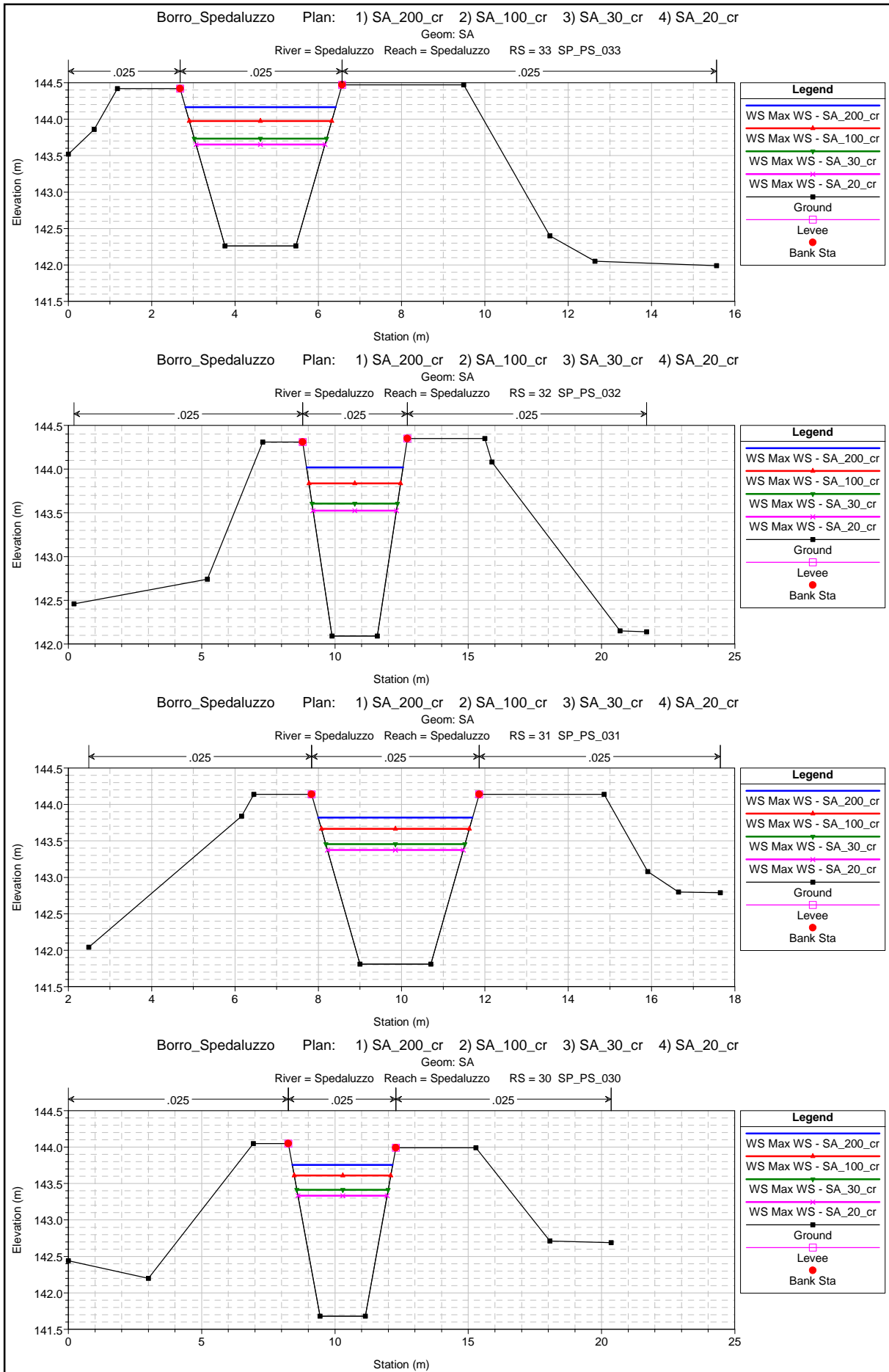


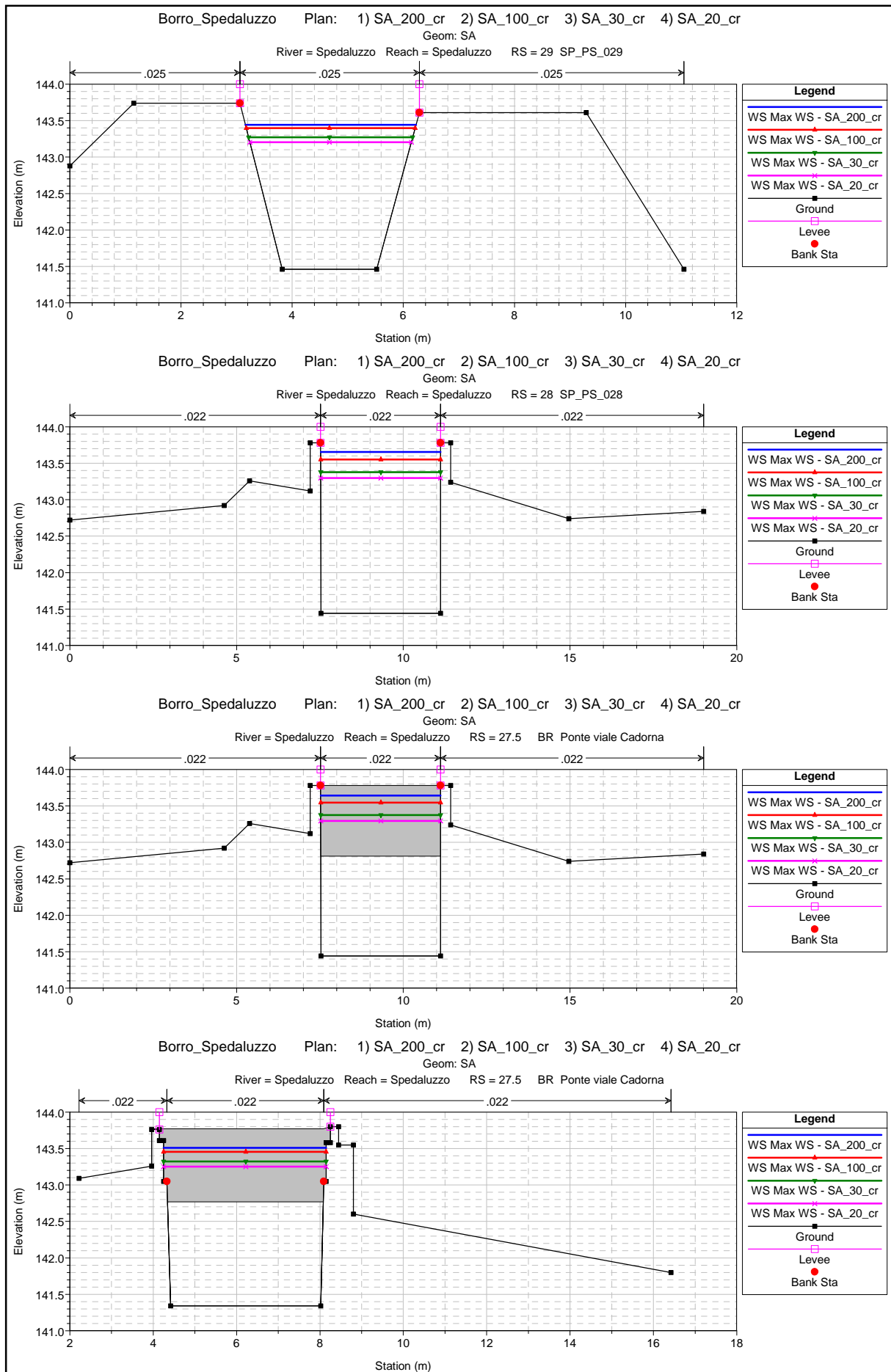


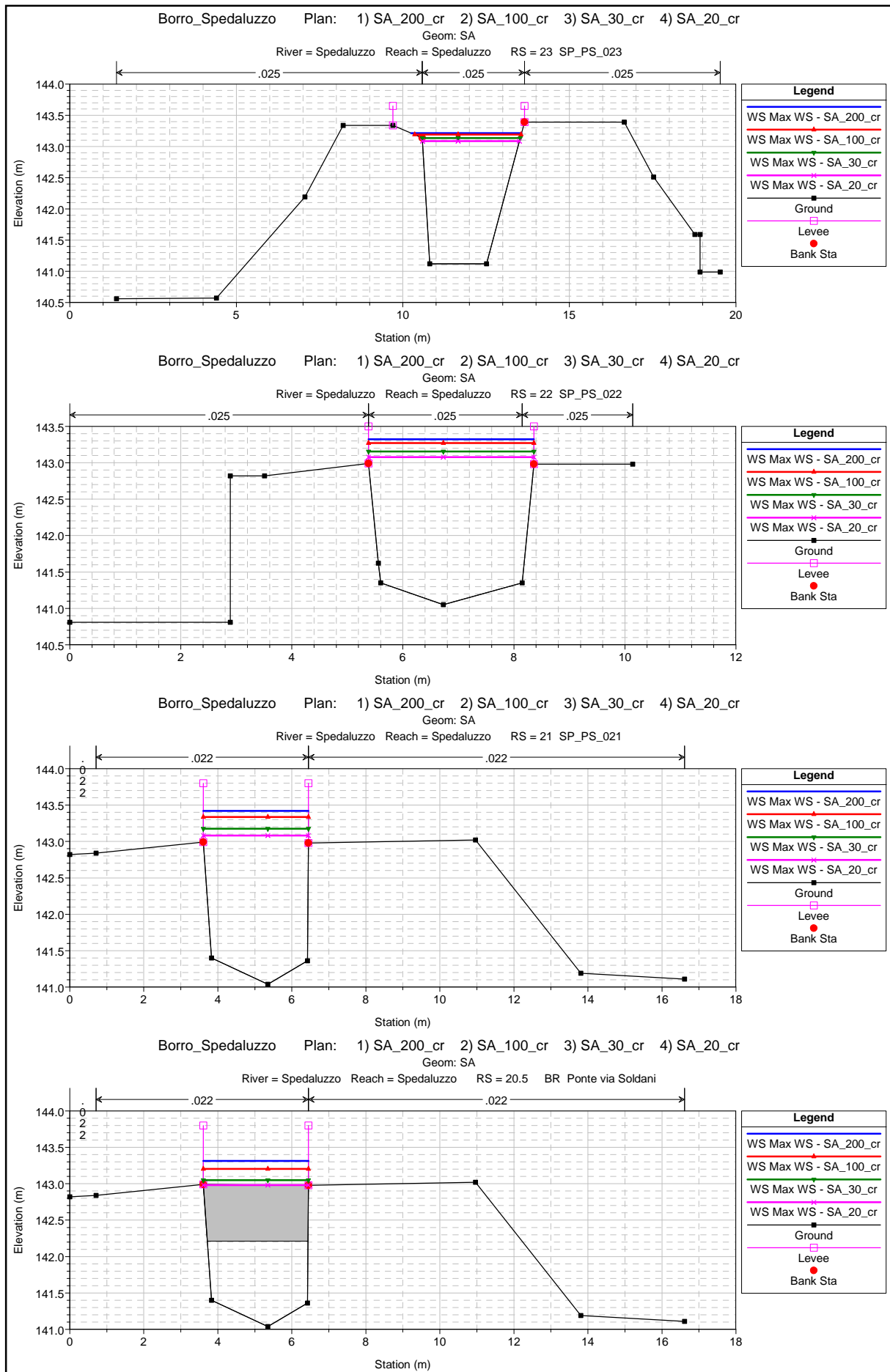


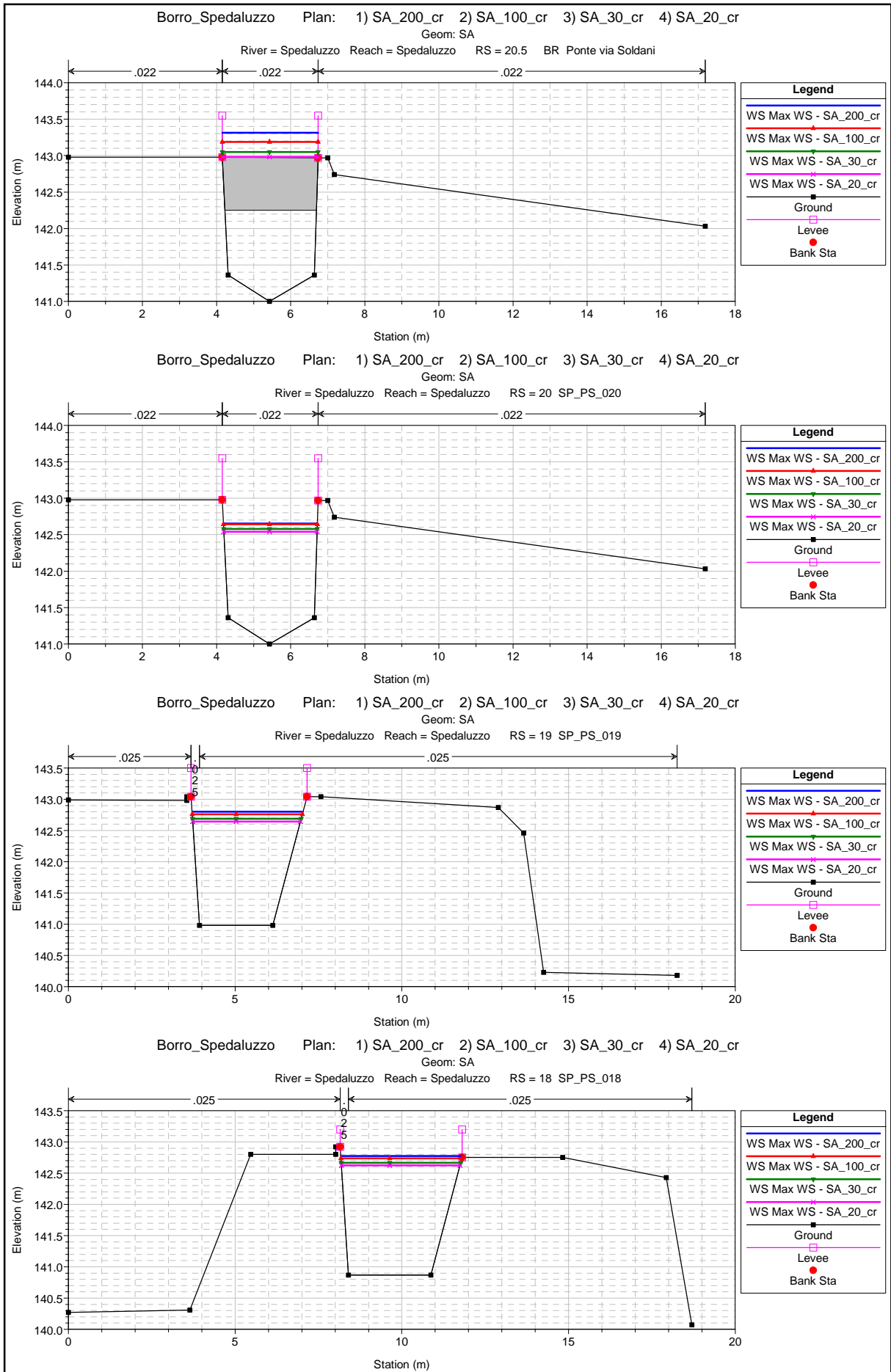


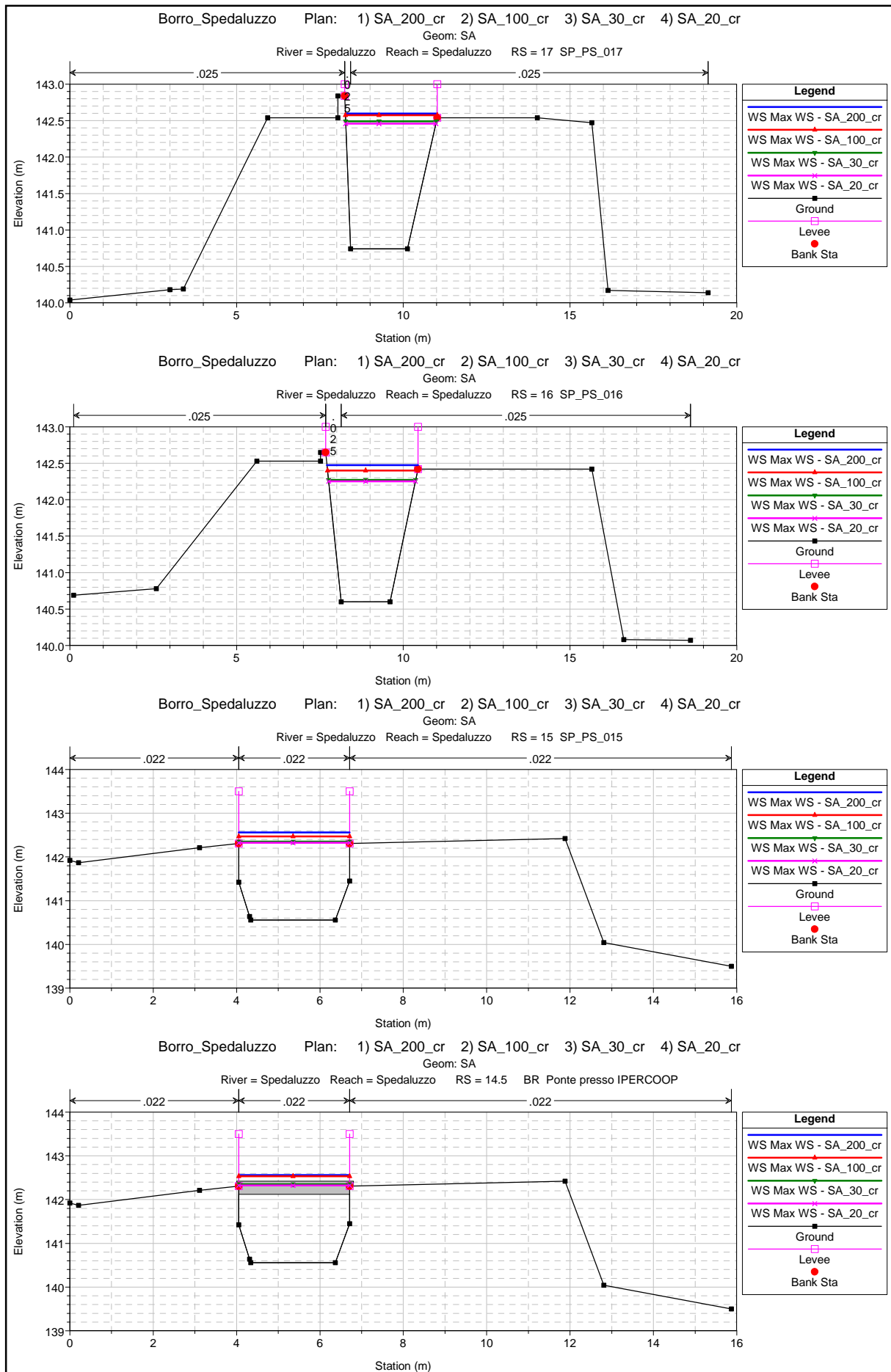


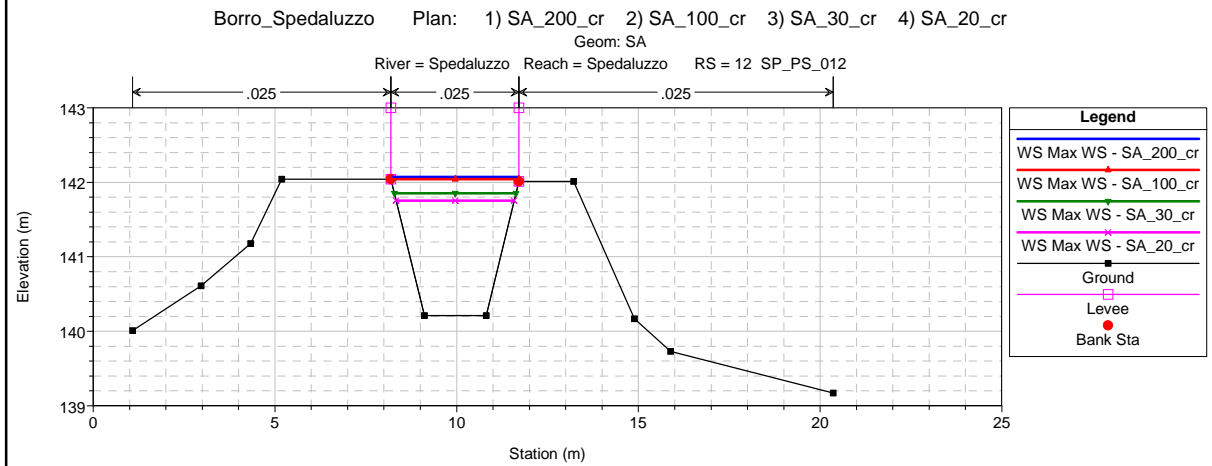
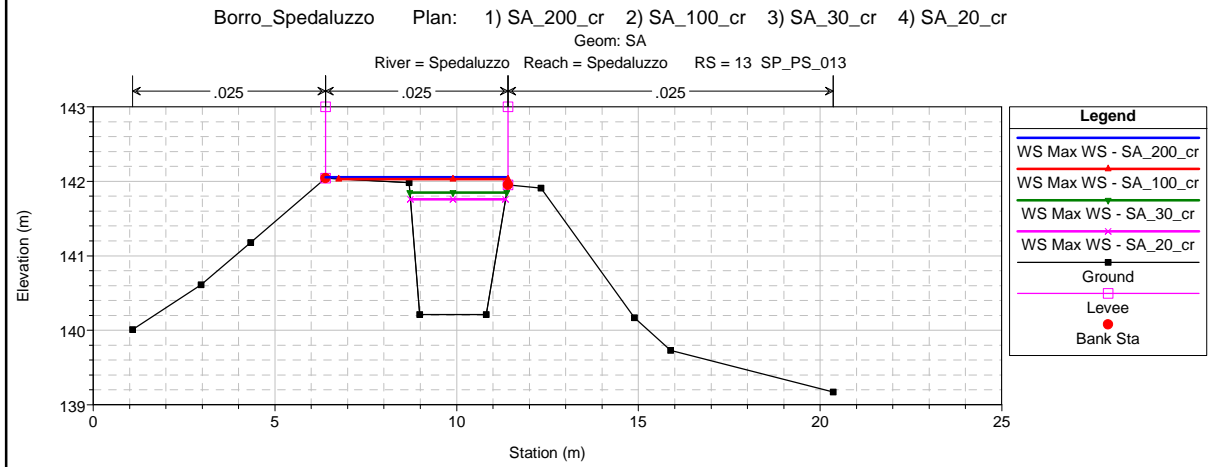
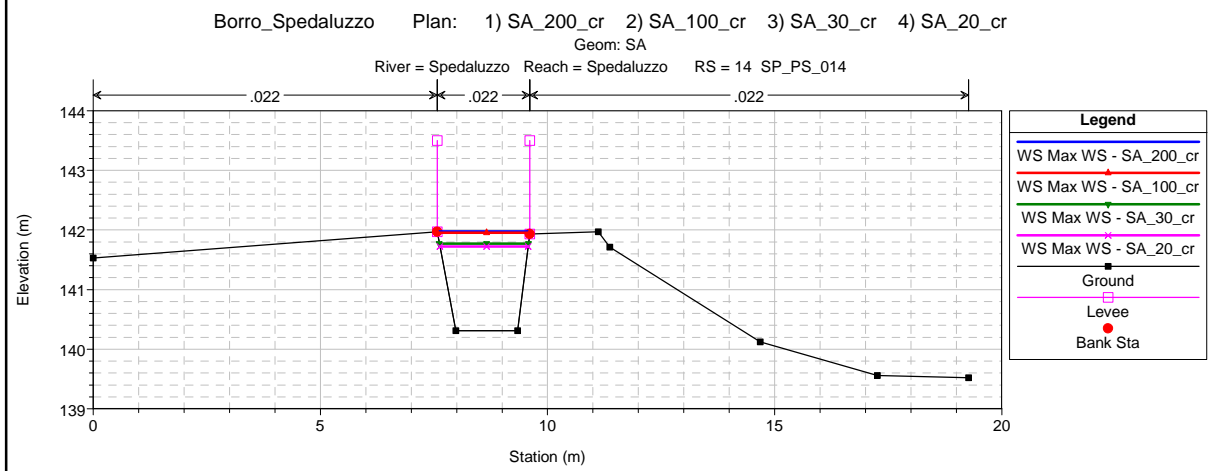
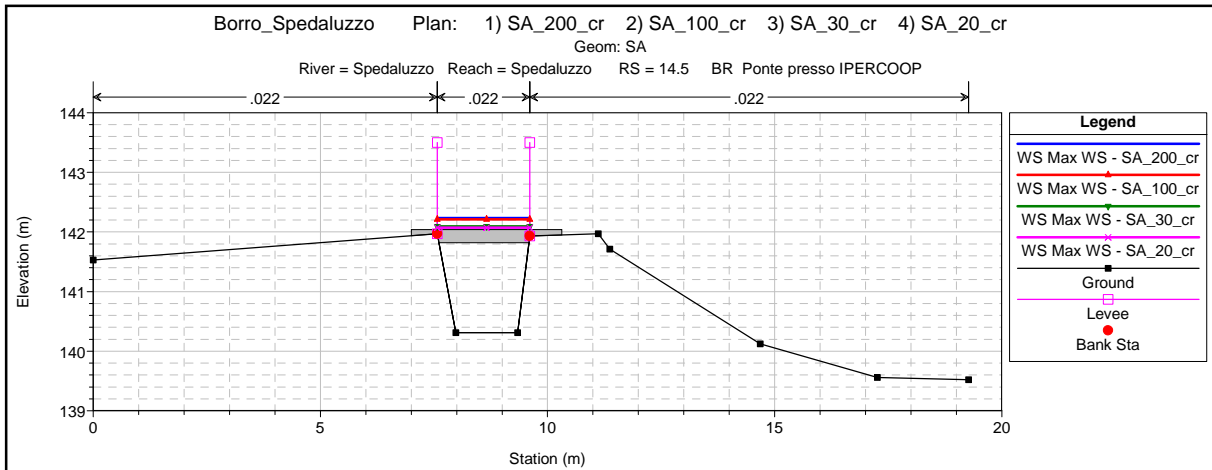


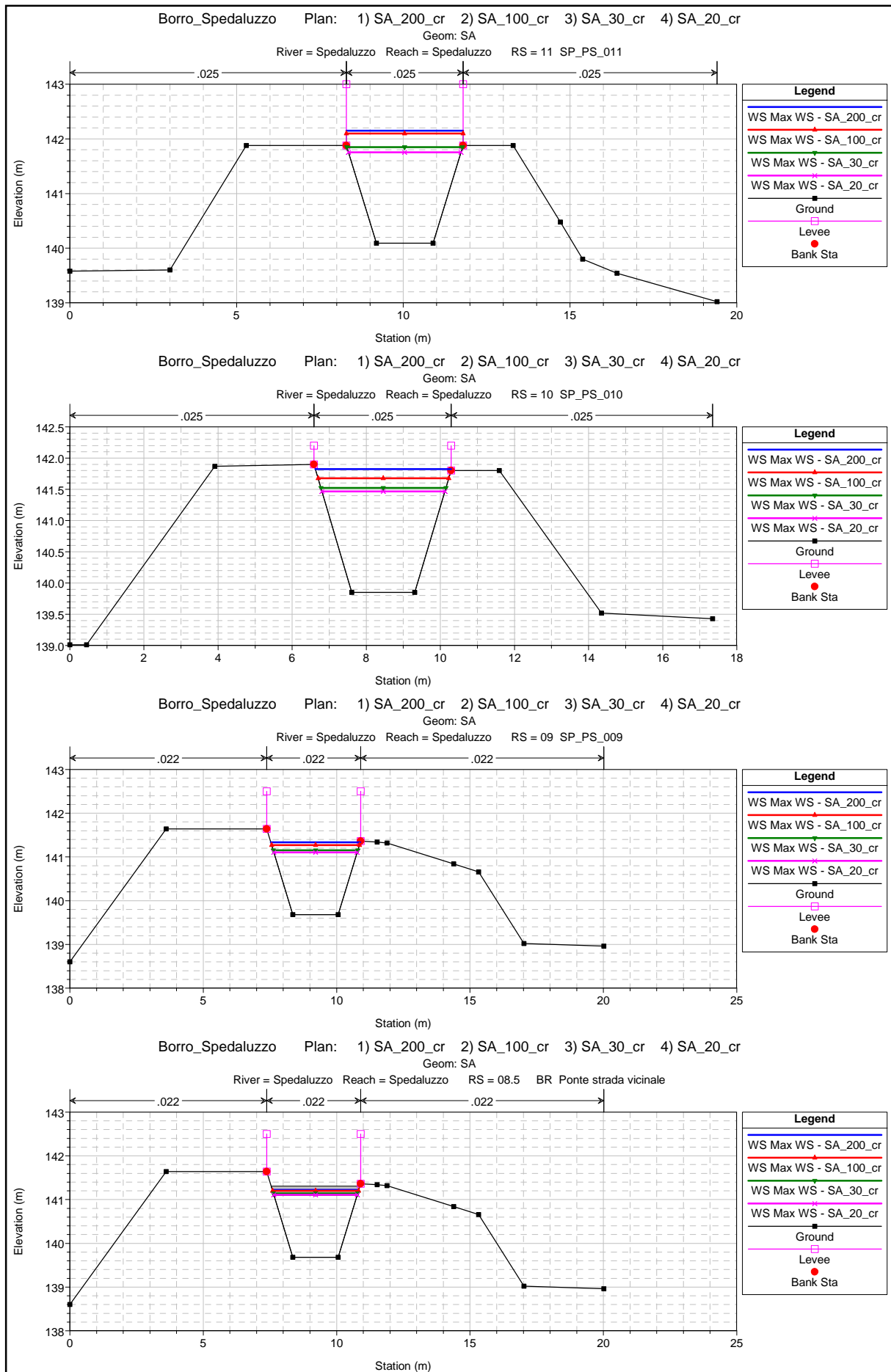


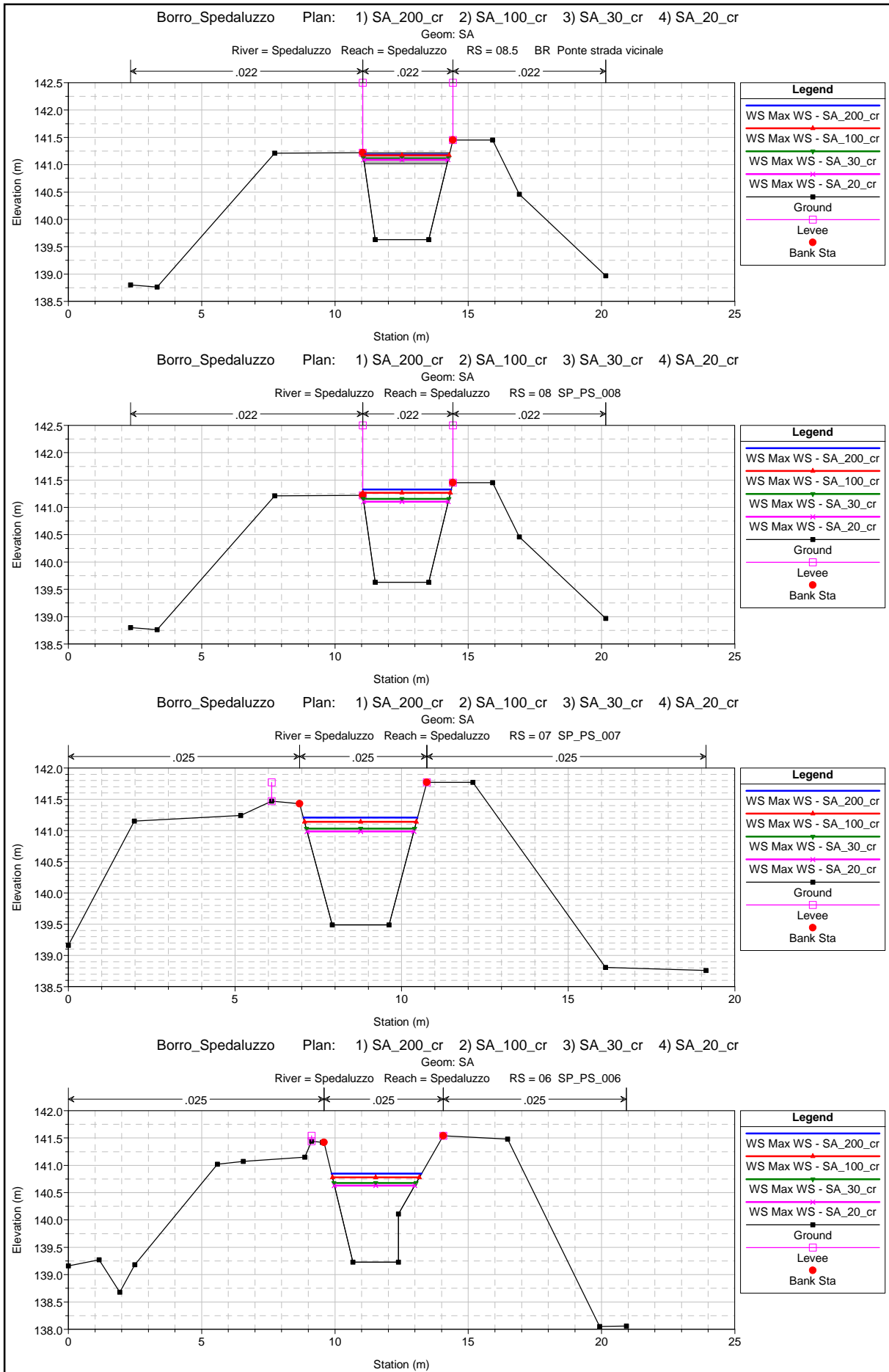


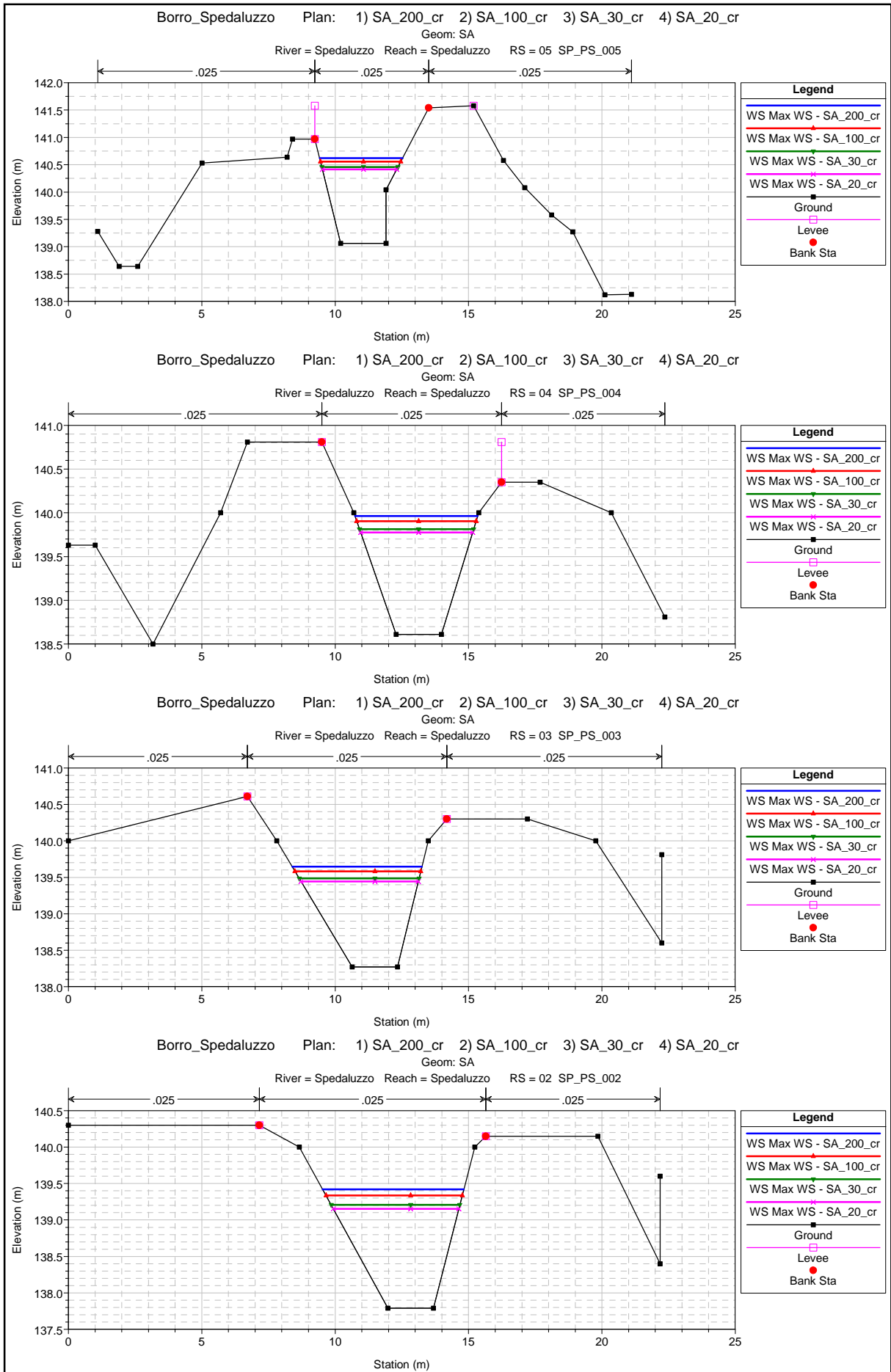












HEC-RAS River: Spedaluzzo Reach: Spedaluzzo Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	51	Max WS	SA_200_cr	12.87	144.48	146.01		146.55	0.003705	3.24	3.97	2.92	0.83
Spedaluzzo	51	Max WS	SA_100_cr	10.93	144.48	145.84		146.33	0.003972	3.10	3.53	2.89	0.85
Spedaluzzo	51	Max WS	SA_30_cr	8.29	144.48	145.61		146.02	0.004258	2.83	2.93	2.84	0.85
Spedaluzzo	51	Max WS	SA_20_cr	7.50	144.48	145.54		145.92	0.004341	2.74	2.74	2.82	0.85
Spedaluzzo	50	Max WS	SA_200_cr	12.95	144.38	145.89	145.83	146.52	0.012727	3.52	3.68	2.58	0.94
Spedaluzzo	50	Max WS	SA_100_cr	10.91	144.38	145.71	145.67	146.29	0.012713	3.38	3.23	2.54	0.96
Spedaluzzo	50	Max WS	SA_30_cr	8.28	144.38	145.49	145.46	145.98	0.012345	3.12	2.66	2.50	0.97
Spedaluzzo	50	Max WS	SA_20_cr	7.50	144.38	145.42	145.39	145.88	0.012147	3.02	2.48	2.49	0.96
Spedaluzzo	49	Max WS	SA_200_cr	12.85	144.28	145.77		146.34	0.010941	3.33	3.86	2.73	0.89
Spedaluzzo	49	Max WS	SA_100_cr	10.90	144.28	145.59		146.13	0.011390	3.24	3.36	2.69	0.93
Spedaluzzo	49	Max WS	SA_30_cr	8.28	144.28	145.36	145.32	145.82	0.011261	3.01	2.75	2.65	0.94
Spedaluzzo	49	Max WS	SA_20_cr	7.49	144.28	145.29	145.25	145.73	0.011092	2.91	2.57	2.64	0.94
Spedaluzzo	48	Max WS	SA_200_cr	12.83	144.20	145.63	145.59	146.27	0.012966	3.53	3.64	2.62	0.96
Spedaluzzo	48	Max WS	SA_100_cr	10.88	144.20	145.46	145.45	146.05	0.013199	3.41	3.19	2.60	0.98
Spedaluzzo	48	Max WS	SA_30_cr	8.27	144.20	145.24	145.24	145.75	0.013159	3.17	2.61	2.58	1.01
Spedaluzzo	48	Max WS	SA_20_cr	7.49	144.20	145.17	145.17	145.65	0.012980	3.07	2.44	2.57	1.01
Spedaluzzo	47	Max WS	SA_200_cr	12.12	143.76	145.36		145.81	0.008638	2.98	4.08	3.44	0.76
Spedaluzzo	47	Max WS	SA_100_cr	10.76	143.76	145.15		145.62	0.009825	3.04	3.54	2.59	0.83
Spedaluzzo	47	Max WS	SA_30_cr	8.24	143.76	144.94		145.33	0.009039	2.75	2.99	2.57	0.81
Spedaluzzo	47	Max WS	SA_20_cr	7.45	143.76	144.88		145.23	0.008495	2.62	2.84	2.57	0.80
Spedaluzzo	46	Max WS	SA_200_cr	13.06	143.71	145.27		145.83	0.010650	3.30	3.96	3.13	0.86
Spedaluzzo	46	Max WS	SA_100_cr	10.70	143.71	145.07		145.57	0.010623	3.14	3.41	2.62	0.88
Spedaluzzo	46	Max WS	SA_30_cr	8.22	143.71	144.84		145.27	0.010403	2.91	2.82	2.58	0.89
Spedaluzzo	46	Max WS	SA_20_cr	7.44	143.71	144.78		145.18	0.009918	2.79	2.67	2.57	0.87
Spedaluzzo	45	Max WS	SA_200_cr	13.54	143.65	145.22		145.81	0.011488	3.41	3.97	2.60	0.88
Spedaluzzo	45	Max WS	SA_100_cr	10.59	143.65	144.99		145.49	0.010743	3.13	3.38	2.58	0.87
Spedaluzzo	45	Max WS	SA_30_cr	8.19	143.65	144.75		145.19	0.010941	2.95	2.77	2.56	0.91
Spedaluzzo	45	Max WS	SA_20_cr	7.33	143.65	144.69		145.09	0.010216	2.79	2.62	2.56	0.88
Spedaluzzo	44	Max WS	SA_200_cr	12.77	143.55	145.21	144.32	145.29	0.000730	1.28	9.94	6.01	0.32
Spedaluzzo	44	Max WS	SA_100_cr	11.26	143.55	145.05	144.26	145.13	0.000757	1.25	9.00	6.01	0.33
Spedaluzzo	44	Max WS	SA_30_cr	8.37	143.55	144.82	144.13	144.89	0.000673	1.10	7.64	6.01	0.31
Spedaluzzo	44	Max WS	SA_20_cr	7.62	143.55	144.74	144.10	144.80	0.000683	1.07	7.14	6.00	0.31

HEC-RAS River: Spedaluzzo Reach: Spedaluzzo Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	43.5		Bridge										
Spedaluzzo	43	Max WS	SA_200_cr	12.49	143.45	145.18		145.23	0.000469	1.05	13.63	14.62	0.25
Spedaluzzo	43	Max WS	SA_100_cr	11.11	143.45	144.98		145.05	0.000697	1.21	9.17	6.01	0.31
Spedaluzzo	43	Max WS	SA_30_cr	8.36	143.45	144.78		144.84	0.000589	1.05	7.99	6.00	0.29
Spedaluzzo	43	Max WS	SA_20_cr	7.61	143.45	144.71		144.76	0.000579	1.01	7.54	6.00	0.29
Spedaluzzo	42	Max WS	SA_200_cr	14.27	143.34	144.89	144.88	145.64	0.015135	3.82	3.73	2.46	0.99
Spedaluzzo	42	Max WS	SA_100_cr	11.04	143.34	144.70		145.28	0.012929	3.39	3.26	2.44	0.94
Spedaluzzo	42	Max WS	SA_30_cr	8.32	143.34	144.50		144.96	0.011414	3.01	2.76	2.43	0.90
Spedaluzzo	42	Max WS	SA_20_cr	7.56	143.34	144.43		144.86	0.011098	2.91	2.60	2.43	0.90
Spedaluzzo	41	Max WS	SA_200_cr	11.95	143.15	144.52	144.47	145.12	0.012913	3.45	3.46	2.58	0.95
Spedaluzzo	41	Max WS	SA_100_cr	10.90	143.15	144.35	144.39	145.01	0.015269	3.59	3.03	2.57	1.06
Spedaluzzo	41	Max WS	SA_30_cr	8.29	143.15	144.17	144.18	144.70	0.013786	3.22	2.57	2.55	1.02
Spedaluzzo	41	Max WS	SA_20_cr	7.54	143.15	144.11	144.12	144.60	0.013490	3.11	2.42	2.55	1.02
Spedaluzzo	40	Max WS	SA_200_cr	11.92	143.02	144.43	144.27	144.93	0.002998	3.13	3.81	2.73	0.84
Spedaluzzo	40	Max WS	SA_100_cr	10.73	143.02	144.18	144.19	144.77	0.004600	3.41	3.15	2.72	1.01
Spedaluzzo	40	Max WS	SA_30_cr	8.24	143.02	144.01	144.00	144.49	0.004587	3.06	2.69	2.72	0.98
Spedaluzzo	40	Max WS	SA_20_cr	7.48	143.02	143.96	143.94	144.40	0.004608	2.95	2.53	2.72	0.97
Spedaluzzo	39.5		Bridge										
Spedaluzzo	39	Max WS	SA_200_cr	13.96	142.94	144.67		144.97	0.001390	2.43	5.74	3.92	0.59
Spedaluzzo	39	Max WS	SA_100_cr	11.05	142.94	144.49		144.73	0.001261	2.15	5.13	3.86	0.55
Spedaluzzo	39	Max WS	SA_30_cr	8.31	142.94	144.18		144.39	0.001505	2.02	4.11	3.75	0.58
Spedaluzzo	39	Max WS	SA_20_cr	7.53	142.94	144.08		144.28	0.001633	1.99	3.78	3.71	0.60
Spedaluzzo	38	Max WS	SA_200_cr	12.80	142.81	144.59		144.86	0.004078	2.31	5.55	3.75	0.57
Spedaluzzo	38	Max WS	SA_100_cr	10.98	142.81	144.44		144.68	0.003873	2.18	5.05	3.31	0.56
Spedaluzzo	38	Max WS	SA_30_cr	8.29	142.81	144.12		144.34	0.004083	2.06	4.02	3.23	0.59
Spedaluzzo	38	Max WS	SA_20_cr	7.52	142.81	144.02		144.23	0.004255	2.04	3.69	3.21	0.61
Spedaluzzo	37	Max WS	SA_200_cr	12.72	142.68	144.66	143.82	144.81	0.001392	1.68	7.56	4.27	0.40
Spedaluzzo	37	Max WS	SA_100_cr	10.94	142.68	144.50	143.69	144.63	0.001338	1.59	6.87	4.22	0.40
Spedaluzzo	37	Max WS	SA_30_cr	8.28	142.68	144.17	143.52	144.29	0.001412	1.50	5.51	4.14	0.42
Spedaluzzo	37	Max WS	SA_20_cr	7.51	142.68	144.07	143.47	144.18	0.001464	1.48	5.07	4.11	0.43

HEC-RAS River: Spedaluzzo Reach: Spedaluzzo Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	36.5			Bridge									
Spedaluzzo	36	Max WS	SA_200_cr	14.27	142.62	144.68		144.82	0.001316	1.68	8.49	4.12	0.37
Spedaluzzo	36	Max WS	SA_100_cr	10.94	142.62	144.45		144.56	0.001065	1.45	7.53	4.12	0.34
Spedaluzzo	36	Max WS	SA_30_cr	8.28	142.62	144.15		144.24	0.000989	1.31	6.31	4.12	0.34
Spedaluzzo	36	Max WS	SA_20_cr	7.51	142.62	144.06		144.14	0.000972	1.27	5.92	4.12	0.34
Spedaluzzo	35.99			Lat Struct									
Spedaluzzo	35.98			Lat Struct									
Spedaluzzo	35	Max WS	SA_200_cr	13.52	142.50	144.24		144.78	0.010326	3.25	4.16	2.54	0.81
Spedaluzzo	35	Max WS	SA_100_cr	10.91	142.50	144.06		144.50	0.009103	2.95	3.70	2.52	0.78
Spedaluzzo	35	Max WS	SA_30_cr	8.26	142.50	143.84		144.19	0.008034	2.63	3.14	2.49	0.75
Spedaluzzo	35	Max WS	SA_20_cr	7.50	142.50	143.76		144.09	0.007803	2.54	2.95	2.48	0.74
Spedaluzzo	34	Max WS	SA_200_cr	13.43	142.37	144.37		144.61	0.003426	2.16	6.21	3.23	0.50
Spedaluzzo	34	Max WS	SA_100_cr	10.90	142.37	144.17		144.37	0.002991	1.96	5.57	3.20	0.47
Spedaluzzo	34	Max WS	SA_30_cr	8.27	142.37	143.92		144.07	0.002584	1.73	4.78	3.17	0.45
Spedaluzzo	34	Max WS	SA_20_cr	7.50	142.37	143.84		143.98	0.002475	1.66	4.52	3.16	0.44
Spedaluzzo	33	Max WS	SA_200_cr	13.34	142.26	144.16		144.52	0.005414	2.64	5.06	3.61	0.71
Spedaluzzo	33	Max WS	SA_100_cr	10.87	142.26	143.97		144.29	0.005234	2.48	4.39	3.42	0.70
Spedaluzzo	33	Max WS	SA_30_cr	8.26	142.26	143.73		144.00	0.005121	2.30	3.59	3.18	0.69
Spedaluzzo	33	Max WS	SA_20_cr	7.50	142.26	143.65		143.91	0.005148	2.25	3.34	3.09	0.69
Spedaluzzo	32	Max WS	SA_200_cr	13.32	142.09	144.02		144.36	0.005195	2.59	5.13	3.62	0.70
Spedaluzzo	32	Max WS	SA_100_cr	10.87	142.09	143.84		144.14	0.004917	2.42	4.49	3.44	0.68
Spedaluzzo	32	Max WS	SA_30_cr	8.26	142.09	143.61		143.86	0.004659	2.22	3.72	3.21	0.66
Spedaluzzo	32	Max WS	SA_20_cr	7.50	142.09	143.52		143.76	0.004668	2.17	3.46	3.13	0.66
Spedaluzzo	31	Max WS	SA_200_cr	13.26	141.81	143.82		144.12	0.004429	2.44	5.43	3.70	0.64
Spedaluzzo	31	Max WS	SA_100_cr	10.87	141.81	143.66		143.92	0.003983	2.23	4.86	3.55	0.61
Spedaluzzo	31	Max WS	SA_30_cr	8.25	141.81	143.46		143.66	0.003491	1.99	4.15	3.34	0.57
Spedaluzzo	31	Max WS	SA_20_cr	7.46	141.81	143.38		143.56	0.003407	1.92	3.88	3.26	0.56
Spedaluzzo	30	Max WS	SA_200_cr	13.23	141.68	143.76		144.03	0.003940	2.33	5.67	3.77	0.61
Spedaluzzo	30	Max WS	SA_100_cr	10.87	141.68	143.61		143.84	0.003456	2.12	5.13	3.62	0.57

HEC-RAS River: Spedaluzzo Reach: Spedaluzzo Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	30	Max WS	SA_30_cr	8.25	141.68	143.41		143.59	0.002918	1.86	4.44	3.43	0.52
Spedaluzzo	30	Max WS	SA_20_cr	7.45	141.68	143.33		143.50	0.002813	1.79	4.17	3.35	0.51
Spedaluzzo	29.4			Lat Struct									
Spedaluzzo	29.3			Lat Struct									
Spedaluzzo	29	Max WS	SA_200_cr	13.21	141.46	143.44		143.84	0.006535	2.79	4.73	3.07	0.72
Spedaluzzo	29	Max WS	SA_100_cr	10.85	141.46	143.40		143.68	0.004779	2.37	4.59	3.04	0.61
Spedaluzzo	29	Max WS	SA_30_cr	8.25	141.46	143.27		143.47	0.003443	1.96	4.22	2.95	0.52
Spedaluzzo	29	Max WS	SA_20_cr	7.39	141.46	143.20		143.38	0.003134	1.84	4.02	2.91	0.50
Spedaluzzo	28	Max WS	SA_200_cr	13.21	141.44	143.66	142.55	143.80	0.001343	1.66	7.97	3.60	0.36
Spedaluzzo	28	Max WS	SA_100_cr	10.86	141.44	143.55	142.42	143.66	0.001031	1.43	7.59	3.60	0.31
Spedaluzzo	28	Max WS	SA_30_cr	8.25	141.44	143.38	142.25	143.45	0.000745	1.18	6.97	3.60	0.27
Spedaluzzo	28	Max WS	SA_20_cr	7.43	141.44	143.30	142.20	143.36	0.000675	1.11	6.68	3.60	0.26
Spedaluzzo	27.5			Bridge									
Spedaluzzo	27	Max WS	SA_200_cr	13.19	141.34	143.65		143.77	0.000885	1.54	8.64	4.10	0.33
Spedaluzzo	27	Max WS	SA_100_cr	10.86	141.34	143.54		143.63	0.000705	1.33	8.21	3.90	0.29
Spedaluzzo	27	Max WS	SA_30_cr	8.24	141.34	143.37		143.43	0.000540	1.10	7.52	3.90	0.25
Spedaluzzo	27	Max WS	SA_20_cr	7.37	141.34	143.28		143.34	0.000496	1.03	7.20	3.90	0.24
Spedaluzzo	26.9			Lat Struct									
Spedaluzzo	26.8			Lat Struct									
Spedaluzzo	26	Max WS	SA_200_cr	13.19	141.33	143.58		143.77	0.002357	1.92	6.86	4.23	0.48
Spedaluzzo	26	Max WS	SA_100_cr	10.86	141.33	143.49		143.63	0.001859	1.68	6.48	4.13	0.43
Spedaluzzo	26	Max WS	SA_30_cr	8.24	141.33	143.32		143.43	0.001426	1.42	5.81	3.96	0.37
Spedaluzzo	26	Max WS	SA_20_cr	7.37	141.33	143.24		143.34	0.001314	1.34	5.50	3.88	0.36
Spedaluzzo	25	Max WS	SA_200_cr	13.19	141.33	143.57		143.76	0.002386	1.93	6.83	4.22	0.48
Spedaluzzo	25	Max WS	SA_100_cr	10.86	141.33	143.48		143.63	0.001877	1.68	6.45	4.13	0.43
Spedaluzzo	25	Max WS	SA_30_cr	8.24	141.33	143.32		143.42	0.001436	1.42	5.79	3.96	0.38
Spedaluzzo	25	Max WS	SA_20_cr	7.37	141.33	143.24		143.33	0.001324	1.34	5.49	3.87	0.36
Spedaluzzo	24	Max WS	SA_200_cr	12.88	141.21	143.46		143.67	0.002780	2.03	6.34	3.91	0.51

HEC-RAS River: Spedaluzzo Reach: Spedaluzzo Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	24	Max WS	SA_100_cr	10.86	141.21	143.38		143.55	0.002243	1.80	6.05	3.87	0.46
Spedaluzzo	24	Max WS	SA_30_cr	8.24	141.21	143.25		143.36	0.001620	1.49	5.55	3.74	0.39
Spedaluzzo	24	Max WS	SA_20_cr	7.22	141.21	143.18		143.27	0.001414	1.37	5.28	3.67	0.36
Spedaluzzo	23	Max WS	SA_200_cr	12.67	141.12	143.22		143.55	0.005518	2.58	4.93	3.31	0.64
Spedaluzzo	23	Max WS	SA_100_cr	10.84	141.12	143.19		143.45	0.004218	2.24	4.85	3.19	0.56
Spedaluzzo	23	Max WS	SA_30_cr	8.24	141.12	143.14		143.29	0.002685	1.76	4.68	2.94	0.45
Spedaluzzo	23	Max WS	SA_20_cr	7.16	141.12	143.09		143.21	0.002208	1.58	4.53	2.91	0.40
Spedaluzzo	22	Max WS	SA_200_cr	10.94	141.05	143.32		143.50	0.002478	1.85	5.91	2.98	0.42
Spedaluzzo	22	Max WS	SA_100_cr	9.53	141.05	143.27		143.41	0.002002	1.65	5.76	2.98	0.38
Spedaluzzo	22	Max WS	SA_30_cr	7.72	141.05	143.15		143.26	0.001546	1.43	5.41	2.98	0.34
Spedaluzzo	22	Max WS	SA_20_cr	7.01	141.05	143.08		143.17	0.001419	1.35	5.19	2.98	0.33
Spedaluzzo	21	Max WS	SA_200_cr	9.37	141.04	143.42	142.31	143.54	0.001370	1.56	6.02	2.84	0.34
Spedaluzzo	21	Max WS	SA_100_cr	8.27	141.04	143.34	142.22	143.44	0.001175	1.43	5.79	2.84	0.32
Spedaluzzo	21	Max WS	SA_30_cr	7.19	141.04	143.18	142.13	143.27	0.001097	1.35	5.33	2.84	0.31
Spedaluzzo	21	Max WS	SA_20_cr	6.80	141.04	143.08	142.10	143.17	0.001115	1.34	5.07	2.84	0.32
Spedaluzzo	20.5			Bridge									
Spedaluzzo	20	Max WS	SA_200_cr	9.04	141.00	142.65		142.98	0.004907	2.53	3.57	2.54	0.68
Spedaluzzo	20	Max WS	SA_100_cr	8.27	141.00	142.64		142.92	0.004184	2.33	3.54	2.54	0.63
Spedaluzzo	20	Max WS	SA_30_cr	7.68	141.00	142.58		142.84	0.004094	2.27	3.38	2.53	0.63
Spedaluzzo	20	Max WS	SA_20_cr	7.31	141.00	142.54		142.79	0.003992	2.23	3.28	2.52	0.62
Spedaluzzo	19	Max WS	SA_200_cr	9.37	140.98	142.80		142.98	0.002783	1.86	5.03	3.33	0.48
Spedaluzzo	19	Max WS	SA_100_cr	8.27	140.98	142.76		142.90	0.002329	1.69	4.89	3.30	0.44
Spedaluzzo	19	Max WS	SA_30_cr	7.69	140.98	142.69		142.83	0.002295	1.65	4.66	3.26	0.44
Spedaluzzo	19	Max WS	SA_20_cr	7.31	140.98	142.64		142.78	0.002247	1.62	4.52	3.23	0.44
Spedaluzzo	18	Max WS	SA_200_cr	9.37	140.87	142.77		142.91	0.001870	1.61	5.83	3.64	0.41
Spedaluzzo	18	Max WS	SA_100_cr	8.27	140.87	142.74		142.85	0.001546	1.45	5.70	3.63	0.37
Spedaluzzo	18	Max WS	SA_30_cr	7.69	140.87	142.67		142.77	0.001516	1.41	5.44	3.59	0.37
Spedaluzzo	18	Max WS	SA_20_cr	7.31	140.87	142.62		142.72	0.001475	1.38	5.29	3.56	0.36
Spedaluzzo	17.9			Lat Struct									
Spedaluzzo	17	Max WS	SA_200_cr	8.96	140.74	142.60		142.83	0.004314	2.15	4.17	2.76	0.56

HEC-RAS River: Spedaluzzo Reach: Spedaluzzo Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	17	Max WS	SA_100_cr	8.13	140.74	142.57		142.77	0.003706	1.98	4.10	2.76	0.52
Spedaluzzo	17	Max WS	SA_30_cr	7.69	140.74	142.49		142.69	0.003837	1.98	3.88	2.73	0.53
Spedaluzzo	17	Max WS	SA_20_cr	7.31	140.74	142.46		142.65	0.003696	1.93	3.78	2.71	0.52
Spedaluzzo	16	Max WS	SA_200_cr	8.41	140.60	142.48		142.71	0.004329	2.13	3.95	2.73	0.56
Spedaluzzo	16	Max WS	SA_100_cr	8.03	140.60	142.40		142.63	0.004541	2.14	3.75	2.70	0.58
Spedaluzzo	16	Max WS	SA_30_cr	7.69	140.60	142.27		142.53	0.005336	2.26	3.41	2.61	0.63
Spedaluzzo	16	Max WS	SA_20_cr	7.31	140.60	142.25		142.49	0.005014	2.18	3.36	2.60	0.61
Spedaluzzo	15	Max WS	SA_200_cr	8.13	140.56	142.56	141.65	142.69	0.001633	1.61	5.05	2.66	0.37
Spedaluzzo	15	Max WS	SA_100_cr	8.01	140.56	142.47	141.64	142.61	0.001798	1.67	4.80	2.66	0.40
Spedaluzzo	15	Max WS	SA_30_cr	7.69	140.56	142.35	141.61	142.50	0.001966	1.71	4.49	2.66	0.42
Spedaluzzo	15	Max WS	SA_20_cr	7.31	140.56	142.33	141.58	142.46	0.001845	1.65	4.42	2.66	0.41
Spedaluzzo	14.5			Bridge									
Spedaluzzo	14	Max WS	SA_200_cr	4.30	140.31	141.98		142.09	0.002218	1.52	2.84	2.04	0.41
Spedaluzzo	14	Max WS	SA_100_cr	4.30	140.31	141.96		142.08	0.002295	1.54	2.80	2.04	0.42
Spedaluzzo	14	Max WS	SA_30_cr	7.54	140.31	141.77		142.26	0.010076	3.10	2.43	1.97	0.89
Spedaluzzo	14	Max WS	SA_20_cr	7.23	140.31	141.73		142.21	0.010278	3.09	2.34	1.95	0.90
Spedaluzzo	13.9			Lat Struct									
Spedaluzzo	13.8			Lat Struct									
Spedaluzzo	13	Max WS	SA_200_cr	6.62	140.21	142.05		142.17	0.003237	1.53	4.33	5.02	0.52
Spedaluzzo	13	Max WS	SA_100_cr	6.14	140.21	142.03		142.14	0.002834	1.45	4.22	4.66	0.49
Spedaluzzo	13	Max WS	SA_30_cr	7.22	140.21	141.85		142.04	0.003841	1.96	3.68	2.66	0.53
Spedaluzzo	13	Max WS	SA_20_cr	6.55	140.21	141.76		141.94	0.003767	1.90	3.44	2.62	0.53
Spedaluzzo	12	Max WS	SA_200_cr	6.25	140.21	142.07		142.16	0.001285	1.27	4.91	3.52	0.34
Spedaluzzo	12	Max WS	SA_100_cr	5.96	140.21	142.04		142.12	0.001238	1.24	4.80	3.52	0.34
Spedaluzzo	12	Max WS	SA_30_cr	7.22	140.21	141.85		142.01	0.002686	1.74	4.14	3.35	0.50
Spedaluzzo	12	Max WS	SA_20_cr	6.52	140.21	141.75		141.90	0.002712	1.71	3.82	3.25	0.50
Spedaluzzo	11	Max WS	SA_200_cr	5.23	140.09	142.15		142.20	0.000630	0.93	5.60	3.50	0.24
Spedaluzzo	11	Max WS	SA_100_cr	5.43	140.09	142.10		142.15	0.000742	1.00	5.42	3.50	0.26
Spedaluzzo	11	Max WS	SA_30_cr	7.21	140.09	141.85		141.98	0.002092	1.59	4.55	3.47	0.44
Spedaluzzo	11	Max WS	SA_20_cr	6.52	140.09	141.75		141.88	0.002086	1.55	4.22	3.37	0.44

HEC-RAS River: Spedaluzzo Reach: Spedaluzzo Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	10	Max WS	SA_200_cr	9.32	139.85	141.82		141.98	0.002329	1.76	5.31	3.66	0.47
Spedaluzzo	10	Max WS	SA_100_cr	9.85	139.85	141.68		141.89	0.003439	2.06	4.77	3.53	0.57
Spedaluzzo	10	Max WS	SA_30_cr	8.74	139.85	141.52		141.74	0.003691	2.06	4.24	3.37	0.59
Spedaluzzo	10	Max WS	SA_20_cr	8.22	139.85	141.47		141.68	0.003684	2.03	4.05	3.32	0.59
Spedaluzzo	09	Max WS	SA_200_cr	12.09	139.68	141.33	141.16	141.76	0.005687	2.89	4.18	3.35	0.83
Spedaluzzo	09	Max WS	SA_100_cr	11.04	139.68	141.27	141.09	141.66	0.005461	2.78	3.96	3.29	0.81
Spedaluzzo	09	Max WS	SA_30_cr	9.59	139.68	141.15	140.97	141.52	0.005354	2.67	3.59	3.17	0.80
Spedaluzzo	09	Max WS	SA_20_cr	9.01	139.68	141.11	140.93	141.46	0.005314	2.62	3.44	3.13	0.80
Spedaluzzo	08.5			Bridge									
Spedaluzzo	08	Max WS	SA_200_cr	12.09	139.63	141.33		141.69	0.004606	2.66	4.54	3.32	0.73
Spedaluzzo	08	Max WS	SA_100_cr	11.03	139.63	141.27		141.59	0.004311	2.54	4.35	3.29	0.71
Spedaluzzo	08	Max WS	SA_30_cr	9.59	139.63	141.15		141.45	0.004111	2.41	3.98	3.21	0.69
Spedaluzzo	08	Max WS	SA_20_cr	9.01	139.63	141.10		141.39	0.004045	2.36	3.82	3.18	0.69
Spedaluzzo	7.9			Lat Struct									
Spedaluzzo	7.8			Lat Struct									
Spedaluzzo	07	Max WS	SA_200_cr	12.00	139.49	141.21		141.59	0.006351	2.73	4.39	3.42	0.77
Spedaluzzo	07	Max WS	SA_100_cr	11.02	139.49	141.14		141.49	0.006168	2.65	4.16	3.36	0.76
Spedaluzzo	07	Max WS	SA_30_cr	9.59	139.49	141.03		141.35	0.005893	2.51	3.81	3.25	0.74
Spedaluzzo	07	Max WS	SA_20_cr	9.01	139.49	140.98		141.29	0.005788	2.46	3.67	3.20	0.73
Spedaluzzo	06	Max WS	SA_200_cr	12.00	139.23	140.85	140.83	141.37	0.010927	3.22	3.73	3.37	0.98
Spedaluzzo	06	Max WS	SA_100_cr	11.02	139.23	140.78	140.75	141.28	0.010833	3.14	3.51	3.26	0.97
Spedaluzzo	06	Max WS	SA_30_cr	9.58	139.23	140.68	140.63	141.14	0.010648	3.02	3.17	3.09	0.95
Spedaluzzo	06	Max WS	SA_20_cr	9.01	139.23	140.63	140.58	141.08	0.010560	2.97	3.04	3.01	0.94
Spedaluzzo	05	Max WS	SA_200_cr	12.00	139.06	140.62	140.67	141.24	0.013355	3.48	3.45	3.11	1.06
Spedaluzzo	05	Max WS	SA_100_cr	11.02	139.06	140.56	140.59	141.14	0.013113	3.39	3.25	3.01	1.04
Spedaluzzo	05	Max WS	SA_30_cr	9.58	139.06	140.46	140.47	140.99	0.012653	3.24	2.96	2.85	1.01
Spedaluzzo	05	Max WS	SA_20_cr	9.01	139.06	140.41	140.42	140.93	0.012425	3.17	2.84	2.79	1.00
Spedaluzzo	04	Max WS	SA_200_cr	12.00	138.61	139.96		140.37	0.007256	2.82	4.26	4.60	0.93
Spedaluzzo	04	Max WS	SA_100_cr	11.01	138.61	139.90		140.29	0.007261	2.76	4.00	4.47	0.93

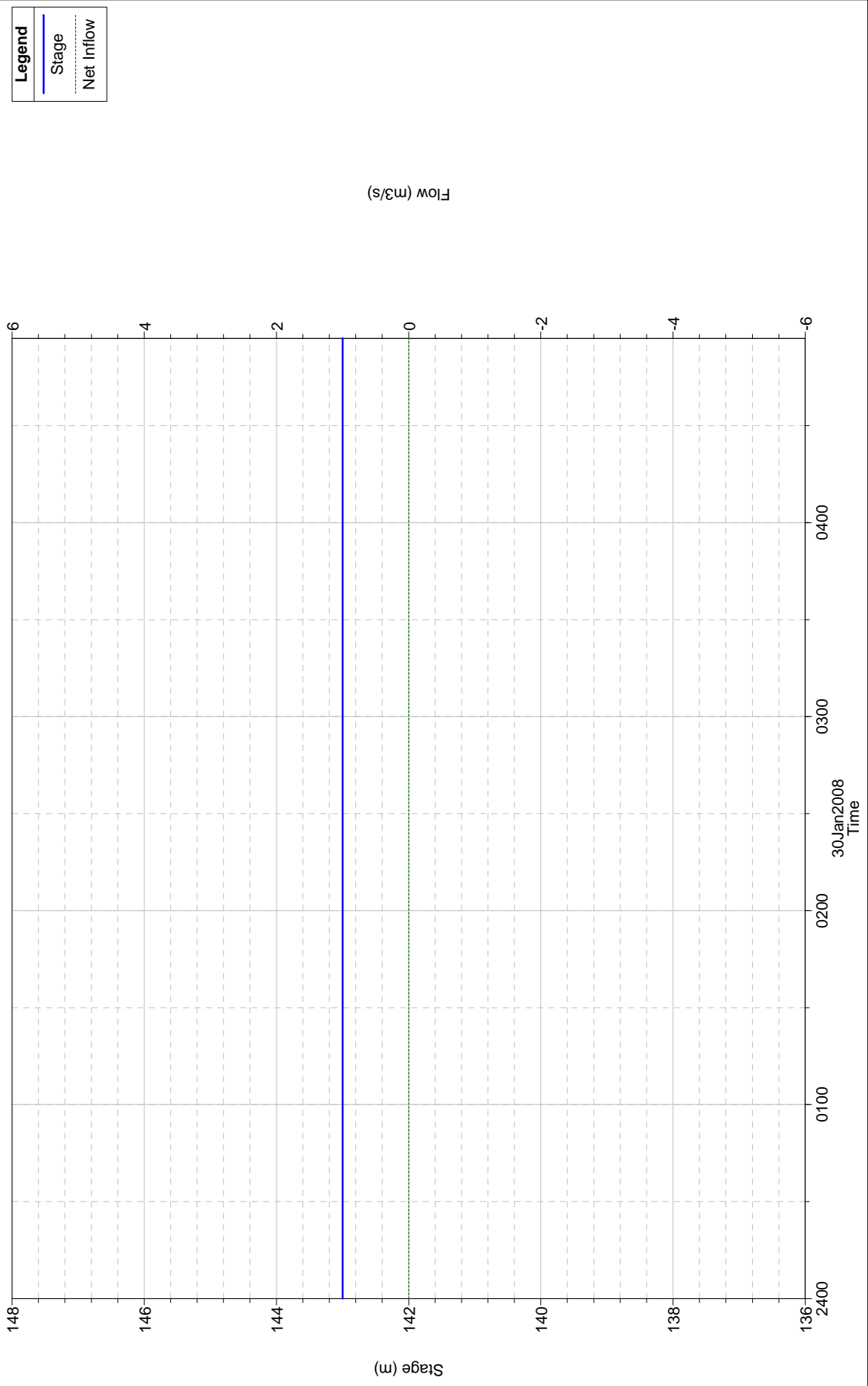
HEC-RAS River: Spedaluzzo Reach: Spedaluzzo Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	04	Max WS	SA_30_cr	9.57	138.61	139.81		140.17	0.007268	2.66	3.60	4.28	0.93
Spedaluzzo	04	Max WS	SA_20_cr	9.00	138.61	139.78		140.13	0.007274	2.62	3.44	4.20	0.92
Spedaluzzo	03	Max WS	SA_200_cr	12.00	138.27	139.65		140.01	0.006407	2.65	4.52	4.87	0.88
Spedaluzzo	03	Max WS	SA_100_cr	11.01	138.27	139.58		139.93	0.006527	2.61	4.21	4.72	0.88
Spedaluzzo	03	Max WS	SA_30_cr	9.57	138.27	139.49		139.81	0.006677	2.54	3.76	4.50	0.89
Spedaluzzo	03	Max WS	SA_20_cr	9.00	138.27	139.45		139.77	0.006729	2.51	3.59	4.40	0.89
Spedaluzzo	02	Max WS	SA_200_cr	11.99	137.79	139.42		139.65	0.003385	2.10	5.70	5.29	0.65
Spedaluzzo	02	Max WS	SA_100_cr	11.00	137.79	139.34		139.56	0.003529	2.09	5.26	5.11	0.66
Spedaluzzo	02	Max WS	SA_30_cr	9.56	137.79	139.21		139.42	0.003781	2.07	4.62	4.82	0.67
Spedaluzzo	02	Max WS	SA_20_cr	8.98	137.79	139.15		139.37	0.003893	2.06	4.36	4.70	0.68
Spedaluzzo	01	Max WS	SA_200_cr	11.98	137.36	138.97	138.81	139.38	0.007056	2.84	4.22	3.53	0.83
Spedaluzzo	01	Max WS	SA_100_cr	10.99	137.36	138.90	138.74	139.29	0.007029	2.78	3.96	3.44	0.83
Spedaluzzo	01	Max WS	SA_30_cr	9.55	137.36	138.78	138.63	139.15	0.007064	2.69	3.55	3.31	0.83
Spedaluzzo	01	Max WS	SA_20_cr	8.98	137.36	138.73	138.59	139.09	0.007068	2.65	3.39	3.25	0.83

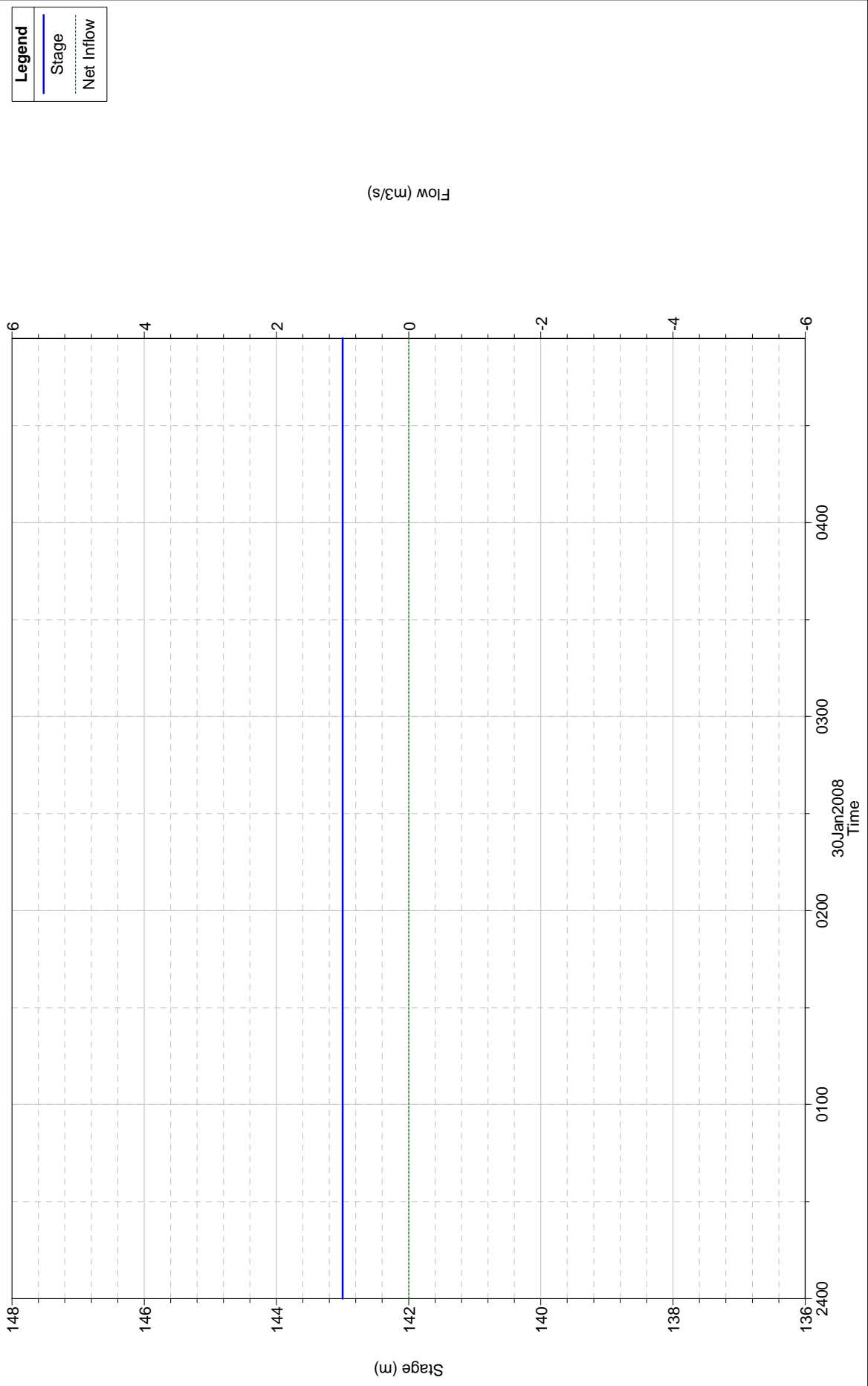
HEC-RAS Profile: Max WS

Storage Area	Profile	Plan	W.S. Elev (m)	SA Min El (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
36_dx	Max WS	SA_200_cr	143.01	143.00	0.27	2.50	0.03
36_dx	Max WS	SA_100_cr	143.00	143.00	0.00	2.50	0.00
36_dx	Max WS	SA_30_cr	143.00	143.00	0.00	2.50	0.00
36_dx	Max WS	SA_20_cr	143.00	143.00	0.00	2.50	0.00
36_sx	Max WS	SA_200_cr	143.03	143.00	0.27	1.30	0.03
36_sx	Max WS	SA_100_cr	143.00	143.00	0.00	1.30	0.00
36_sx	Max WS	SA_30_cr	143.00	143.00	0.00	1.30	0.00
36_sx	Max WS	SA_20_cr	143.00	143.00	0.00	1.30	0.00
SA_Sped_Dx1	Max WS	SA_200_cr	139.78	139.50	6.01	56.00	15.41
SA_Sped_Dx1	Max WS	SA_100_cr	139.57	139.50	3.16	56.00	3.65
SA_Sped_Dx1	Max WS	SA_30_cr	139.55	139.50	0.52	56.00	2.78
SA_Sped_Dx1	Max WS	SA_20_cr	139.50	139.50	0.18	56.00	0.12
SA_Sped_Sx1	Max WS	SA_200_cr	141.86	140.60	2.63	6.00	5.47
SA_Sped_Sx1	Max WS	SA_100_cr	141.44	140.60	2.33	6.00	2.96
SA_Sped_Sx1	Max WS	SA_30_cr	141.36	140.60	0.52	6.00	2.46
SA_Sped_Sx1	Max WS	SA_20_cr	140.63	140.60	0.16	3.00	0.10
Spedaluzzo_StSn	Max WS	SA_200_cr	138.21	138.20	0.08	9.00	0.10
Spedaluzzo_StSn	Max WS	SA_100_cr	138.20	138.20	0.01	9.00	0.01
Spedaluzzo_StSn	Max WS	SA_30_cr	138.20	138.20	0.00	9.00	0.00
Spedaluzzo_StSn	Max WS	SA_20_cr	138.20	138.20	0.00	9.00	0.00

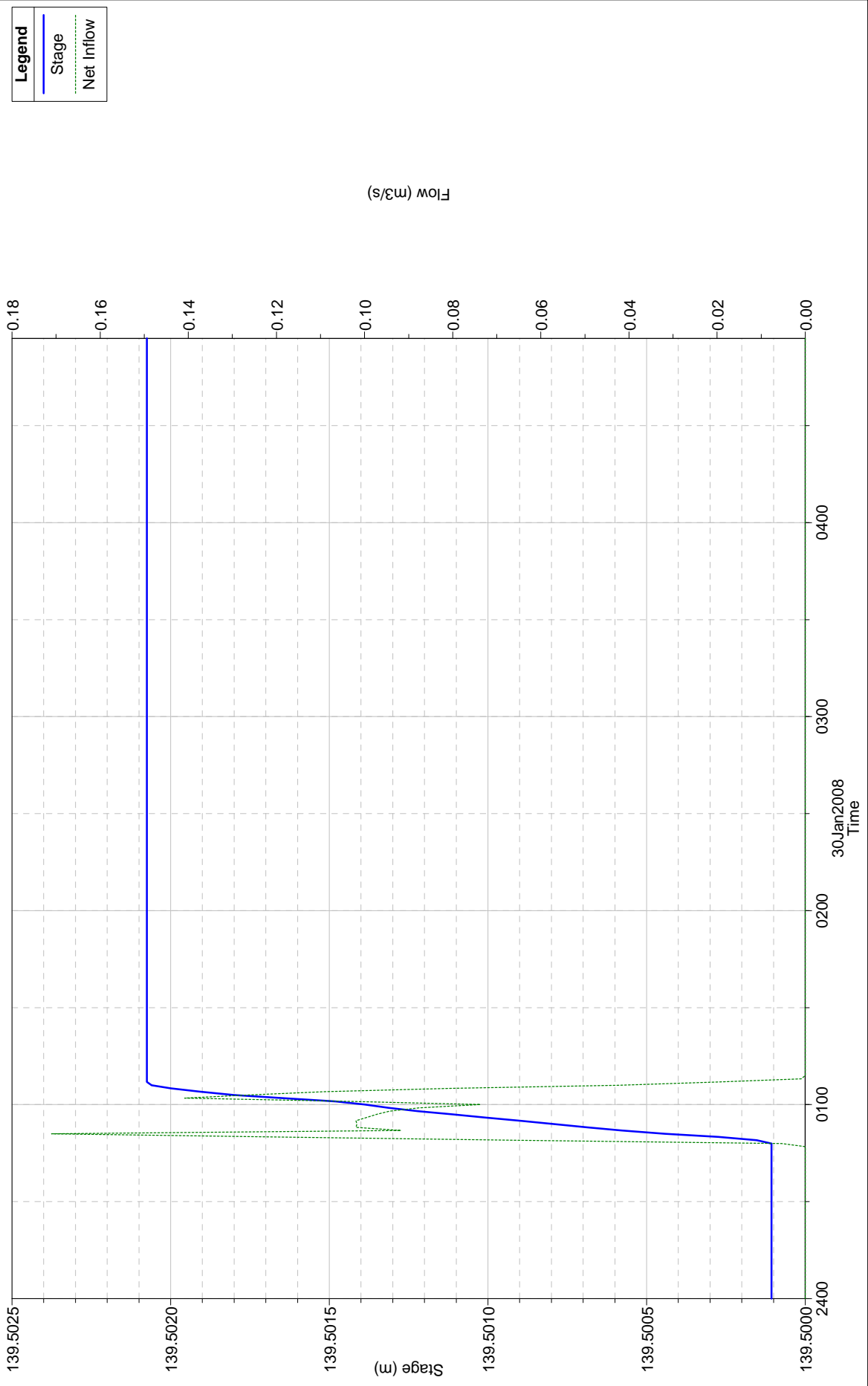
Plan: SA_20_cr Storage Area: 36_dx



Plan: SA_20_cr Storage Area: 36_sx

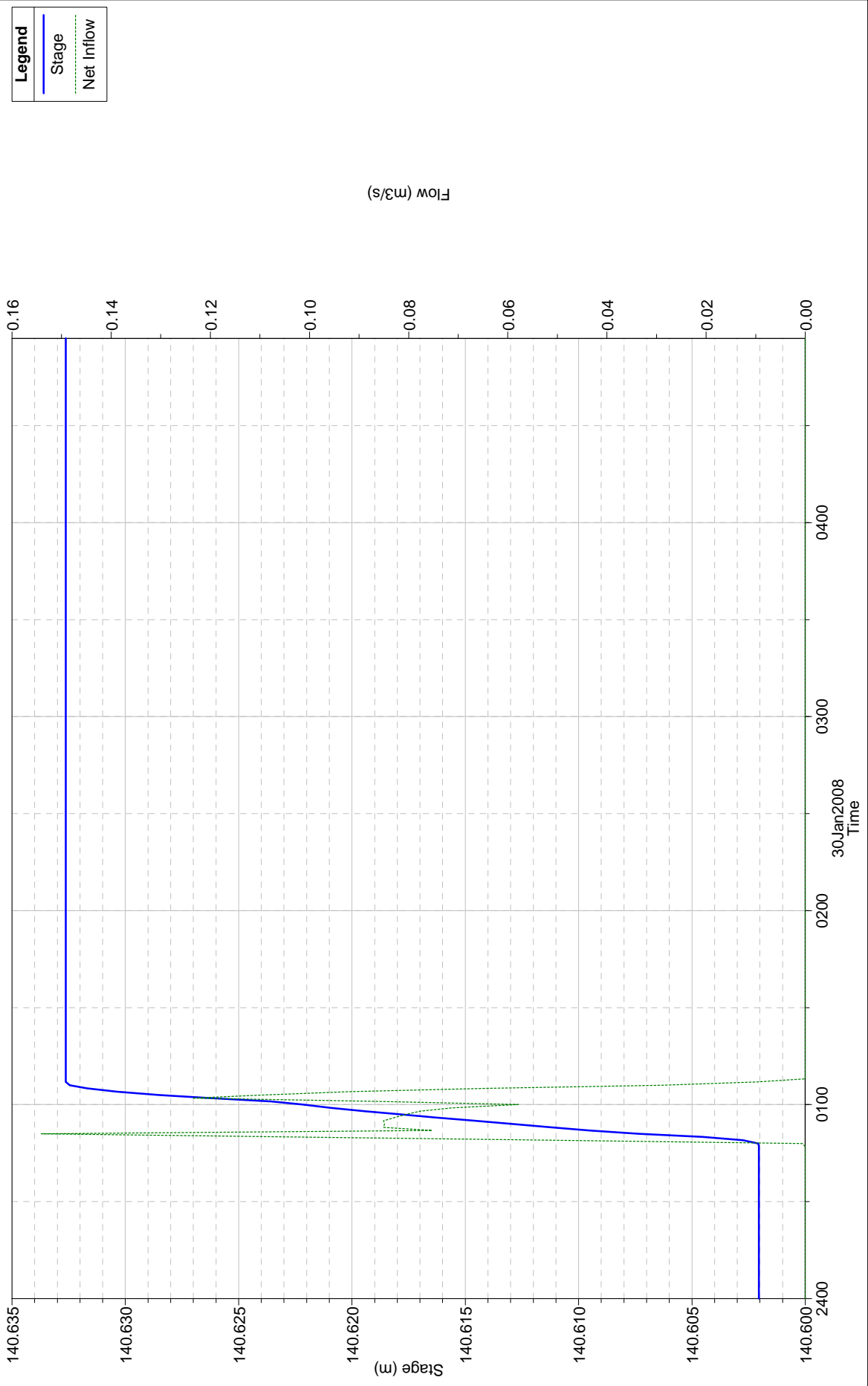


Plan: SA_20_cr Storage Area: SA_Sped_Dx1



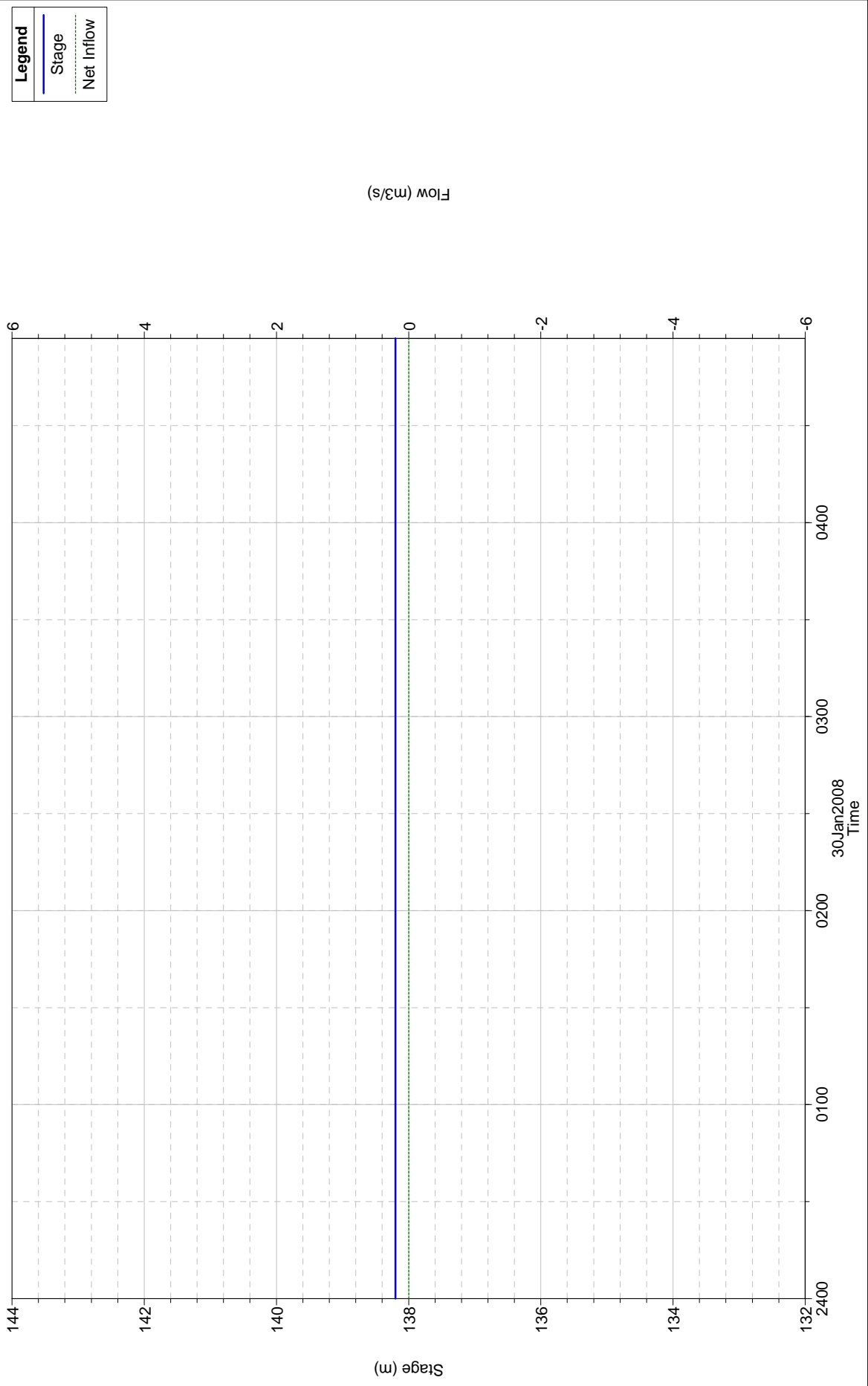
Legend
Stage
Net Inflow

Plan: SA_20_cr Storage Area: SA_Sped_Sx1

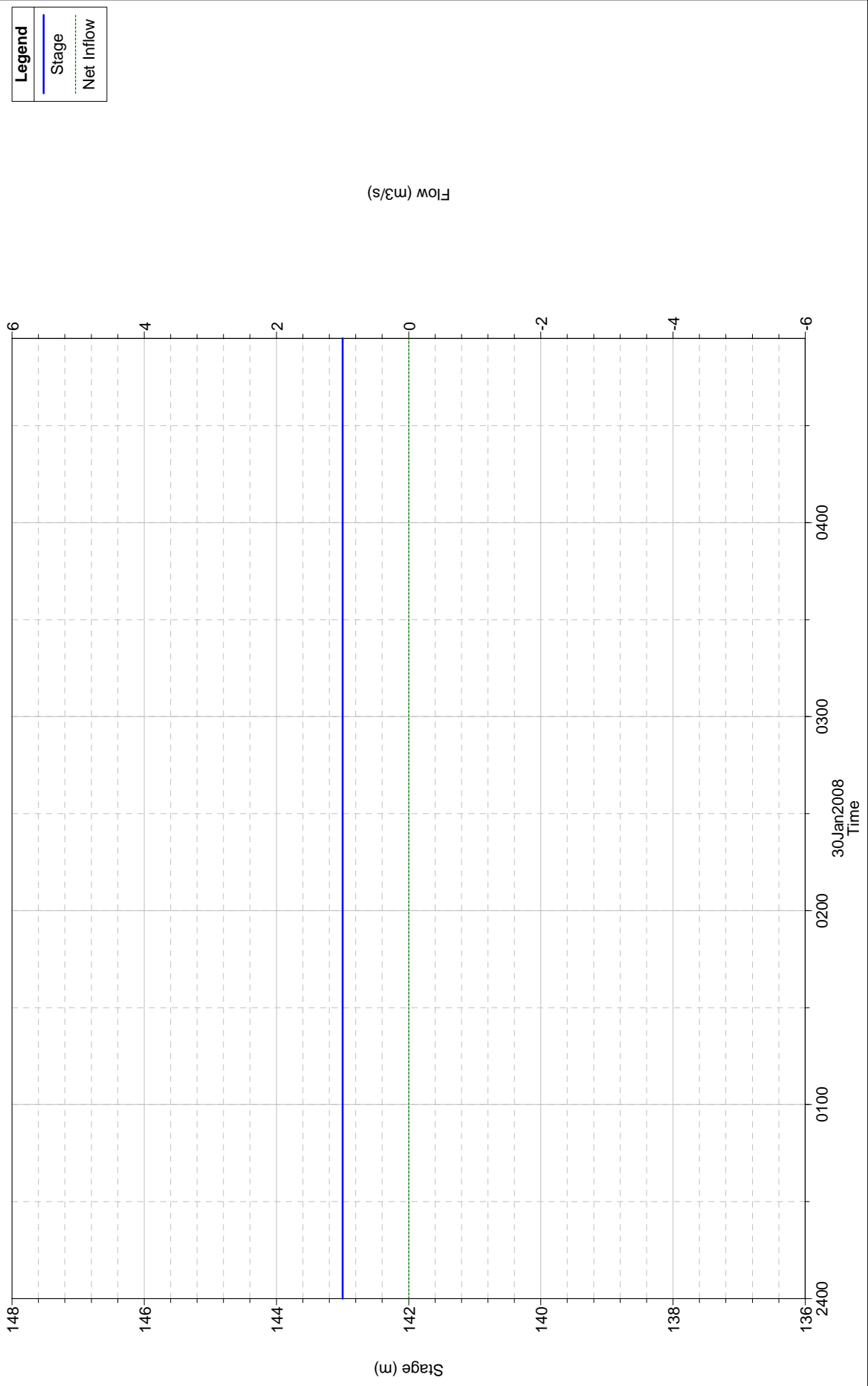


Legend
— Stage
- - - Net Inflow

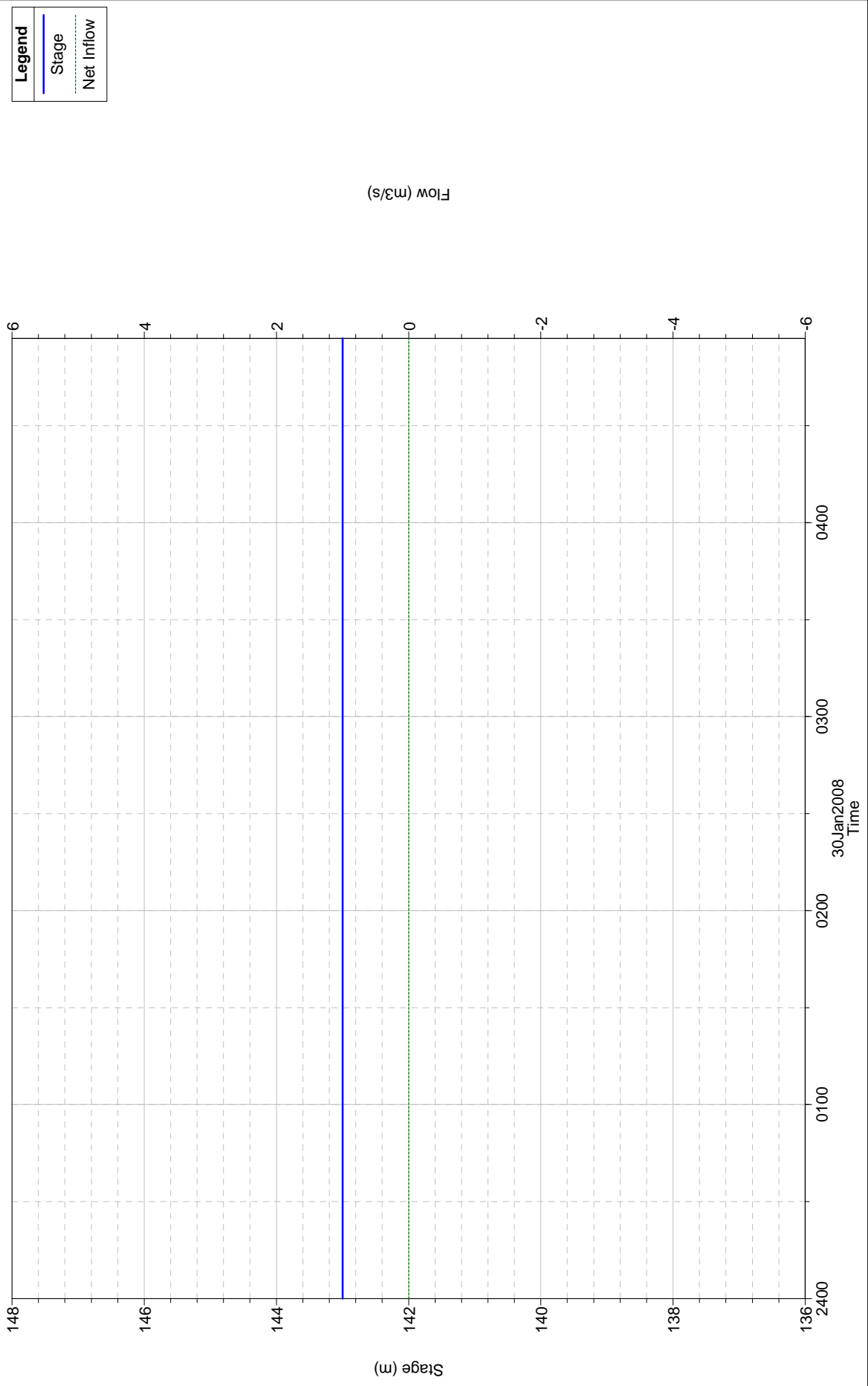
Plan: SA_20_cr Storage Area: Spedaluzzo_StSn



Plan: SA_30_cr Storage Area: 36_dx

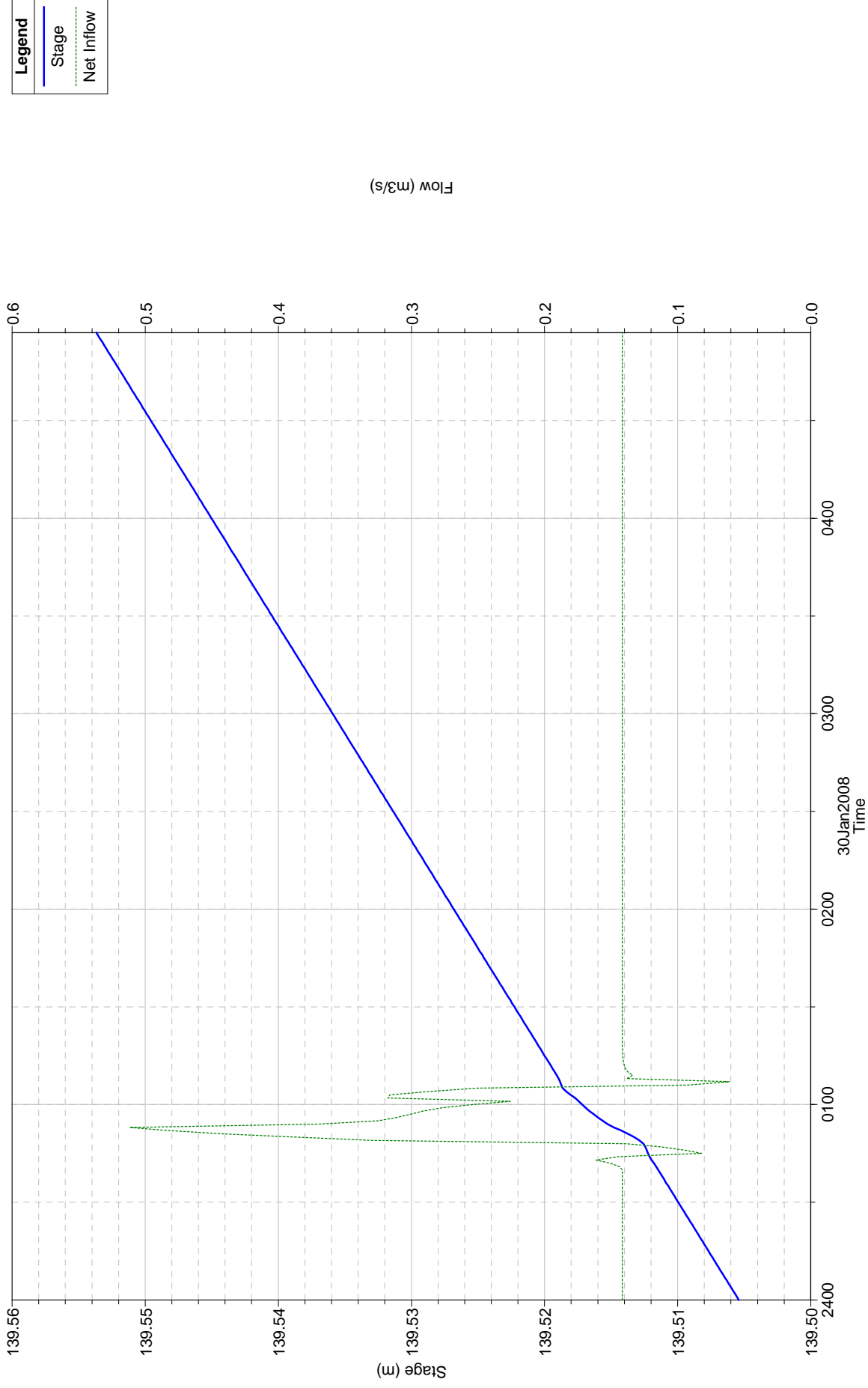


Plan: SA_30_cr Storage Area: 36_sx



Legend	
—	Stage
...	Net Inflow

Plan: SA_30_cr Storage Area: SA_Sped_Dx1



Legend
— Stage
... Net Inflow

Flow (m³/s)

0.6
0.5
0.4
0.3
0.2
0.1
0.0

139.56
139.55
139.54
139.53
139.52
139.51
139.50

30Jan2008
Time

2400

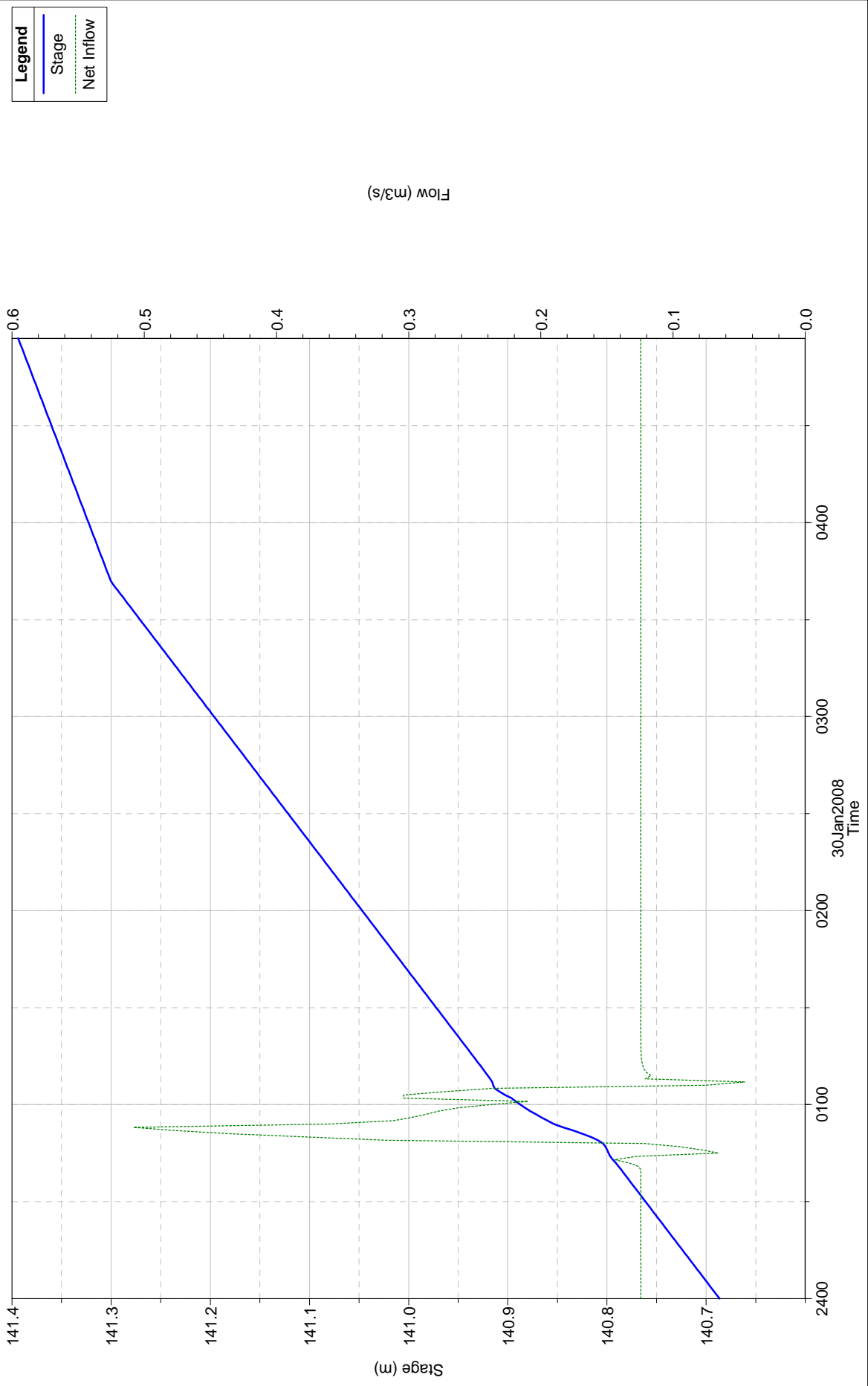
0100

0200

0300

0400

Plan: SA_30_cr Storage Area: SA_Sped_Sx1



Legend
— Stage
... Net Inflow

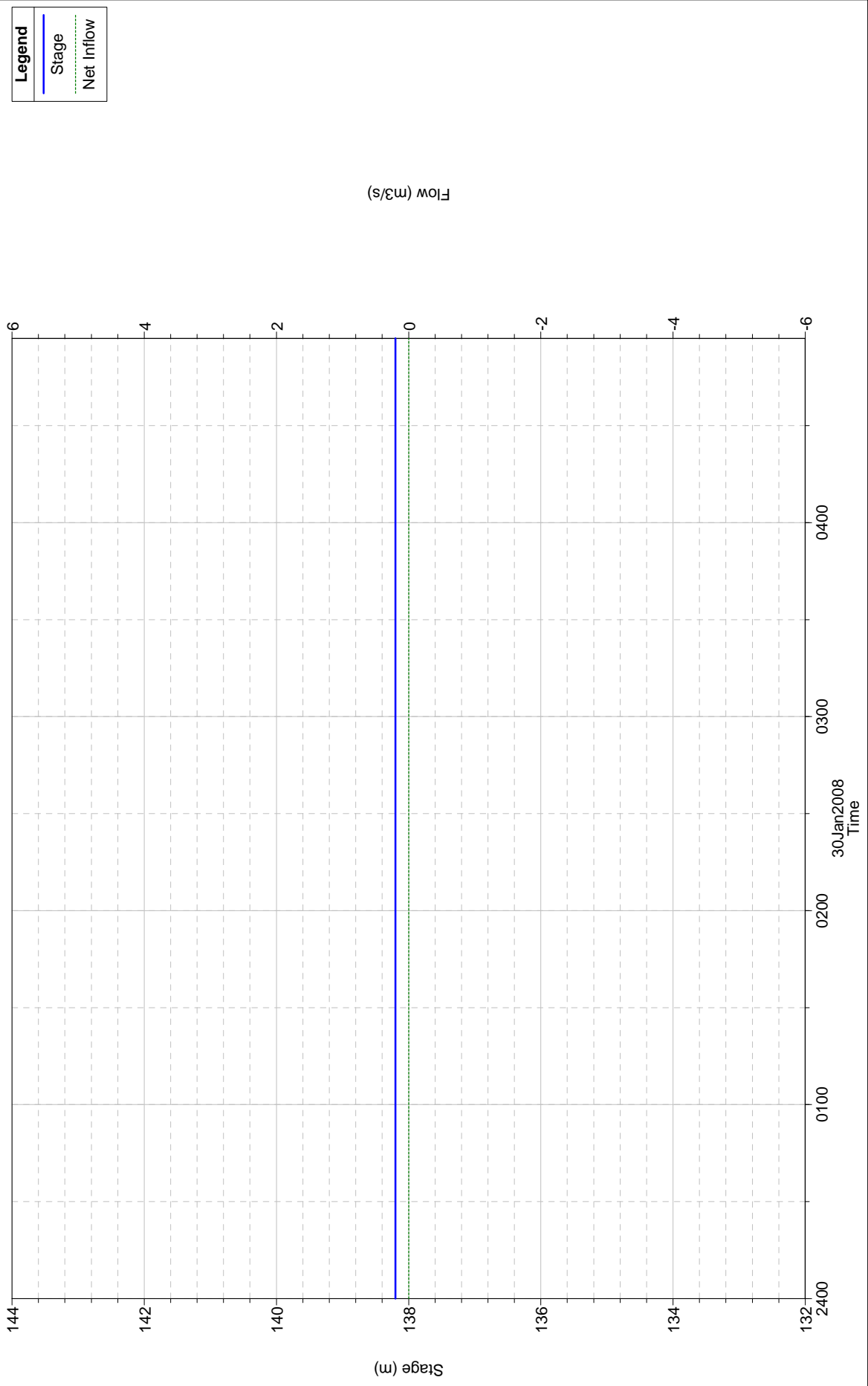
Flow (m3/s)

0.6
0.5
0.4
0.3
0.2
0.1
0.0

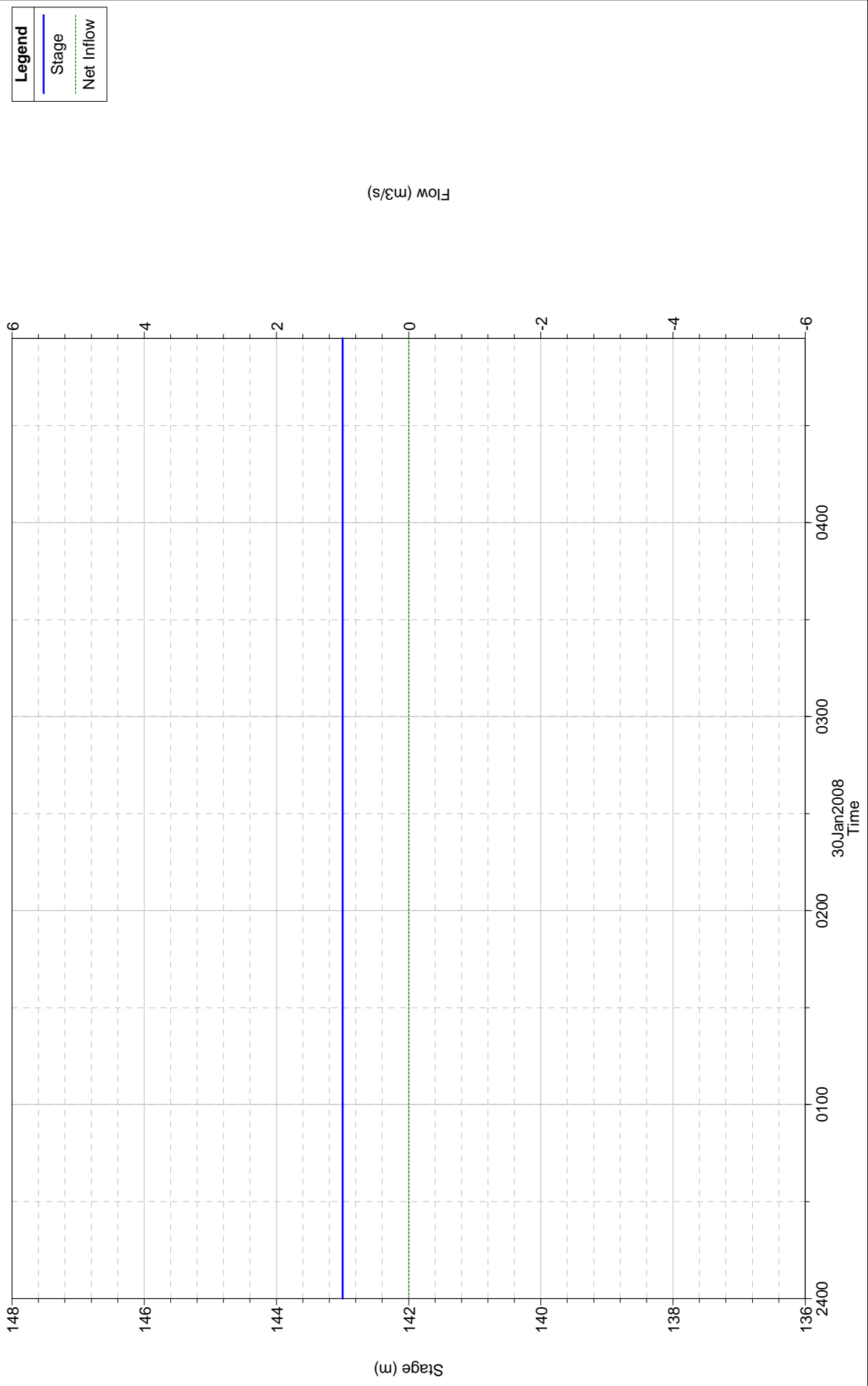
141.4
141.3
141.2
141.1
141.0
140.9
140.8
140.7
Stage (m)

2400
0100
0200
0300
0400
30Jan2008
Time

Plan: SA_30_cr Storage Area: Spedaluzzo_StSn

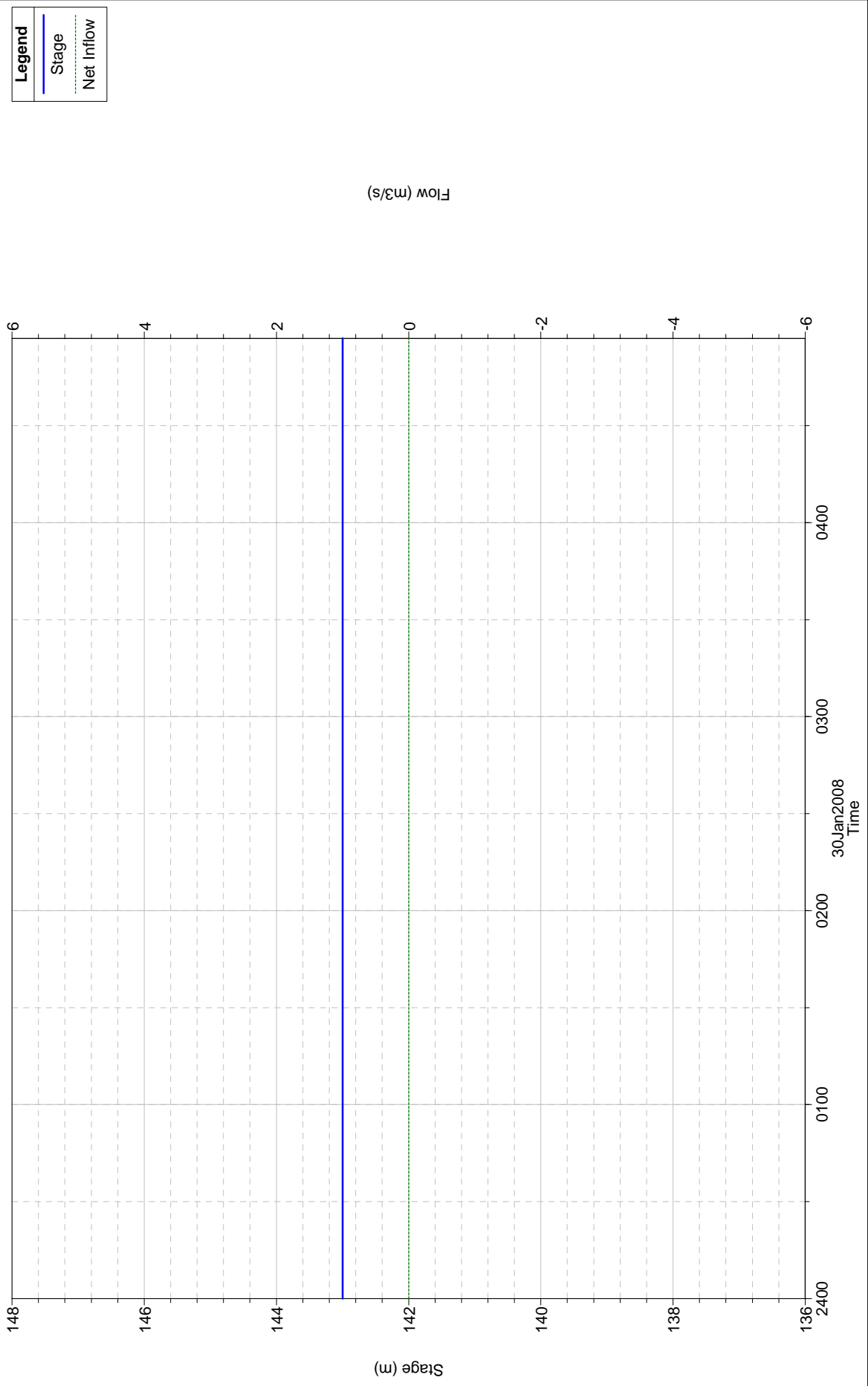


Plan: SA_100_cr Storage Area: 36_dx

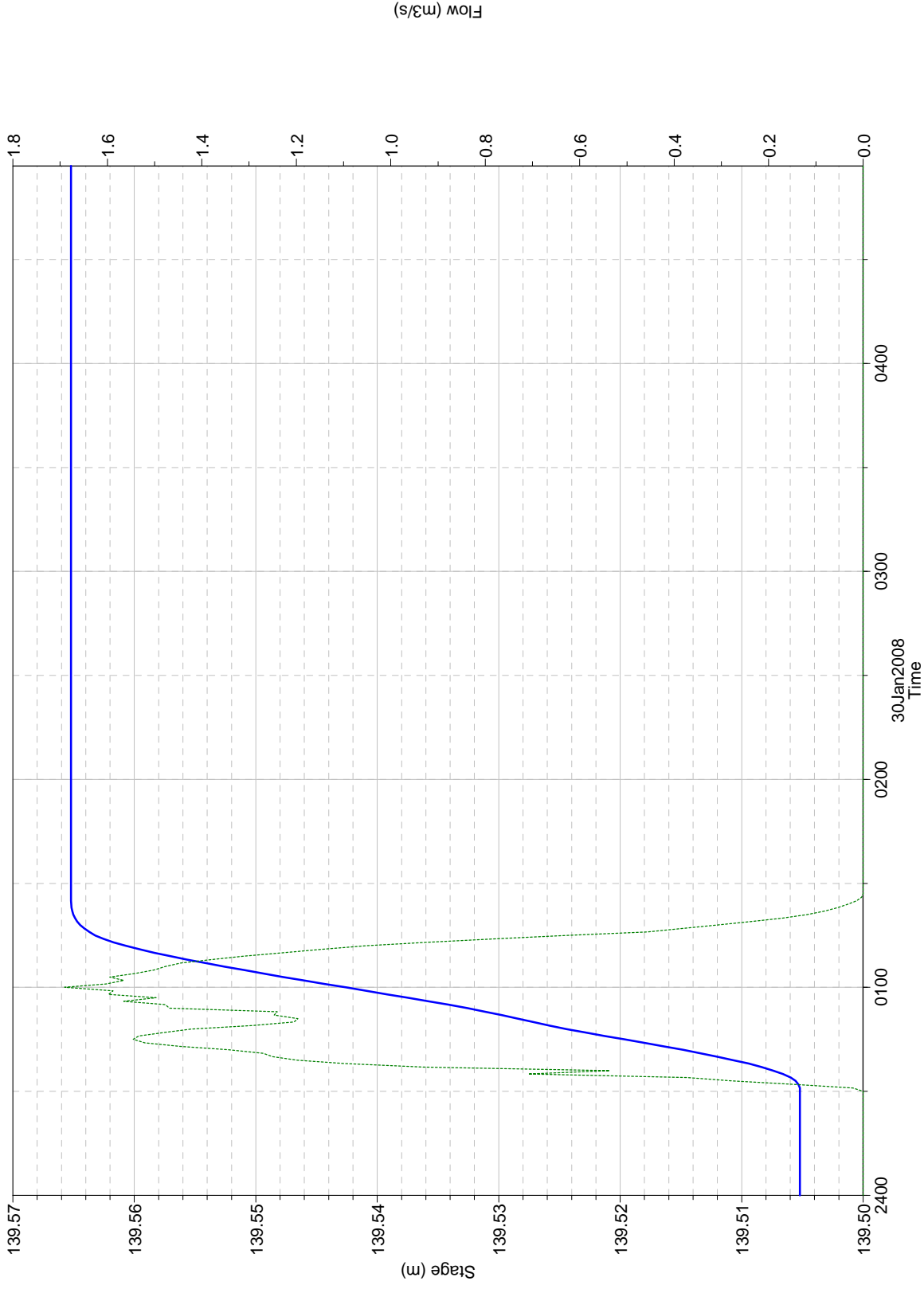
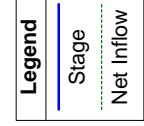


Legend
— Stage
- - - Net Inflow

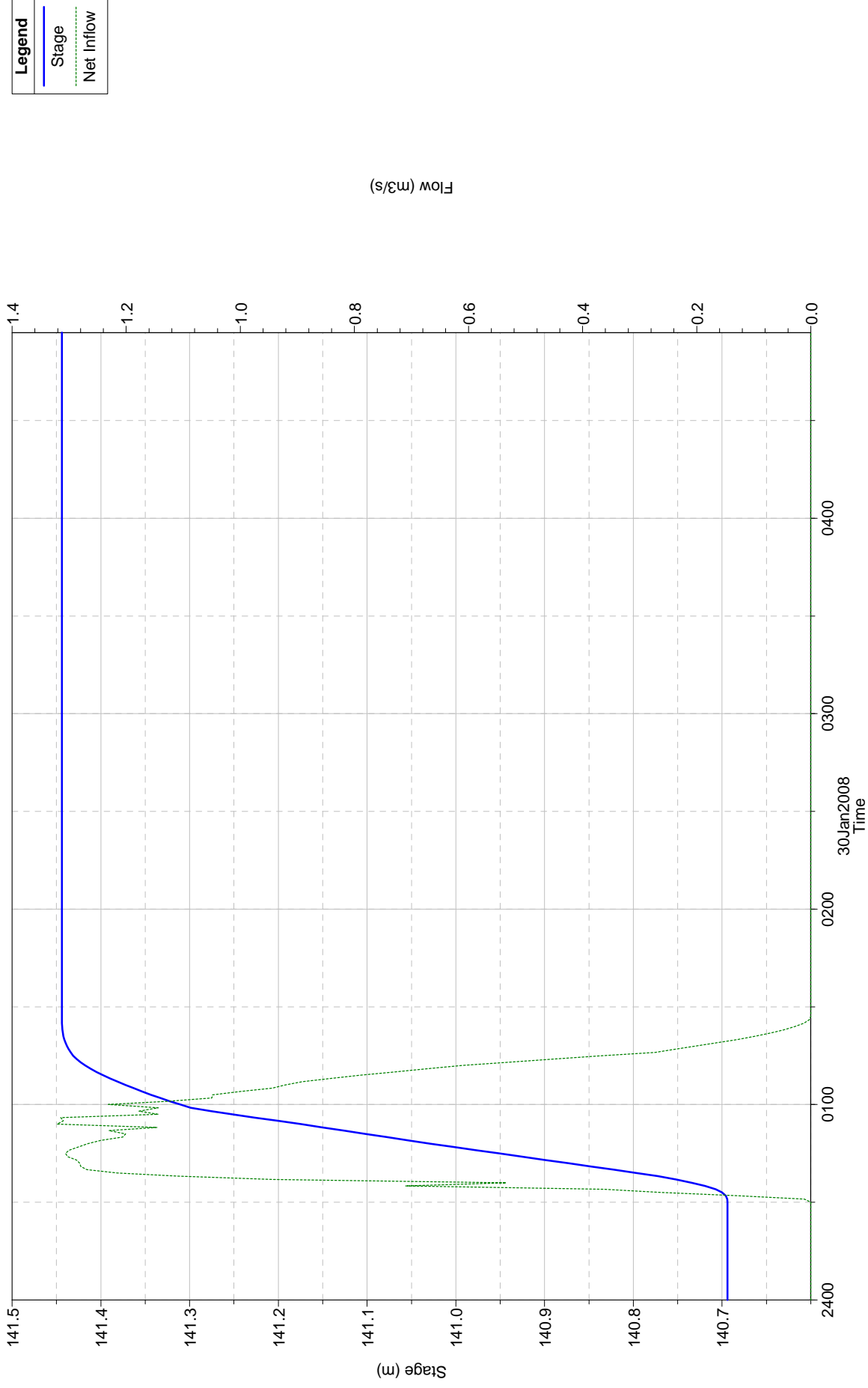
Plan: SA_100_cr Storage Area: 36_sx



Plan: SA_100_cr Storage Area: SA_Sped_Dx1



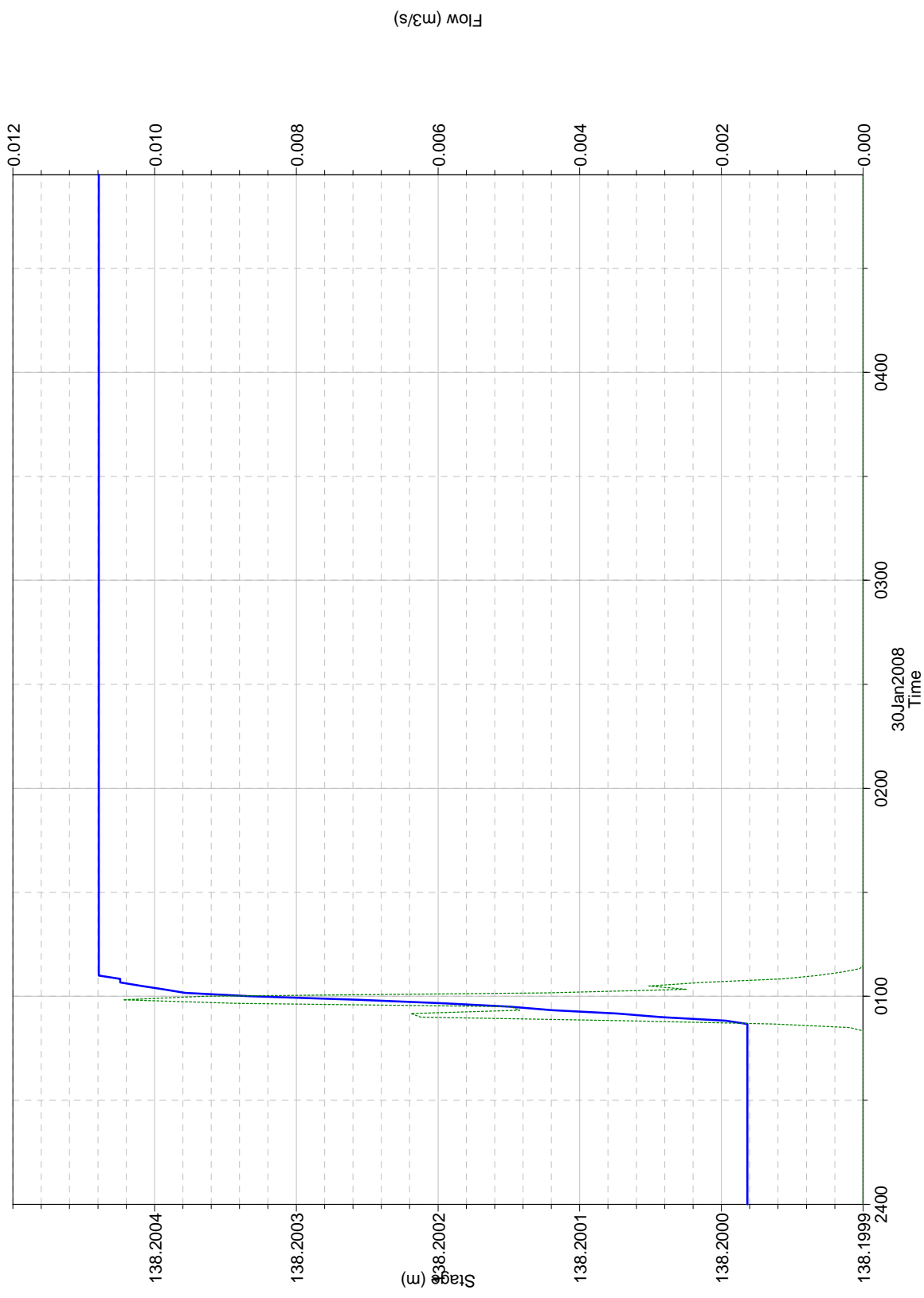
Plan: SA_100_cr Storage Area: SA_Sped_Sx1



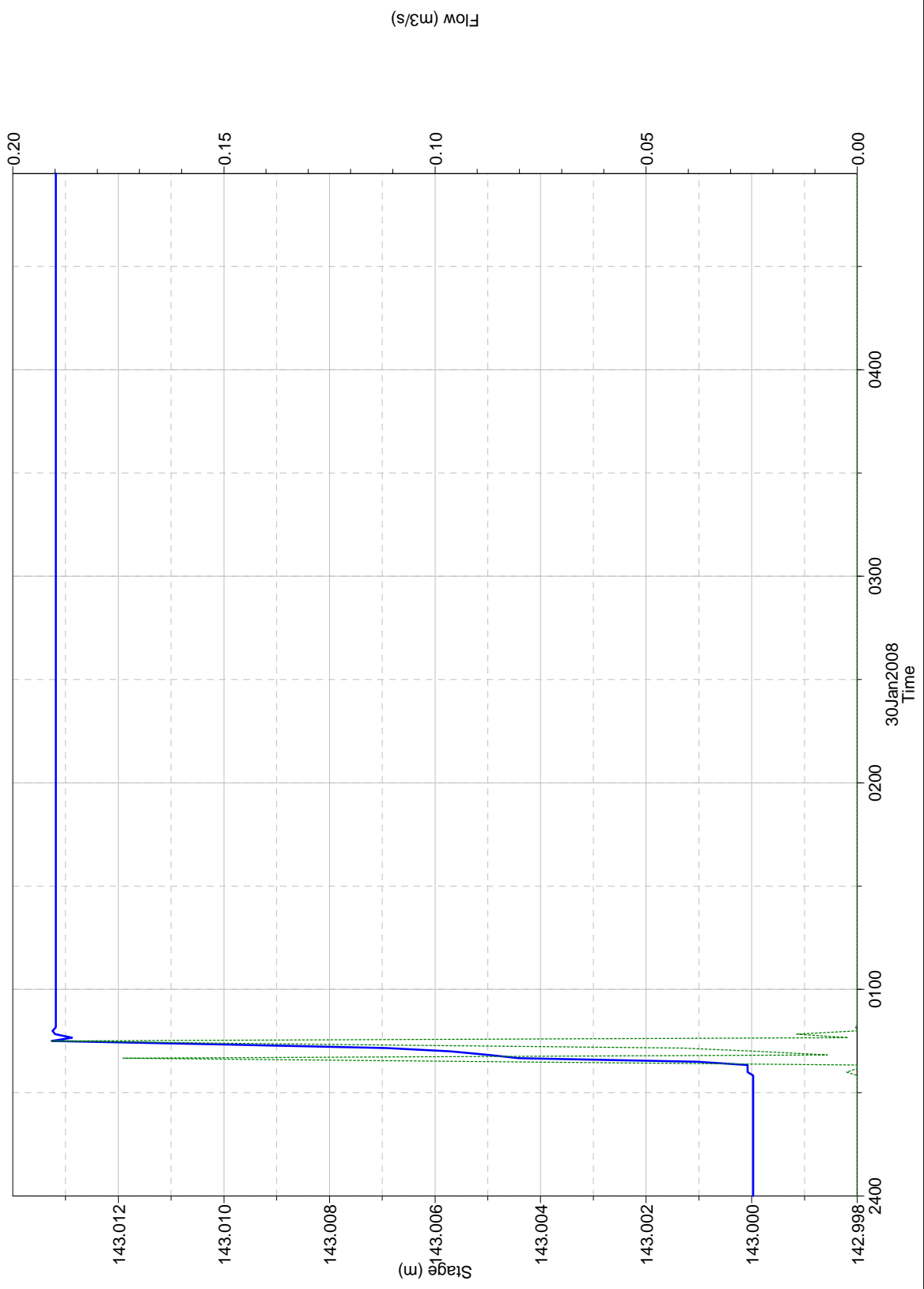
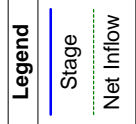
Plan: SA_100_cr Storage Area: Spedaluzzo_StSn

Legend

- Stage
- Net Inflow

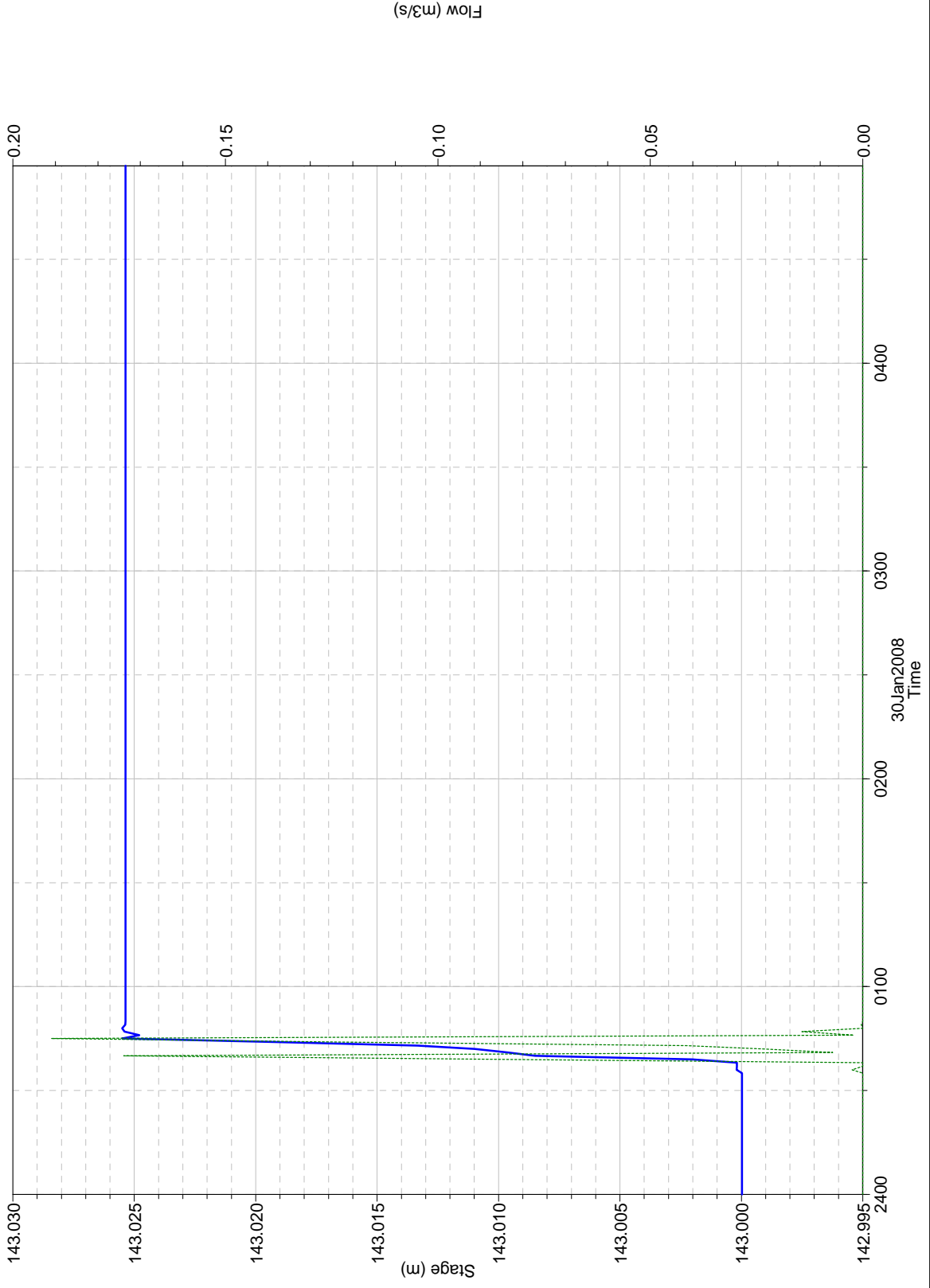


Plan: SA_200_cr Storage Area: 36_dx

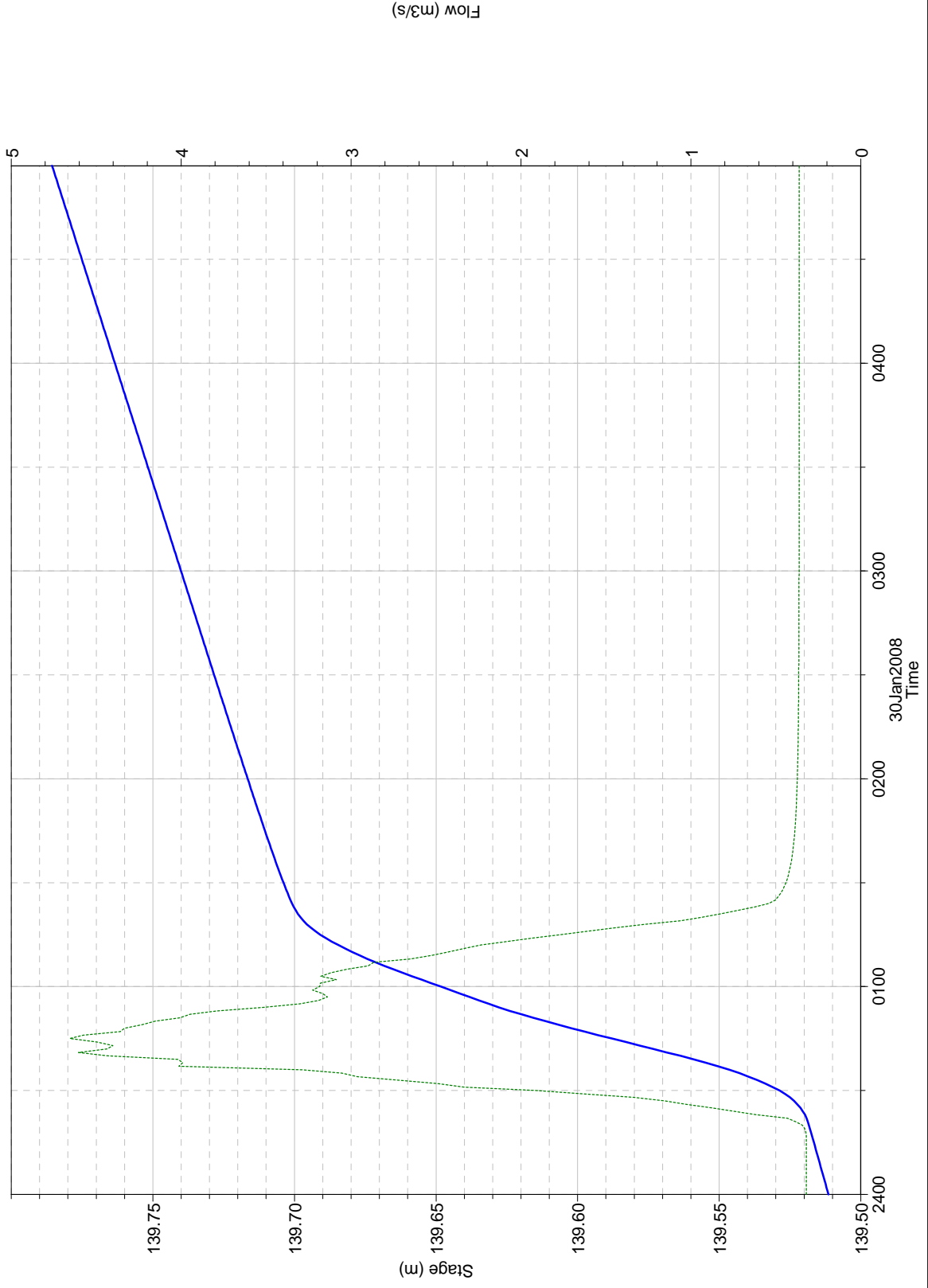
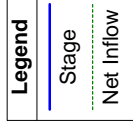


Plan: SA_200_cr Storage Area: 36_sx

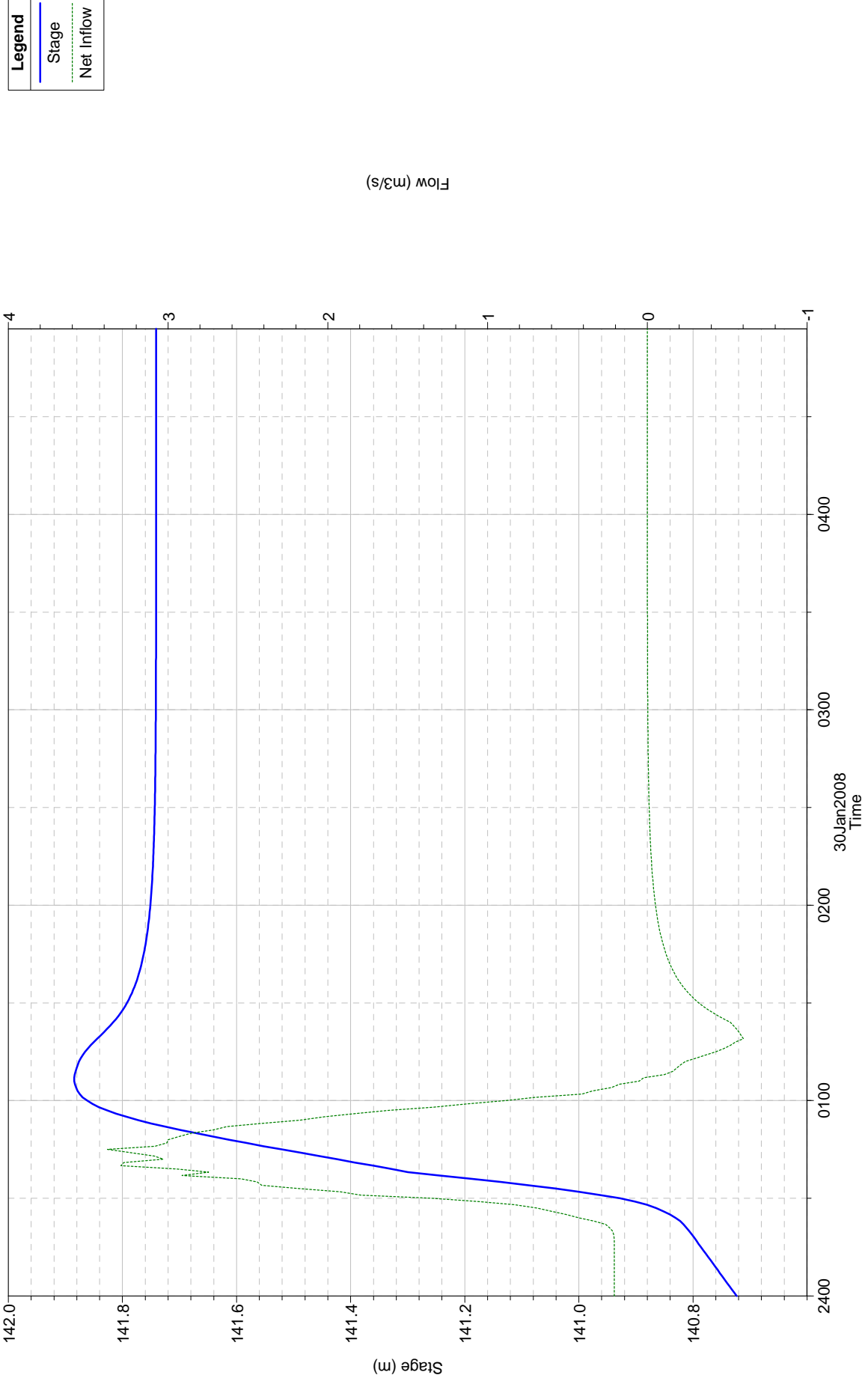
Legend	
—	Stage
---	Net Inflow



Plan: SA_200_cr Storage Area: SA_Sped_Dx1



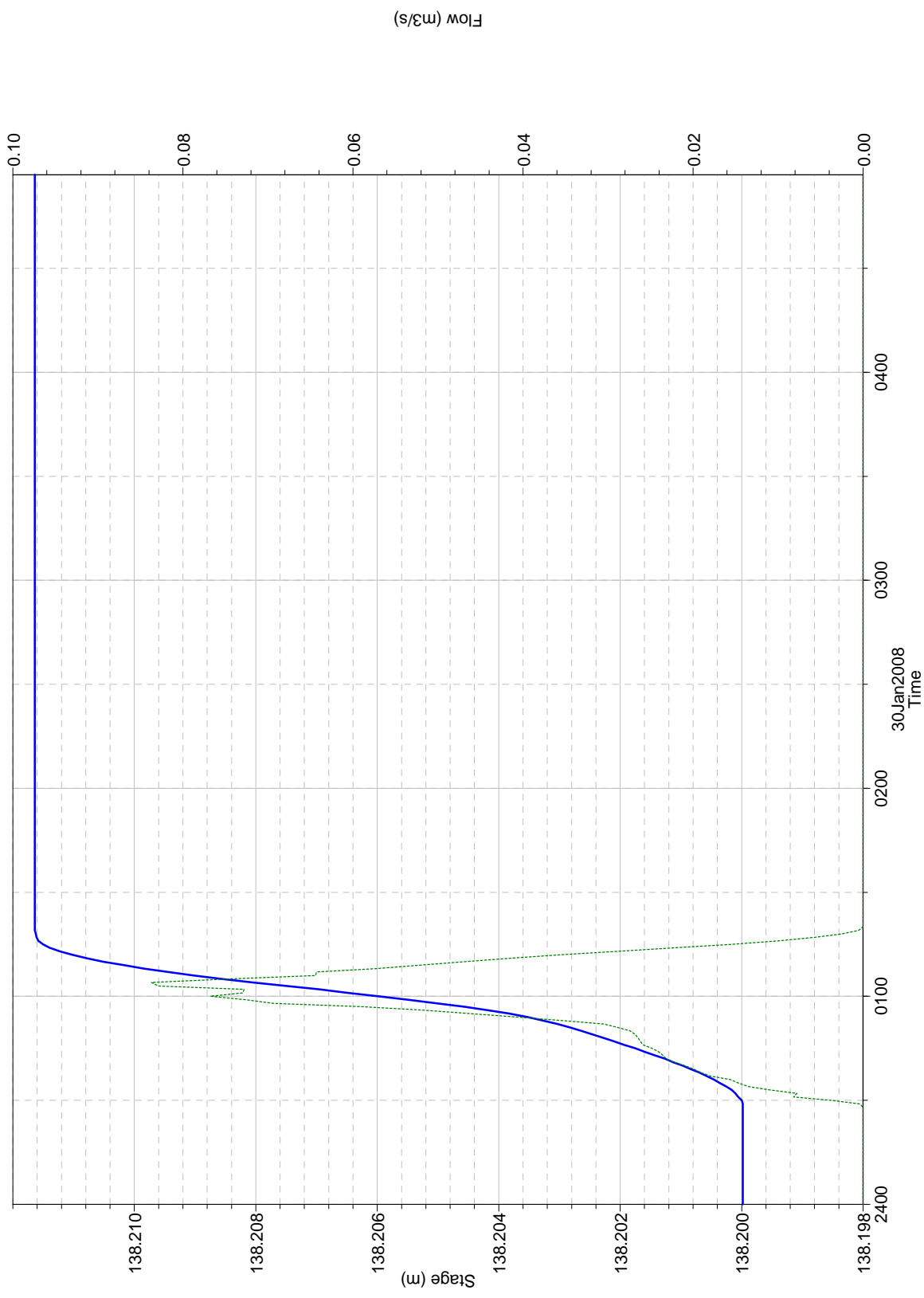
Plan: SA_200_cr Storage Area: SA_Sped_Sx1



Plan: SA_200_cr Storage Area: Spedaluzzo_StSn

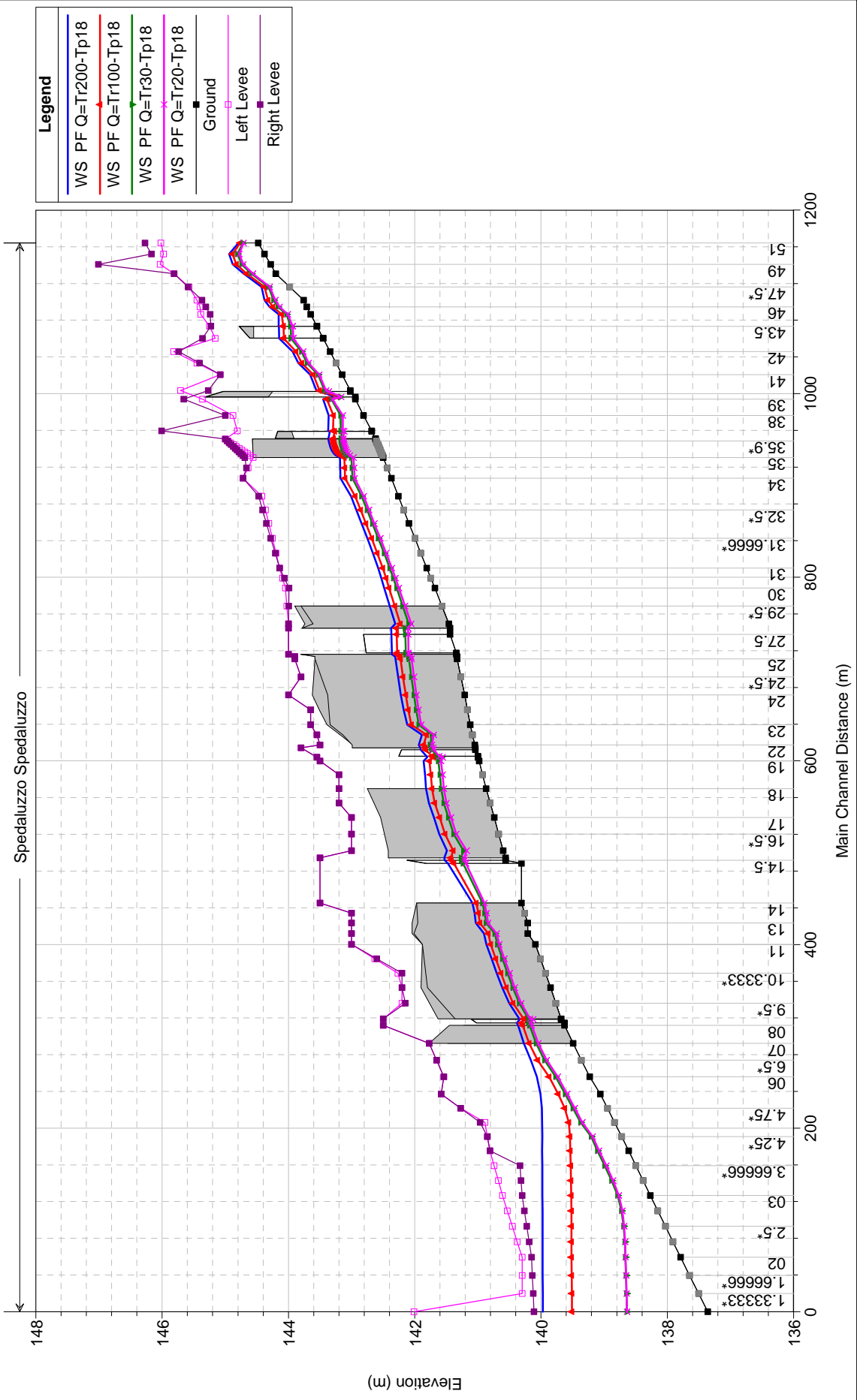
Legend

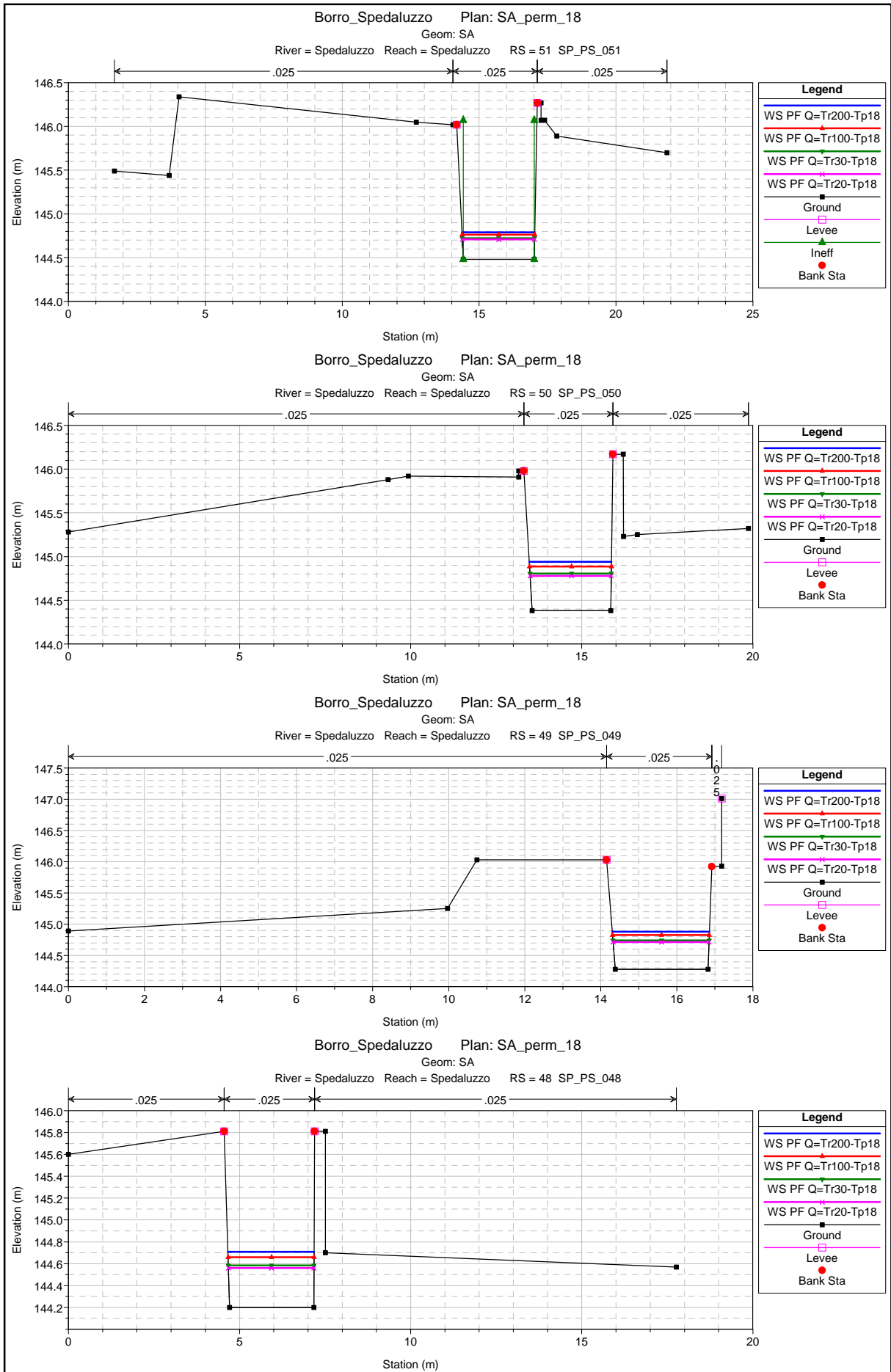
- Stage
- Net Inflow

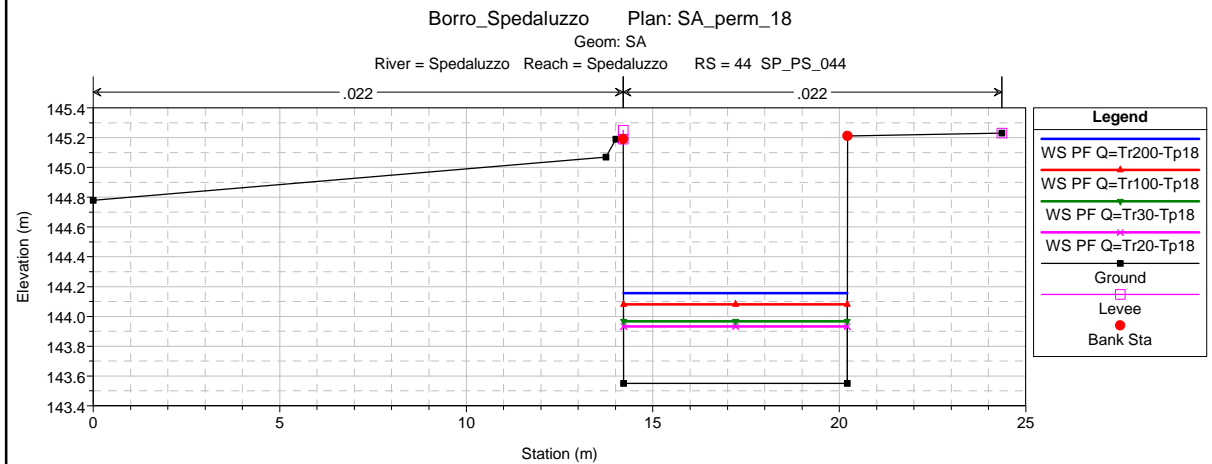
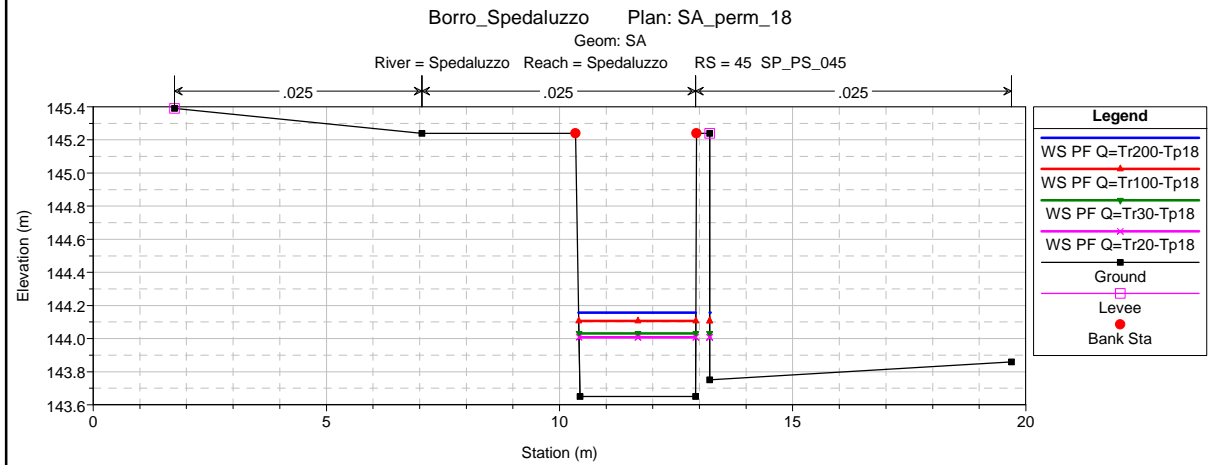
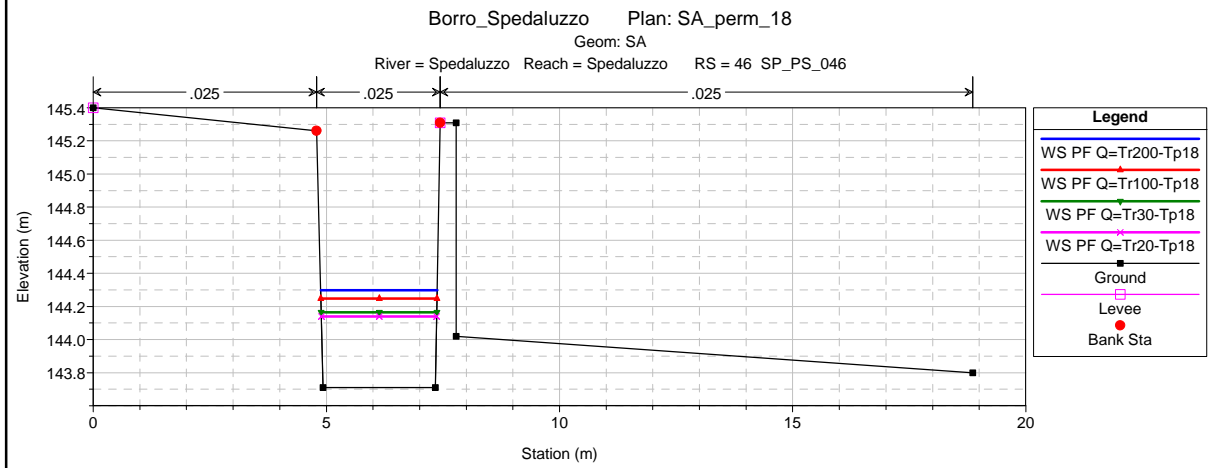
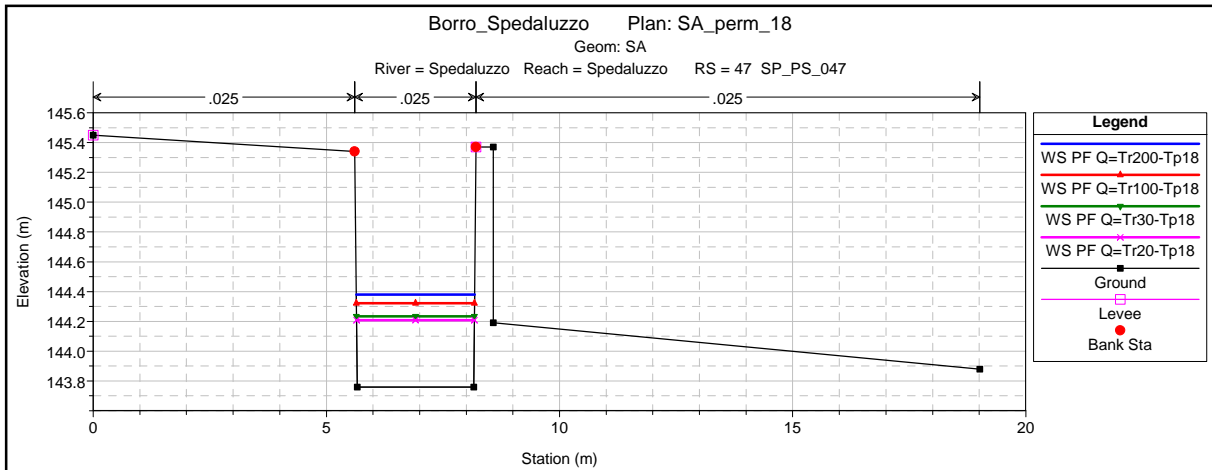


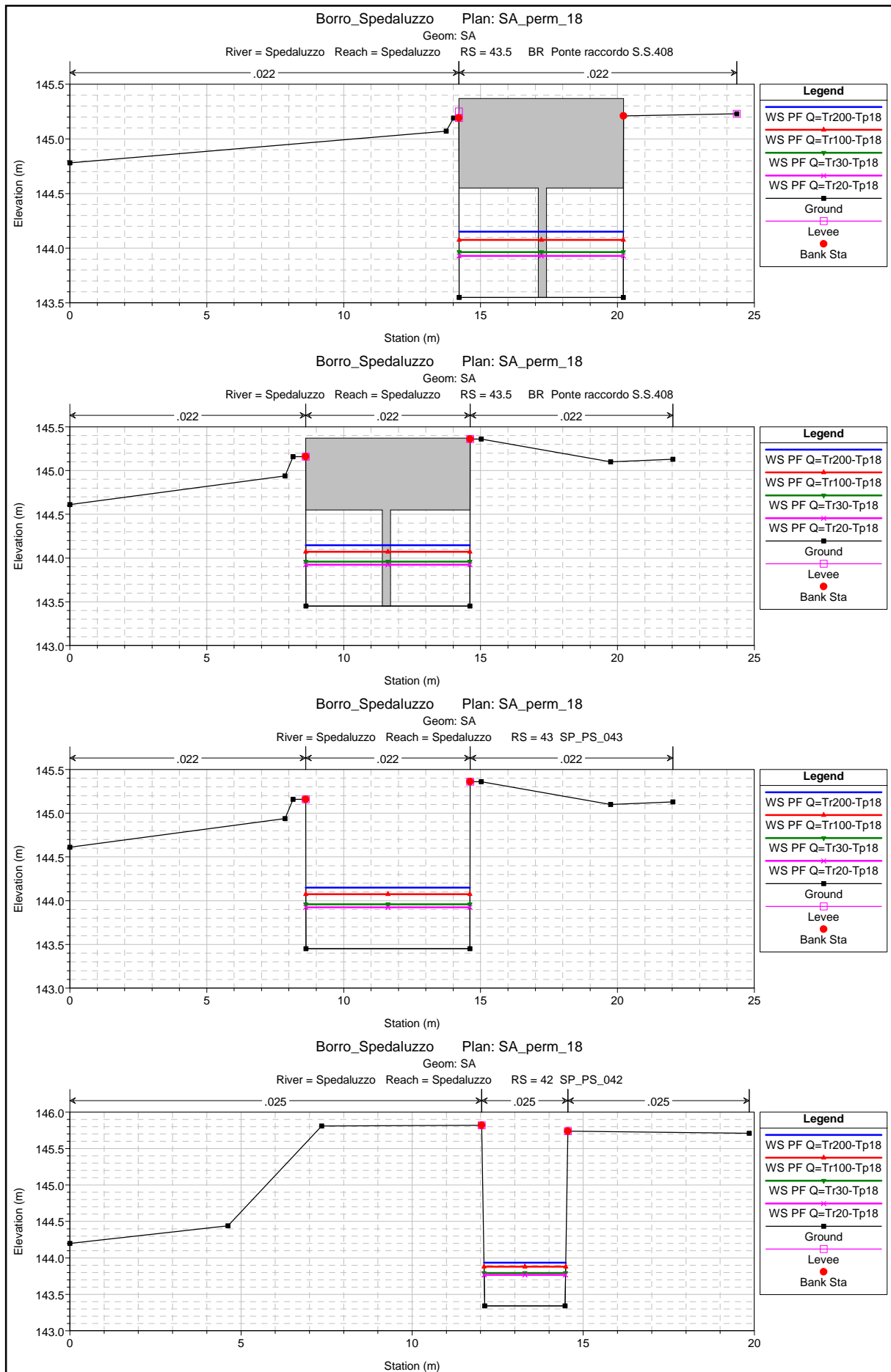
Borro_Spedaluzzo Plan: SA_perm_18

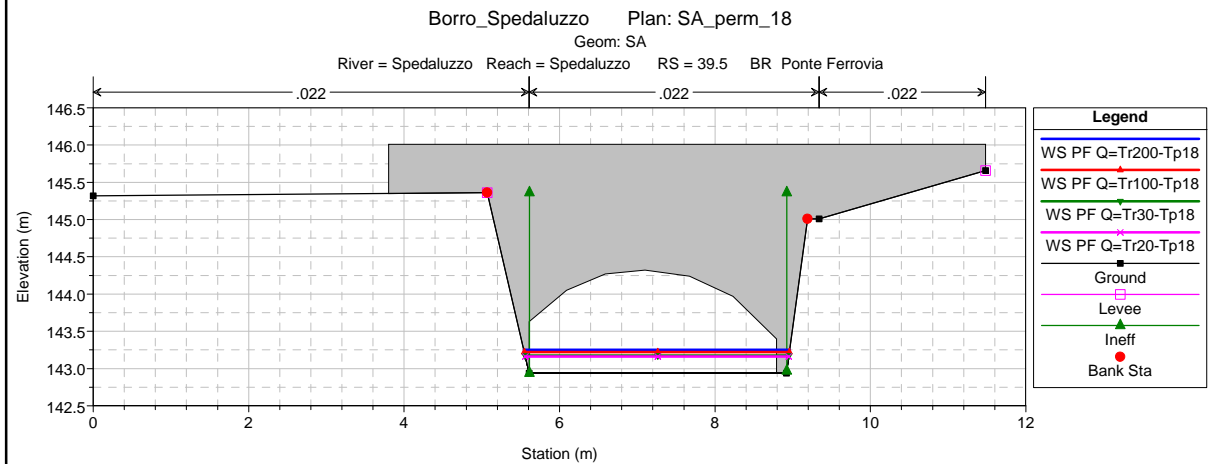
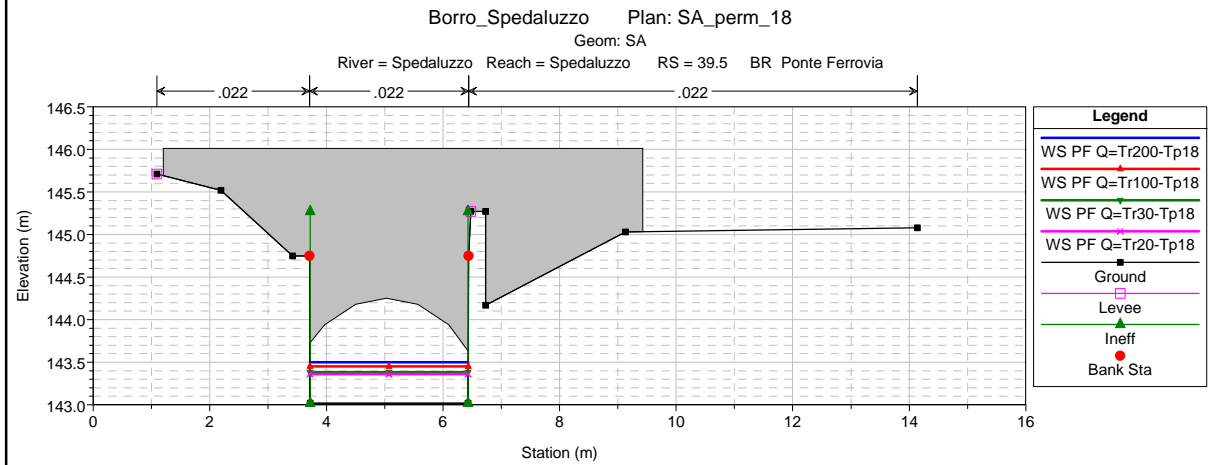
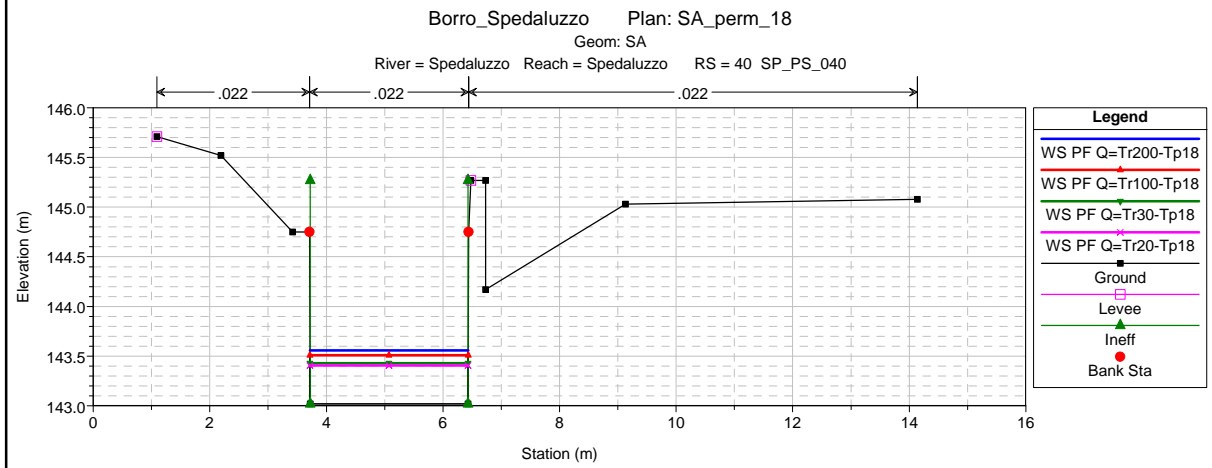
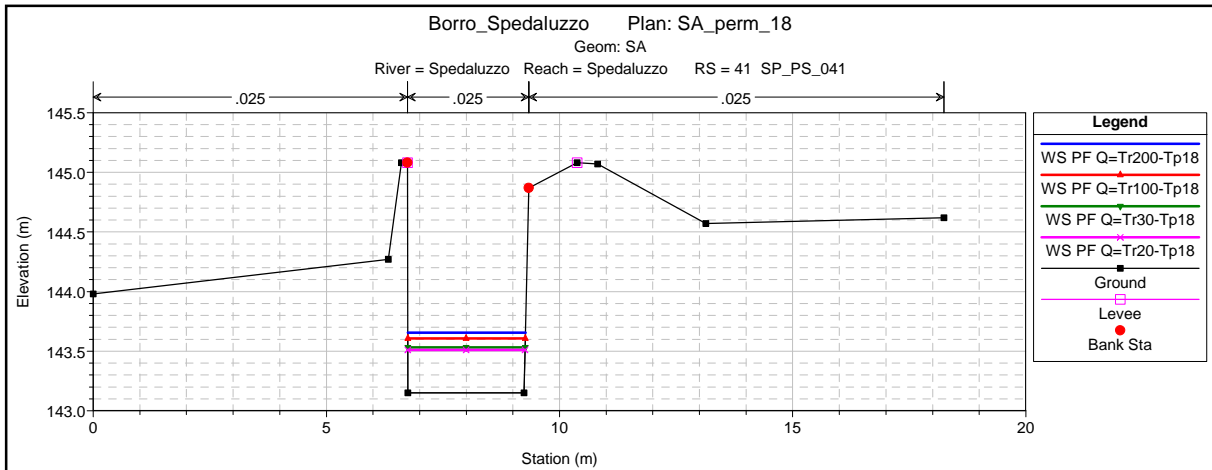
Geom: SA

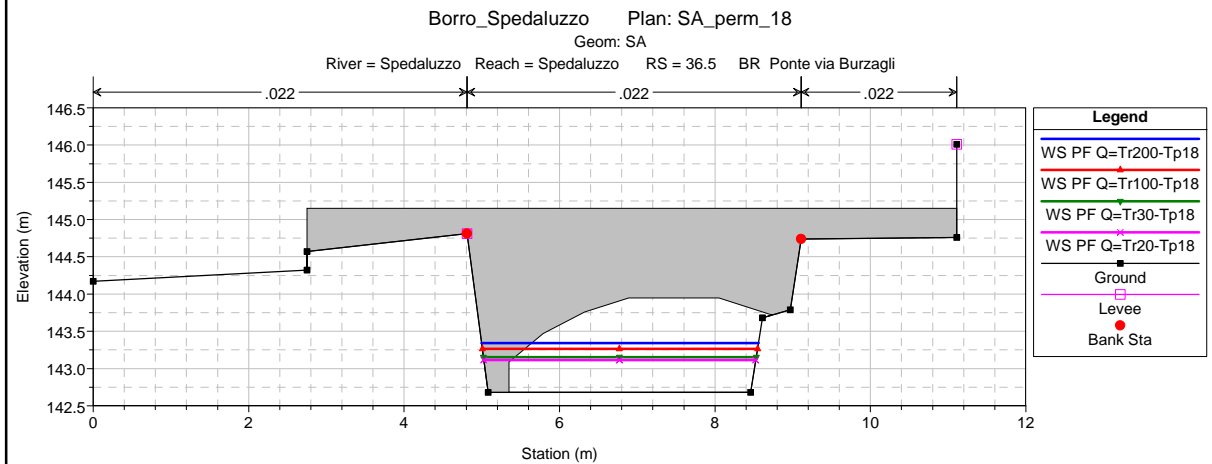
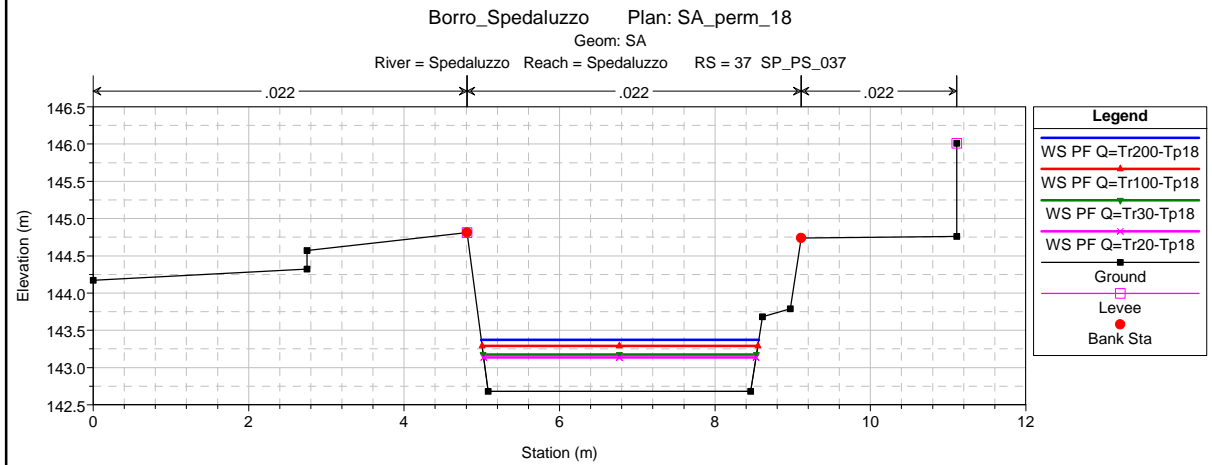
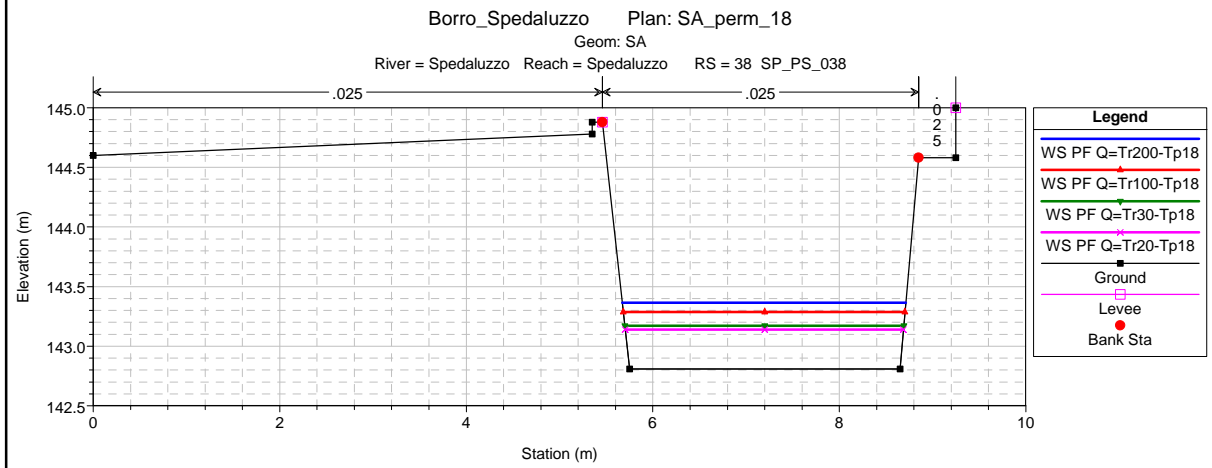
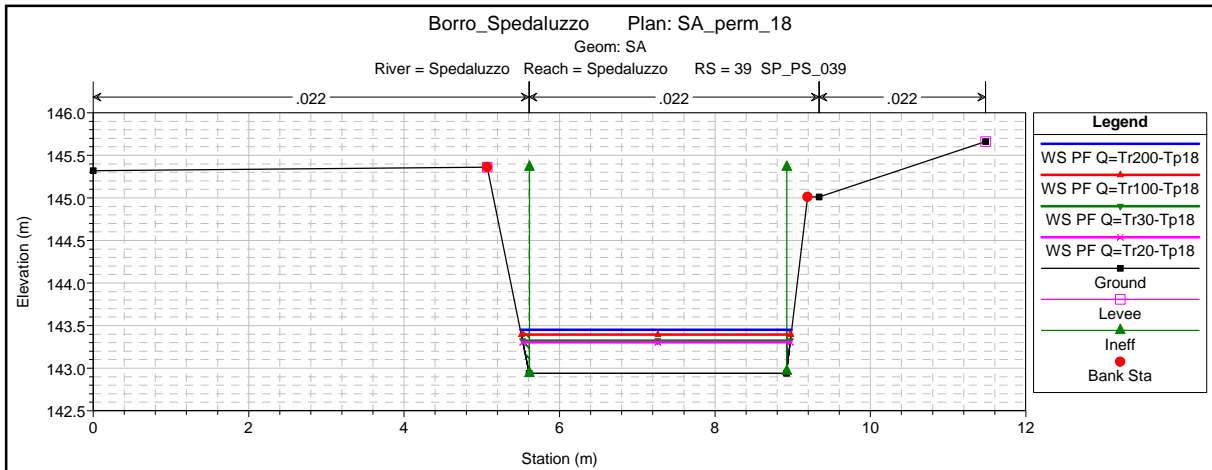


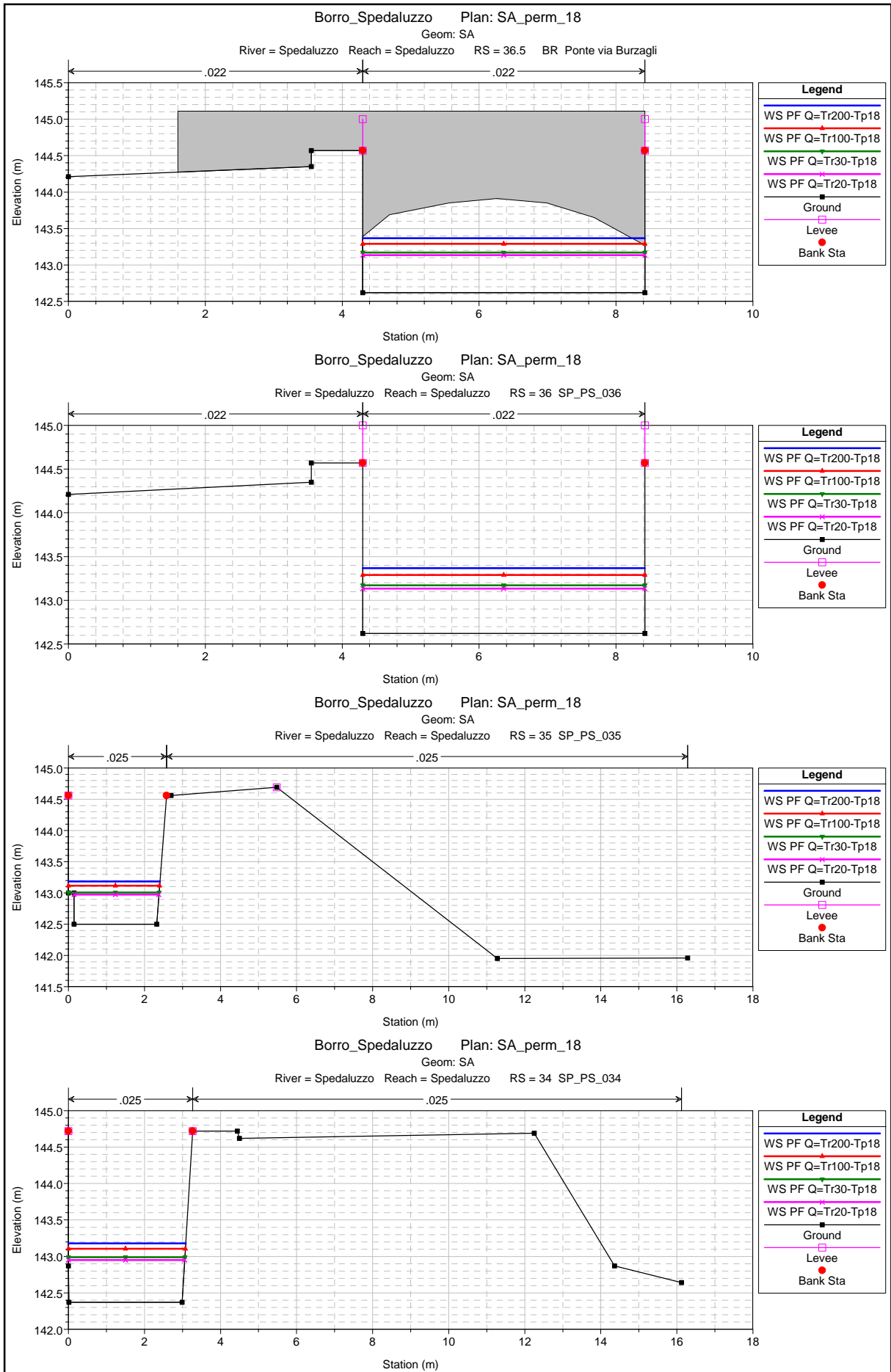


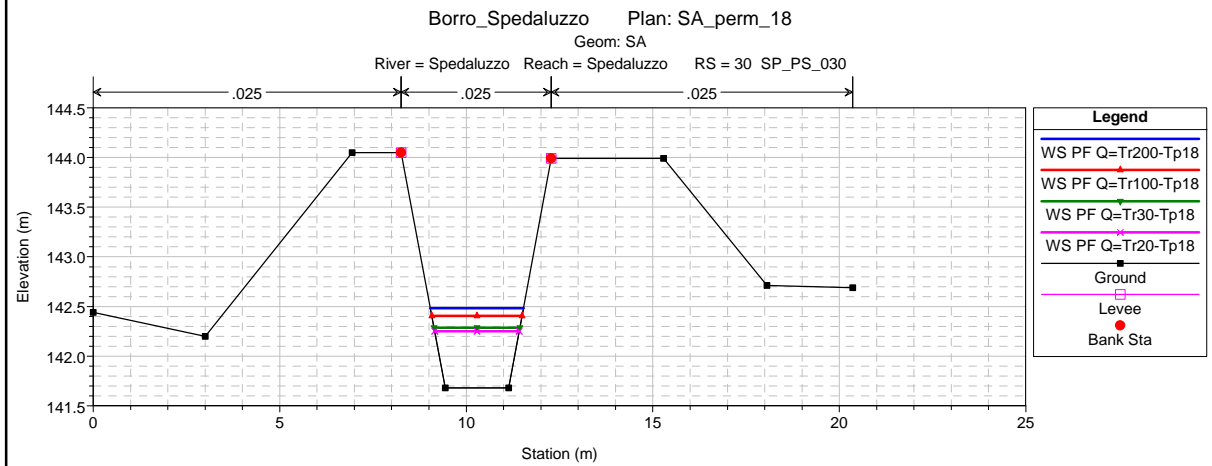
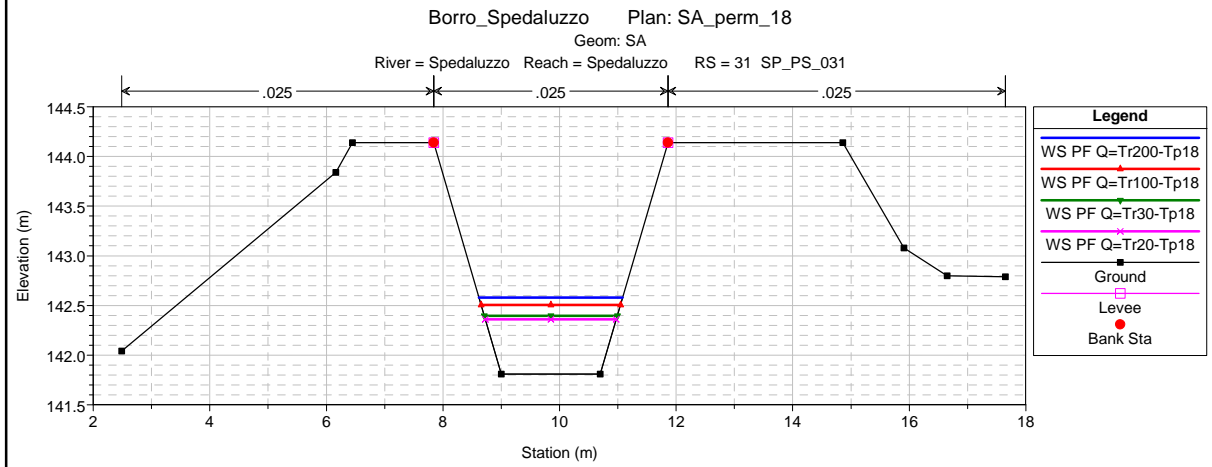
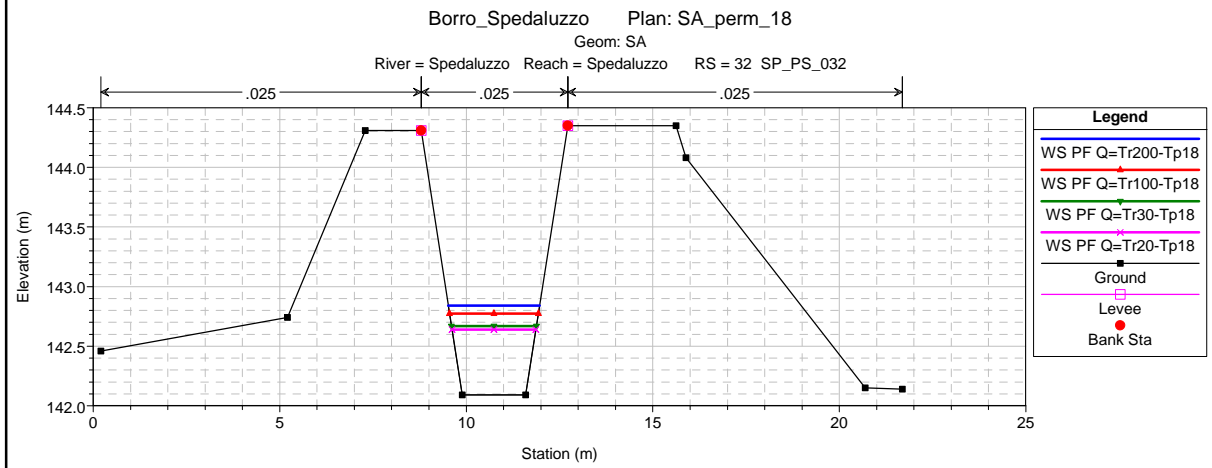
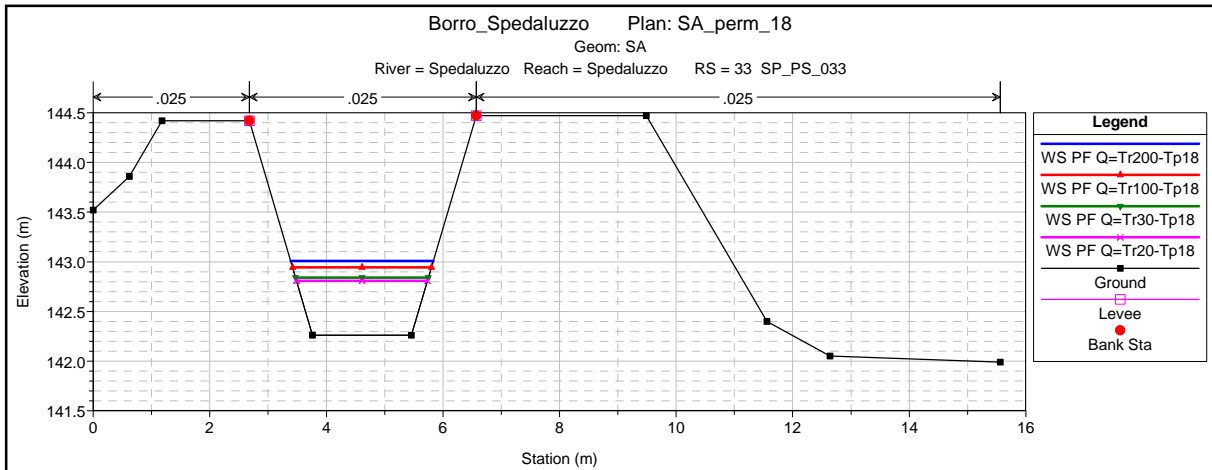


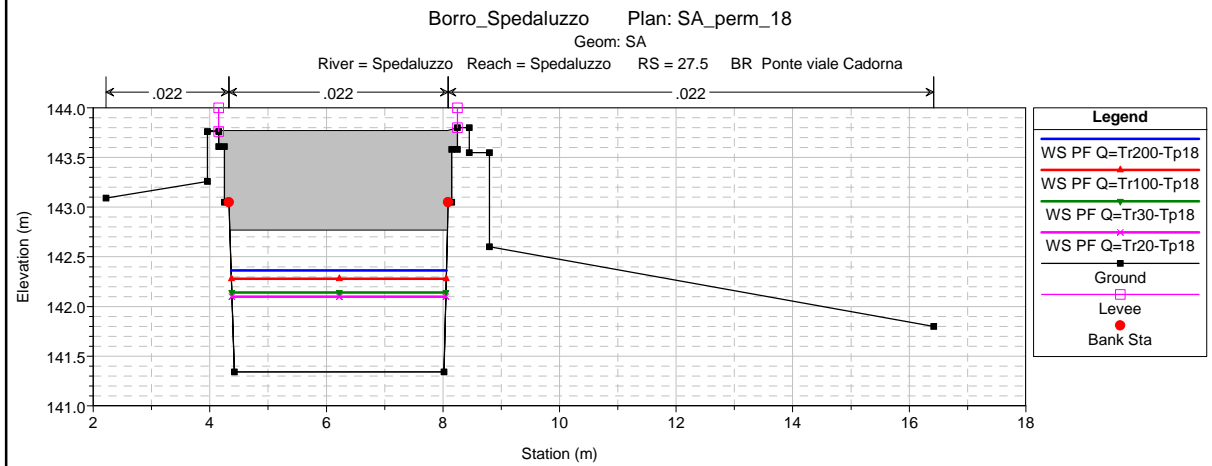
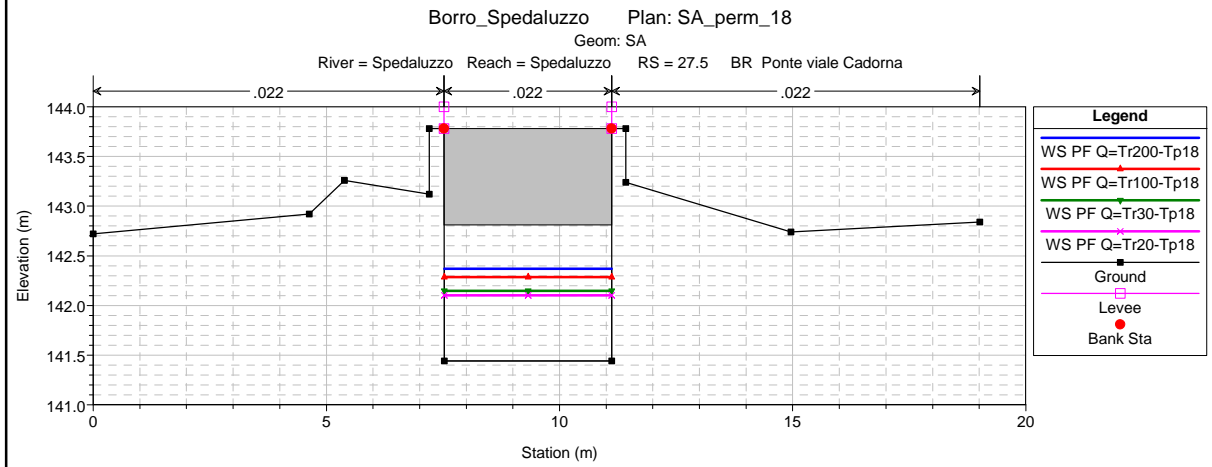
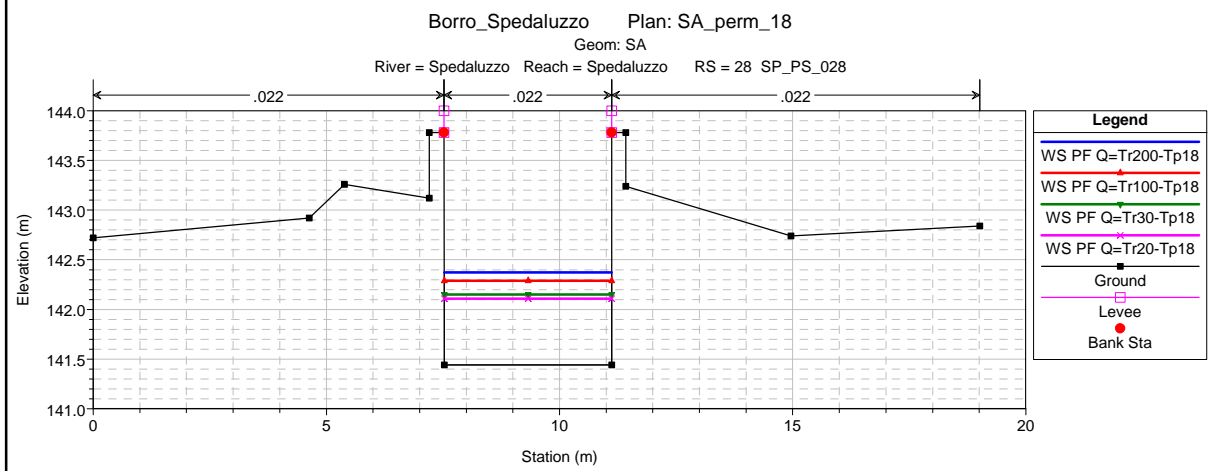
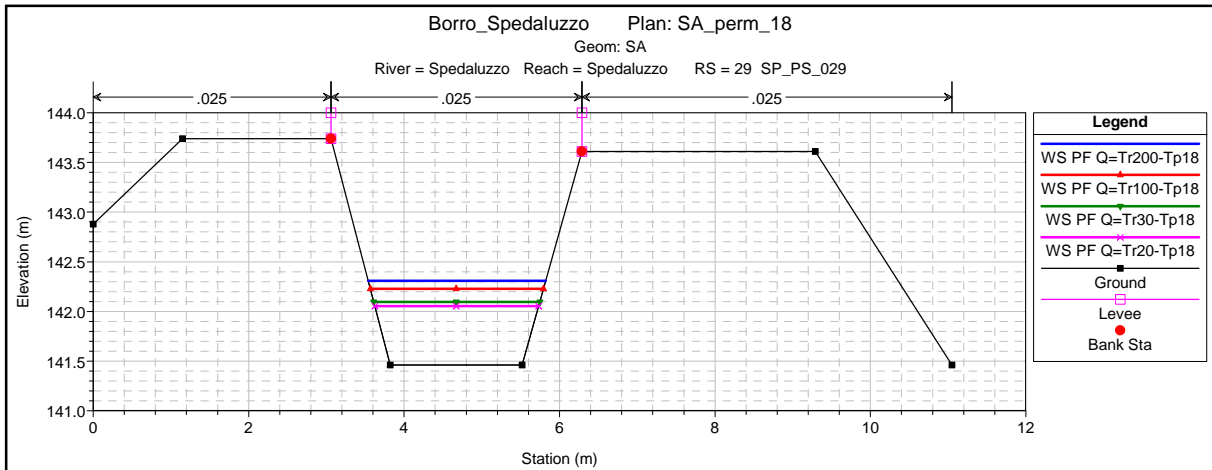


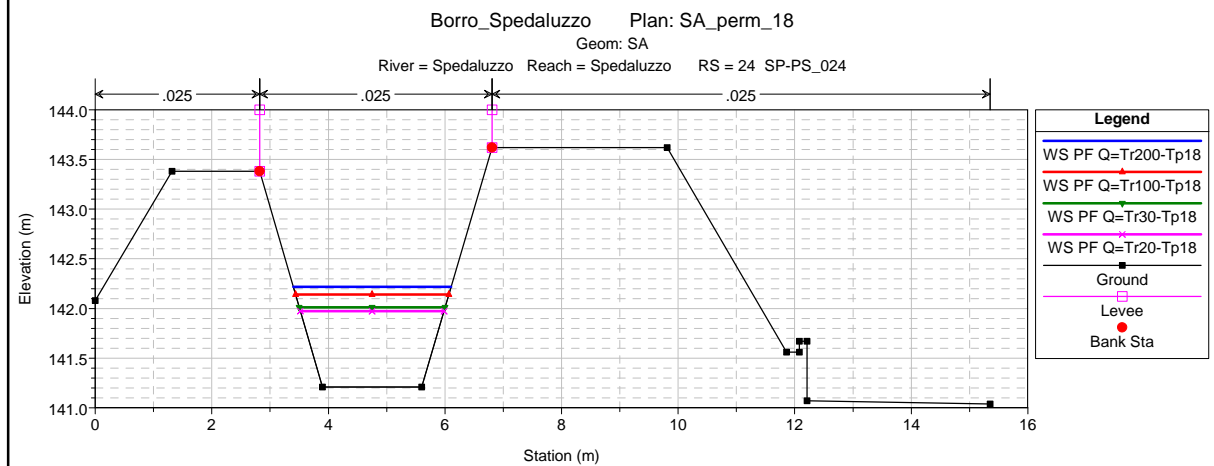
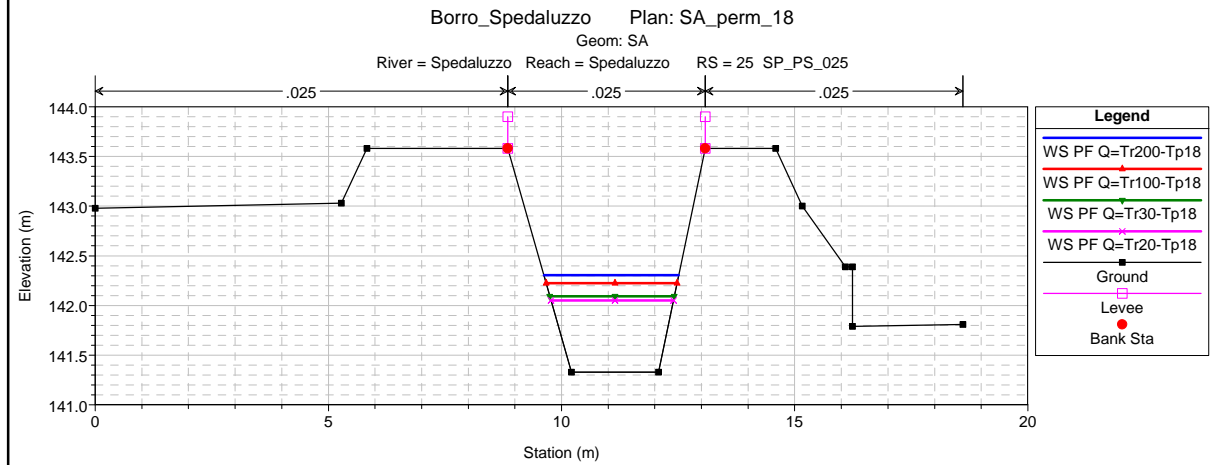
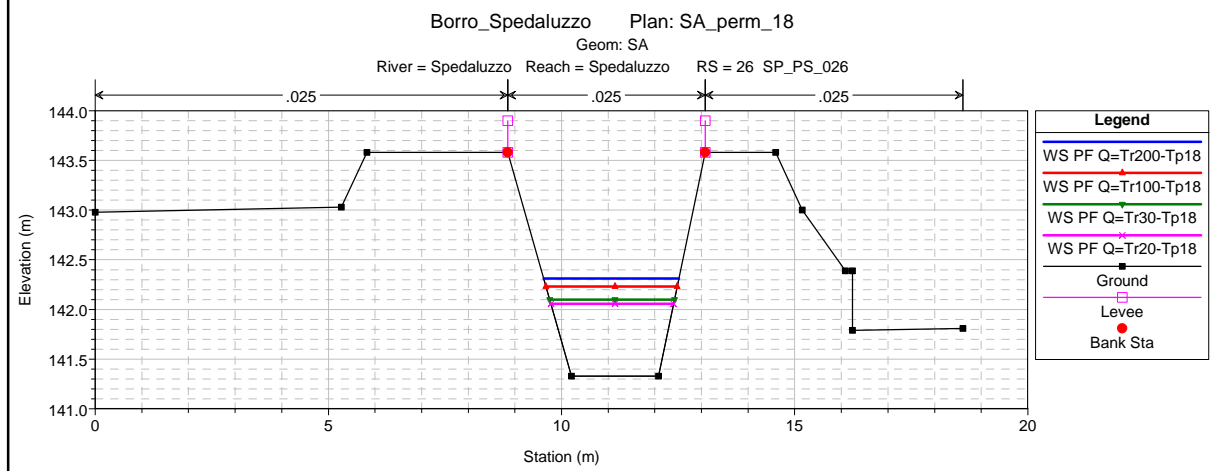
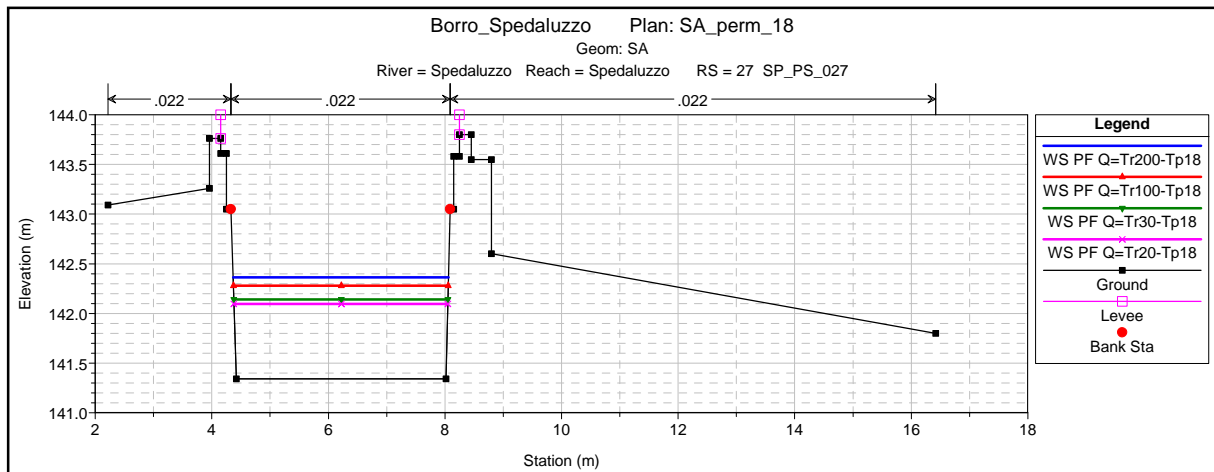


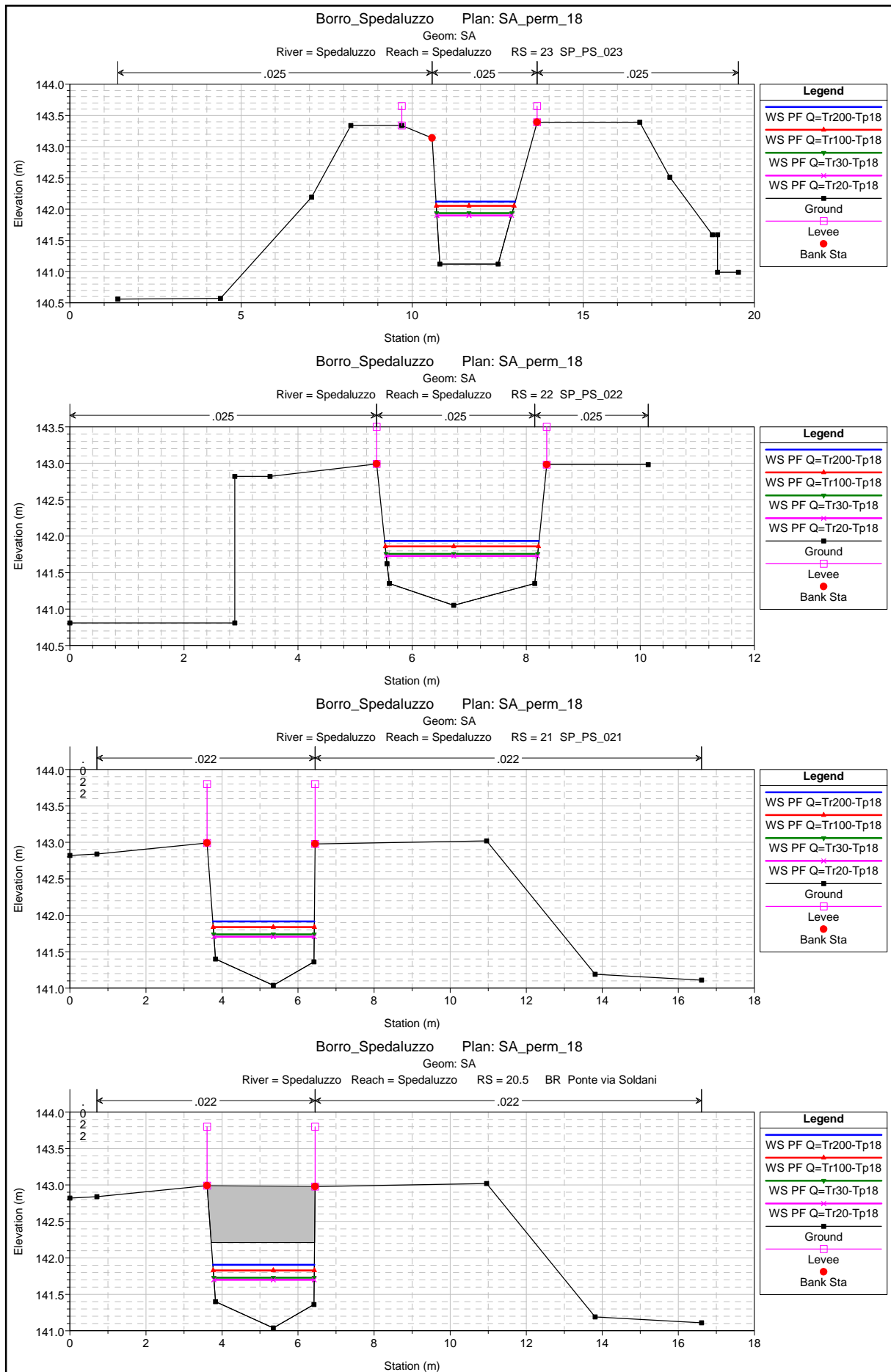


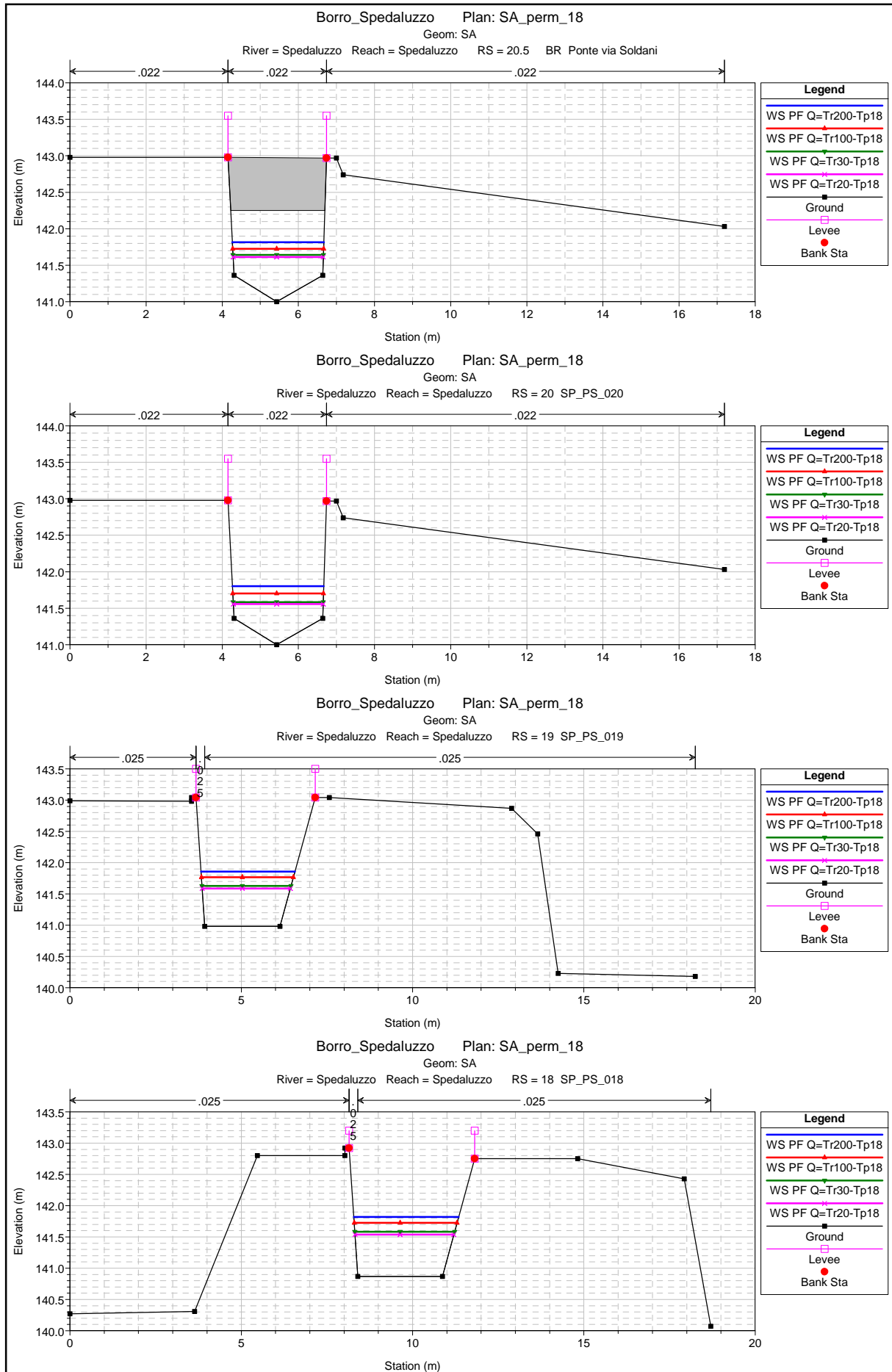


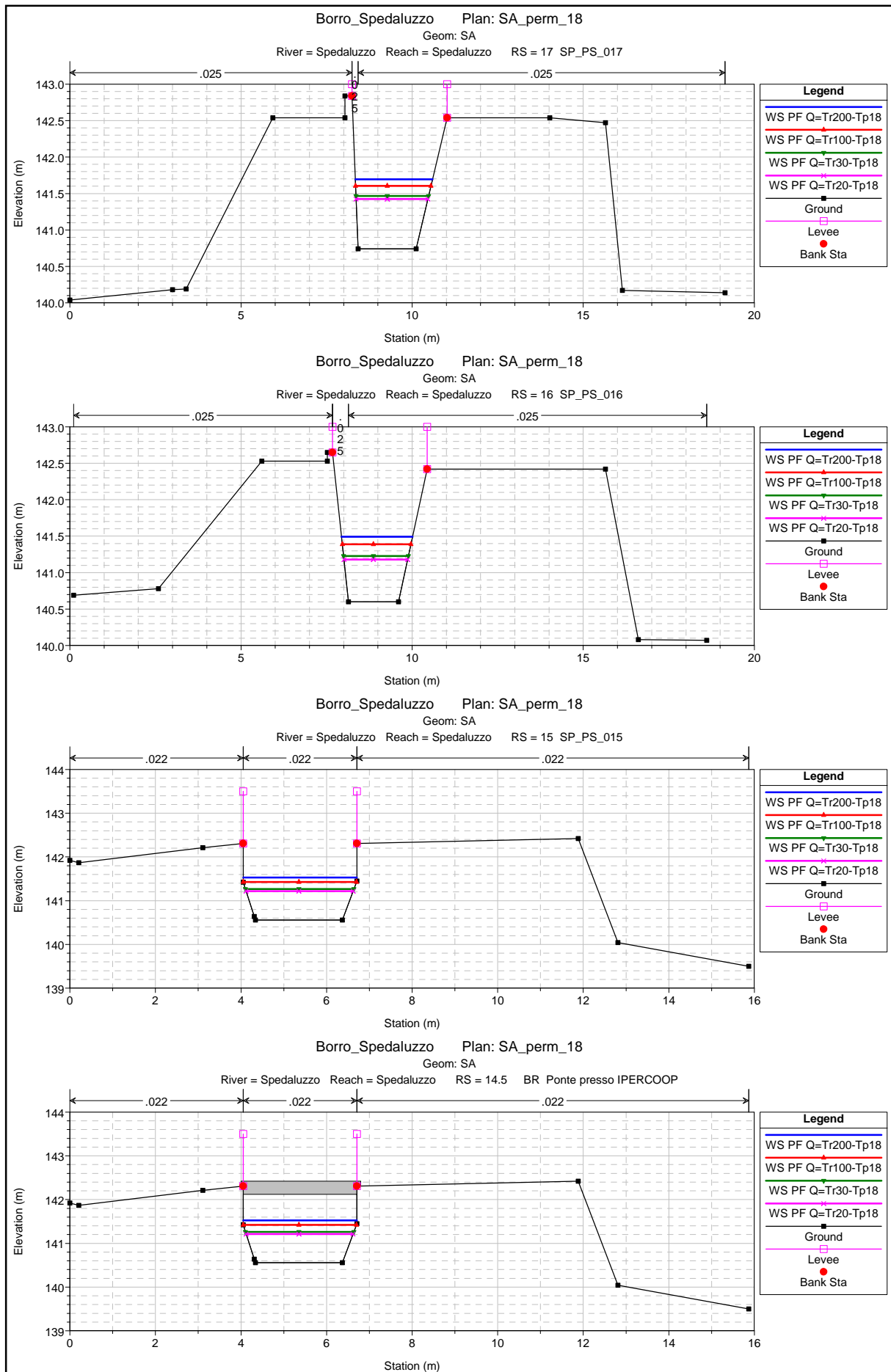


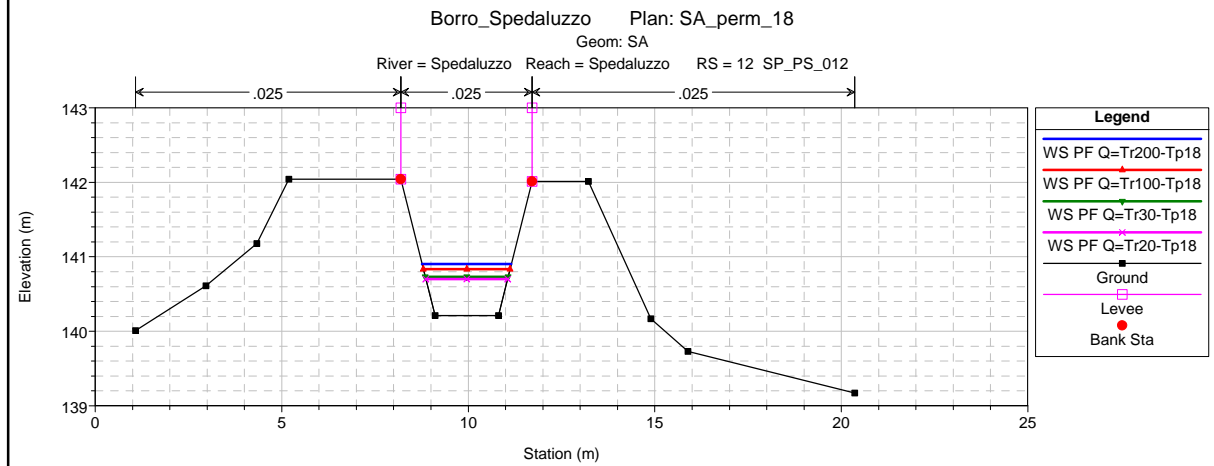
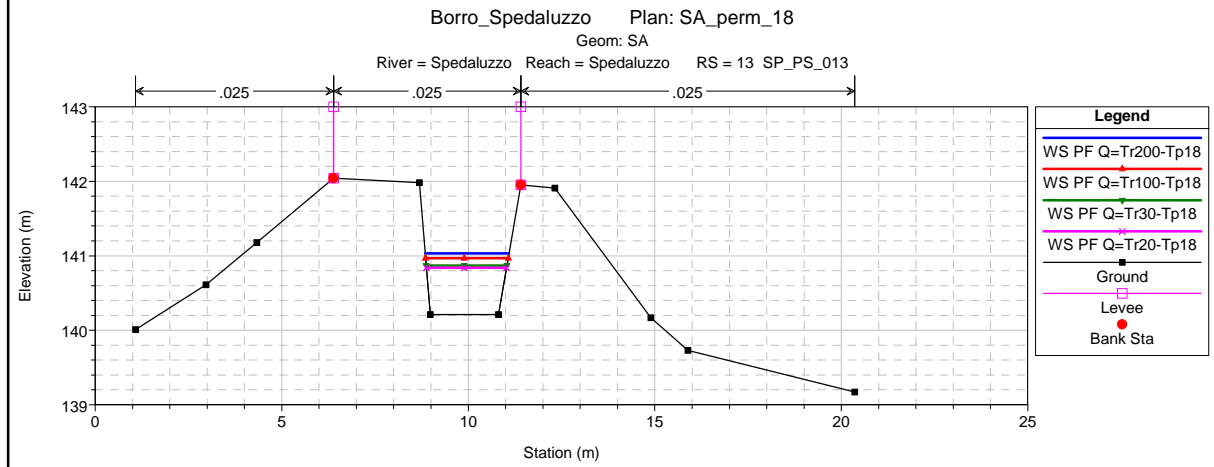
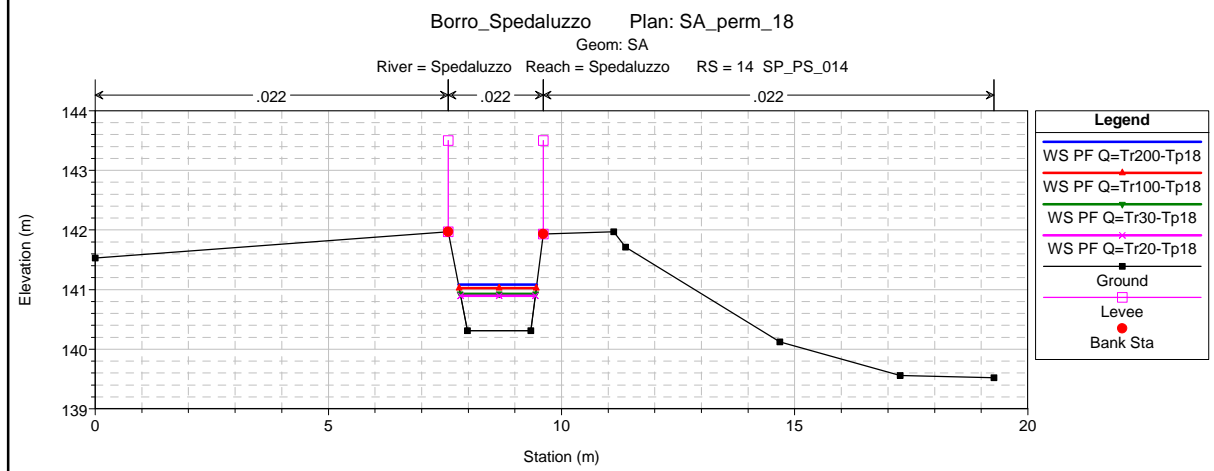
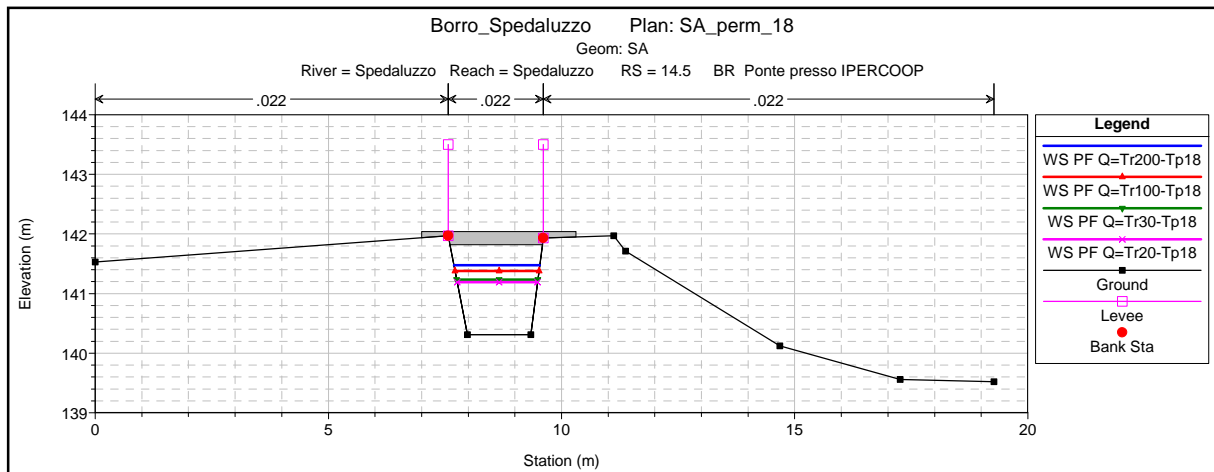


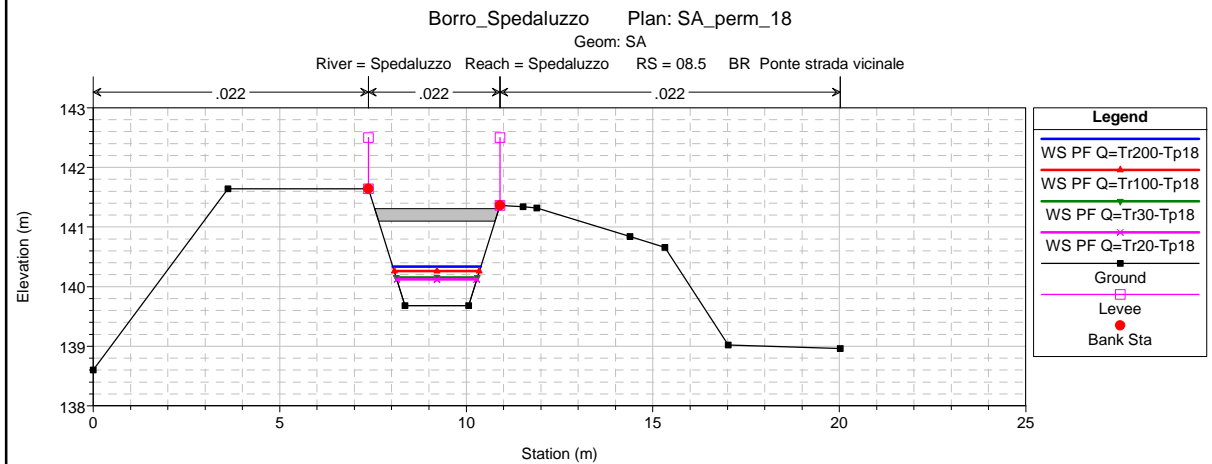
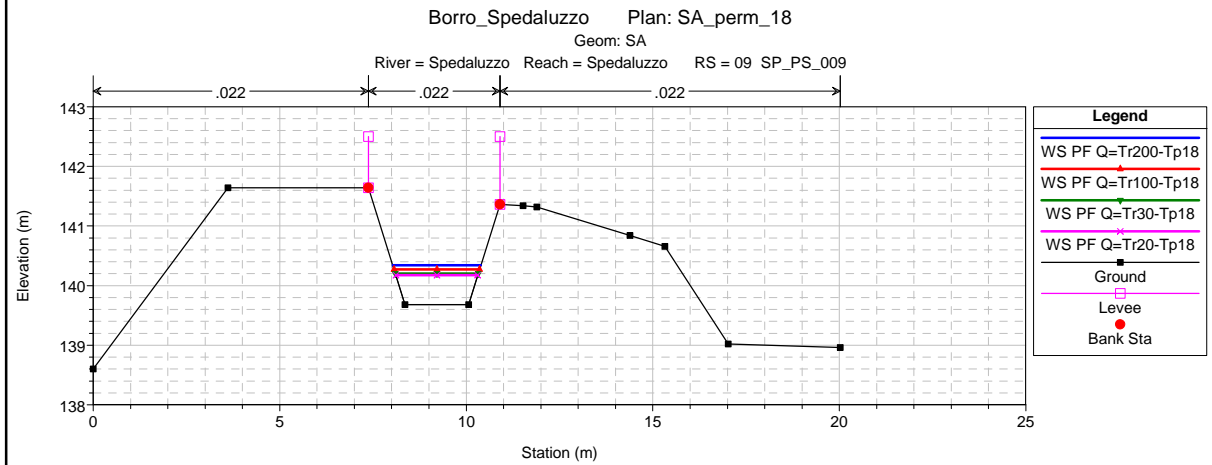
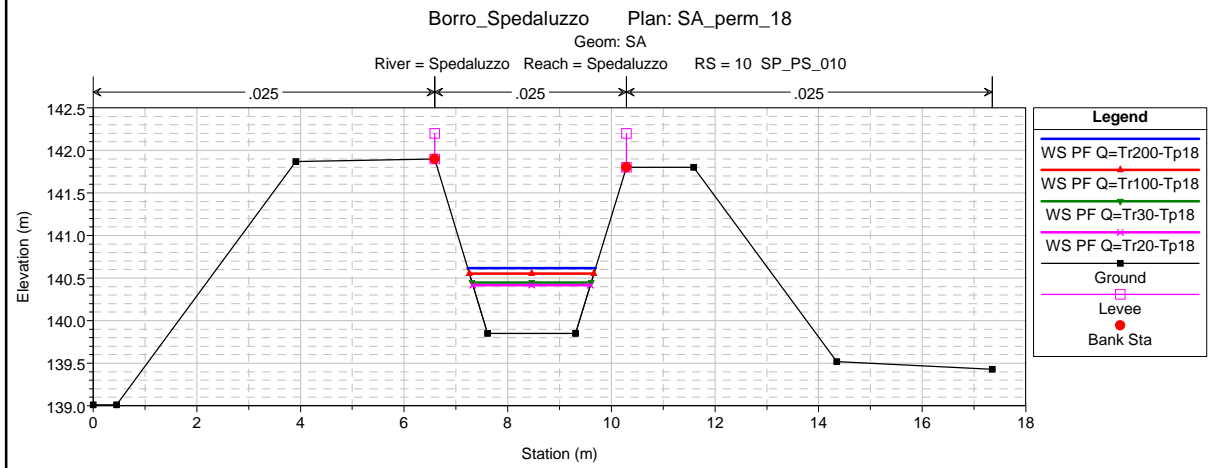
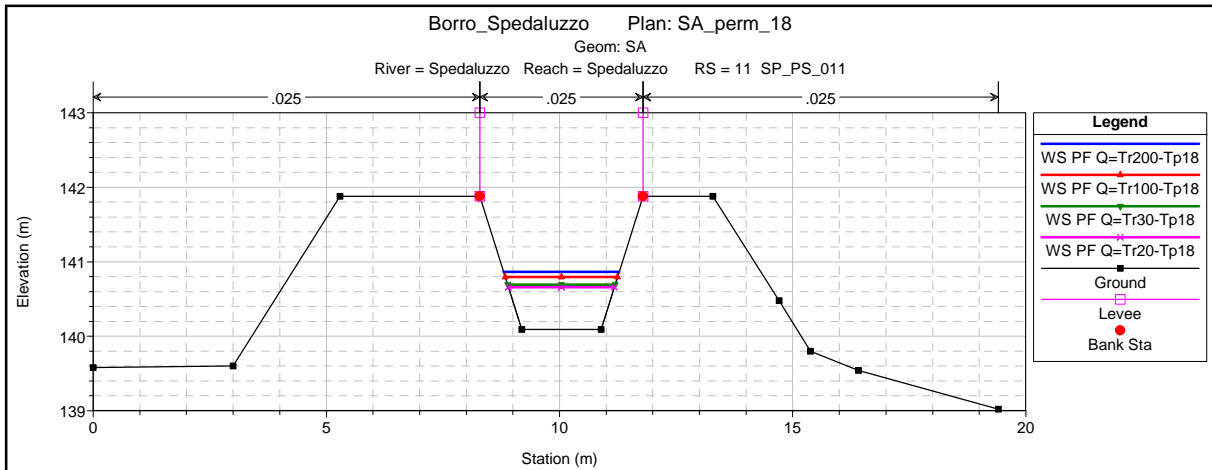


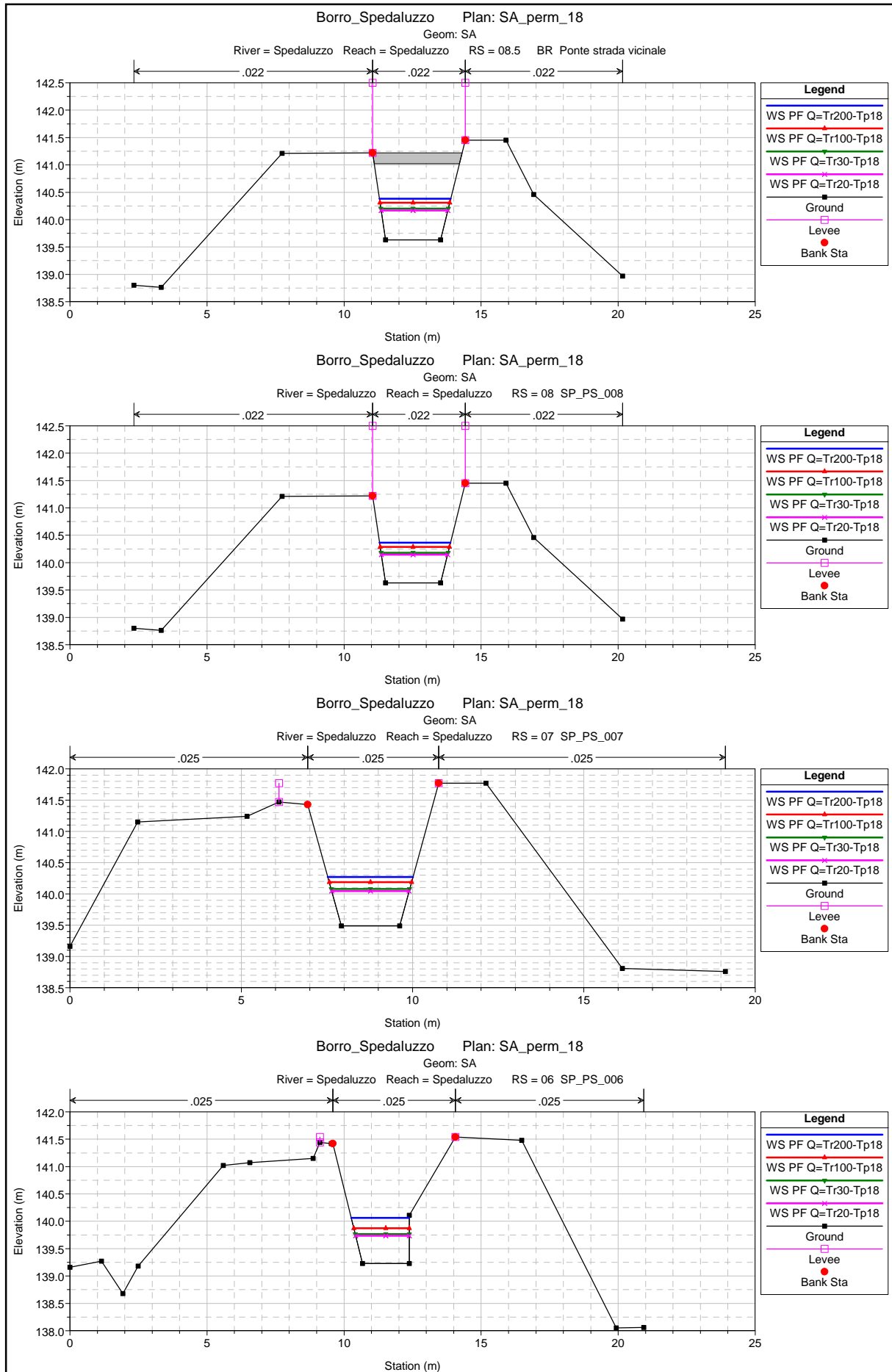


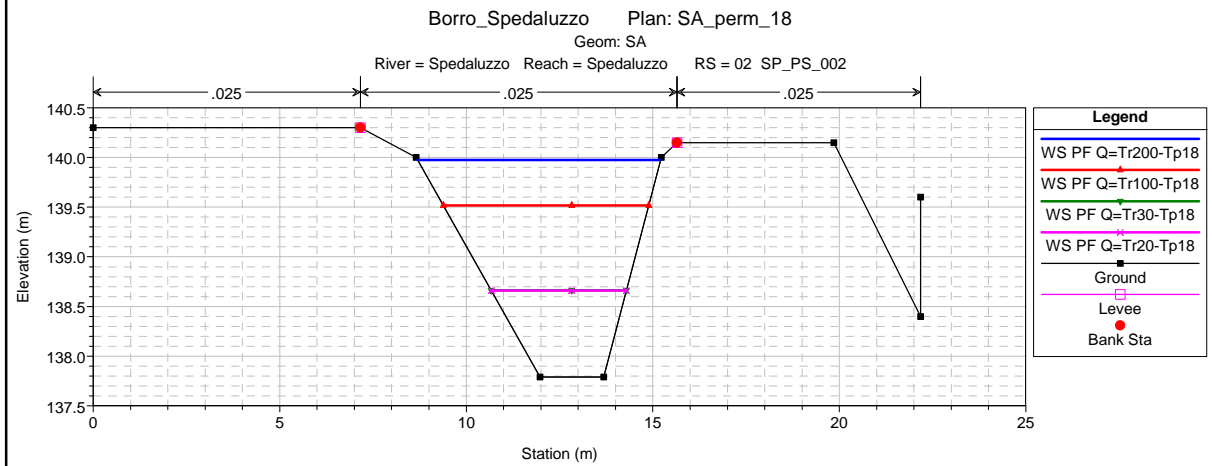
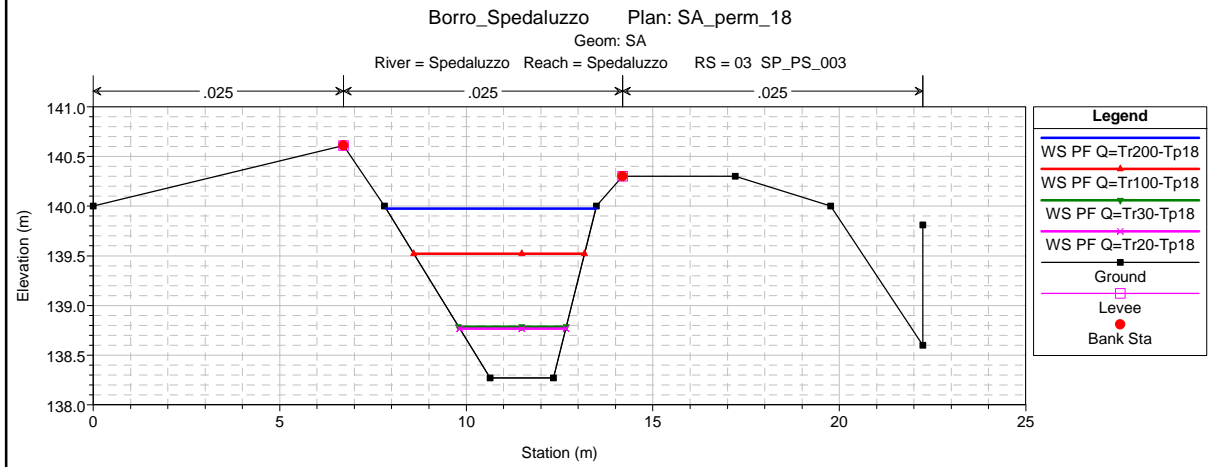
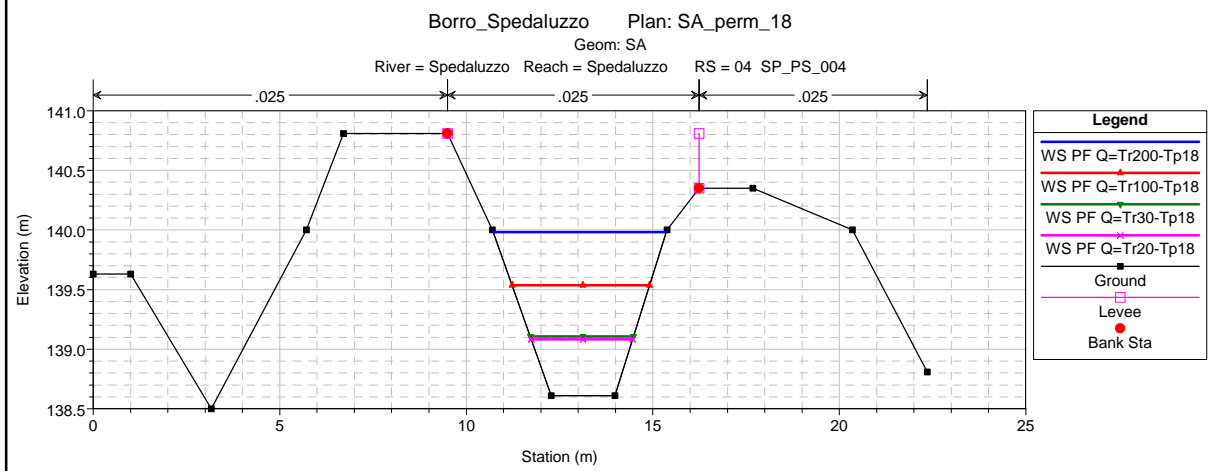
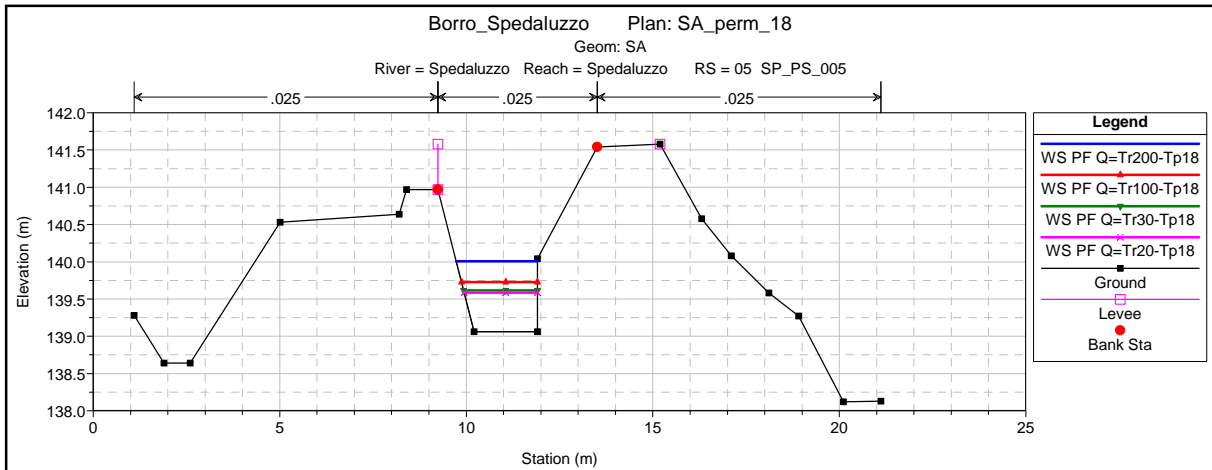








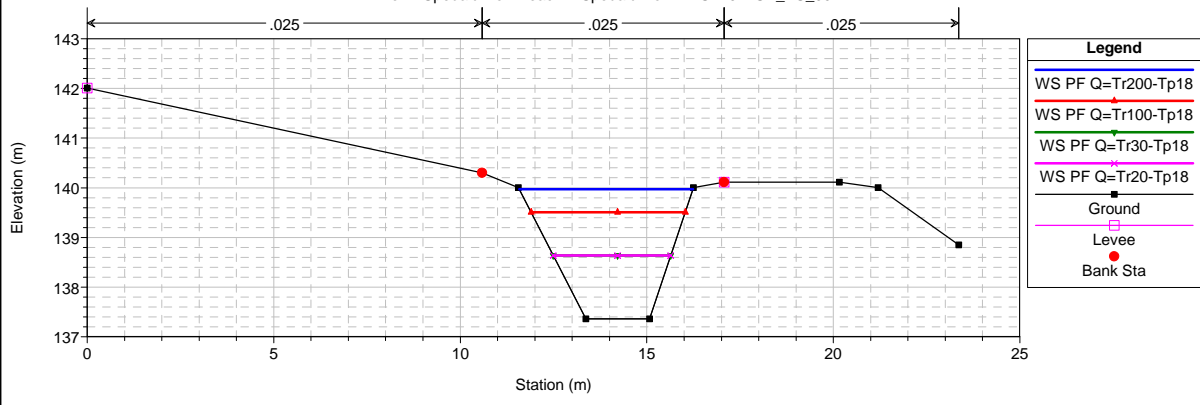




Borro_Spedaluzzo Plan: SA_perm_18

Geom: SA

River = Spedaluzzo Reach = Spedaluzzo RS = 01 SP_PS_001



HEC-RAS Plan: SA_perm_18 River: Spedaluzzo Reach: Spedaluzzo

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	51	PF Q=Tr200-Tp18	2.80	144.48	144.79	144.97	145.41	0.036016	3.48	0.80	2.66	1.99
Spedaluzzo	51	PF Q=Tr100-Tp18	2.41	144.48	144.76	144.93	145.31	0.036014	3.28	0.74	2.65	1.96
Spedaluzzo	51	PF Q=Tr30-Tp18	1.85	144.48	144.72	144.85	145.17	0.036014	2.95	0.63	2.64	1.91
Spedaluzzo	51	PF Q=Tr20-Tp18	1.69	144.48	144.71	144.83	145.12	0.036012	2.84	0.59	2.64	1.90
Spedaluzzo	50	PF Q=Tr200-Tp18	2.80	144.38	144.94	144.91	145.17	0.010148	2.13	1.32	2.40	0.92
Spedaluzzo	50	PF Q=Tr100-Tp18	2.41	144.38	144.89	144.86	145.10	0.010132	2.03	1.19	2.39	0.92
Spedaluzzo	50	PF Q=Tr30-Tp18	1.85	144.38	144.80	144.78	144.98	0.010157	1.86	0.99	2.38	0.92
Spedaluzzo	50	PF Q=Tr20-Tp18	1.69	144.38	144.78	144.76	144.95	0.010174	1.81	0.93	2.37	0.92
Spedaluzzo	49	PF Q=Tr200-Tp18	2.80	144.28	144.88	144.79	145.06	0.007097	1.86	1.50	2.56	0.78
Spedaluzzo	49	PF Q=Tr100-Tp18	2.41	144.28	144.83	144.74	144.99	0.006992	1.77	1.36	2.55	0.77
Spedaluzzo	49	PF Q=Tr30-Tp18	1.85	144.28	144.74	144.67	144.87	0.006851	1.61	1.15	2.53	0.77
Spedaluzzo	49	PF Q=Tr20-Tp18	1.69	144.28	144.72	144.64	144.84	0.006808	1.56	1.08	2.52	0.76
Spedaluzzo	48	PF Q=Tr200-Tp18	2.80	144.20	144.71	144.71	144.96	0.011825	2.22	1.26	2.52	1.00
Spedaluzzo	48	PF Q=Tr100-Tp18	2.41	144.20	144.66	144.66	144.89	0.011766	2.11	1.14	2.51	1.00
Spedaluzzo	48	PF Q=Tr30-Tp18	1.85	144.20	144.58	144.58	144.78	0.011978	1.94	0.95	2.50	1.00
Spedaluzzo	48	PF Q=Tr20-Tp18	1.69	144.20	144.56	144.56	144.74	0.012040	1.89	0.90	2.50	1.00
Spedaluzzo	47	PF Q=Tr200-Tp18	2.80	143.76	144.38	144.26	144.54	0.006457	1.79	1.56	2.54	0.73
Spedaluzzo	47	PF Q=Tr100-Tp18	2.41	143.76	144.32	144.22	144.47	0.006354	1.70	1.42	2.54	0.73
Spedaluzzo	47	PF Q=Tr30-Tp18	1.85	143.76	144.23	144.14	144.36	0.006193	1.55	1.19	2.53	0.72
Spedaluzzo	47	PF Q=Tr20-Tp18	1.69	143.76	144.21	144.12	144.32	0.006132	1.50	1.13	2.53	0.72
Spedaluzzo	46	PF Q=Tr200-Tp18	2.80	143.71	144.30	144.22	144.49	0.007919	1.94	1.44	2.50	0.81
Spedaluzzo	46	PF Q=Tr100-Tp18	2.41	143.71	144.25	144.18	144.42	0.007690	1.83	1.32	2.49	0.80
Spedaluzzo	46	PF Q=Tr30-Tp18	1.85	143.71	144.16	144.10	144.31	0.007453	1.66	1.11	2.48	0.79
Spedaluzzo	46	PF Q=Tr20-Tp18	1.69	143.71	144.14	144.08	144.27	0.007371	1.61	1.05	2.48	0.79
Spedaluzzo	45	PF Q=Tr200-Tp18	2.80	143.65	144.16	144.16	144.41	0.011862	2.21	1.27	2.52	1.00
Spedaluzzo	45	PF Q=Tr100-Tp18	2.41	143.65	144.11	144.11	144.33	0.011948	2.11	1.14	2.51	1.00
Spedaluzzo	45	PF Q=Tr30-Tp18	1.85	143.65	144.03	144.03	144.22	0.012198	1.95	0.95	2.51	1.01
Spedaluzzo	45	PF Q=Tr20-Tp18	1.69	143.65	144.01	144.01	144.19	0.012239	1.89	0.89	2.51	1.01
Spedaluzzo	44	PF Q=Tr200-Tp18	2.80	143.55	144.16	143.83	144.19	0.000720	0.77	3.63	6.00	0.32

HEC-RAS Plan: SA_perm_18 River: Spedaluzzo Reach: Spedaluzzo (Continued)

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	44	PF Q=Tr100-Tp18	2.41	143.55	144.08	143.80	144.11	0.000803	0.76	3.18	6.00	0.33
Spedaluzzo	44	PF Q=Tr30-Tp18	1.85	143.55	143.97	143.76	144.00	0.001010	0.74	2.50	6.00	0.37
Spedaluzzo	44	PF Q=Tr20-Tp18	1.69	143.55	143.93	143.75	143.96	0.001107	0.74	2.30	5.99	0.38
Spedaluzzo	43.5	Bridge										
Spedaluzzo	43	PF Q=Tr200-Tp18	2.80	143.45	144.15	143.73	144.17	0.000462	0.67	4.18	6.00	0.26
Spedaluzzo	43	PF Q=Tr100-Tp18	2.41	143.45	144.07	143.70	144.09	0.000485	0.64	3.74	6.00	0.26
Spedaluzzo	43	PF Q=Tr30-Tp18	1.85	143.45	143.96	143.66	143.98	0.000538	0.61	3.05	6.00	0.27
Spedaluzzo	43	PF Q=Tr20-Tp18	1.69	143.45	143.92	143.65	143.94	0.000561	0.59	2.85	6.00	0.28
Spedaluzzo	42	PF Q=Tr200-Tp18	2.80	143.34	143.93	143.86	144.14	0.008454	1.99	1.41	2.39	0.83
Spedaluzzo	42	PF Q=Tr100-Tp18	2.41	143.34	143.88	143.81	144.06	0.008325	1.89	1.28	2.39	0.82
Spedaluzzo	42	PF Q=Tr30-Tp18	1.85	143.34	143.79	143.74	143.95	0.008183	1.73	1.07	2.38	0.82
Spedaluzzo	42	PF Q=Tr20-Tp18	1.69	143.34	143.77	143.71	143.91	0.008164	1.67	1.01	2.38	0.82
Spedaluzzo	41	PF Q=Tr200-Tp18	2.80	143.15	143.66	143.66	143.90	0.011832	2.21	1.27	2.52	0.99
Spedaluzzo	41	PF Q=Tr100-Tp18	2.41	143.15	143.61	143.61	143.83	0.011913	2.11	1.14	2.52	1.00
Spedaluzzo	41	PF Q=Tr30-Tp18	1.85	143.15	143.53	143.53	143.72	0.011966	1.93	0.96	2.51	1.00
Spedaluzzo	41	PF Q=Tr20-Tp18	1.69	143.15	143.51	143.51	143.69	0.011845	1.87	0.90	2.51	0.99
Spedaluzzo	40	PF Q=Tr200-Tp18	2.80	143.02	143.56	143.50	143.75	0.004120	1.93	1.45	2.72	0.84
Spedaluzzo	40	PF Q=Tr100-Tp18	2.41	143.02	143.51	143.45	143.68	0.004168	1.82	1.32	2.72	0.83
Spedaluzzo	40	PF Q=Tr30-Tp18	1.85	143.02	143.43	143.38	143.57	0.004499	1.68	1.10	2.71	0.84
Spedaluzzo	40	PF Q=Tr20-Tp18	1.69	143.02	143.41	143.36	143.54	0.004498	1.62	1.05	2.71	0.83
Spedaluzzo	39.5	Bridge										
Spedaluzzo	39	PF Q=Tr200-Tp18	2.80	142.94	143.45	143.36	143.59	0.003297	1.66	1.69	3.49	0.74
Spedaluzzo	39	PF Q=Tr100-Tp18	2.41	142.94	143.39	143.32	143.52	0.003622	1.61	1.50	3.47	0.76
Spedaluzzo	39	PF Q=Tr30-Tp18	1.85	142.94	143.32	143.26	143.43	0.003746	1.46	1.27	3.45	0.75
Spedaluzzo	39	PF Q=Tr20-Tp18	1.69	142.94	143.31	143.24	143.40	0.003646	1.40	1.21	3.44	0.74
Spedaluzzo	38	PF Q=Tr200-Tp18	2.80	142.81	143.36	143.26	143.51	0.005951	1.70	1.65	3.04	0.74
Spedaluzzo	38	PF Q=Tr100-Tp18	2.41	142.81	143.29	143.22	143.44	0.006984	1.71	1.41	3.02	0.80
Spedaluzzo	38	PF Q=Tr30-Tp18	1.85	142.81	143.17	143.15	143.33	0.009600	1.73	1.07	2.99	0.93

HEC-RAS Plan: SA_perm_18 River: Spedaluzzo Reach: Spedaluzzo (Continued)

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	38	PF Q=Tr20-Tp18	1.69	142.81	143.14	143.13	143.29	0.010954	1.75	0.96	2.98	0.98
Spedaluzzo	37	PF Q=Tr200-Tp18	2.80	142.68	143.37	143.09	143.44	0.001637	1.16	2.41	3.57	0.45
Spedaluzzo	37	PF Q=Tr100-Tp18	2.41	142.68	143.29	143.05	143.36	0.001758	1.14	2.12	3.55	0.47
Spedaluzzo	37	PF Q=Tr30-Tp18	1.85	142.68	143.17	142.99	143.23	0.002007	1.09	1.70	3.52	0.50
Spedaluzzo	37	PF Q=Tr20-Tp18	1.69	142.68	143.14	142.97	143.20	0.002128	1.07	1.58	3.51	0.51
Spedaluzzo	36.5		Bridge									
Spedaluzzo	36	PF Q=Tr200-Tp18	2.80	142.62	143.37	142.98	143.41	0.000891	0.91	3.08	4.12	0.34
Spedaluzzo	36	PF Q=Tr100-Tp18	2.41	142.62	143.29	142.95	143.33	0.000920	0.87	2.76	4.12	0.34
Spedaluzzo	36	PF Q=Tr30-Tp18	1.85	142.62	143.17	142.89	143.20	0.000981	0.82	2.27	4.12	0.35
Spedaluzzo	36	PF Q=Tr20-Tp18	1.69	142.62	143.13	142.88	143.17	0.001015	0.80	2.11	4.12	0.36
Spedaluzzo	35.99		Lat Struct									
Spedaluzzo	35.98		Lat Struct									
Spedaluzzo	35	PF Q=Tr200-Tp18	2.80	142.50	143.19	143.06	143.35	0.006573	1.81	1.54	2.41	0.72
Spedaluzzo	35	PF Q=Tr100-Tp18	2.41	142.50	143.12	143.01	143.27	0.006800	1.75	1.38	2.40	0.74
Spedaluzzo	35	PF Q=Tr30-Tp18	1.85	142.50	143.01	142.92	143.15	0.007406	1.66	1.12	2.38	0.77
Spedaluzzo	35	PF Q=Tr20-Tp18	1.69	142.50	142.97	142.89	143.11	0.007178	1.63	1.04	2.23	0.76
Spedaluzzo	34	PF Q=Tr200-Tp18	2.80	142.37	143.18	142.82	143.24	0.001885	1.14	2.45	3.09	0.41
Spedaluzzo	34	PF Q=Tr100-Tp18	2.41	142.37	143.10	142.77	143.16	0.001851	1.08	2.22	3.08	0.41
Spedaluzzo	34	PF Q=Tr30-Tp18	1.85	142.37	142.99	142.71	143.04	0.001819	0.99	1.87	3.06	0.41
Spedaluzzo	34	PF Q=Tr20-Tp18	1.69	142.37	142.95	142.69	143.00	0.001815	0.96	1.76	3.06	0.40
Spedaluzzo	33	PF Q=Tr200-Tp18	2.80	142.26	143.01	142.87	143.17	0.005701	1.80	1.55	2.45	0.72
Spedaluzzo	33	PF Q=Tr100-Tp18	2.41	142.26	142.94	142.82	143.10	0.005715	1.73	1.39	2.38	0.72
Spedaluzzo	33	PF Q=Tr30-Tp18	1.85	142.26	142.84	142.73	142.97	0.005727	1.60	1.15	2.28	0.72
Spedaluzzo	33	PF Q=Tr20-Tp18	1.69	142.26	142.81	142.70	142.93	0.005728	1.56	1.08	2.25	0.72
Spedaluzzo	32	PF Q=Tr200-Tp18	2.80	142.09	142.84	142.70	143.01	0.005667	1.80	1.56	2.45	0.72
Spedaluzzo	32	PF Q=Tr100-Tp18	2.41	142.09	142.77	142.65	142.93	0.005706	1.73	1.40	2.38	0.72
Spedaluzzo	32	PF Q=Tr30-Tp18	1.85	142.09	142.67	142.56	142.80	0.005747	1.60	1.15	2.28	0.72

HEC-RAS Plan: SA_perm_18 River: Spedaluzzo Reach: Spedaluzzo (Continued)

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	26	PF Q=Tr200-Tp18	2.80	141.33	142.31	141.91	142.38	0.001883	1.20	2.34	2.90	0.42
Spedaluzzo	26	PF Q=Tr100-Tp18	2.41	141.33	142.23	141.85	142.30	0.001856	1.14	2.11	2.81	0.42
Spedaluzzo	26	PF Q=Tr30-Tp18	1.85	141.33	142.10	141.77	142.16	0.001848	1.06	1.75	2.68	0.42
Spedaluzzo	26	PF Q=Tr20-Tp18	1.69	141.33	142.06	141.75	142.11	0.001849	1.03	1.64	2.63	0.42
Spedaluzzo	25	PF Q=Tr200-Tp18	2.80	141.33	142.31	141.91	142.38	0.001918	1.20	2.32	2.89	0.43
Spedaluzzo	25	PF Q=Tr100-Tp18	2.41	141.33	142.23	141.85	142.29	0.001893	1.15	2.09	2.81	0.43
Spedaluzzo	25	PF Q=Tr30-Tp18	1.85	141.33	142.09	141.77	142.15	0.001891	1.07	1.73	2.67	0.42
Spedaluzzo	25	PF Q=Tr20-Tp18	1.69	141.33	142.05	141.75	142.11	0.001895	1.04	1.62	2.63	0.42
Spedaluzzo	24	PF Q=Tr200-Tp18	2.80	141.21	142.22	141.82	142.30	0.002134	1.26	2.22	2.71	0.44
Spedaluzzo	24	PF Q=Tr100-Tp18	2.41	141.21	142.14	141.77	142.21	0.002059	1.19	2.02	2.63	0.44
Spedaluzzo	24	PF Q=Tr30-Tp18	1.85	141.21	142.01	141.68	142.07	0.001980	1.10	1.69	2.50	0.43
Spedaluzzo	24	PF Q=Tr20-Tp18	1.69	141.21	141.97	141.65	142.03	0.001957	1.06	1.59	2.46	0.42
Spedaluzzo	23	PF Q=Tr200-Tp18	2.80	141.12	142.12	141.75	142.22	0.002871	1.39	2.01	2.32	0.48
Spedaluzzo	23	PF Q=Tr100-Tp18	2.41	141.12	142.05	141.69	142.14	0.002642	1.30	1.85	2.27	0.46
Spedaluzzo	23	PF Q=Tr30-Tp18	1.85	141.12	141.94	141.60	142.00	0.002356	1.16	1.59	2.20	0.44
Spedaluzzo	23	PF Q=Tr20-Tp18	1.69	141.12	141.90	141.57	141.96	0.002268	1.12	1.51	2.18	0.43
Spedaluzzo	22	PF Q=Tr200-Tp18	2.80	141.05	141.93	141.70	142.04	0.003311	1.46	1.92	2.71	0.55
Spedaluzzo	22	PF Q=Tr100-Tp18	2.41	141.05	141.86	141.65	141.96	0.003374	1.41	1.72	2.69	0.56
Spedaluzzo	22	PF Q=Tr30-Tp18	1.85	141.05	141.76	141.58	141.84	0.003261	1.28	1.44	2.66	0.55
Spedaluzzo	22	PF Q=Tr20-Tp18	1.69	141.05	141.73	141.56	141.81	0.003226	1.24	1.36	2.65	0.55
Spedaluzzo	21	PF Q=Tr200-Tp18	2.80	141.04	141.91	141.70	142.03	0.002903	1.52	1.84	2.67	0.59
Spedaluzzo	21	PF Q=Tr100-Tp18	2.41	141.04	141.84	141.66	141.95	0.003002	1.47	1.64	2.66	0.60
Spedaluzzo	21	PF Q=Tr30-Tp18	1.85	141.04	141.74	141.59	141.83	0.002955	1.35	1.37	2.64	0.60
Spedaluzzo	21	PF Q=Tr20-Tp18	1.69	141.04	141.71	141.56	141.79	0.002946	1.31	1.29	2.64	0.60
Spedaluzzo	20.5	Bridge										
Spedaluzzo	20	PF Q=Tr200-Tp18	2.80	141.00	141.80	141.71	141.99	0.005282	1.91	1.46	2.40	0.78
Spedaluzzo	20	PF Q=Tr100-Tp18	2.41	141.00	141.70	141.66	141.90	0.006546	1.97	1.22	2.39	0.88
Spedaluzzo	20	PF Q=Tr30-Tp18	1.85	141.00	141.58	141.58	141.78	0.008358	1.97	0.94	2.37	1.00

HEC-RAS Plan: SA_perm_18 River: Spedaluzzo Reach: Spedaluzzo (Continued)

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	20	PF Q=Tr20-Tp18	1.69	141.00	141.56	141.56	141.74	0.008308	1.91	0.89	2.36	0.99
Spedaluzzo	19	PF Q=Tr200-Tp18	2.80	140.98	141.86	141.51	141.94	0.002394	1.29	2.17	2.75	0.46
Spedaluzzo	19	PF Q=Tr100-Tp18	2.41	140.98	141.77	141.47	141.85	0.002493	1.25	1.92	2.69	0.47
Spedaluzzo	19	PF Q=Tr30-Tp18	1.85	140.98	141.63	141.39	141.70	0.002695	1.19	1.55	2.60	0.49
Spedaluzzo	19	PF Q=Tr20-Tp18	1.69	140.98	141.59	141.37	141.65	0.002765	1.17	1.45	2.58	0.50
Spedaluzzo	18	PF Q=Tr200-Tp18	2.80	140.87	141.82	141.37	141.88	0.001446	1.06	2.63	3.06	0.37
Spedaluzzo	18	PF Q=Tr100-Tp18	2.41	140.87	141.73	141.32	141.78	0.001478	1.03	2.34	3.00	0.37
Spedaluzzo	18	PF Q=Tr30-Tp18	1.85	140.87	141.58	141.25	141.63	0.001546	0.97	1.92	2.91	0.38
Spedaluzzo	18	PF Q=Tr20-Tp18	1.69	140.87	141.54	141.23	141.58	0.001567	0.94	1.79	2.89	0.38
Spedaluzzo	17.9		Lat Struct									
Spedaluzzo	17	PF Q=Tr200-Tp18	2.80	140.74	141.69	141.37	141.81	0.003388	1.48	1.89	2.26	0.52
Spedaluzzo	17	PF Q=Tr100-Tp18	2.41	140.74	141.60	141.31	141.71	0.003409	1.43	1.69	2.21	0.52
Spedaluzzo	17	PF Q=Tr30-Tp18	1.85	140.74	141.47	141.22	141.56	0.003431	1.33	1.39	2.13	0.53
Spedaluzzo	17	PF Q=Tr20-Tp18	1.69	140.74	141.43	141.20	141.51	0.003424	1.30	1.30	2.10	0.53
Spedaluzzo	16	PF Q=Tr200-Tp18	2.80	140.60	141.49	141.28	141.65	0.005415	1.78	1.57	2.08	0.65
Spedaluzzo	16	PF Q=Tr100-Tp18	2.41	140.60	141.39	141.22	141.55	0.005881	1.76	1.37	2.01	0.68
Spedaluzzo	16	PF Q=Tr30-Tp18	1.85	140.60	141.23	141.12	141.39	0.007079	1.76	1.05	1.89	0.75
Spedaluzzo	16	PF Q=Tr20-Tp18	1.69	140.60	141.18	141.09	141.34	0.007635	1.76	0.96	1.86	0.78
Spedaluzzo	15	PF Q=Tr200-Tp18	2.80	140.56	141.53	141.12	141.61	0.001528	1.21	2.31	2.66	0.42
Spedaluzzo	15	PF Q=Tr100-Tp18	2.41	140.56	141.43	141.07	141.50	0.001609	1.19	2.03	2.65	0.43
Spedaluzzo	15	PF Q=Tr30-Tp18	1.85	140.56	141.27	140.99	141.33	0.001806	1.15	1.61	2.54	0.46
Spedaluzzo	15	PF Q=Tr20-Tp18	1.69	140.56	141.22	140.96	141.28	0.001895	1.14	1.49	2.50	0.47
Spedaluzzo	14.5		Bridge									
Spedaluzzo	14	PF Q=Tr200-Tp18	2.80	140.31	141.08	141.04	141.37	0.009273	2.38	1.18	1.68	0.91
Spedaluzzo	14	PF Q=Tr100-Tp18	2.41	140.31	141.03	140.97	141.28	0.008683	2.23	1.08	1.66	0.88
Spedaluzzo	14	PF Q=Tr30-Tp18	1.85	140.31	140.93	140.87	141.13	0.007949	2.01	0.92	1.62	0.85
Spedaluzzo	14	PF Q=Tr20-Tp18	1.69	140.31	140.90	140.83	141.09	0.007727	1.94	0.87	1.60	0.84

HEC-RAS Plan: SA_perm_18 River: Spedaluzzo Reach: Spedaluzzo (Continued)

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude #	Chl
Spedaluzzo	13.9		Lat Struct										
Spedaluzzo	13.8		Lat Struct										
Spedaluzzo	13	PF Q=Tr200-Tp18	2.80	140.21	141.03	140.81	141.17	0.004696	1.67	1.68	2.25	0.62	
Spedaluzzo	13	PF Q=Tr100-Tp18	2.41	140.21	140.97	140.76	141.09	0.004438	1.57	1.54	2.22	0.60	
Spedaluzzo	13	PF Q=Tr30-Tp18	1.85	140.21	140.87	140.67	140.97	0.004033	1.41	1.32	2.17	0.58	
Spedaluzzo	13	PF Q=Tr20-Tp18	1.69	140.21	140.84	140.64	140.93	0.003906	1.35	1.25	2.15	0.57	
Spedaluzzo	12	PF Q=Tr200-Tp18	2.80	140.21	140.90	140.82	141.10	0.007375	1.98	1.42	2.39	0.82	
Spedaluzzo	12	PF Q=Tr100-Tp18	2.41	140.21	140.84	140.77	141.02	0.007585	1.91	1.26	2.33	0.83	
Spedaluzzo	12	PF Q=Tr30-Tp18	1.85	140.21	140.73	140.68	140.90	0.008030	1.80	1.03	2.22	0.85	
Spedaluzzo	12	PF Q=Tr20-Tp18	1.69	140.21	140.70	140.65	140.86	0.008202	1.77	0.96	2.19	0.86	
Spedaluzzo	11	PF Q=Tr200-Tp18	2.80	140.09	140.86	140.70	141.02	0.005106	1.73	1.62	2.48	0.68	
Spedaluzzo	11	PF Q=Tr100-Tp18	2.41	140.09	140.80	140.65	140.94	0.005098	1.66	1.45	2.41	0.68	
Spedaluzzo	11	PF Q=Tr30-Tp18	1.85	140.09	140.69	140.56	140.81	0.005093	1.54	1.20	2.30	0.68	
Spedaluzzo	11	PF Q=Tr20-Tp18	1.69	140.09	140.66	140.53	140.77	0.005092	1.50	1.13	2.27	0.68	
Spedaluzzo	10	PF Q=Tr200-Tp18	2.80	139.85	140.62	140.46	140.77	0.005300	1.75	1.60	2.47	0.70	
Spedaluzzo	10	PF Q=Tr100-Tp18	2.41	139.85	140.55	140.41	140.69	0.005238	1.68	1.44	2.40	0.69	
Spedaluzzo	10	PF Q=Tr30-Tp18	1.85	139.85	140.45	140.32	140.57	0.005186	1.55	1.20	2.30	0.68	
Spedaluzzo	10	PF Q=Tr20-Tp18	1.69	139.85	140.42	140.29	140.53	0.005165	1.50	1.12	2.27	0.68	
Spedaluzzo	09	PF Q=Tr200-Tp18	2.80	139.68	140.34	140.29	140.56	0.006578	2.08	1.35	2.36	0.88	
Spedaluzzo	09	PF Q=Tr100-Tp18	2.41	139.68	140.27	140.24	140.48	0.006963	2.03	1.19	2.29	0.90	
Spedaluzzo	09	PF Q=Tr30-Tp18	1.85	139.68	140.20	140.15	140.37	0.006310	1.81	1.02	2.22	0.85	
Spedaluzzo	09	PF Q=Tr20-Tp18	1.69	139.68	140.17	140.13	140.33	0.006225	1.76	0.96	2.19	0.85	
Spedaluzzo	08.5		Bridge										
Spedaluzzo	08	PF Q=Tr200-Tp18	2.80	139.63	140.36	140.19	140.50	0.003642	1.66	1.69	2.59	0.66	
Spedaluzzo	08	PF Q=Tr100-Tp18	2.41	139.63	140.29	140.14	140.42	0.003797	1.61	1.50	2.53	0.67	
Spedaluzzo	08	PF Q=Tr30-Tp18	1.85	139.63	140.18	140.06	140.30	0.003960	1.51	1.23	2.44	0.68	
Spedaluzzo	08	PF Q=Tr20-Tp18	1.69	139.63	140.15	140.03	140.26	0.004025	1.48	1.14	2.42	0.68	

HEC-RAS Plan: SA_perm_18 River: Spedaluzzo Reach: Spedaluzzo (Continued)

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude #	Chl
Spedaluzzo	7.9	Lat Struct	Lat Struct										
Spedaluzzo	7.8	Lat Struct	Lat Struct										
Spedaluzzo	07	PF Q=Tr200-Tp18	2.80	139.49	140.27	140.10	140.42	0.004960	1.71	1.63	2.49	0.67	
Spedaluzzo	07	PF Q=Tr100-Tp18	2.41	139.49	140.19	140.05	140.33	0.005287	1.68	1.43	2.40	0.69	
Spedaluzzo	07	PF Q=Tr30-Tp18	1.85	139.49	140.08	139.96	140.20	0.005458	1.58	1.17	2.29	0.70	
Spedaluzzo	07	PF Q=Tr20-Tp18	1.69	139.49	140.04	139.94	140.17	0.005529	1.54	1.10	2.26	0.71	
Spedaluzzo	06	PF Q=Tr200-Tp18	2.80	139.23	140.06	139.86	140.22	0.005401	1.75	1.60	2.12	0.64	
Spedaluzzo	06	PF Q=Tr100-Tp18	2.41	139.23	139.87	139.80	140.08	0.008782	2.01	1.20	2.03	0.83	
Spedaluzzo	06	PF Q=Tr30-Tp18	1.85	139.23	139.77	139.71	139.95	0.008888	1.87	0.99	1.98	0.84	
Spedaluzzo	06	PF Q=Tr20-Tp18	1.69	139.23	139.74	139.68	139.90	0.008911	1.82	0.93	1.96	0.84	
Spedaluzzo	05	PF Q=Tr200-Tp18	2.80	139.06	140.01	139.69	140.13	0.003691	1.52	1.84	2.18	0.53	
Spedaluzzo	05	PF Q=Tr100-Tp18	2.41	139.06	139.73	139.63	139.92	0.007981	1.94	1.24	2.04	0.79	
Spedaluzzo	05	PF Q=Tr30-Tp18	1.85	139.06	139.62	139.54	139.78	0.008128	1.81	1.02	1.98	0.80	
Spedaluzzo	05	PF Q=Tr20-Tp18	1.69	139.06	139.59	139.51	139.74	0.008051	1.76	0.96	1.97	0.80	
Spedaluzzo	04	PF Q=Tr200-Tp18	2.80	138.61	139.98	139.18	140.00	0.000375	0.64	4.35	4.64	0.21	
Spedaluzzo	04	PF Q=Tr100-Tp18	2.41	138.61	139.54	139.13	139.58	0.001248	0.97	2.50	3.69	0.37	
Spedaluzzo	04	PF Q=Tr30-Tp18	1.85	138.61	139.11	139.06	139.25	0.007034	1.67	1.11	2.76	0.84	
Spedaluzzo	04	PF Q=Tr20-Tp18	1.69	138.61	139.08	139.03	139.22	0.007027	1.62	1.04	2.71	0.84	
Spedaluzzo	03	PF Q=Tr200-Tp18	2.80	138.27	139.98	138.84	139.99	0.000146	0.45	6.25	5.63	0.14	
Spedaluzzo	03	PF Q=Tr100-Tp18	2.41	138.27	139.52	138.79	139.54	0.000377	0.61	3.93	4.58	0.21	
Spedaluzzo	03	PF Q=Tr30-Tp18	1.85	138.27	138.79	138.71	138.91	0.005950	1.56	1.19	2.89	0.78	
Spedaluzzo	03	PF Q=Tr20-Tp18	1.69	138.27	138.77	138.69	138.88	0.005696	1.49	1.13	2.85	0.76	
Spedaluzzo	02	PF Q=Tr200-Tp18	2.80	137.79	139.97	138.36	139.98	0.000055	0.31	8.97	6.51	0.08	
Spedaluzzo	02	PF Q=Tr100-Tp18	2.41	137.79	139.52	138.31	139.52	0.000108	0.39	6.22	5.50	0.12	
Spedaluzzo	02	PF Q=Tr30-Tp18	1.85	137.79	138.66	138.24	138.70	0.000906	0.79	2.33	3.63	0.32	
Spedaluzzo	02	PF Q=Tr20-Tp18	1.69	137.79	138.66	138.21	138.69	0.000769	0.73	2.31	3.62	0.29	
Spedaluzzo	01	PF Q=Tr200-Tp18	2.80	137.36	139.97	137.97	139.98	0.000065	0.34	8.29	4.66	0.08	
Spedaluzzo	01	PF Q=Tr100-Tp18	2.41	137.36	139.51	137.91	139.52	0.000100	0.38	6.27	4.13	0.10	

HEC-RAS Plan: SA_perm_18 River: Spedaluzzo Reach: Spedaluzzo (Continued)

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Spedaluzzo	01	PF Q=Tr30-Tp18	1.85	137.36	138.64	137.83	138.66	0.000381	0.60	3.10	3.15	0.19
Spedaluzzo	01	PF Q=Tr20-Tp18	1.69	137.36	138.64	137.80	138.66	0.000318	0.54	3.10	3.15	0.18

HEC-RAS Plan: SA_perm_18

Storage Area	Profile	W.S. Elev (m)	SA Min El (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
36_dx	PF Q=Tr200-Tp18	143.00	143.00	0.00	2.50	0.00
36_dx	PF Q=Tr100-Tp18	143.00	143.00	0.00	2.50	0.00
36_dx	PF Q=Tr30-Tp18	143.00	143.00	0.00	2.50	0.00
36_dx	PF Q=Tr20-Tp18	143.00	143.00	0.00	2.50	0.00
36_sx	PF Q=Tr200-Tp18	143.00	143.00	0.00	1.30	0.00
36_sx	PF Q=Tr100-Tp18	143.00	143.00	0.00	1.30	0.00
36_sx	PF Q=Tr30-Tp18	143.00	143.00	0.00	1.30	0.00
36_sx	PF Q=Tr20-Tp18	143.00	143.00	0.00	1.30	0.00
SA_Sped_Dx1	PF Q=Tr200-Tp18	139.50	139.50	0.00	56.00	0.00
SA_Sped_Dx1	PF Q=Tr100-Tp18	139.50	139.50	0.00	56.00	0.00
SA_Sped_Dx1	PF Q=Tr30-Tp18	139.50	139.50	0.00	56.00	0.00
SA_Sped_Dx1	PF Q=Tr20-Tp18	139.50	139.50	0.00	56.00	0.00
SA_Sped_Sx1	PF Q=Tr200-Tp18	140.60	140.60	0.00	3.00	0.00
SA_Sped_Sx1	PF Q=Tr100-Tp18	140.60	140.60	0.00	3.00	0.00
SA_Sped_Sx1	PF Q=Tr30-Tp18	140.60	140.60	0.00	3.00	0.00
SA_Sped_Sx1	PF Q=Tr20-Tp18	140.60	140.60	0.00	3.00	0.00
Spedaluzzo_StSn	PF Q=Tr200-Tp18	138.20	138.20	0.00	9.00	0.00
Spedaluzzo_StSn	PF Q=Tr100-Tp18	138.20	138.20	0.00	9.00	0.00
Spedaluzzo_StSn	PF Q=Tr30-Tp18	138.20	138.20	0.00	9.00	0.00
Spedaluzzo_StSn	PF Q=Tr20-Tp18	138.20	138.20	0.00	9.00	0.00

borro del Giglio

verifiche con Tpioggia critico per il Borro del Giglio

- moto vario

Tr=200, 100, 30 e 20 anni

profilo

livelli idrici nelle sezioni di verifica

tabella di output del software Hec-ras 4.0

livelli e portate in ingresso alle aree di accumulo

verifiche con Tpioggia critico per il Fiume Arno

- moto vario

Tr=200, 100, 30 e 20 anni

profilo

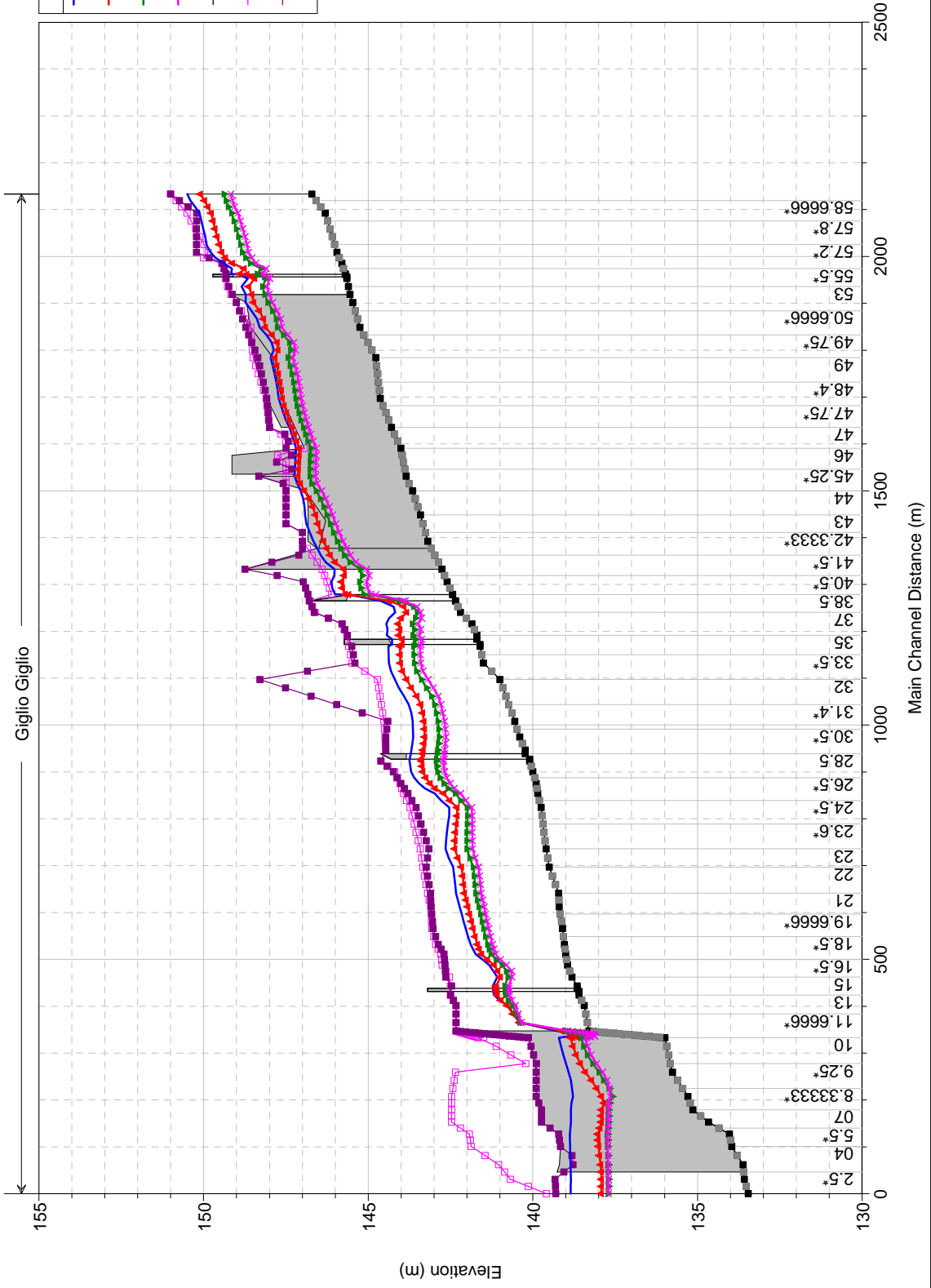
livelli idrici nelle sezioni di verifica

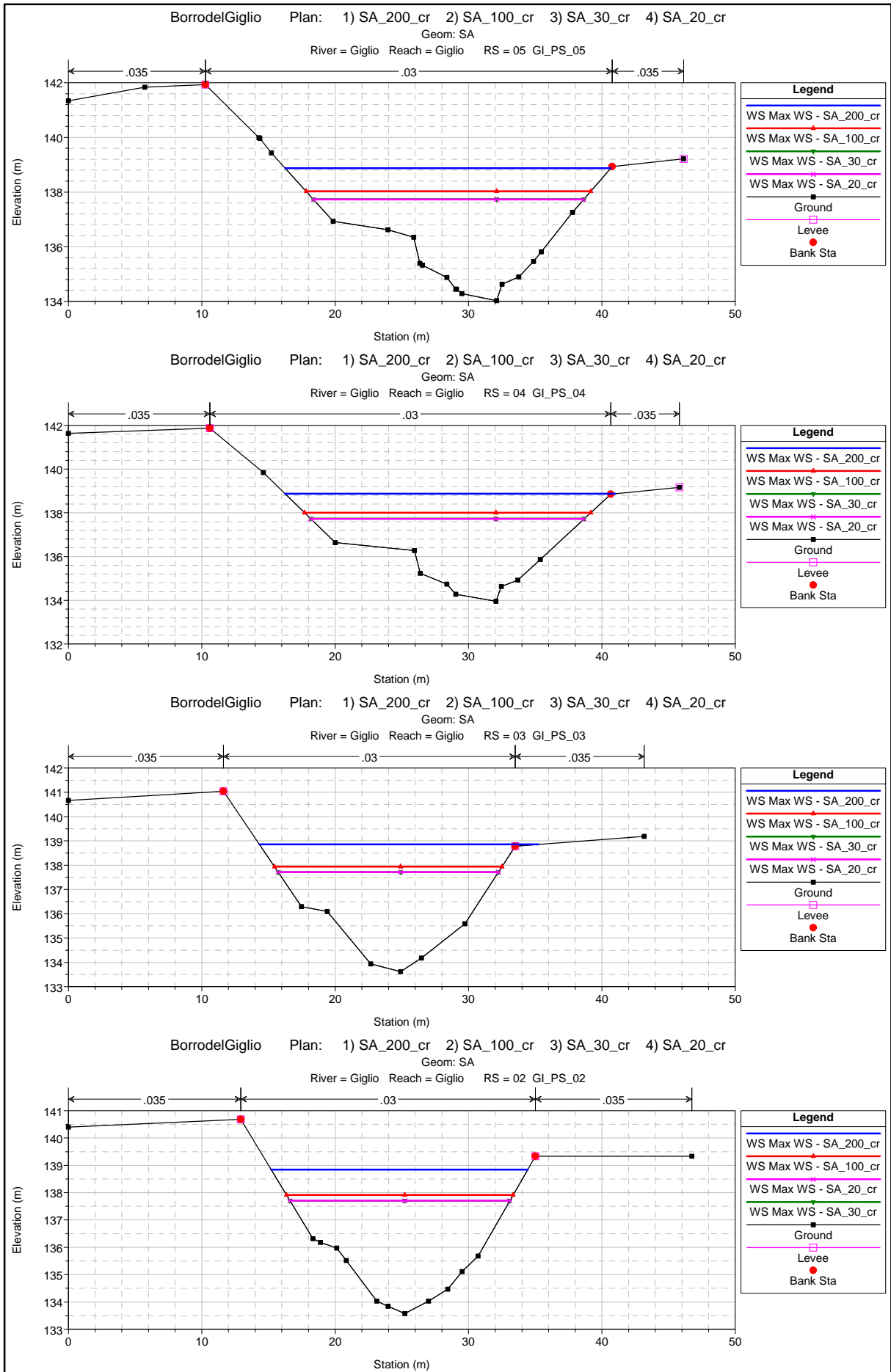
tabella di output del software Hec-ras 4.0

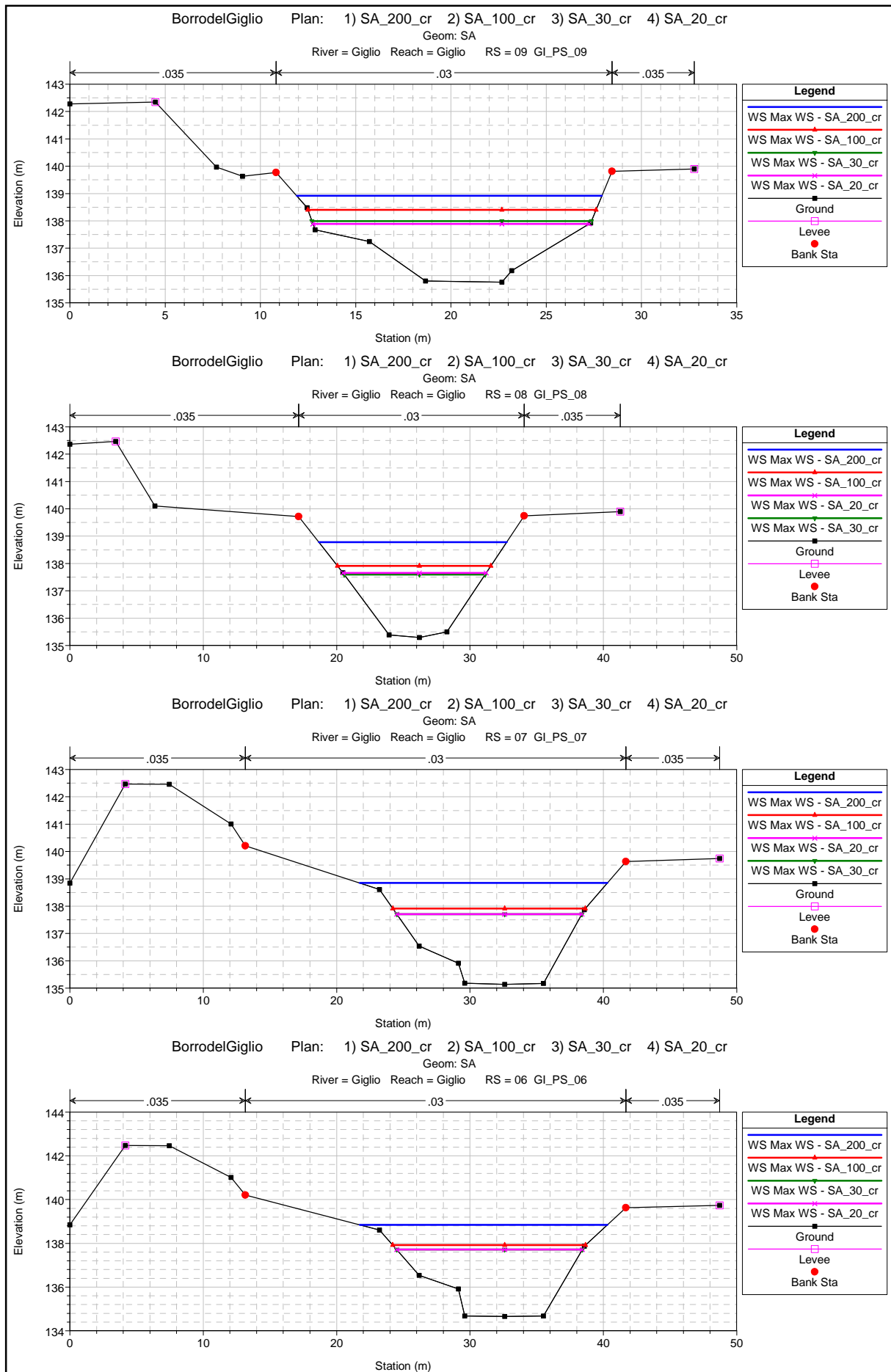
livelli e portate in ingresso alle aree di accumulo

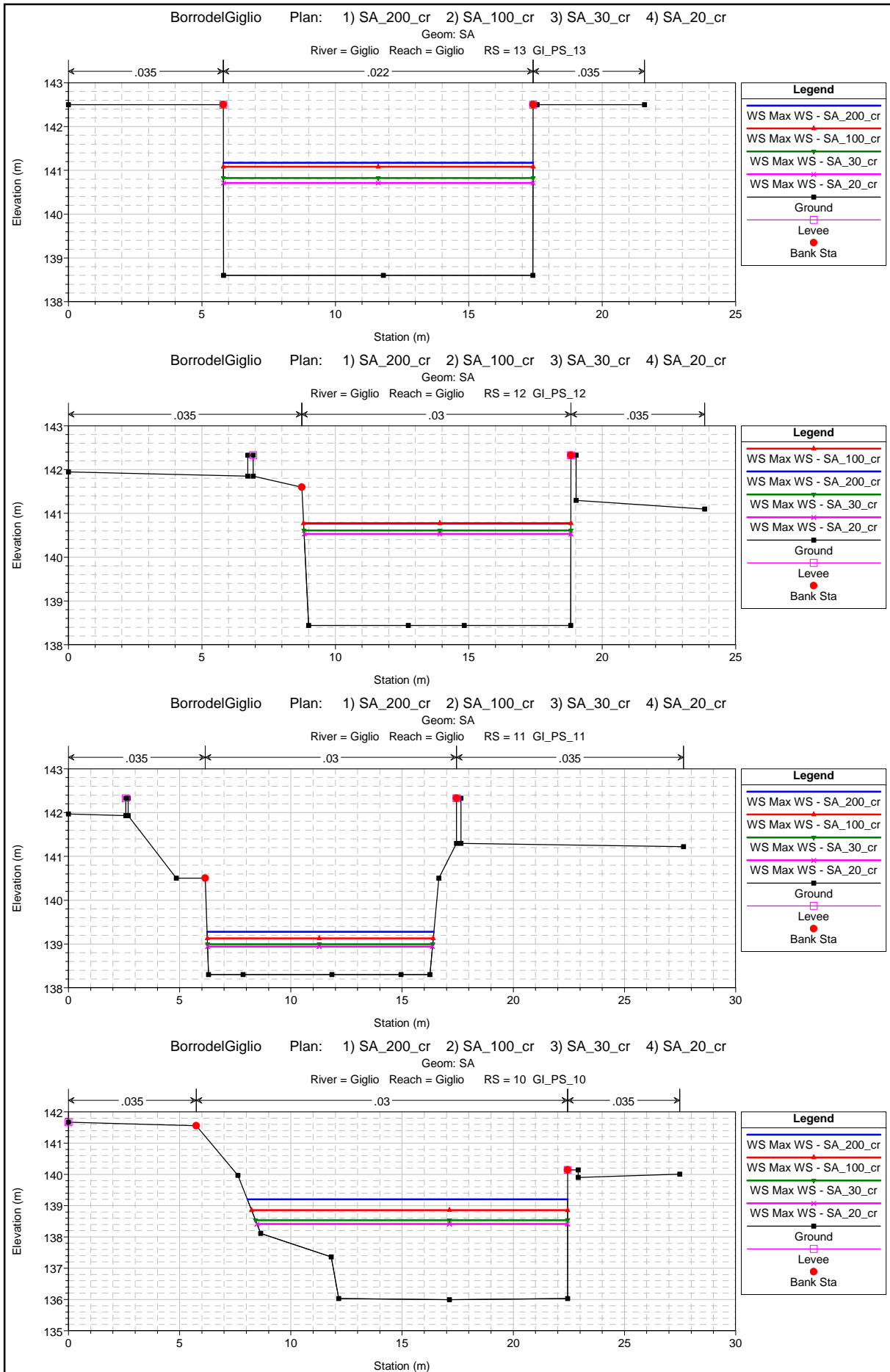
Borrodella Giglio Plan: 1) SA_200_cr 2) SA_100_cr 3) SA_30_cr 4) SA_20_cr

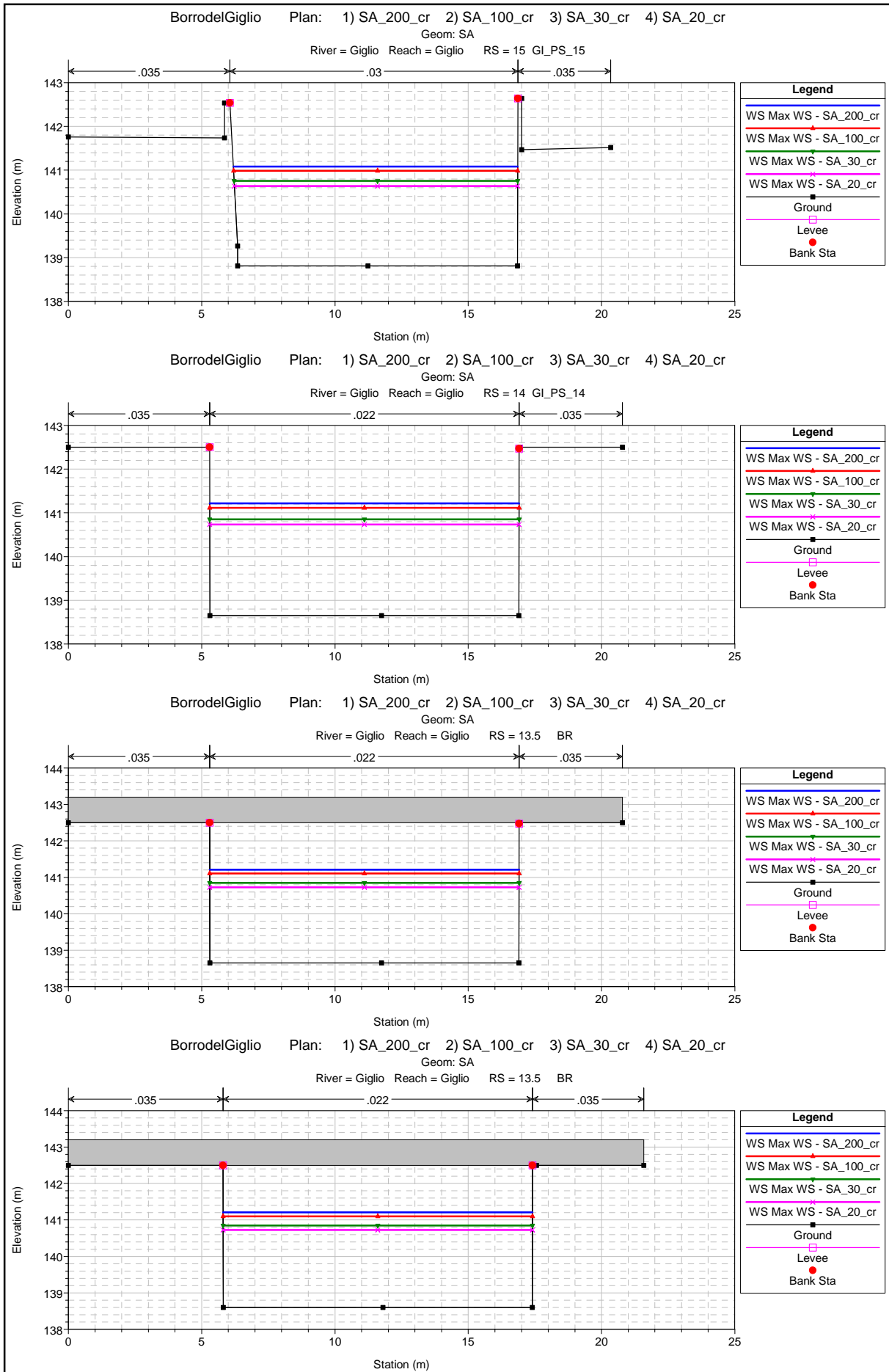
Geom: SA

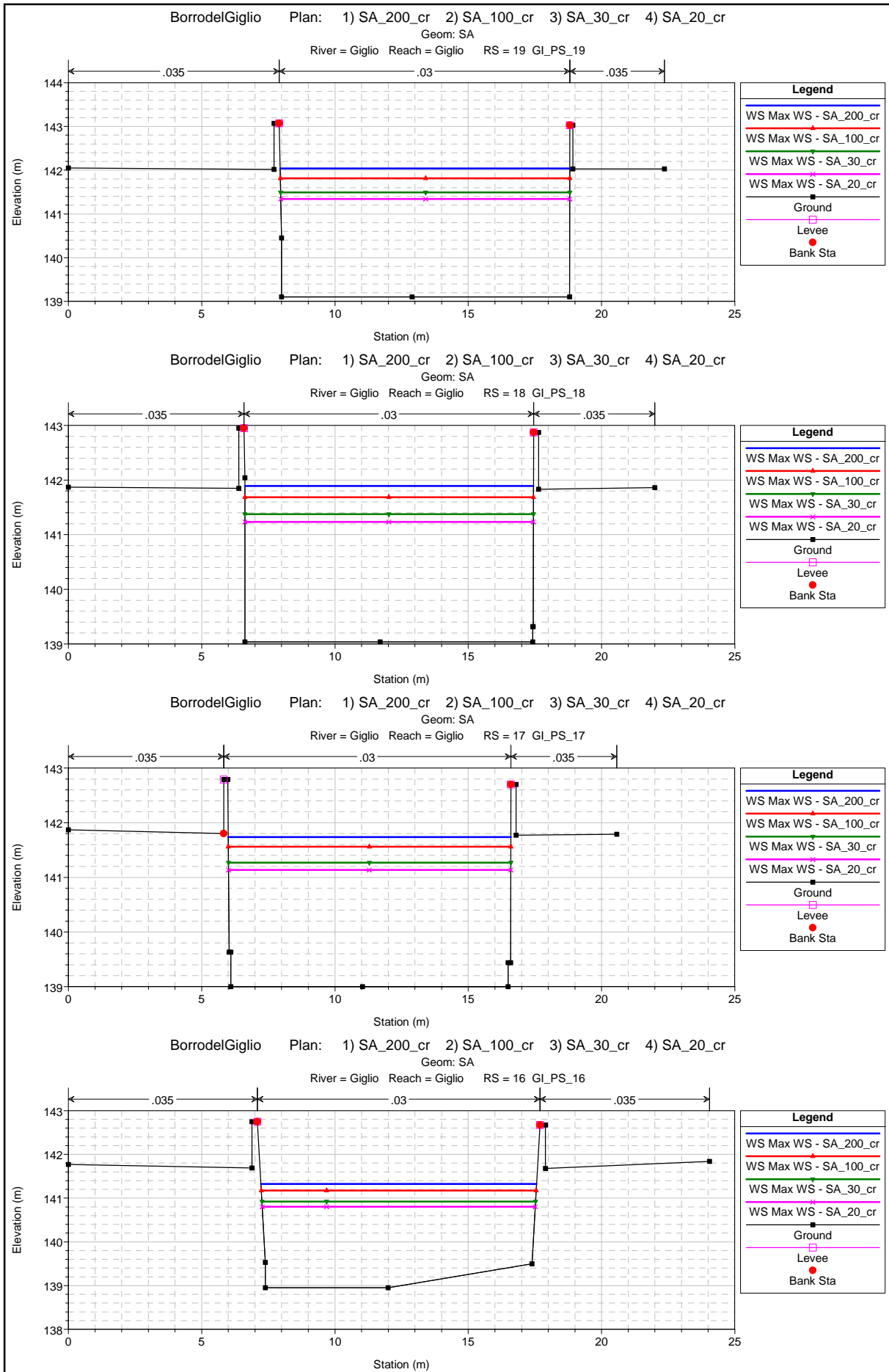


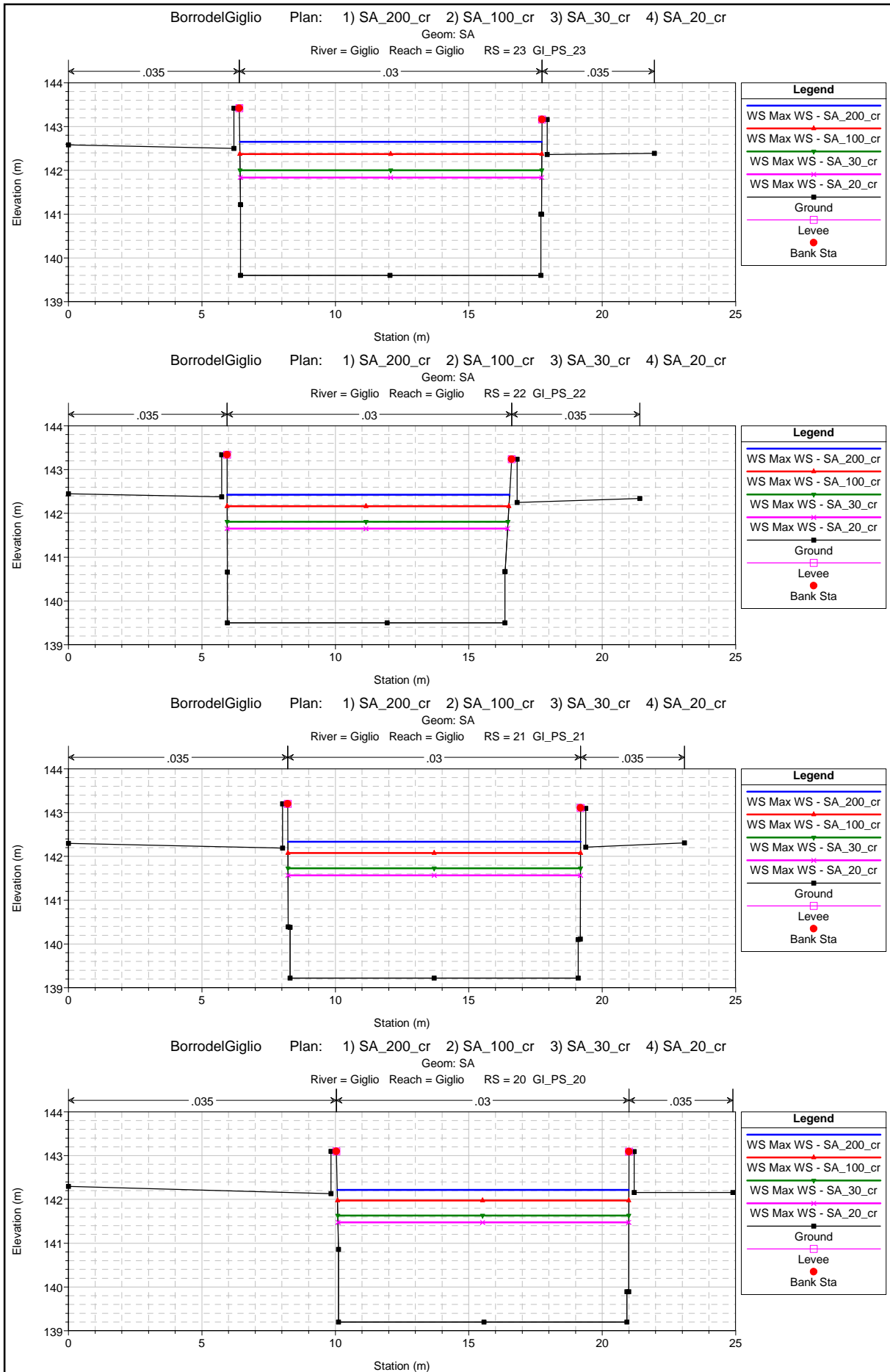


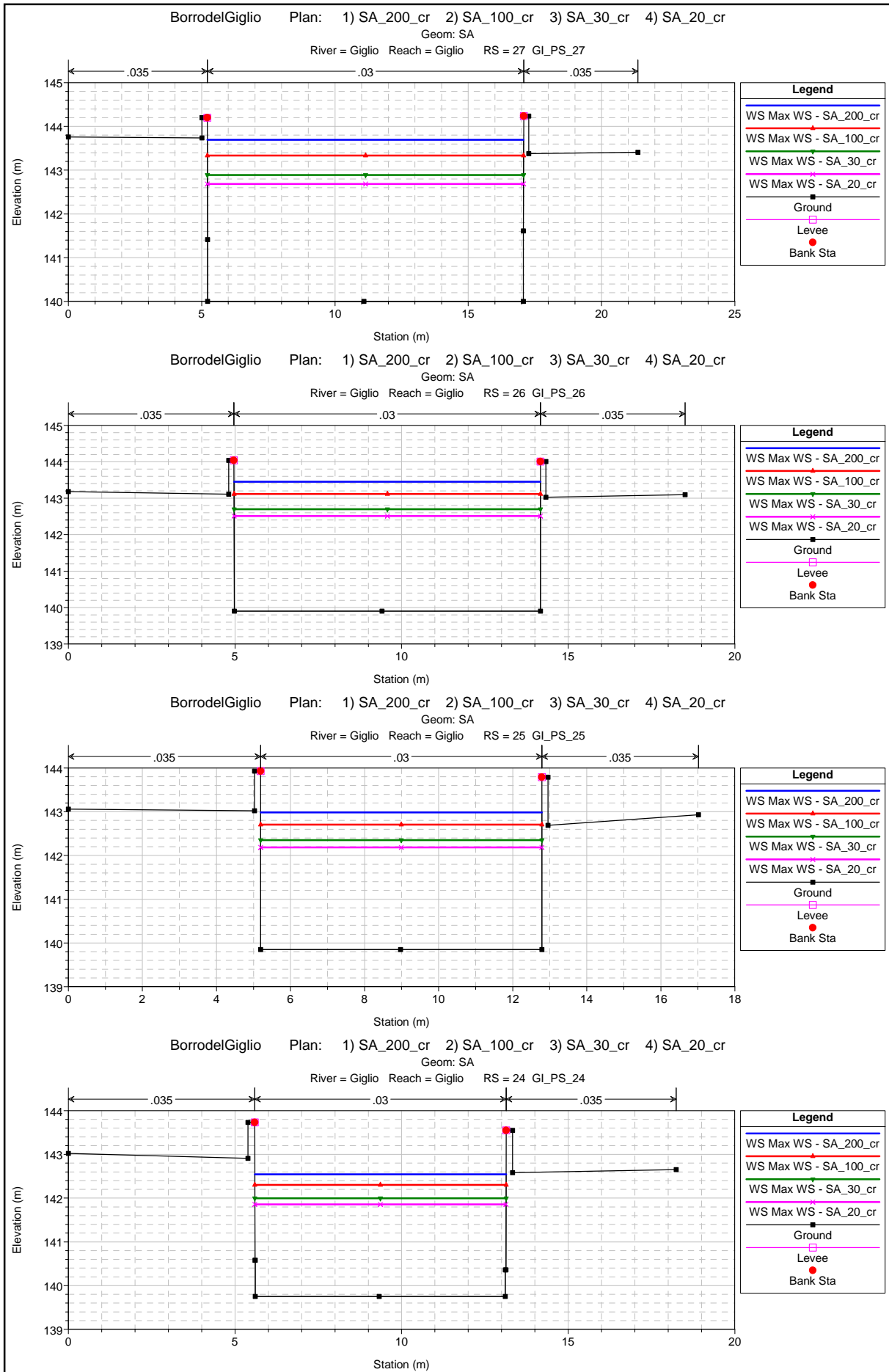


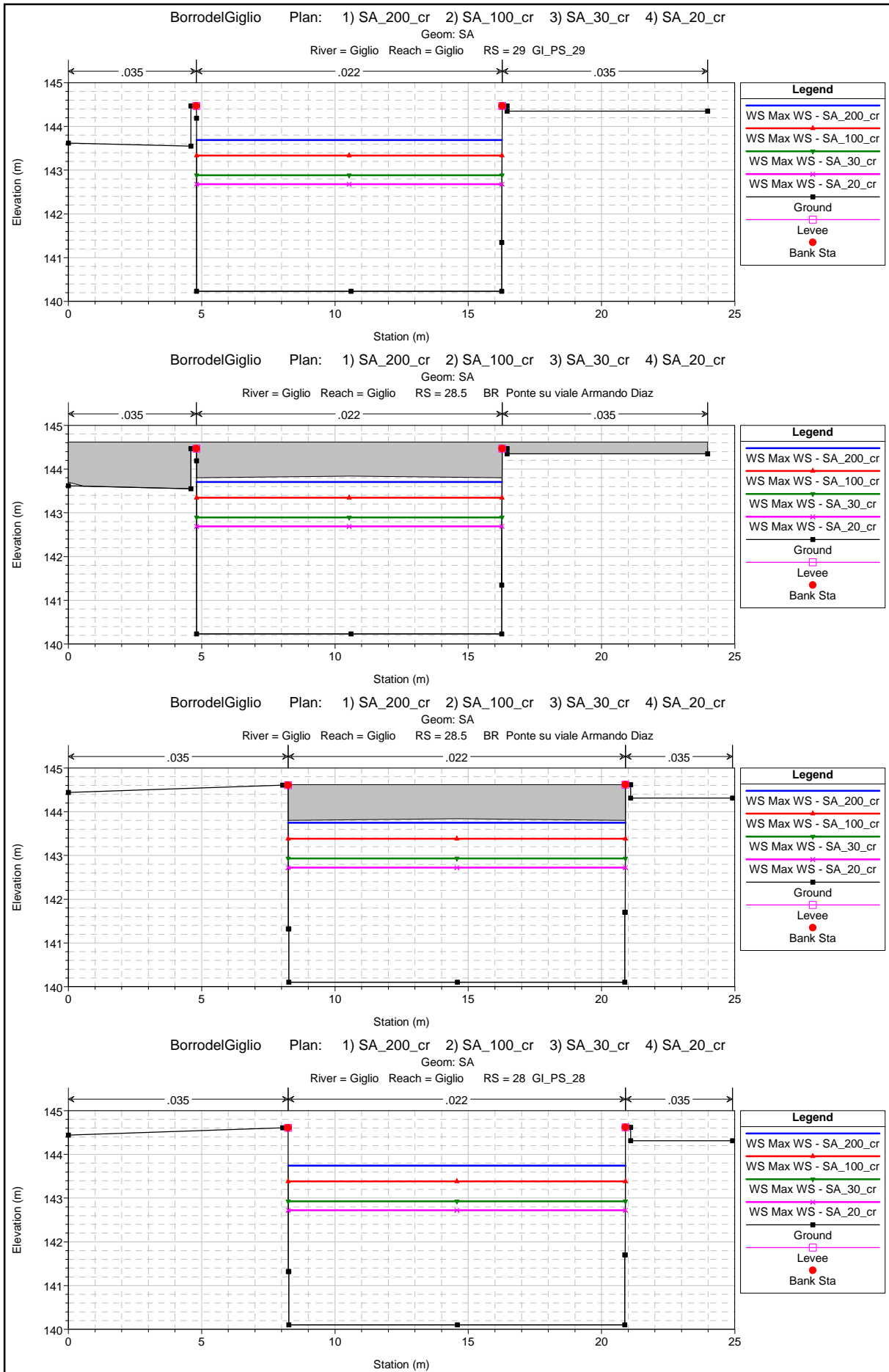


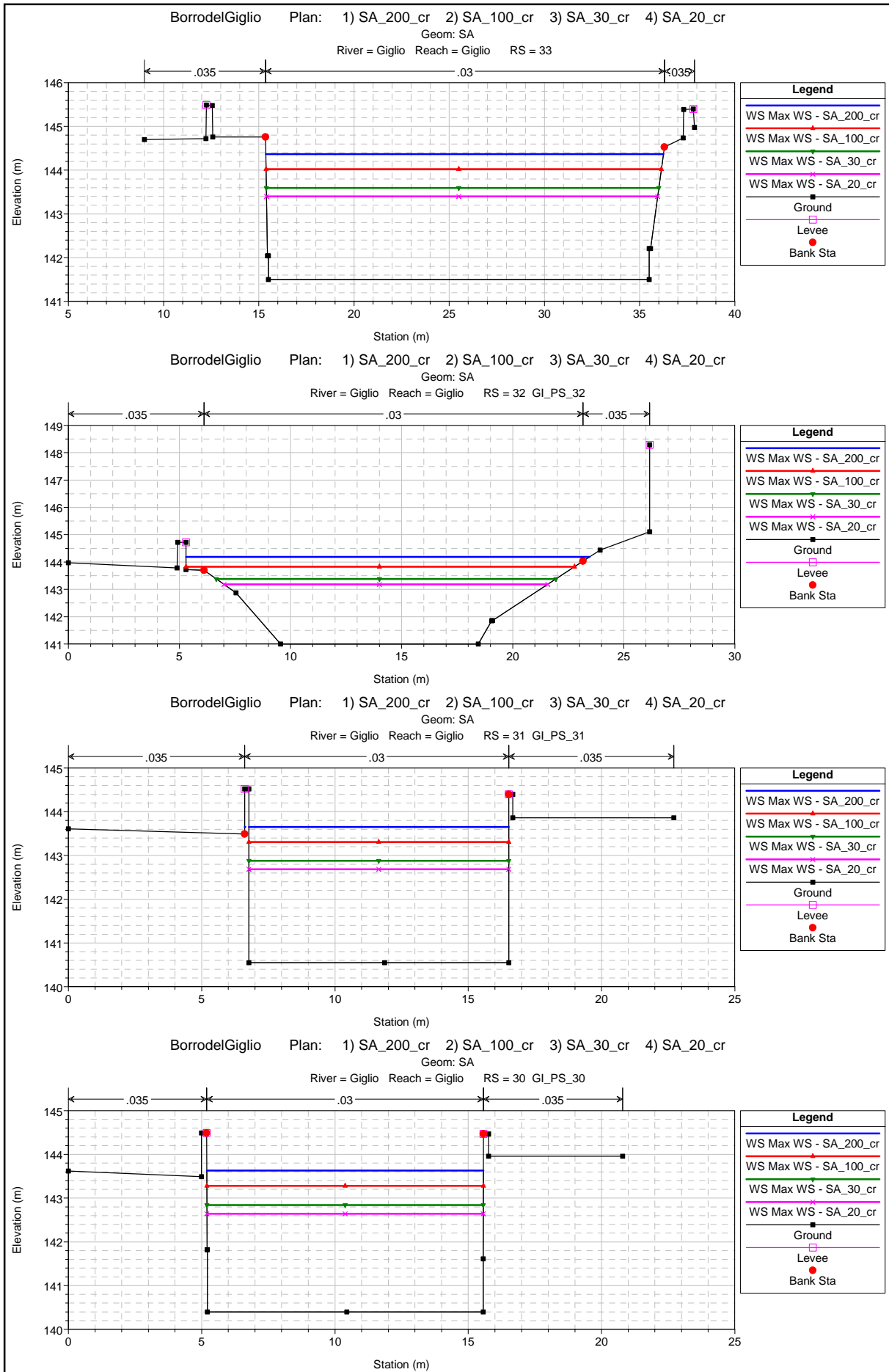


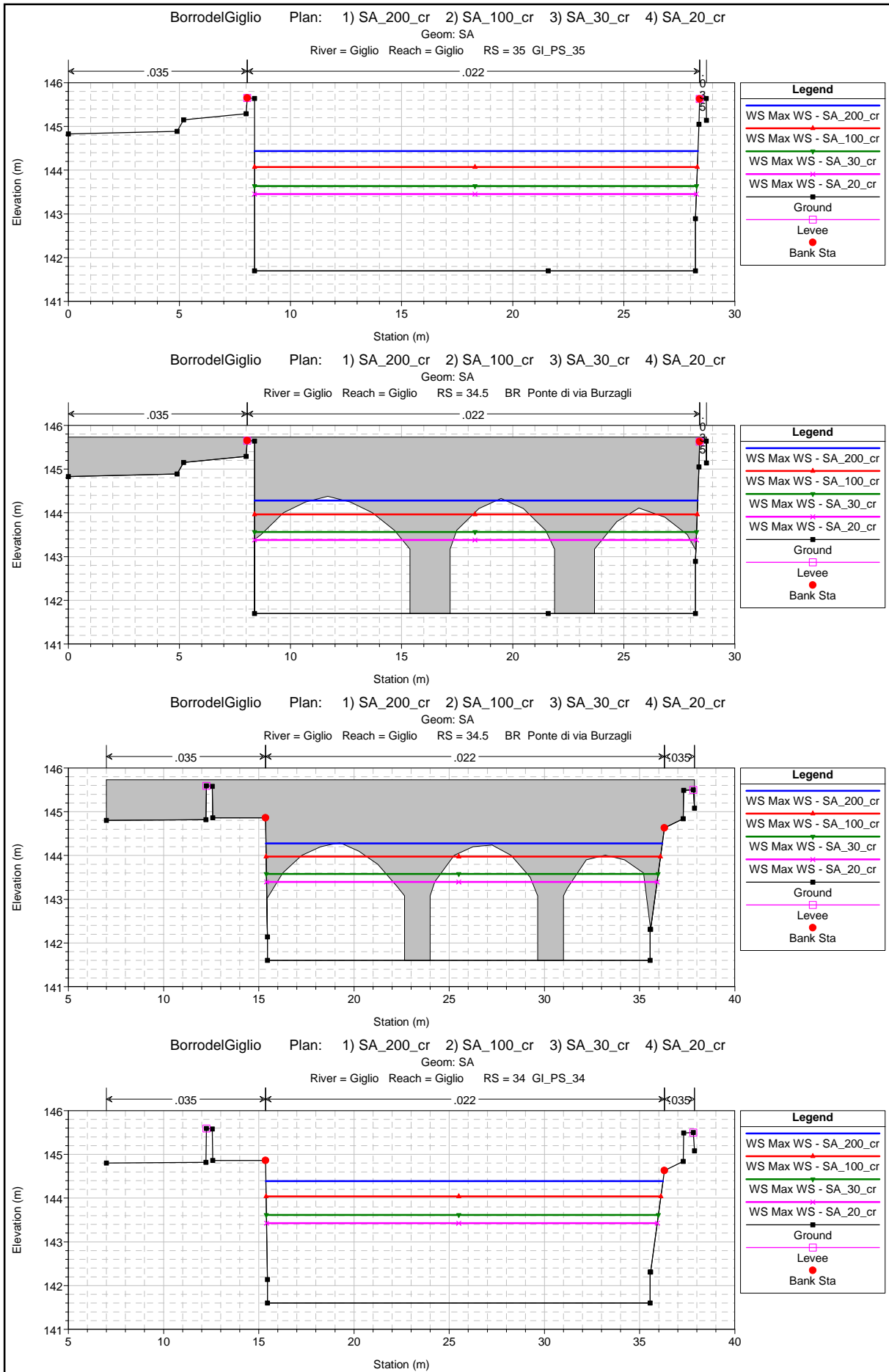


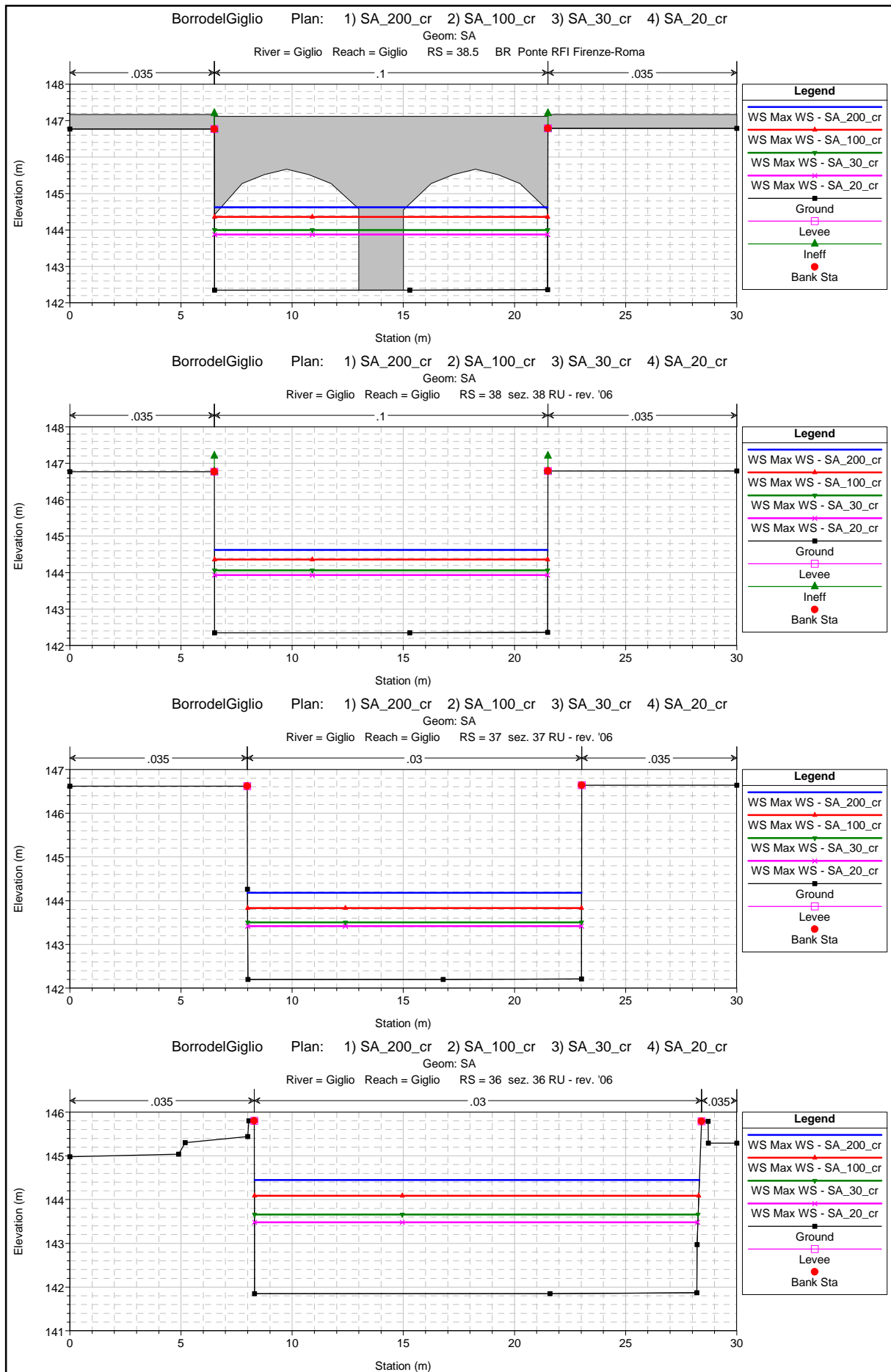


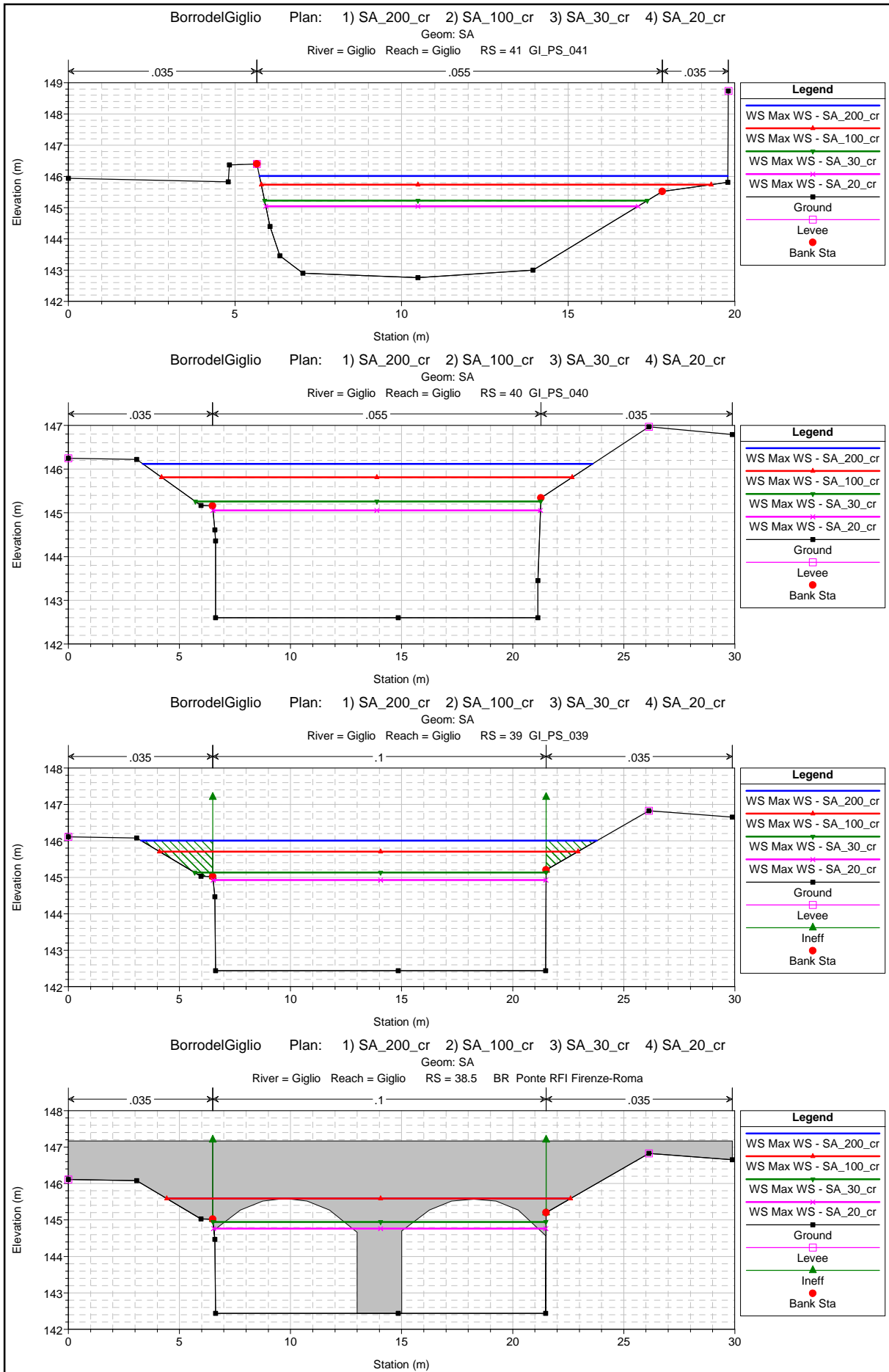


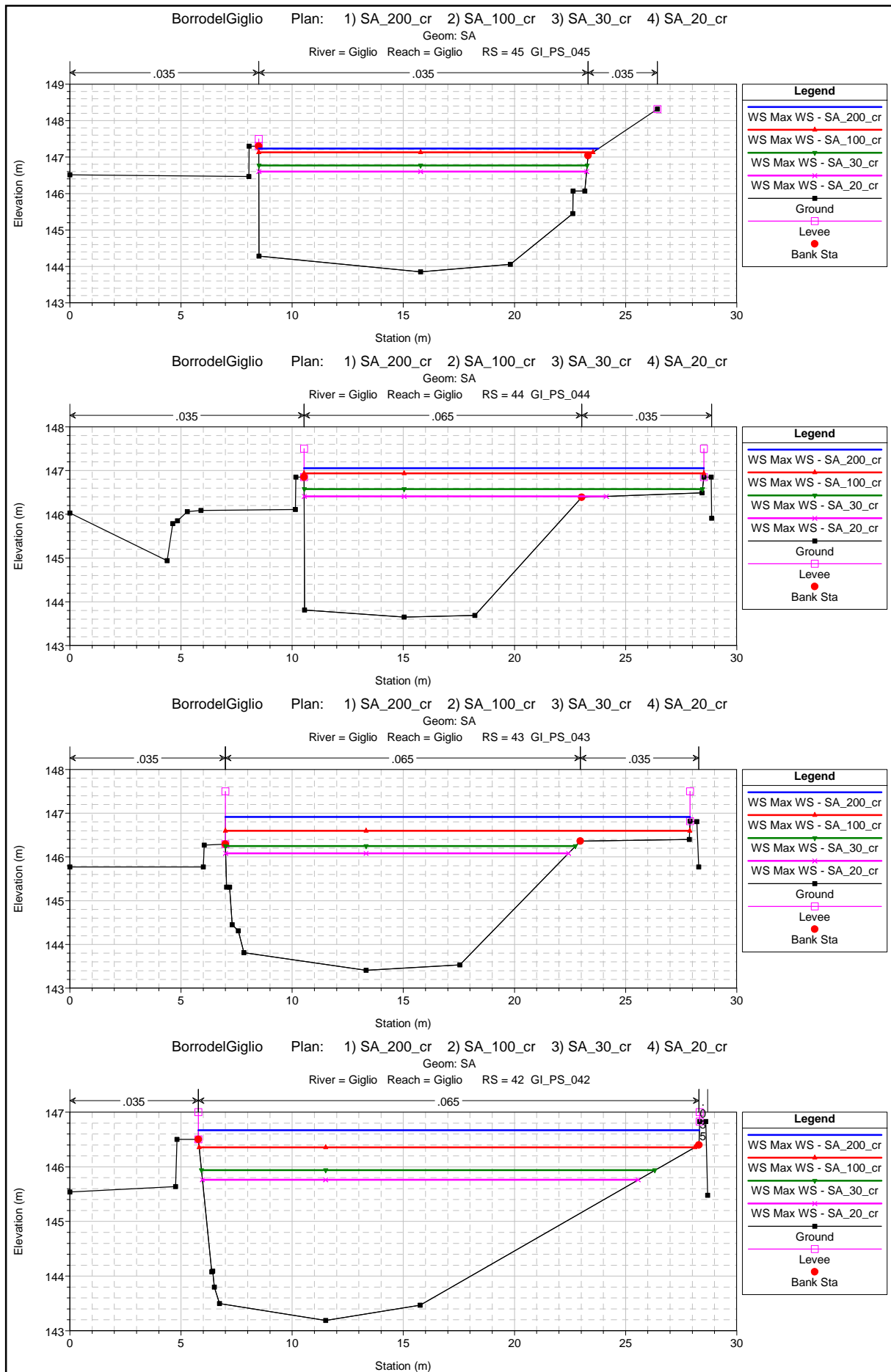


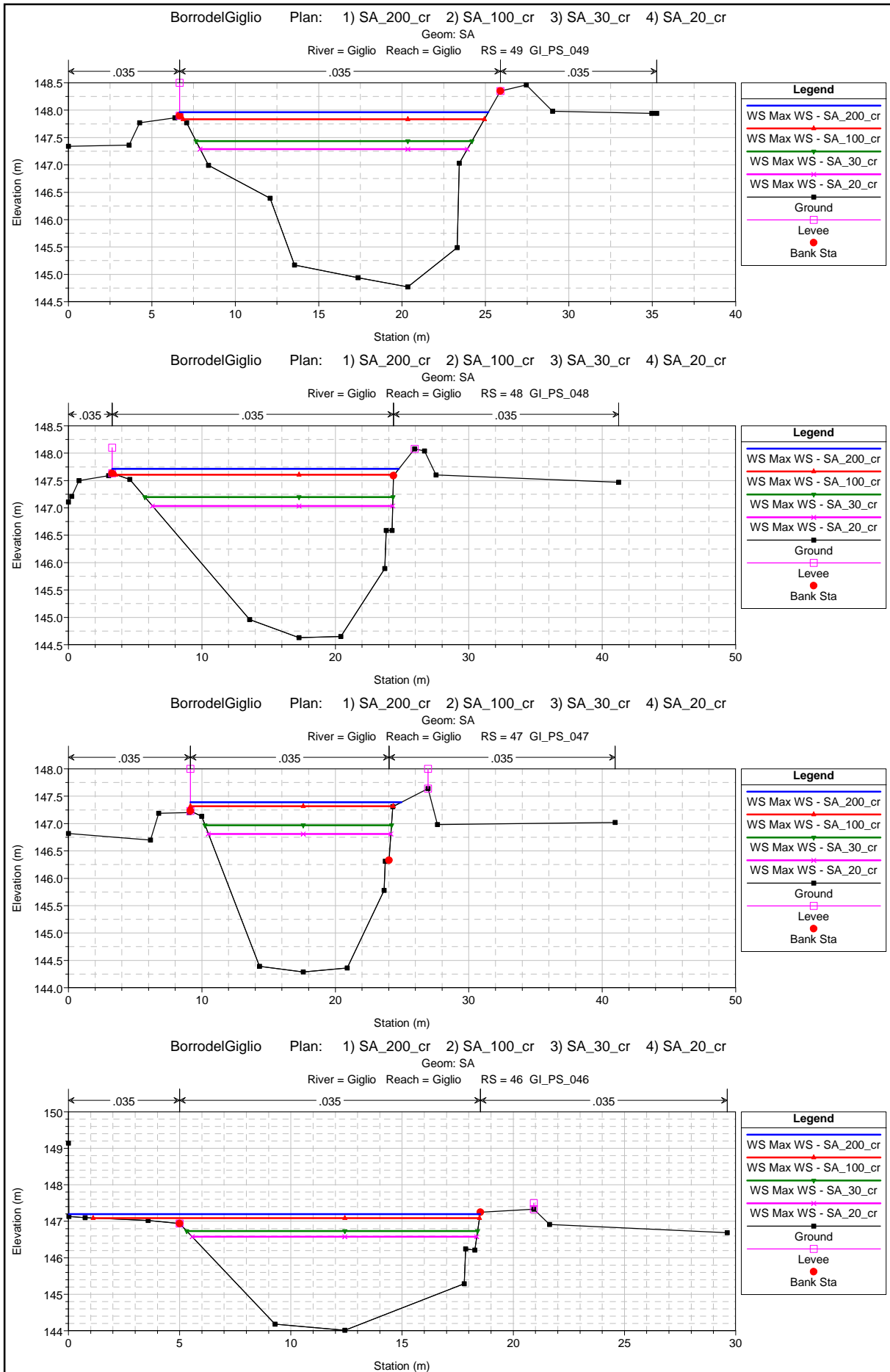


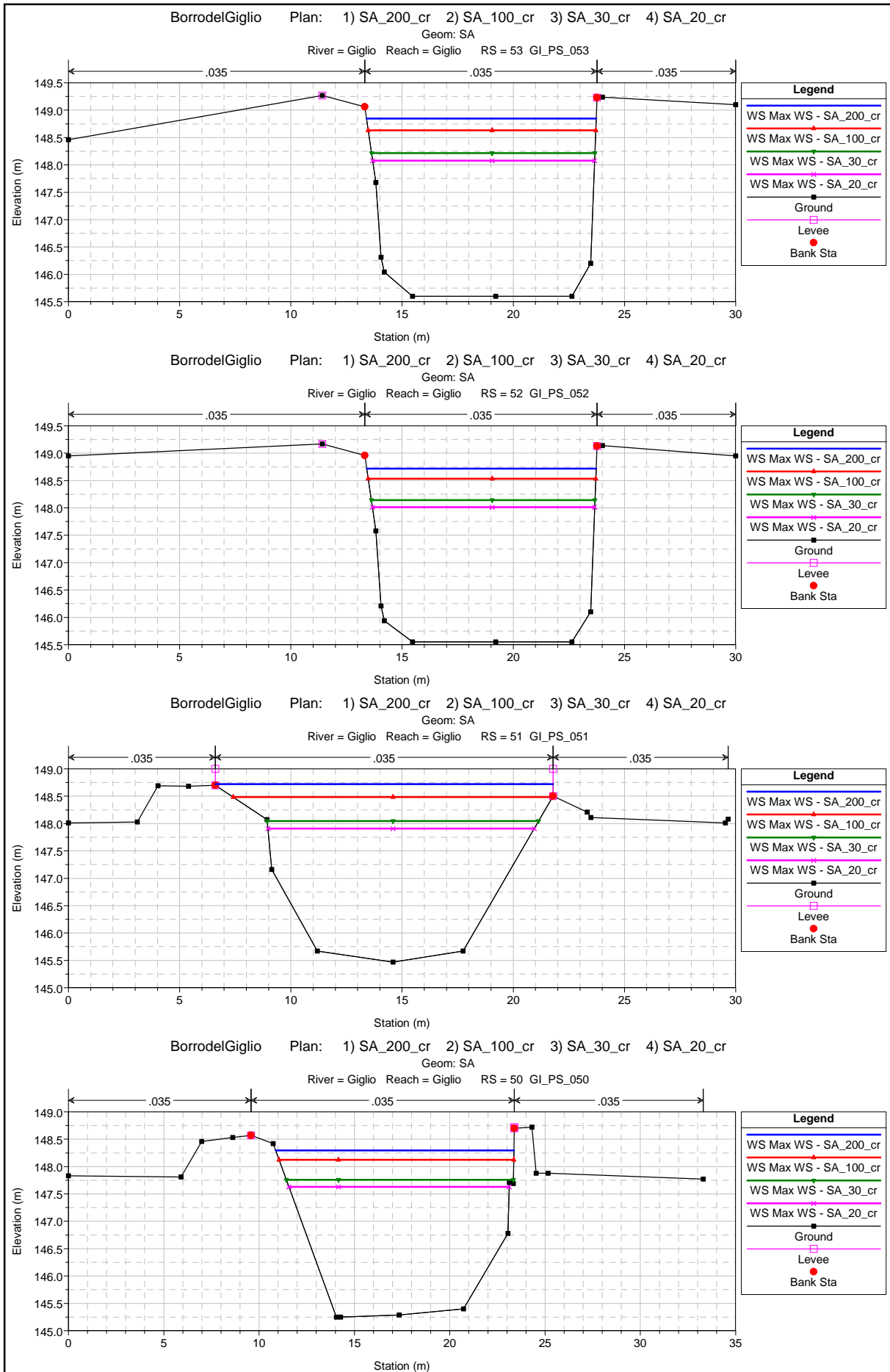


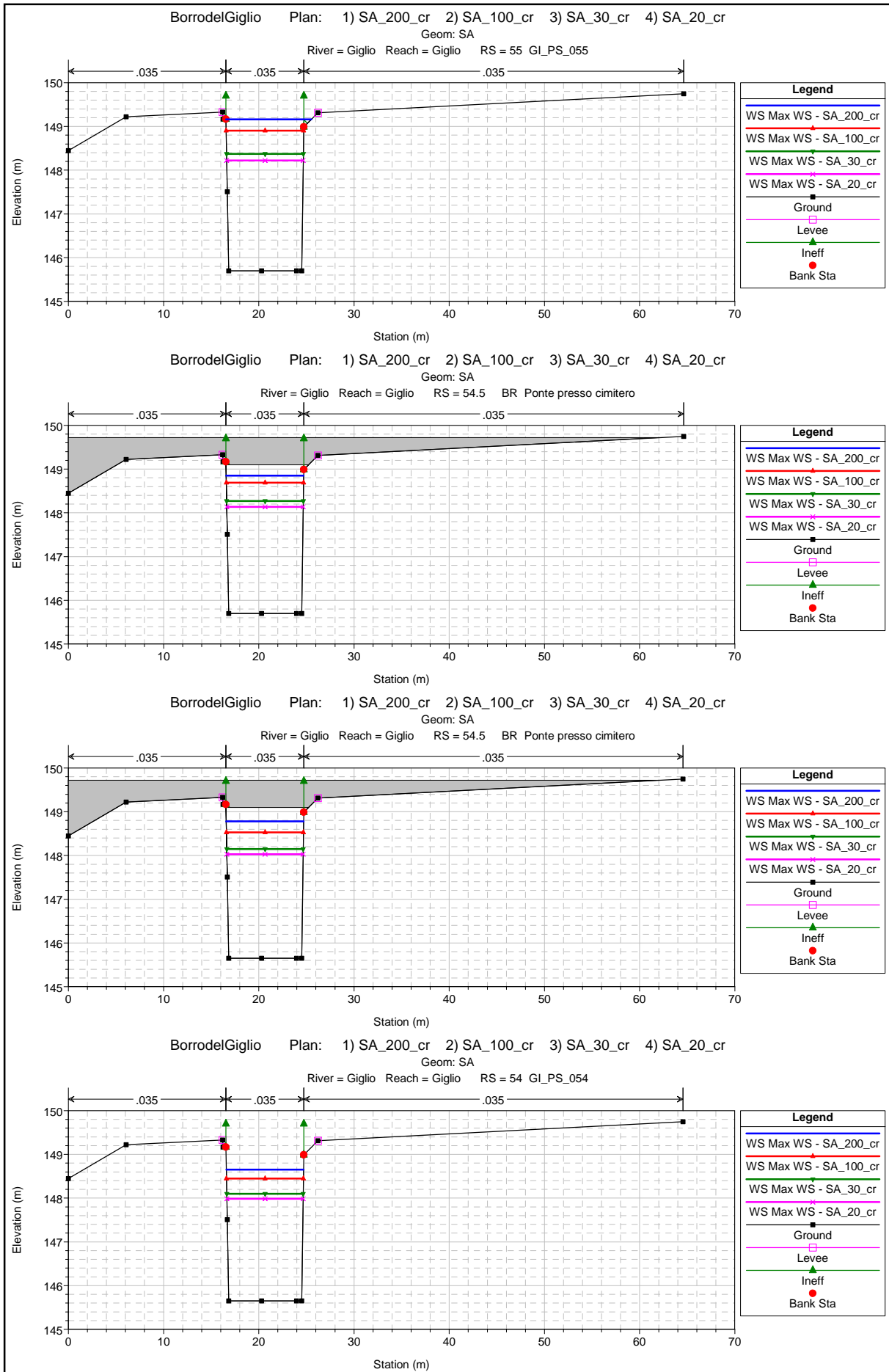


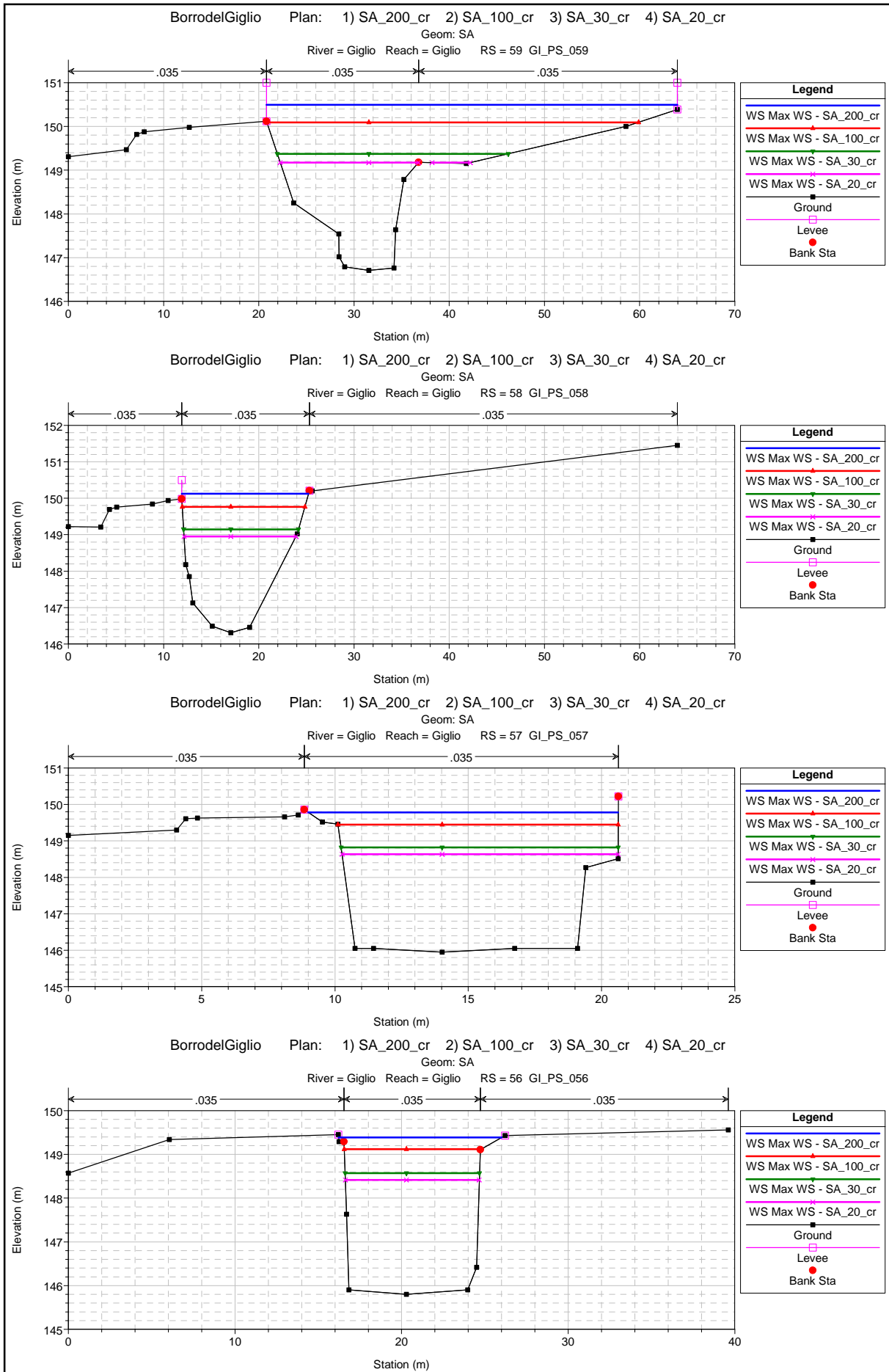








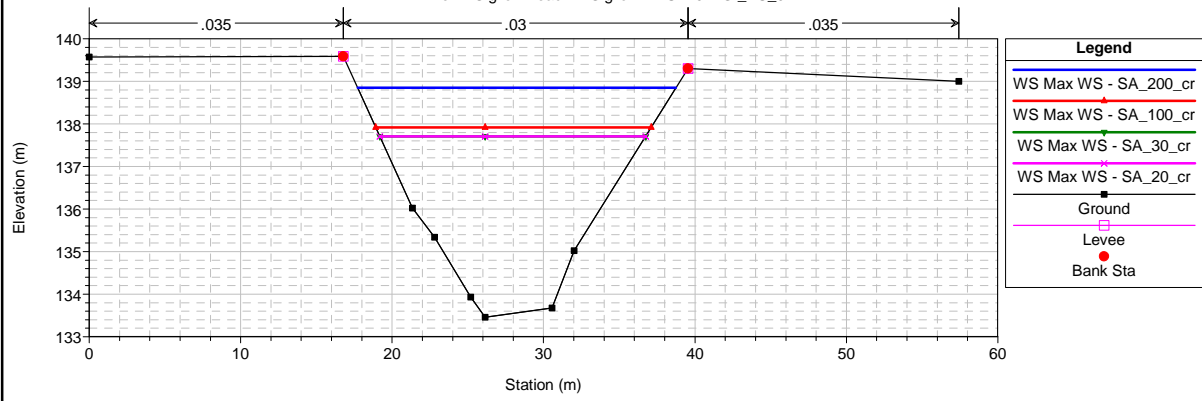




BorrodelaGiglio Plan: 1) SA_200_cr 2) SA_100_cr 3) SA_30_cr 4) SA_20_cr

Geom: SA

River = Giglio Reach = Giglio RS = 01 GI_PS_01



HEC-RAS River: Giglio Reach: Giglio Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	59	Max WS	SA_200_cr	106.78	146.71	150.49		150.65	0.001552	1.94	66.27	43.17	0.38
Giglio	59	Max WS	SA_100_cr	89.49	146.71	150.09		150.30	0.002242	2.12	49.64	39.04	0.45
Giglio	59	Max WS	SA_30_cr	64.87	146.71	149.37		149.70	0.004766	2.55	26.65	24.28	0.63
Giglio	59	Max WS	SA_20_cr	57.87	146.71	149.17		149.52	0.005756	2.61	22.18	18.52	0.68
Giglio	58	Max WS	SA_200_cr	106.74	146.31	150.12		150.57	0.003779	2.95	36.18	13.34	0.57
Giglio	58	Max WS	SA_100_cr	89.49	146.31	149.77		150.18	0.003914	2.84	31.51	12.90	0.58
Giglio	58	Max WS	SA_30_cr	64.87	146.31	149.14		149.52	0.004610	2.73	23.72	12.07	0.62
Giglio	58	Max WS	SA_20_cr	57.87	146.31	148.95		149.32	0.004864	2.69	21.48	11.77	0.64
Giglio	57	Max WS	SA_200_cr	106.38	145.95	149.79		150.24	0.004366	3.00	35.50	11.63	0.55
Giglio	57	Max WS	SA_100_cr	89.49	145.95	149.45		149.85	0.003989	2.82	31.72	10.51	0.52
Giglio	57	Max WS	SA_30_cr	64.87	145.95	148.82		149.16	0.004067	2.58	25.17	10.39	0.53
Giglio	57	Max WS	SA_20_cr	57.86	145.95	148.64		148.95	0.004072	2.49	23.26	10.36	0.53
Giglio	56	Max WS	SA_200_cr	103.95	145.80	149.39		150.10	0.006825	3.73	28.01	9.78	0.65
Giglio	56	Max WS	SA_100_cr	89.49	145.80	149.12		149.74	0.006530	3.49	25.65	8.22	0.63
Giglio	56	Max WS	SA_30_cr	64.87	145.80	148.57		149.05	0.005813	3.06	21.19	8.07	0.60
Giglio	56	Max WS	SA_20_cr	57.86	145.80	148.41		148.84	0.005503	2.91	19.91	8.04	0.59
Giglio	55	Max WS	SA_200_cr	105.16	145.70	149.16	148.35	149.91	0.007657	3.84	27.42	8.98	0.67
Giglio	55	Max WS	SA_100_cr	89.49	145.70	148.90	148.09	149.54	0.007002	3.53	25.32	8.15	0.64
Giglio	55	Max WS	SA_30_cr	64.86	145.70	148.37	147.63	148.86	0.006177	3.09	21.00	8.07	0.61
Giglio	55	Max WS	SA_20_cr	57.86	145.70	148.22	147.49	148.66	0.005810	2.92	19.79	8.04	0.60
Giglio	54.5		Bridge										
Giglio	54	Max WS	SA_200_cr	107.01	145.65	148.65		149.69	0.012061	4.52	23.67	8.11	0.84
Giglio	54	Max WS	SA_100_cr	89.49	145.65	148.45		149.29	0.010299	4.06	22.02	8.08	0.79
Giglio	54	Max WS	SA_30_cr	64.86	145.65	148.10		148.68	0.007940	3.38	19.21	8.02	0.70
Giglio	54	Max WS	SA_20_cr	57.86	145.65	147.99		148.50	0.007257	3.16	18.29	8.01	0.67
Giglio	53	Max WS	SA_200_cr	106.95	145.60	148.85		149.45	0.005609	3.45	31.00	10.34	0.64
Giglio	53	Max WS	SA_100_cr	89.49	145.60	148.63		149.12	0.004823	3.11	28.80	10.24	0.59
Giglio	53	Max WS	SA_30_cr	64.86	145.60	148.21		148.57	0.003976	2.64	24.56	10.05	0.54
Giglio	53	Max WS	SA_20_cr	57.86	145.60	148.08		148.40	0.003724	2.49	23.19	9.98	0.52
Giglio	52	Max WS	SA_200_cr	106.91	145.55	148.72		149.35	0.005994	3.53	30.30	10.32	0.66

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	52	Max WS	SA_100_cr	89.49	145.55	148.53		149.04	0.005029	3.15	28.41	10.24	0.60
Giglio	52	Max WS	SA_30_cr	64.86	145.55	148.14		148.50	0.004055	2.66	24.42	10.06	0.54
Giglio	52	Max WS	SA_20_cr	57.86	145.55	148.01		148.33	0.003771	2.50	23.12	10.00	0.53
Giglio	51.9			Lat Struct									
Giglio	51.8			Lat Struct									
Giglio	51	Max WS	SA_200_cr	106.67	145.47	148.72		149.25	0.005531	3.23	33.03	15.19	0.70
Giglio	51	Max WS	SA_100_cr	89.49	145.47	148.48		148.95	0.005221	3.04	29.47	14.36	0.68
Giglio	51	Max WS	SA_30_cr	64.86	145.47	148.04		148.43	0.004631	2.74	23.67	12.20	0.63
Giglio	51	Max WS	SA_20_cr	57.86	145.47	147.91		148.26	0.004514	2.63	22.04	11.98	0.62
Giglio	50	Max WS	SA_200_cr	106.03	145.25	148.30		148.93	0.006255	3.52	30.16	12.50	0.72
Giglio	50	Max WS	SA_100_cr	89.49	145.25	148.12		148.64	0.005511	3.20	27.98	12.31	0.68
Giglio	50	Max WS	SA_30_cr	64.86	145.25	147.76		148.14	0.004733	2.75	23.57	11.91	0.62
Giglio	50	Max WS	SA_20_cr	57.85	145.25	147.63		147.98	0.004441	2.62	22.08	11.56	0.61
Giglio	49	Max WS	SA_200_cr	105.94	144.77	147.96		148.35	0.004155	2.75	38.48	18.51	0.61
Giglio	49	Max WS	SA_100_cr	89.49	144.77	147.83		148.15	0.003539	2.48	36.09	18.05	0.56
Giglio	49	Max WS	SA_30_cr	64.84	144.77	147.43		147.69	0.003345	2.22	29.22	16.54	0.53
Giglio	49	Max WS	SA_20_cr	57.85	144.77	147.29		147.53	0.003375	2.15	26.87	16.02	0.53
Giglio	48	Max WS	SA_200_cr	104.60	144.63	147.72		148.02	0.003275	2.45	42.70	21.49	0.55
Giglio	48	Max WS	SA_100_cr	89.48	144.63	147.61		147.86	0.002820	2.21	40.40	20.87	0.51
Giglio	48	Max WS	SA_30_cr	64.83	144.63	147.20		147.40	0.002613	2.00	32.45	18.60	0.48
Giglio	48	Max WS	SA_20_cr	57.84	144.63	147.03		147.23	0.002731	1.96	29.45	18.00	0.49
Giglio	47	Max WS	SA_200_cr	101.02	144.29	147.39		147.83	0.004086	2.95	34.39	15.82	0.62
Giglio	47	Max WS	SA_100_cr	88.65	144.29	147.31		147.68	0.003502	2.68	33.20	15.21	0.57
Giglio	47	Max WS	SA_30_cr	64.83	144.29	146.97		147.24	0.002905	2.31	28.16	13.98	0.52
Giglio	47	Max WS	SA_20_cr	57.83	144.29	146.81		147.06	0.002940	2.23	25.98	13.68	0.51
Giglio	46	Max WS	SA_200_cr	93.55	144.01	147.19		147.65	0.004637	3.01	31.73	18.49	0.63
Giglio	46	Max WS	SA_100_cr	86.58	144.01	147.09		147.53	0.004625	2.92	29.83	17.37	0.63
Giglio	46	Max WS	SA_30_cr	64.82	144.01	146.74		147.08	0.004359	2.61	24.85	13.08	0.60
Giglio	46	Max WS	SA_20_cr	57.83	144.01	146.58		146.90	0.004438	2.54	22.80	12.79	0.61

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	38	Max WS	SA_200_cr	95.31	142.35	144.62		145.02	0.037361	2.80	34.03	14.99	0.59
Giglio	38	Max WS	SA_100_cr	81.20	142.35	144.36		144.73	0.039690	2.70	30.02	14.99	0.61
Giglio	38	Max WS	SA_30_cr	64.80	142.35	144.06		144.39	0.041227	2.53	25.60	14.99	0.62
Giglio	38	Max WS	SA_20_cr	57.79	142.35	143.93		144.24	0.041656	2.44	23.70	14.99	0.62
Giglio	37	Max WS	SA_200_cr	95.27	142.20	144.18		144.70	0.005079	3.21	29.71	15.03	0.73
Giglio	37	Max WS	SA_100_cr	81.19	142.20	143.83		144.39	0.006742	3.32	24.42	15.02	0.83
Giglio	37	Max WS	SA_30_cr	64.79	142.20	143.50		144.06	0.008601	3.32	19.54	15.02	0.93
Giglio	37	Max WS	SA_20_cr	56.89	142.20	143.42		143.91	0.008239	3.12	18.24	15.02	0.90
Giglio	36	Max WS	SA_200_cr	95.29	141.85	144.45		144.62	0.001161	1.84	51.76	20.02	0.37
Giglio	36	Max WS	SA_100_cr	81.19	141.85	144.09		144.26	0.001340	1.82	44.50	19.99	0.39
Giglio	36	Max WS	SA_30_cr	64.78	141.85	143.66		143.83	0.001652	1.80	35.98	19.96	0.43
Giglio	36	Max WS	SA_20_cr	58.37	141.85	143.48		143.65	0.001857	1.80	32.44	19.94	0.45
Giglio	35	Max WS	SA_200_cr	95.29	141.70	144.44	143.03	144.60	0.000534	1.75	54.46	19.96	0.34
Giglio	35	Max WS	SA_100_cr	81.19	141.70	144.07	142.89	144.22	0.000602	1.72	47.16	19.93	0.36
Giglio	35	Max WS	SA_30_cr	64.78	141.70	143.64	142.73	143.78	0.000718	1.68	38.51	19.90	0.39
Giglio	35	Max WS	SA_20_cr	58.07	141.70	143.45	142.66	143.59	0.000792	1.67	34.80	19.89	0.40
Giglio	34.5		Bridge										
Giglio	34	Max WS	SA_200_cr	95.29	141.60	144.39		144.53	0.000475	1.68	56.84	20.86	0.32
Giglio	34	Max WS	SA_100_cr	81.19	141.60	144.04		144.18	0.000521	1.63	49.66	20.74	0.34
Giglio	34	Max WS	SA_30_cr	64.78	141.60	143.62		143.75	0.000604	1.58	40.89	20.59	0.36
Giglio	34	Max WS	SA_20_cr	57.94	141.60	143.43		143.55	0.000659	1.56	37.03	20.52	0.37
Giglio	33	Max WS	SA_200_cr	95.29	141.50	144.37		144.50	0.000810	1.63	58.47	20.89	0.31
Giglio	33	Max WS	SA_100_cr	81.18	141.50	144.02		144.15	0.000879	1.58	51.25	20.76	0.32
Giglio	33	Max WS	SA_30_cr	64.78	141.50	143.59		143.71	0.001006	1.53	42.38	20.62	0.34
Giglio	33	Max WS	SA_20_cr	57.85	141.50	143.40		143.52	0.001085	1.50	38.46	20.55	0.35
Giglio	32	Max WS	SA_200_cr	95.28	141.00	144.19		144.46	0.001728	2.32	41.47	18.17	0.48
Giglio	32	Max WS	SA_100_cr	81.18	141.00	143.83		144.10	0.002095	2.32	35.01	17.49	0.51
Giglio	32	Max WS	SA_30_cr	64.77	141.00	143.38		143.66	0.002553	2.34	27.73	15.28	0.55
Giglio	32	Max WS	SA_20_cr	57.83	141.00	143.18		143.46	0.002771	2.33	24.78	14.57	0.57

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	31	Max WS	SA_200_cr	95.27	140.55	143.65		144.16	0.003813	3.15	30.23	9.75	0.57
Giglio	31	Max WS	SA_100_cr	81.18	140.55	143.31		143.77	0.003862	3.02	26.88	9.75	0.58
Giglio	31	Max WS	SA_30_cr	64.77	140.55	142.88		143.29	0.003998	2.85	22.70	9.75	0.60
Giglio	31	Max WS	SA_20_cr	57.81	140.55	142.69		143.08	0.004097	2.78	20.82	9.75	0.61
Giglio	30	Max WS	SA_200_cr	95.28	140.40	143.63		144.04	0.002911	2.85	33.48	10.37	0.51
Giglio	30	Max WS	SA_100_cr	81.18	140.40	143.28		143.66	0.002928	2.72	29.85	10.37	0.51
Giglio	30	Max WS	SA_30_cr	64.77	140.40	142.84		143.18	0.003004	2.56	25.29	10.37	0.52
Giglio	30	Max WS	SA_20_cr	57.80	140.40	142.64		142.96	0.003066	2.49	23.23	10.37	0.53
Giglio	29	Max WS	SA_200_cr	95.27	140.23	143.69	142.15	143.99	0.001003	2.40	39.64	11.46	0.41
Giglio	29	Max WS	SA_100_cr	81.18	140.23	143.33	141.95	143.60	0.000994	2.28	35.54	11.46	0.41
Giglio	29	Max WS	SA_30_cr	64.77	140.23	142.89	141.71	143.12	0.000993	2.13	30.40	11.45	0.42
Giglio	29	Max WS	SA_20_cr	57.80	140.23	142.68	141.60	142.90	0.000997	2.06	28.08	11.45	0.42
Giglio	28.5			Bridge									
Giglio	28	Max WS	SA_200_cr	95.27	140.10	143.75		143.96	0.000679	2.07	46.03	12.65	0.35
Giglio	28	Max WS	SA_100_cr	81.18	140.10	143.38		143.58	0.000666	1.96	41.45	12.65	0.35
Giglio	28	Max WS	SA_30_cr	64.77	140.10	142.93		143.10	0.000654	1.81	35.69	12.65	0.34
Giglio	28	Max WS	SA_20_cr	57.79	140.10	142.72		142.88	0.000650	1.75	33.09	12.65	0.34
Giglio	27	Max WS	SA_200_cr	95.28	140.00	143.69		143.94	0.001422	2.18	43.80	11.87	0.36
Giglio	27	Max WS	SA_100_cr	81.18	140.00	143.34		143.55	0.001379	2.05	39.56	11.86	0.36
Giglio	27	Max WS	SA_30_cr	64.77	140.00	142.89		143.07	0.001331	1.89	34.22	11.86	0.36
Giglio	27	Max WS	SA_20_cr	57.79	140.00	142.68		142.85	0.001311	1.82	31.80	11.86	0.35
Giglio	26	Max WS	SA_200_cr	95.27	139.90	143.45		143.88	0.003035	2.92	32.64	9.20	0.49
Giglio	26	Max WS	SA_100_cr	81.18	139.90	143.12		143.50	0.002891	2.74	29.59	9.20	0.49
Giglio	26	Max WS	SA_30_cr	64.77	139.90	142.70		143.02	0.002723	2.52	25.74	9.20	0.48
Giglio	26	Max WS	SA_20_cr	57.79	139.90	142.51		142.80	0.002647	2.41	23.99	9.20	0.48
Giglio	25	Max WS	SA_200_cr	95.27	139.85	142.98		143.80	0.007011	4.00	23.81	7.60	0.72
Giglio	25	Max WS	SA_100_cr	81.18	139.85	142.70		143.42	0.006566	3.74	21.70	7.60	0.71
Giglio	25	Max WS	SA_30_cr	64.76	139.85	142.35		142.94	0.006052	3.41	18.99	7.60	0.69
Giglio	25	Max WS	SA_20_cr	57.78	139.85	142.19		142.73	0.005819	3.25	17.76	7.60	0.68
Giglio	24	Max WS	SA_200_cr	95.27	139.75	142.54		143.59	0.009850	4.53	21.03	7.54	0.87

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	24	Max WS	SA_100_cr	81.18	139.75	142.30		143.21	0.009185	4.22	19.22	7.54	0.84
Giglio	24	Max WS	SA_30_cr	64.76	139.75	142.00		142.74	0.008404	3.83	16.89	7.54	0.82
Giglio	24	Max WS	SA_20_cr	57.78	139.75	141.86		142.53	0.008034	3.65	15.84	7.54	0.80
Giglio	23	Max WS	SA_200_cr	95.27	139.60	142.65		143.04	0.002772	2.77	34.43	11.32	0.51
Giglio	23	Max WS	SA_100_cr	81.18	139.60	142.37		142.72	0.002660	2.60	31.25	11.31	0.50
Giglio	23	Max WS	SA_30_cr	64.76	139.60	142.00		142.29	0.002574	2.39	27.07	11.30	0.49
Giglio	23	Max WS	SA_20_cr	57.78	139.60	141.83		142.10	0.002538	2.30	25.17	11.30	0.49
Giglio	22	Max WS	SA_200_cr	95.27	139.50	142.42		142.92	0.003763	3.11	30.59	10.59	0.58
Giglio	22	Max WS	SA_100_cr	81.18	139.50	142.16		142.60	0.003585	2.92	27.82	10.56	0.57
Giglio	22	Max WS	SA_30_cr	64.76	139.50	141.81		142.18	0.003458	2.69	24.12	10.53	0.57
Giglio	22	Max WS	SA_20_cr	57.78	139.50	141.65		141.99	0.003405	2.58	22.43	10.51	0.56
Giglio	21	Max WS	SA_200_cr	95.27	139.22	142.33		142.73	0.002851	2.81	33.96	10.96	0.51
Giglio	21	Max WS	SA_100_cr	81.18	139.22	142.08		142.42	0.002652	2.61	31.15	10.96	0.49
Giglio	21	Max WS	SA_30_cr	64.76	139.22	141.73		142.01	0.002468	2.37	27.32	10.96	0.48
Giglio	21	Max WS	SA_20_cr	57.77	139.22	141.57		141.83	0.002384	2.26	25.57	10.96	0.47
Giglio	20	Max WS	SA_200_cr	95.27	139.20	142.22		142.65	0.003136	2.90	32.81	10.93	0.53
Giglio	20	Max WS	SA_100_cr	81.17	139.20	141.97		142.34	0.002908	2.69	30.13	10.92	0.52
Giglio	20	Max WS	SA_30_cr	64.75	139.20	141.63		141.94	0.002711	2.45	26.42	10.90	0.50
Giglio	20	Max WS	SA_20_cr	57.77	139.20	141.48		141.76	0.002620	2.34	24.73	10.90	0.50
Giglio	19	Max WS	SA_200_cr	95.27	139.10	142.04		142.50	0.003415	3.00	31.81	10.86	0.56
Giglio	19	Max WS	SA_100_cr	81.15	139.10	141.81		142.20	0.003120	2.76	29.36	10.85	0.54
Giglio	19	Max WS	SA_30_cr	64.74	139.10	141.49		141.81	0.002877	2.51	25.84	10.84	0.52
Giglio	19	Max WS	SA_20_cr	57.77	139.10	141.34		141.63	0.002765	2.38	24.24	10.84	0.51
Giglio	18	Max WS	SA_200_cr	95.27	139.04	141.89		142.38	0.003729	3.09	30.86	10.83	0.58
Giglio	18	Max WS	SA_100_cr	81.14	139.04	141.69		142.10	0.003358	2.83	28.63	10.83	0.56
Giglio	18	Max WS	SA_30_cr	64.72	139.04	141.38		141.71	0.003070	2.56	25.28	10.83	0.53
Giglio	18	Max WS	SA_20_cr	57.77	139.04	141.23		141.54	0.002941	2.43	23.74	10.83	0.52
Giglio	17	Max WS	SA_200_cr	95.27	139.00	141.74		142.29	0.004469	3.30	28.88	10.60	0.64
Giglio	17	Max WS	SA_100_cr	81.13	139.00	141.56		142.02	0.003949	3.01	26.98	10.60	0.60
Giglio	17	Max WS	SA_30_cr	64.70	139.00	141.27		141.64	0.003578	2.71	23.89	10.59	0.58
Giglio	17	Max WS	SA_20_cr	57.77	139.00	141.13		141.47	0.003418	2.57	22.47	10.59	0.56

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	16	Max WS	SA_200_cr	95.27	138.95	141.32		142.23	0.008701	4.22	22.55	10.34	0.91
Giglio	16	Max WS	SA_100_cr	81.03	138.95	141.17		141.93	0.007734	3.85	21.02	10.31	0.86
Giglio	16	Max WS	SA_30_cr	64.63	138.95	140.92		141.55	0.007302	3.51	18.40	10.26	0.84
Giglio	16	Max WS	SA_20_cr	57.77	138.95	140.80		141.38	0.007145	3.36	17.19	10.24	0.83
Giglio	15	Max WS	SA_200_cr	95.27	138.81	141.08		141.88	0.007582	3.96	24.03	10.67	0.84
Giglio	15	Max WS	SA_100_cr	81.83	138.81	140.99		141.63	0.006374	3.56	22.99	10.66	0.77
Giglio	15	Max WS	SA_30_cr	65.33	138.81	140.75		141.27	0.005702	3.19	20.50	10.64	0.73
Giglio	15	Max WS	SA_20_cr	57.76	138.81	140.64		141.10	0.005340	2.99	19.30	10.63	0.71
Giglio	14	Max WS	SA_200_cr	95.26	138.65	141.22	140.55	141.74	0.002301	3.20	29.76	11.60	0.64
Giglio	14	Max WS	SA_100_cr	81.61	138.65	141.11	140.37	141.53	0.001905	2.86	28.56	11.60	0.58
Giglio	14	Max WS	SA_30_cr	65.12	138.65	140.85	140.12	141.18	0.001683	2.55	25.55	11.60	0.55
Giglio	14	Max WS	SA_20_cr	57.77	138.65	140.73	140.01	141.02	0.001570	2.39	24.14	11.60	0.53
Giglio	13.5		Bridge										
Giglio	13	Max WS	SA_200_cr	95.26	138.60	141.18		141.69	0.002275	3.19	29.87	11.60	0.63
Giglio	13	Max WS	SA_100_cr	81.44	138.60	141.08		141.49	0.001856	2.83	28.77	11.60	0.57
Giglio	13	Max WS	SA_30_cr	64.97	138.60	140.83		141.15	0.001624	2.52	25.83	11.60	0.54
Giglio	13	Max WS	SA_20_cr	57.77	138.60	140.71		140.99	0.001508	2.36	24.46	11.60	0.52
Giglio	12	Max WS	SA_200_cr	95.26	138.44	140.77		141.63	0.008246	4.13	23.07	10.02	0.87
Giglio	12	Max WS	SA_100_cr	81.33	138.44	140.78		141.40	0.005922	3.51	23.19	10.02	0.74
Giglio	12	Max WS	SA_30_cr	64.88	138.44	140.61		141.07	0.004680	3.01	21.53	10.00	0.66
Giglio	12	Max WS	SA_20_cr	57.77	138.44	140.53		140.93	0.004156	2.79	20.71	10.00	0.62
Giglio	11	Max WS	SA_200_cr	95.27	138.30	139.28	140.39	144.04	0.108562	9.67	9.85	10.19	3.14
Giglio	11	Max WS	SA_100_cr	81.18	138.30	139.13	140.18	143.97	0.133320	9.75	8.33	10.16	3.44
Giglio	11	Max WS	SA_30_cr	64.80	138.30	138.99	139.92	143.43	0.150803	9.33	6.94	10.12	3.60
Giglio	11	Max WS	SA_20_cr	57.77	138.30	138.94	139.80	143.09	0.155441	9.03	6.40	10.11	3.62
Giglio	10.99		Lat Struct										
Giglio	10	Max WS	SA_200_cr	96.85	135.99	139.21		139.52	0.002229	2.50	38.74	14.40	0.49
Giglio	10	Max WS	SA_100_cr	82.49	135.99	138.86		139.16	0.002429	2.44	33.75	14.21	0.51
Giglio	10	Max WS	SA_30_cr	65.79	135.99	138.53		138.79	0.002390	2.26	29.16	14.03	0.50

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	10	Max WS	SA_20_cr	58.67	135.99	138.41		138.65	0.002271	2.13	27.49	13.97	0.49
Giglio	09	Max WS	SA_200_cr	96.85	135.76	138.92		139.33	0.003216	2.87	33.79	16.02	0.63
Giglio	09	Max WS	SA_100_cr	82.05	135.76	138.41		138.92	0.005064	3.17	25.86	15.13	0.77
Giglio	09	Max WS	SA_30_cr	65.74	135.76	137.99		138.56	0.007474	3.34	19.68	14.67	0.92
Giglio	09	Max WS	SA_20_cr	58.65	135.76	137.88		138.42	0.007634	3.24	18.12	14.49	0.92
Giglio	08	Max WS	SA_200_cr	60.59	135.29	138.78		138.98	0.001445	1.96	30.99	14.08	0.42
Giglio	08	Max WS	SA_100_cr	82.44	135.29	137.91	137.92	138.79	0.008827	4.15	19.89	11.51	1.01
Giglio	08	Max WS	SA_30_cr	40.50	135.29	137.59		137.91	0.003614	2.48	16.36	10.56	0.63
Giglio	08	Max WS	SA_20_cr	30.49	135.29	137.66		137.82	0.001844	1.79	17.01	10.74	0.45
Giglio	07	Max WS	SA_200_cr	60.60	135.14	138.85		138.95	0.000688	1.41	42.97	18.56	0.30
Giglio	07	Max WS	SA_100_cr	62.37	135.14	137.91		138.17	0.002183	2.23	27.99	14.43	0.51
Giglio	07	Max WS	SA_30_cr	40.49	135.14	137.71		137.84	0.001253	1.61	25.08	13.87	0.38
Giglio	07	Max WS	SA_20_cr	30.49	135.14	137.71		137.78	0.000709	1.21	25.10	13.88	0.29
Giglio	06	Max WS	SA_200_cr	60.59	134.66	138.85		138.93	0.000547	1.30	46.72	18.56	0.26
Giglio	06	Max WS	SA_100_cr	64.10	134.66	137.92		138.13	0.001595	2.01	31.89	14.46	0.43
Giglio	06	Max WS	SA_30_cr	40.49	134.66	137.71		137.81	0.000835	1.40	28.92	13.92	0.31
Giglio	06	Max WS	SA_20_cr	30.49	134.66	137.71		137.77	0.000475	1.06	28.89	13.91	0.23
Giglio	05	Max WS	SA_200_cr	60.60	134.03	138.87		138.92	0.000262	0.95	63.71	24.42	0.19
Giglio	05	Max WS	SA_100_cr	82.41	134.03	138.03		138.20	0.001351	1.86	44.31	21.35	0.41
Giglio	05	Max WS	SA_30_cr	40.49	134.03	137.74		137.80	0.000494	1.06	38.32	20.30	0.25
Giglio	05	Max WS	SA_20_cr	30.49	134.03	137.73		137.76	0.000286	0.80	38.05	20.25	0.19
Giglio	04	Max WS	SA_200_cr	60.60	133.96	138.87		138.91	0.000239	0.92	65.63	24.76	0.18
Giglio	04	Max WS	SA_100_cr	82.40	133.96	138.00		138.17	0.001234	1.80	45.74	21.45	0.39
Giglio	04	Max WS	SA_30_cr	40.49	133.96	137.73		137.78	0.000437	1.01	40.02	20.51	0.23
Giglio	04	Max WS	SA_20_cr	30.48	133.96	137.72		137.75	0.000251	0.77	39.82	20.48	0.18
Giglio	03	Max WS	SA_200_cr	60.58	133.62	138.85		138.91	0.000245	1.01	60.09	20.91	0.18
Giglio	03	Max WS	SA_100_cr	82.40	133.62	137.94		138.13	0.001115	1.90	43.48	17.06	0.38
Giglio	03	Max WS	SA_30_cr	40.48	133.62	137.72		137.77	0.000347	1.02	39.69	16.52	0.21
Giglio	03	Max WS	SA_20_cr	30.47	133.62	137.71		137.74	0.000197	0.77	39.64	16.51	0.16
Giglio	02	Max WS	SA_200_cr	60.58	133.58	138.85		138.90	0.000234	0.99	60.92	19.25	0.18

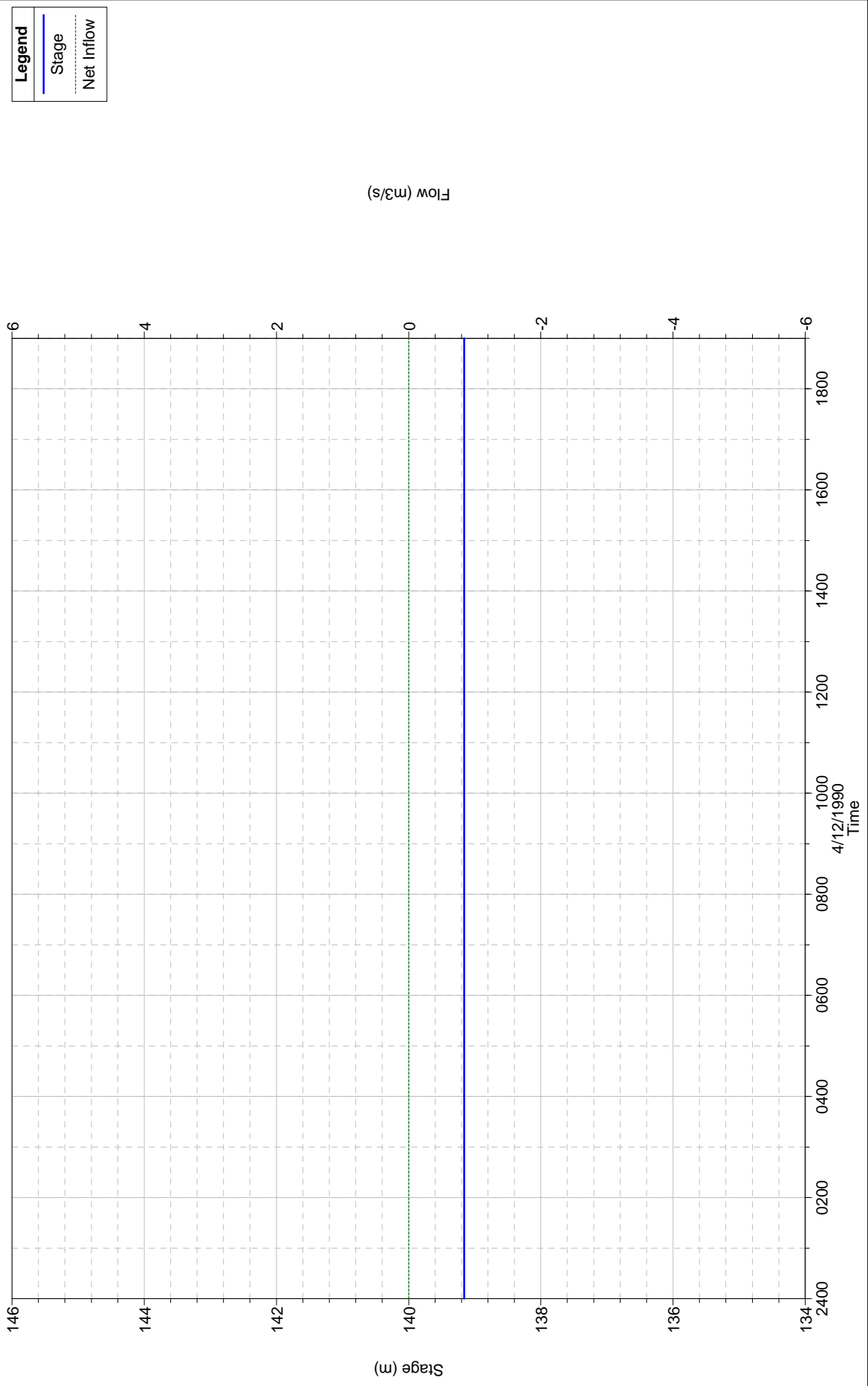
HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	02	Max WS	SA_100_cr	61.55	133.58	137.92		138.02	0.000591	1.40	44.05	17.00	0.28
Giglio	02	Max WS	SA_30_cr	40.48	133.58	137.71		137.76	0.000322	1.00	40.56	16.49	0.20
Giglio	02	Max WS	SA_20_cr	30.47	133.58	137.71		137.74	0.000182	0.75	40.58	16.49	0.15
Giglio	01	Max WS	SA_200_cr	60.53	133.46	138.85	135.67	138.89	0.000185	0.90	67.45	21.02	0.16
Giglio	01	Max WS	SA_100_cr	60.50	133.46	137.92	135.67	138.00	0.000431	1.23	49.22	18.19	0.24
Giglio	01	Max WS	SA_30_cr	40.46	133.46	137.71	135.24	137.75	0.000239	0.89	45.46	17.56	0.18
Giglio	01	Max WS	SA_20_cr	30.46	133.46	137.71	134.99	137.73	0.000135	0.67	45.46	17.56	0.13

HEC-RAS Profile: Max WS

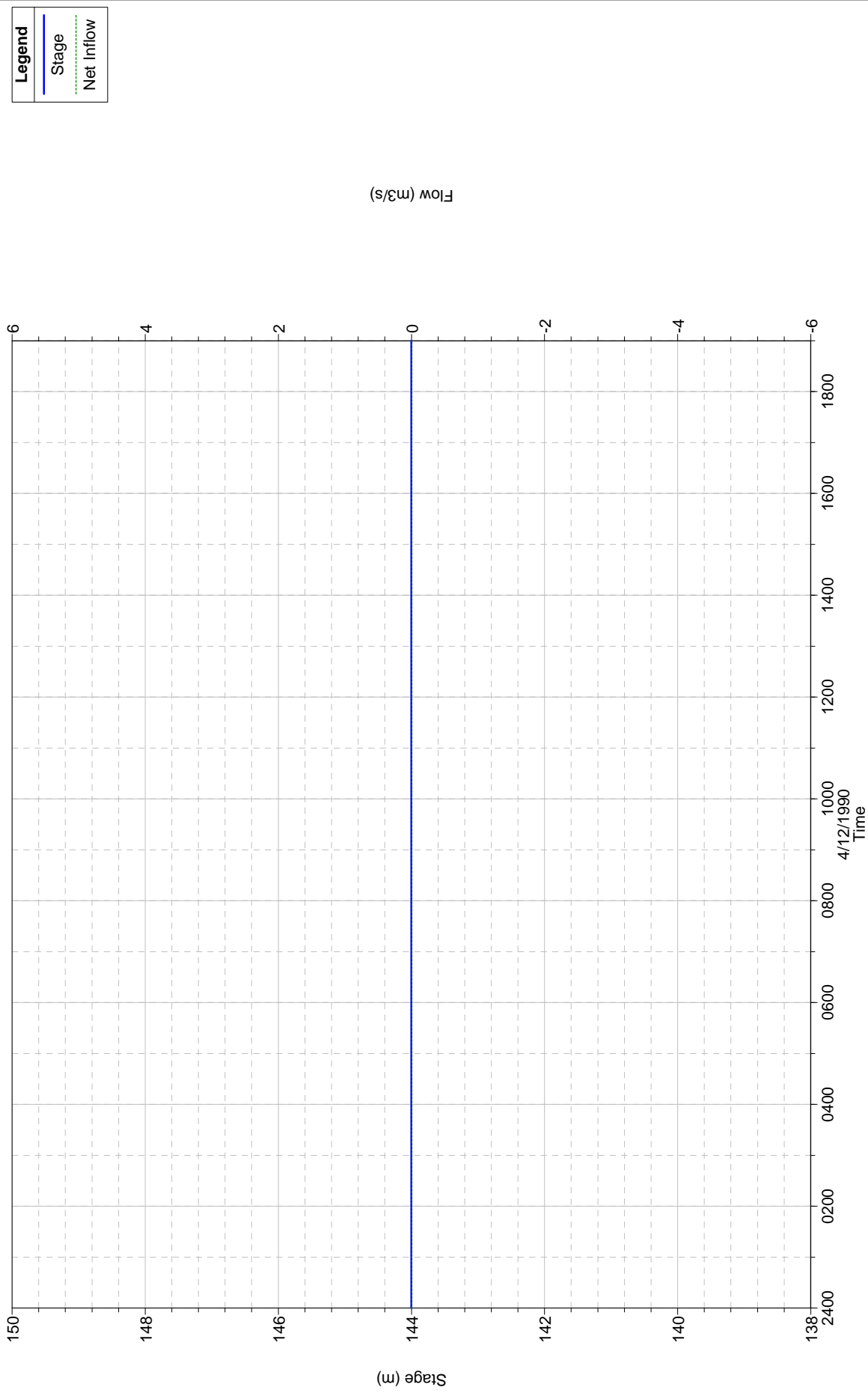
Storage Area	Profile	Plan	W.S. Elev (m)	SA Min El (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
Dx_Arno	Max WS	SA_200_cr	139.16	139.16	0.00	35.88	0.00
Dx_Arno	Max WS	SA_100_cr	139.16	139.16	0.00	35.88	0.00
Dx_Arno	Max WS	SA_30_cr	139.16	139.16	0.00	35.88	0.00
Dx_Arno	Max WS	SA_20_cr	139.16	139.16	0.00	35.88	0.00
Giglio_dx	Max WS	SA_200_cr	144.06	144.00	0.99	50.00	3.02
Giglio_dx	Max WS	SA_100_cr	144.00	144.00	0.00	50.00	0.00
Giglio_dx	Max WS	SA_30_cr	144.00	144.00	0.00	50.00	0.00
Giglio_dx	Max WS	SA_20_cr	144.00	144.00	0.00	50.00	0.00
Giglio_dx_valle	Max WS	SA_200_cr	146.05	145.00	3.30	34.01	10.80
Giglio_dx_valle	Max WS	SA_100_cr	145.05	145.00	0.15	9.00	0.42
Giglio_dx_valle	Max WS	SA_30_cr	145.00	145.00	0.00	9.00	0.00
Giglio_dx_valle	Max WS	SA_20_cr	145.00	145.00	0.00	9.00	0.00
Giglio_sx	Max WS	SA_200_cr	146.88	144.00	2.87	39.01	88.45
Giglio_sx	Max WS	SA_100_cr	145.34	144.00	8.12	28.00	35.44
Giglio_sx	Max WS	SA_30_cr	144.00	144.00	0.00	24.01	0.00
Giglio_sx	Max WS	SA_20_cr	144.00	144.00	0.00	24.01	0.00

Plan: SA_20_cr Storage Area: Dx_Arno



Legend	
—	Stage
- - -	Net Inflow

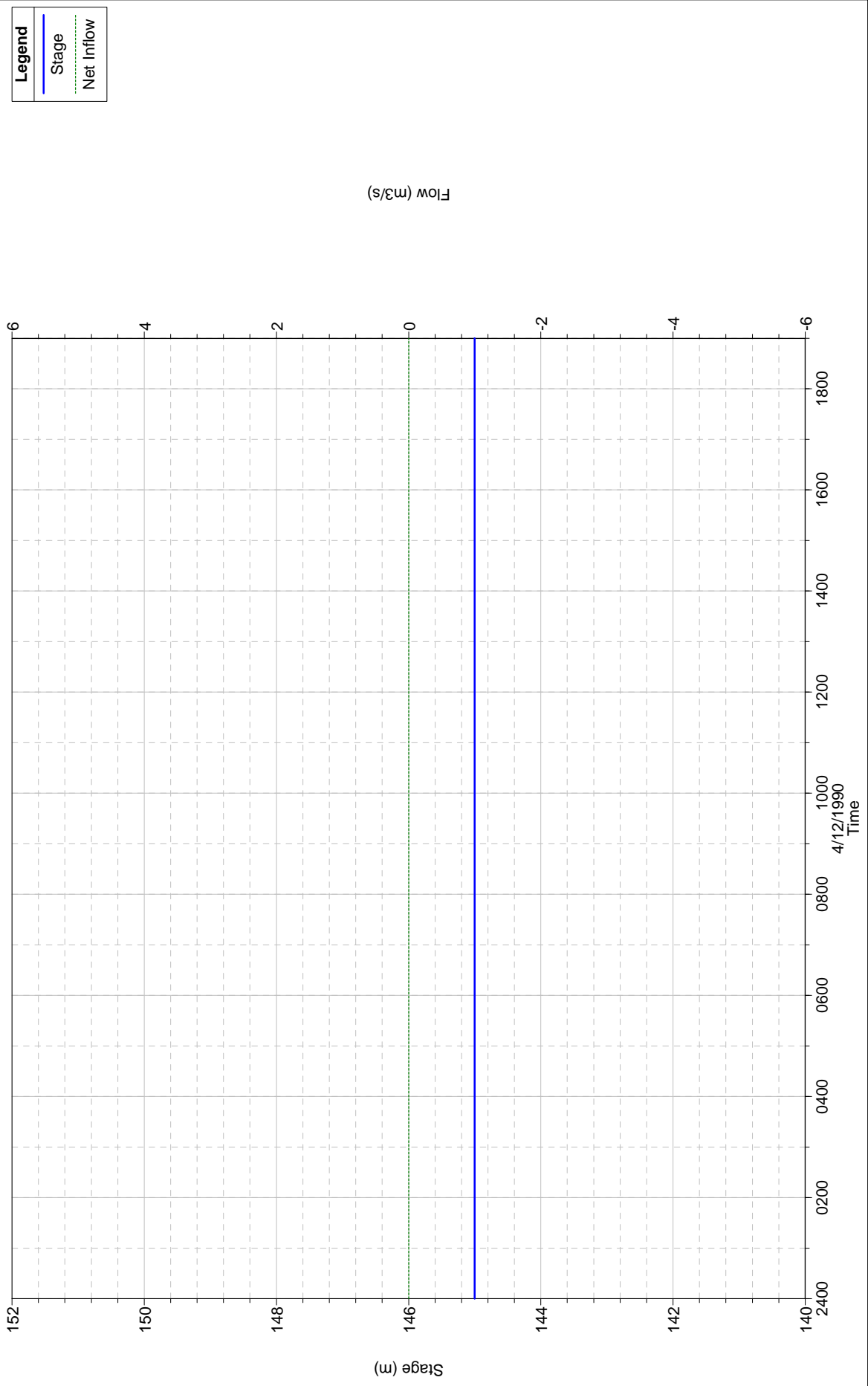
Plan: SA_20_cr Storage Area: Giglio_dx



Legend

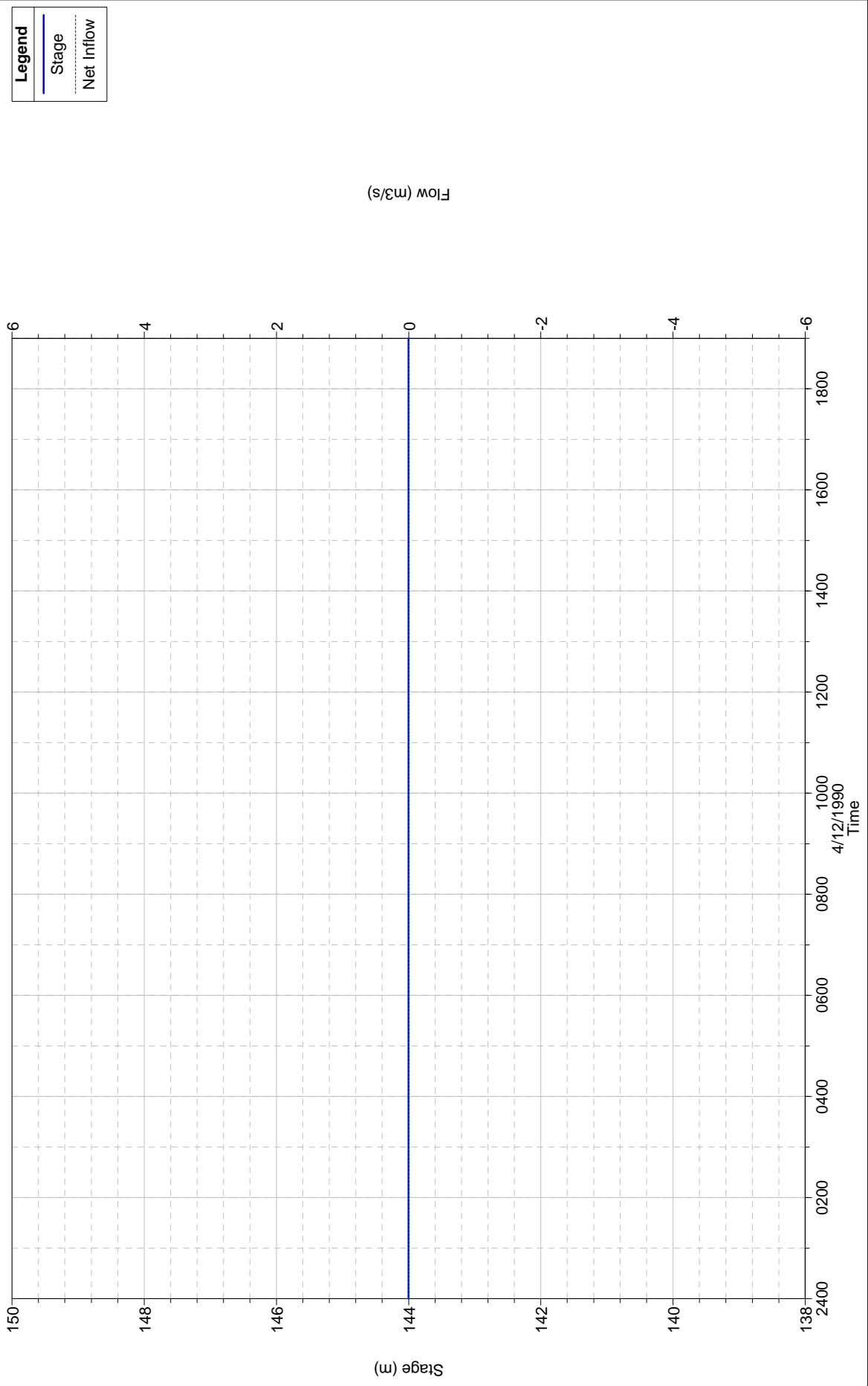
- Stage
- Net Inflow

Plan: SA_20_cr Storage Area: Giglio_dx_valle



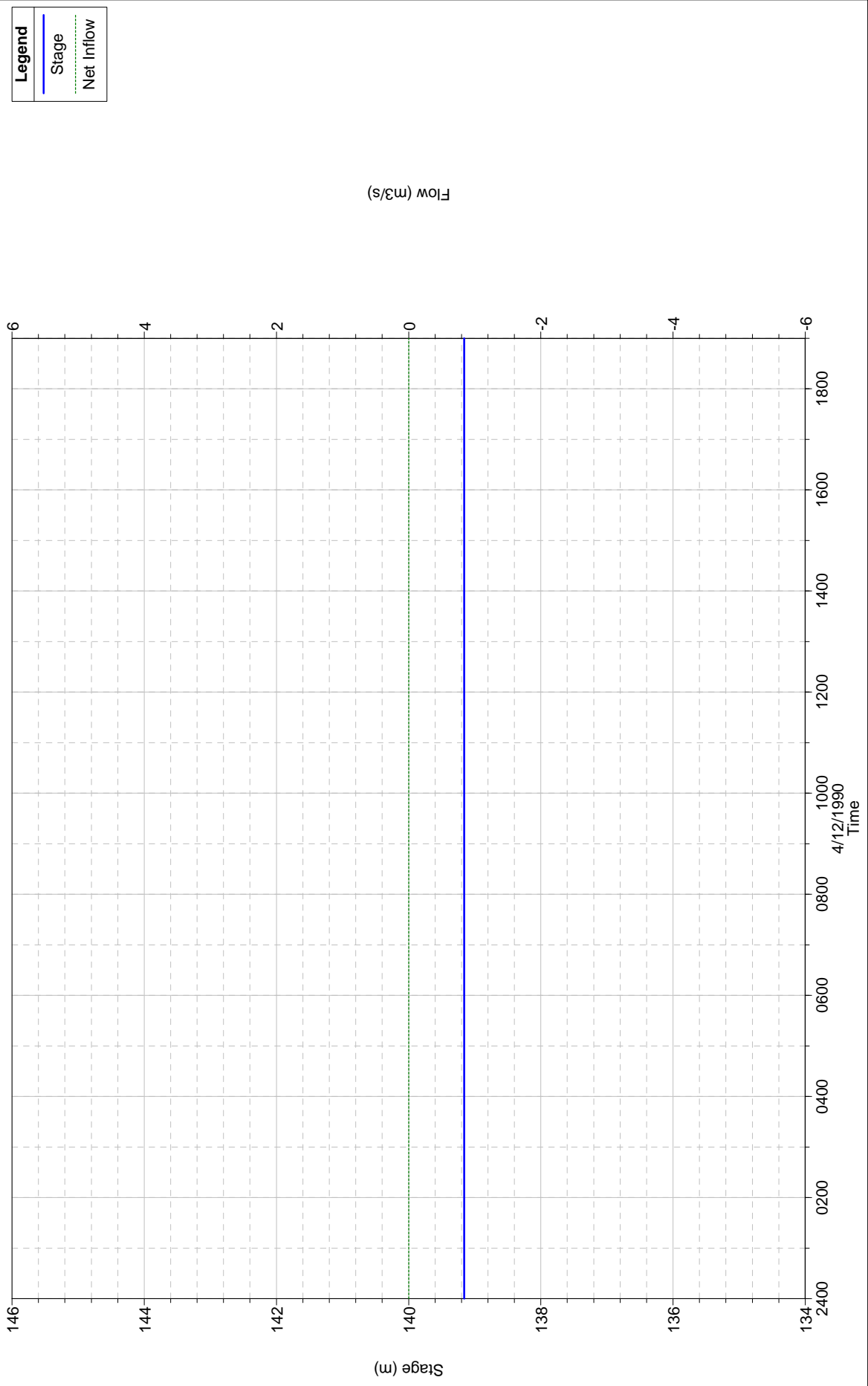
Legend
Stage
Net Inflow

Plan: SA_20_cr Storage Area: Giglio_sx



Legend
Stage
Net Inflow

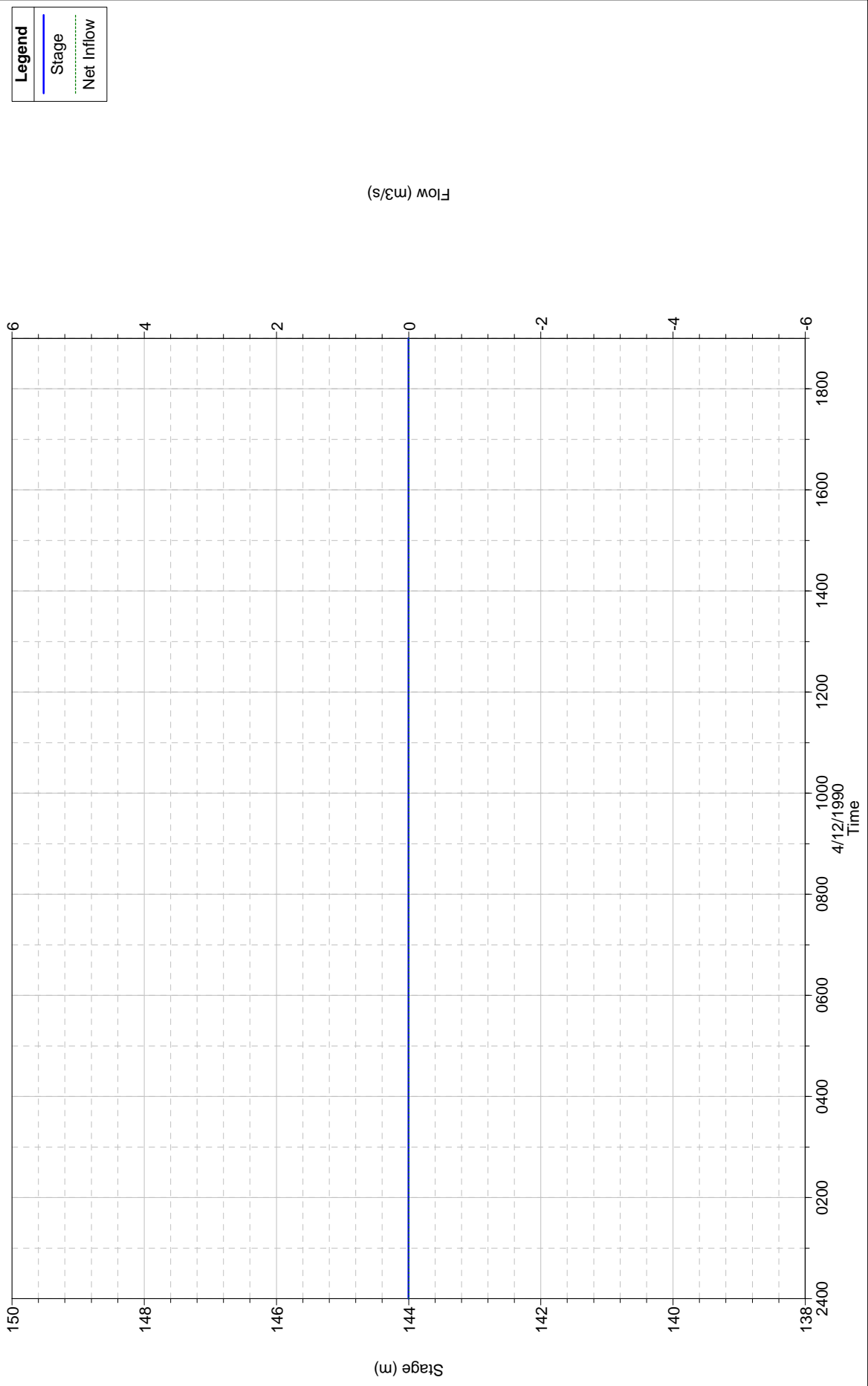
Plan: SA_30_cr Storage Area: Dx_Arno



Legend

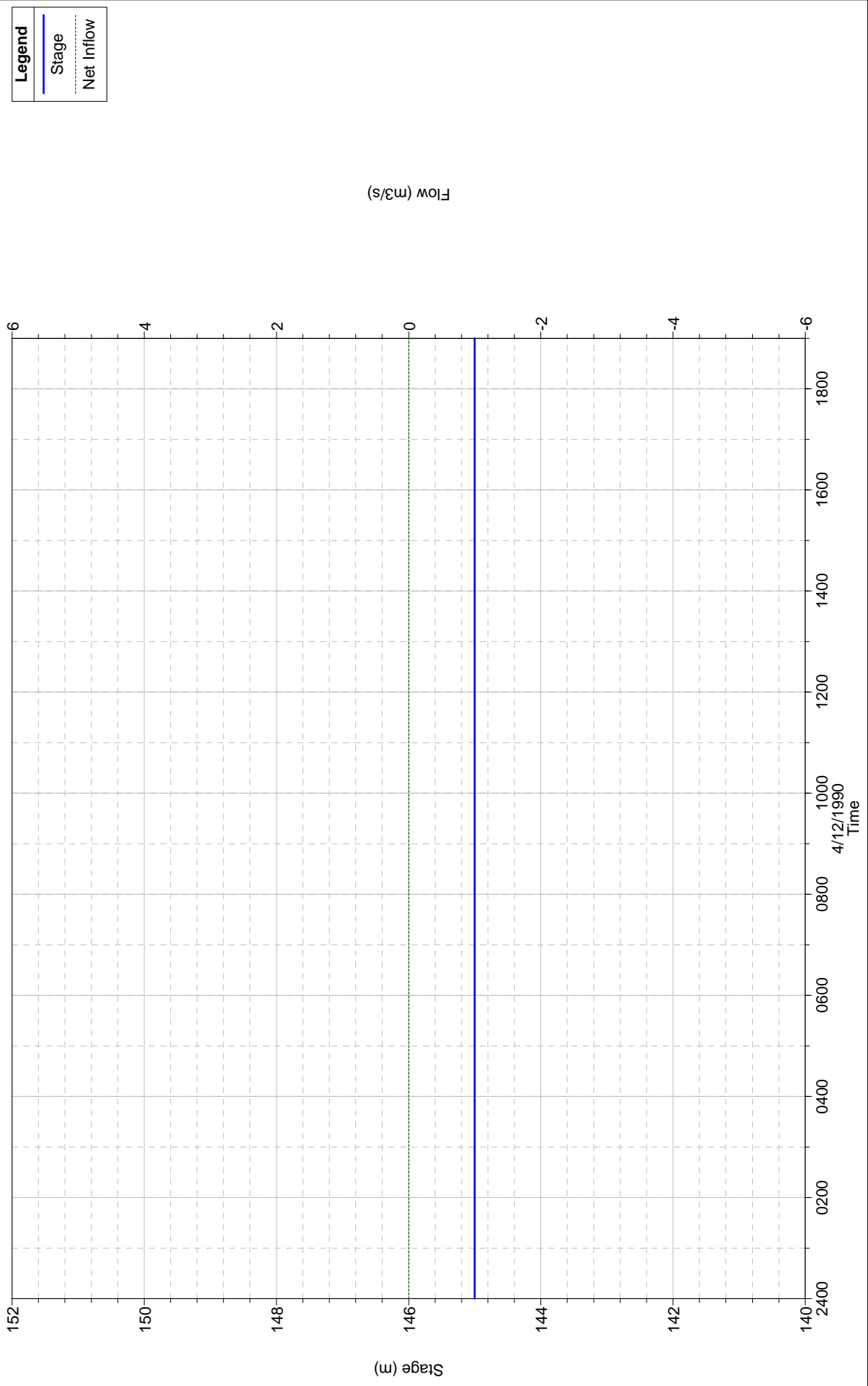
- Stage
- Net Inflow

Plan: SA_30_cr Storage Area: Giglio_dx



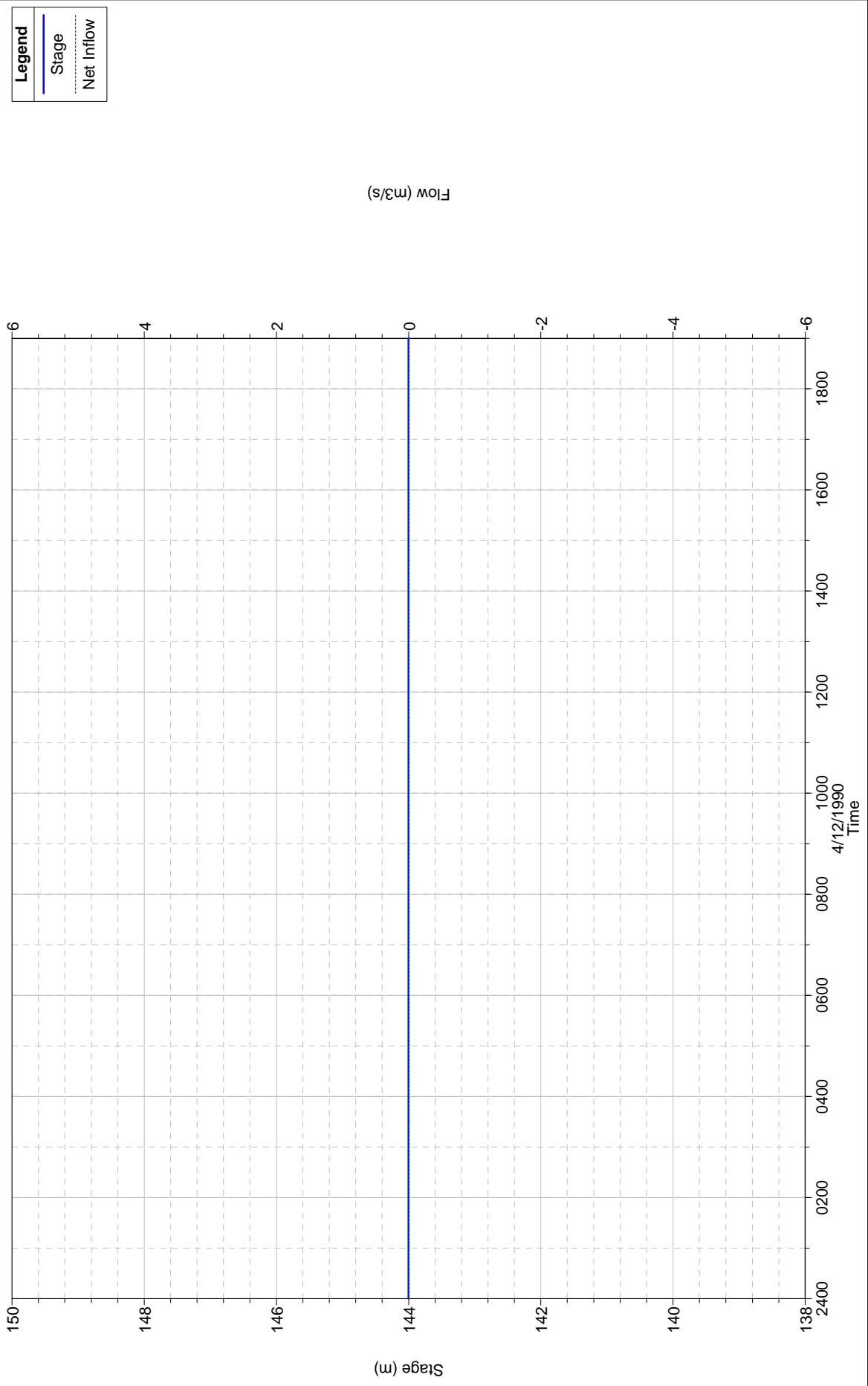
Legend
Stage
Net Inflow

Plan: SA_30_cr Storage Area: Giglio_dx_valle



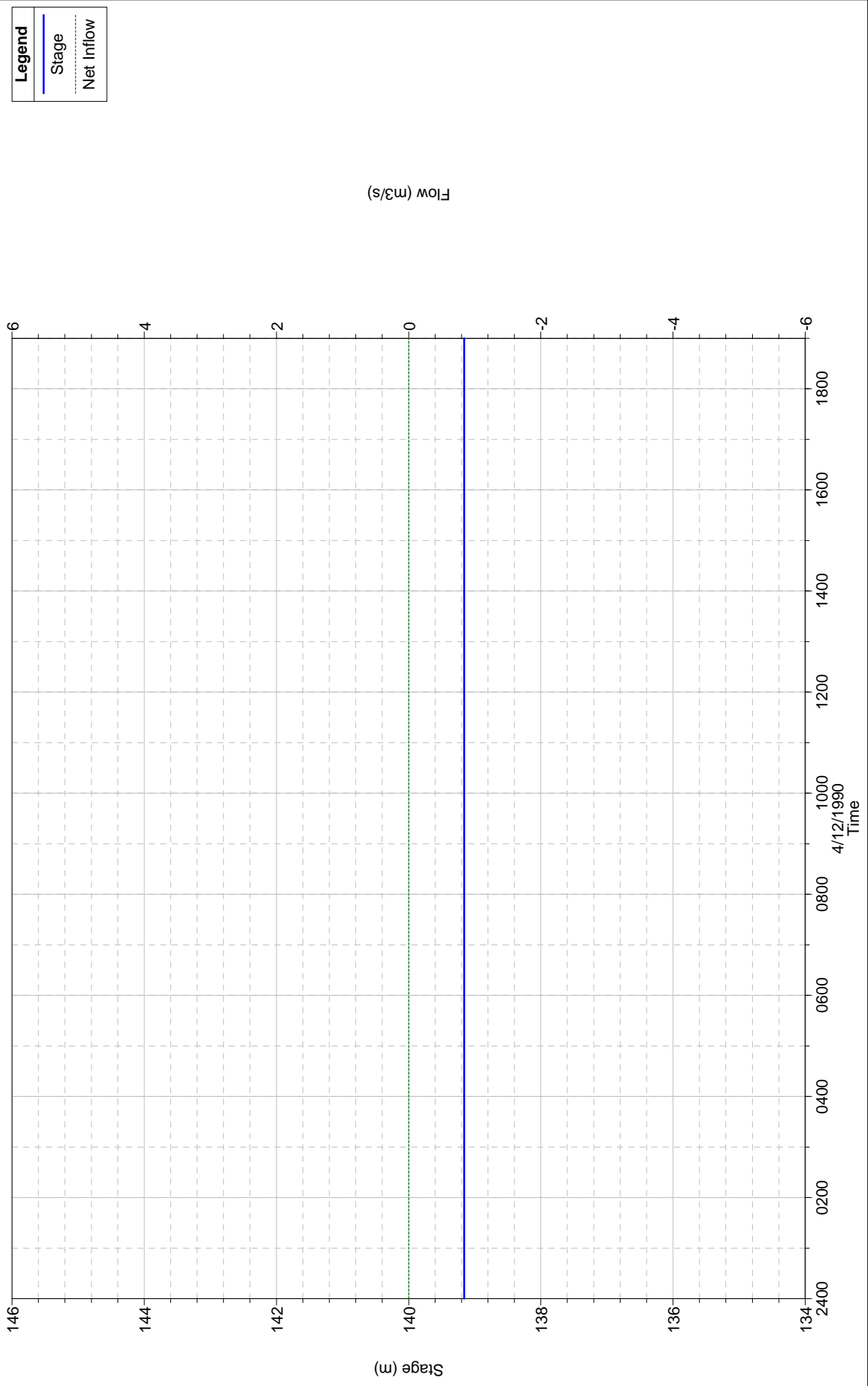
Legend	
—	Stage
- - -	Net Inflow

Plan: SA_30_cr Storage Area: Giglio_sx

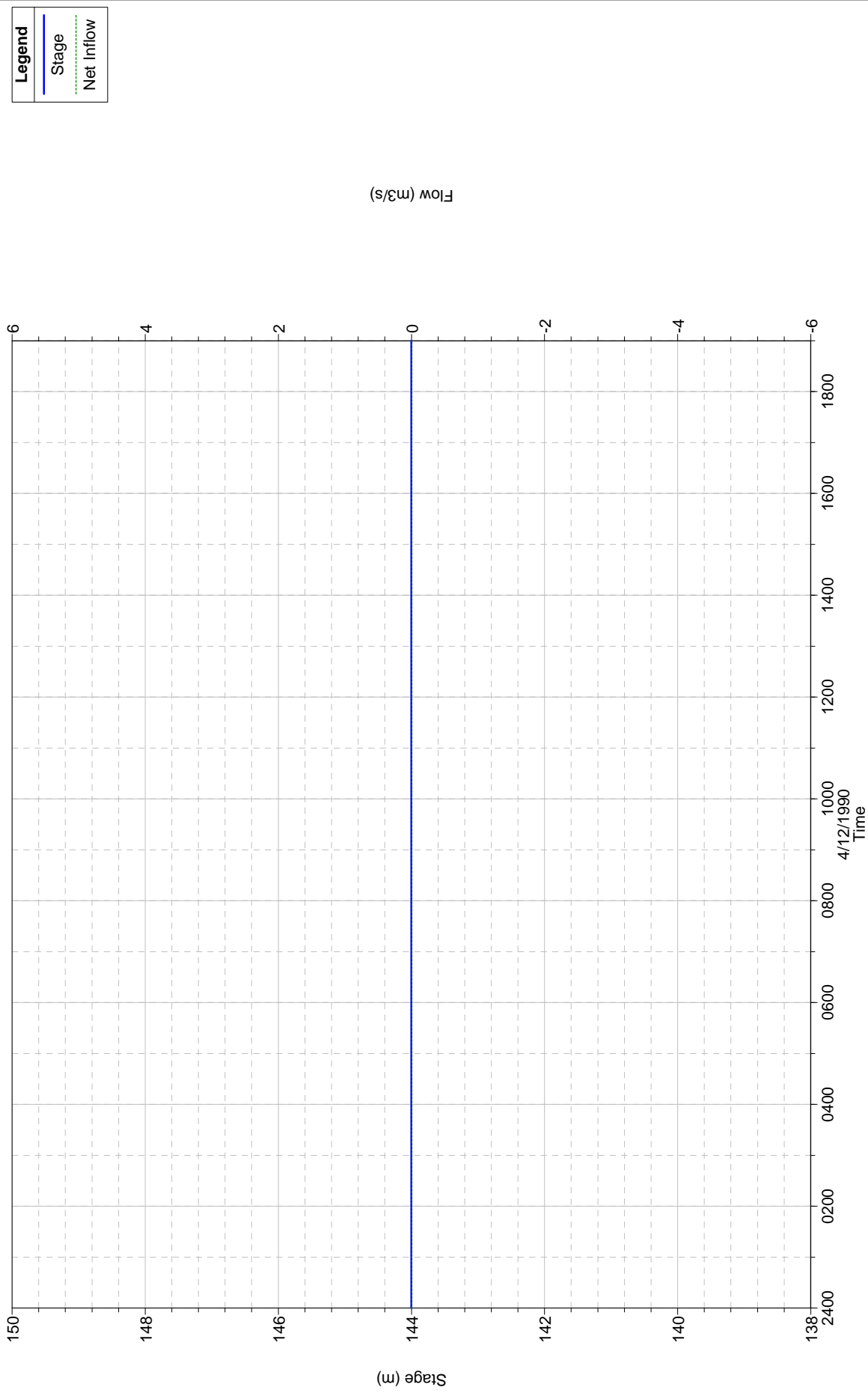


Legend	
—	Stage
- - -	Net Inflow

Plan: SA_100_cr Storage Area: Dx_Arno



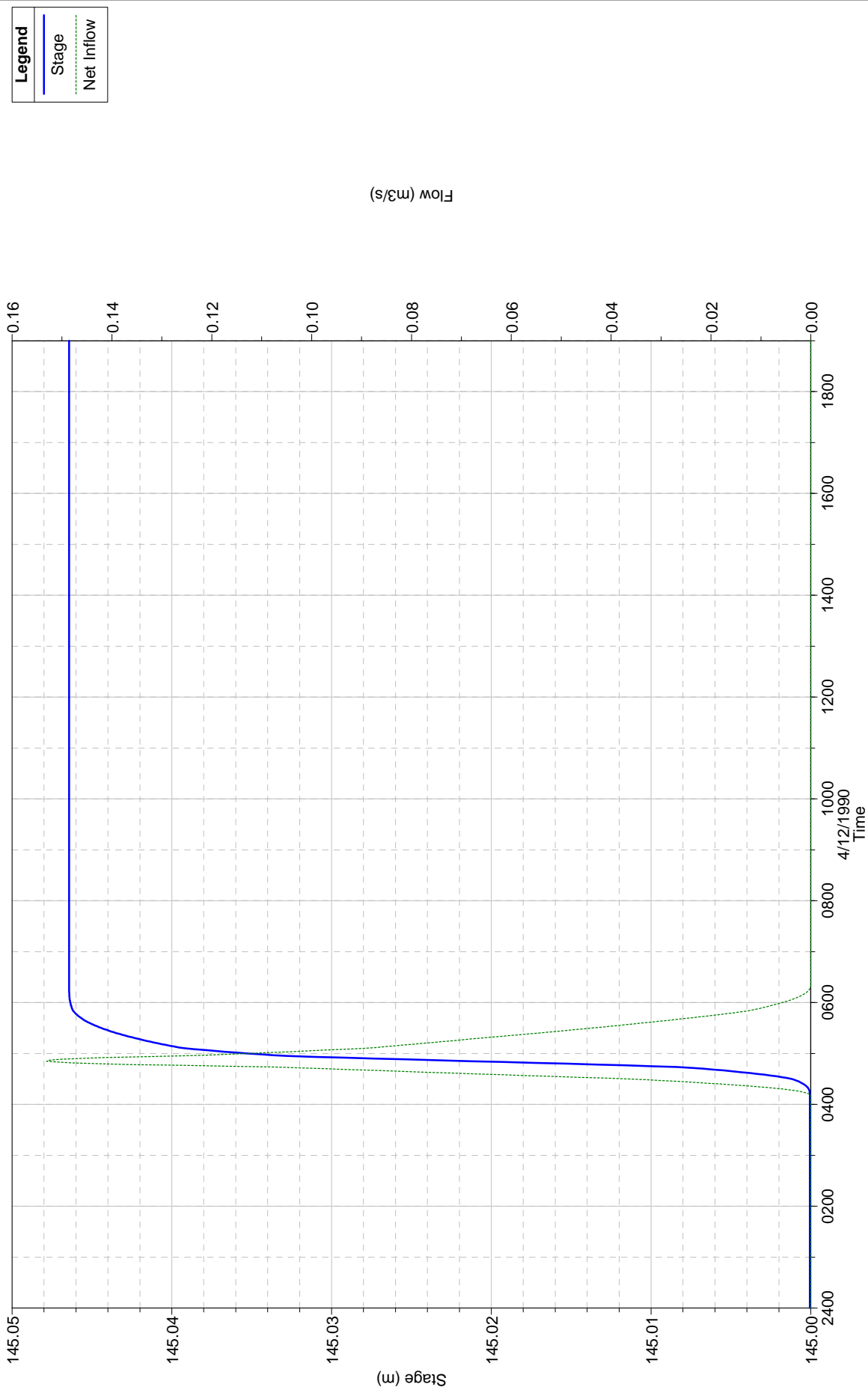
Plan: SA_100_cr Storage Area: Giglio_dx



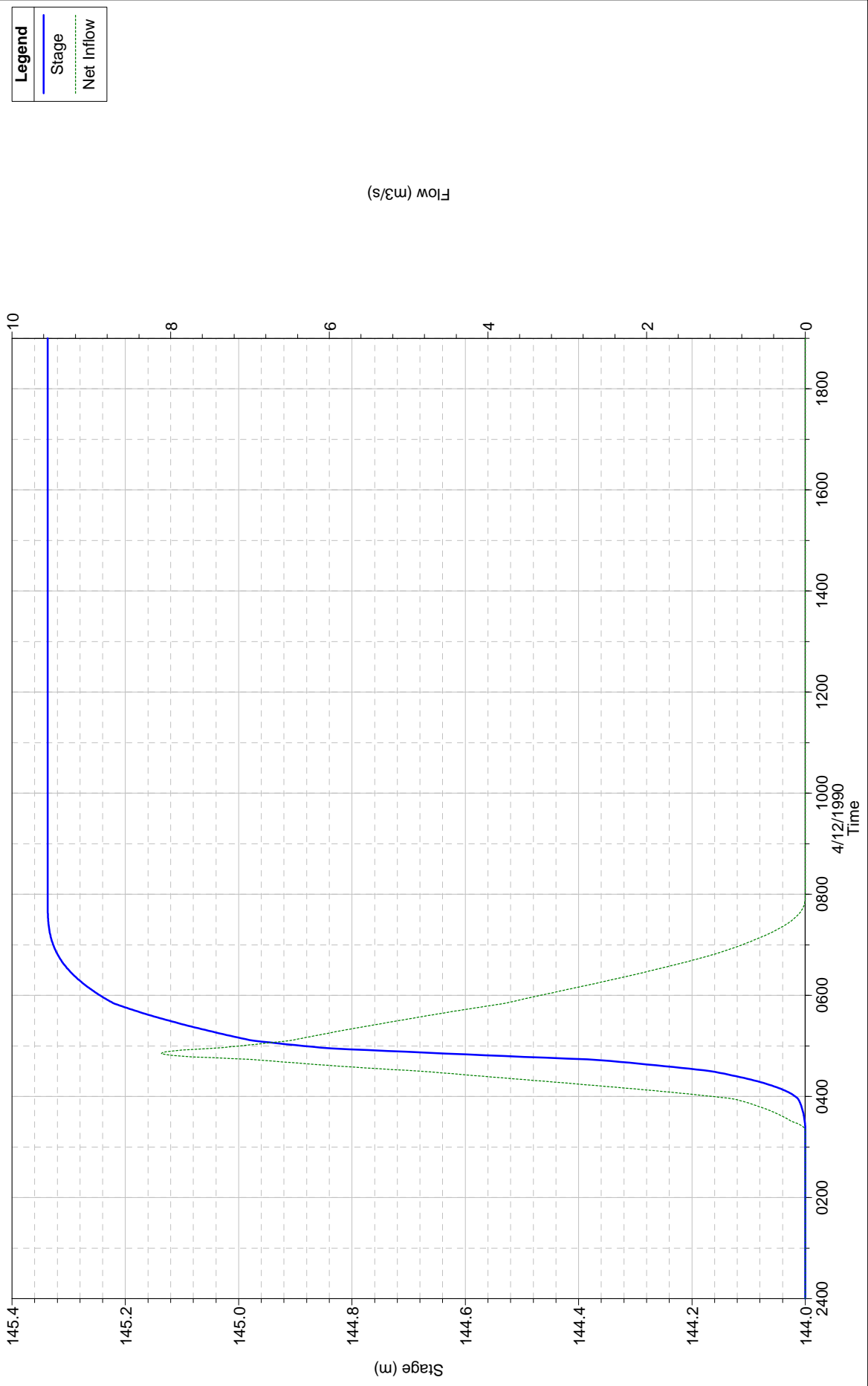
Legend

- Stage
- Net Inflow

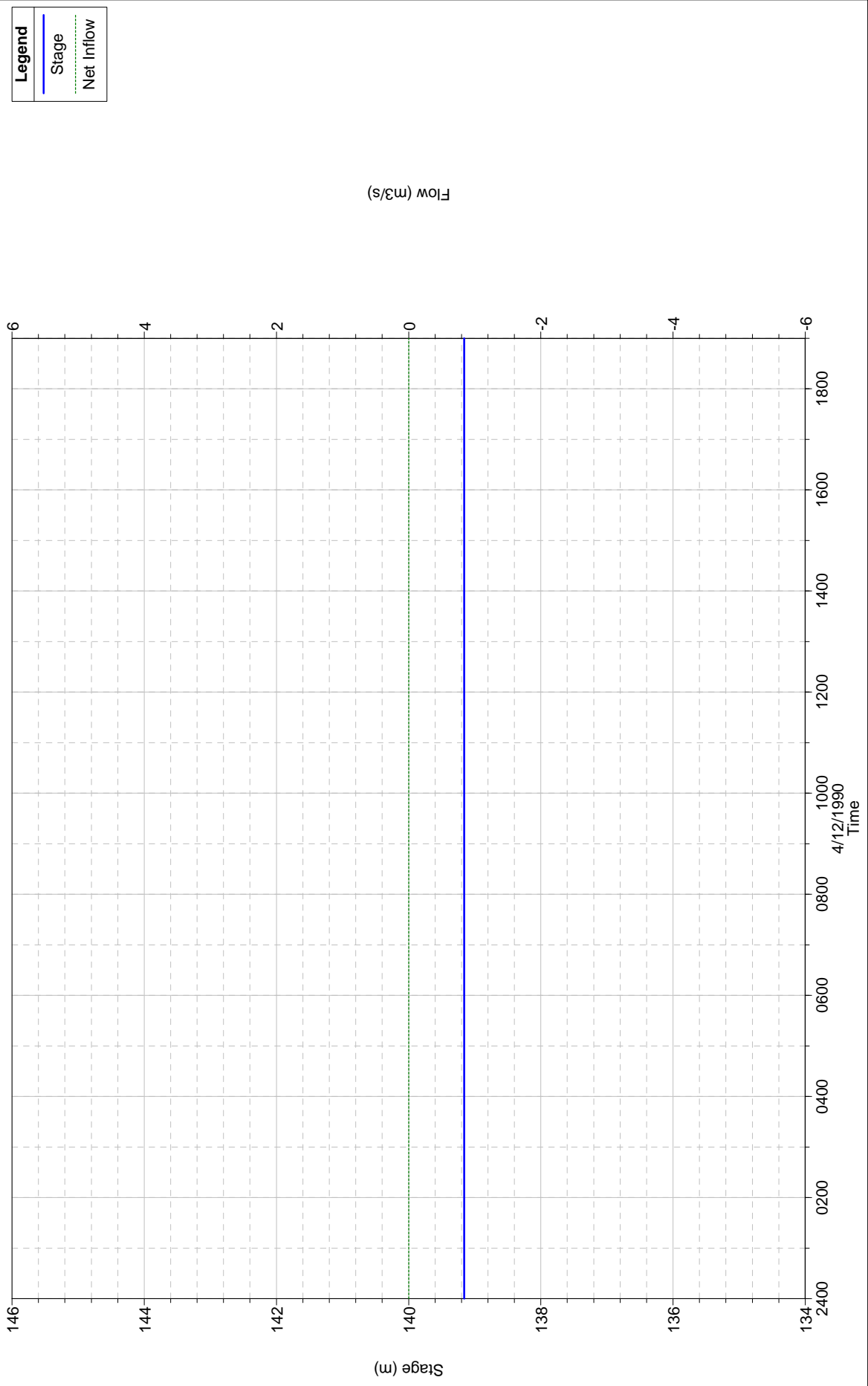
Plan: SA_100_cr Storage Area: Giglio_dx_valle



Plan: SA_100_cr Storage Area: Giglio_sx

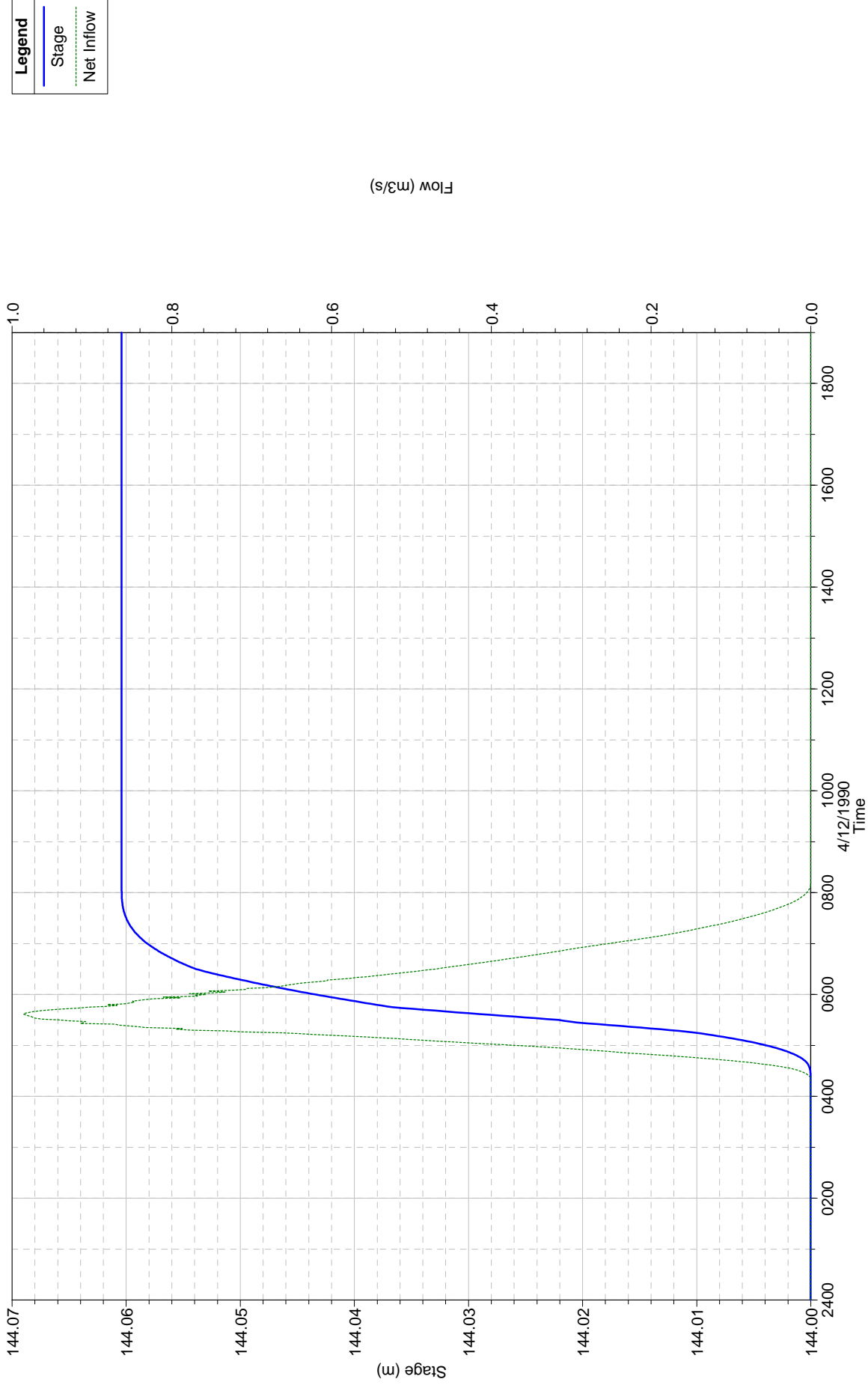


Plan: SA_200_cr Storage Area: Dx_Arno

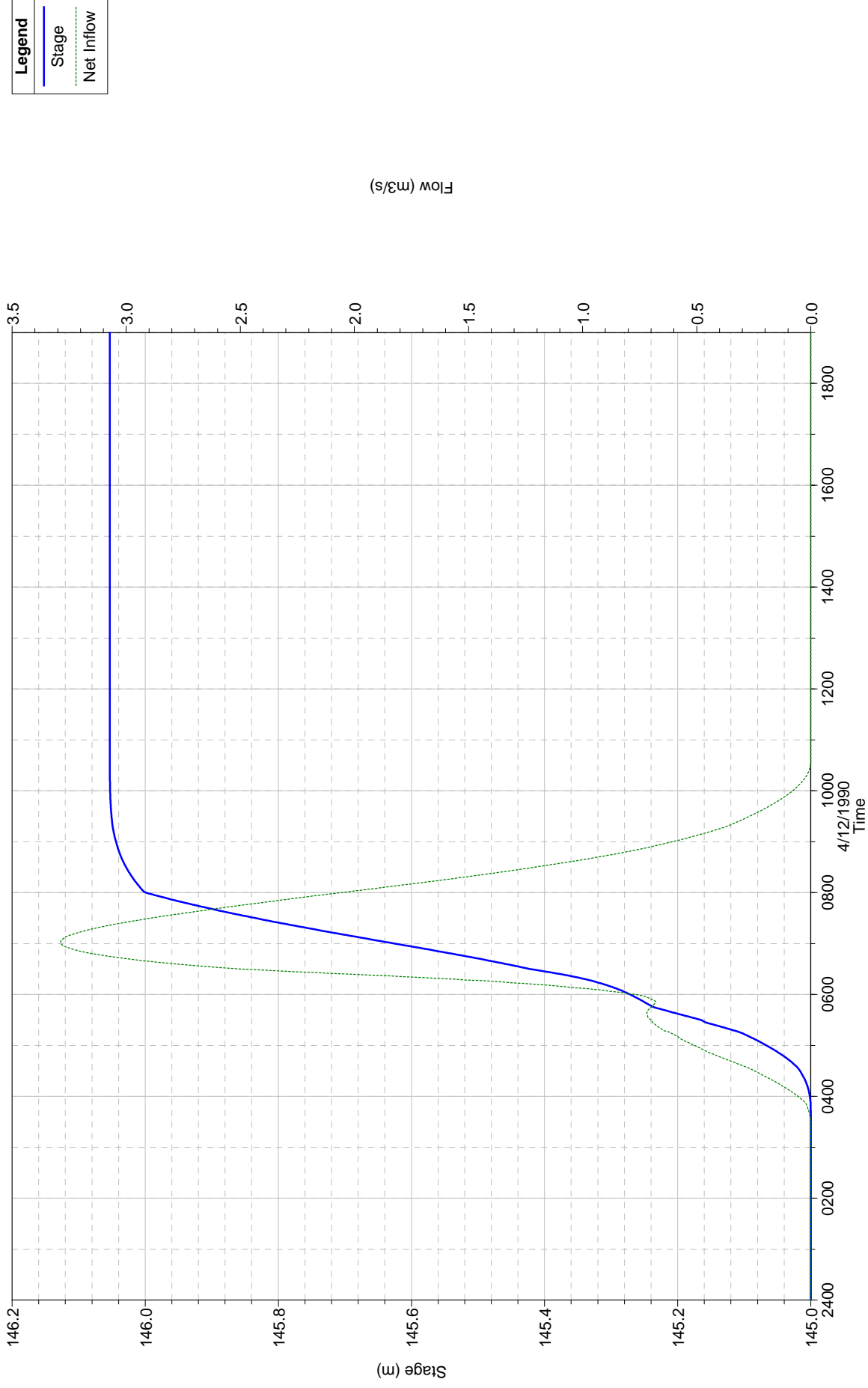


Legend
— Stage
... Net Inflow

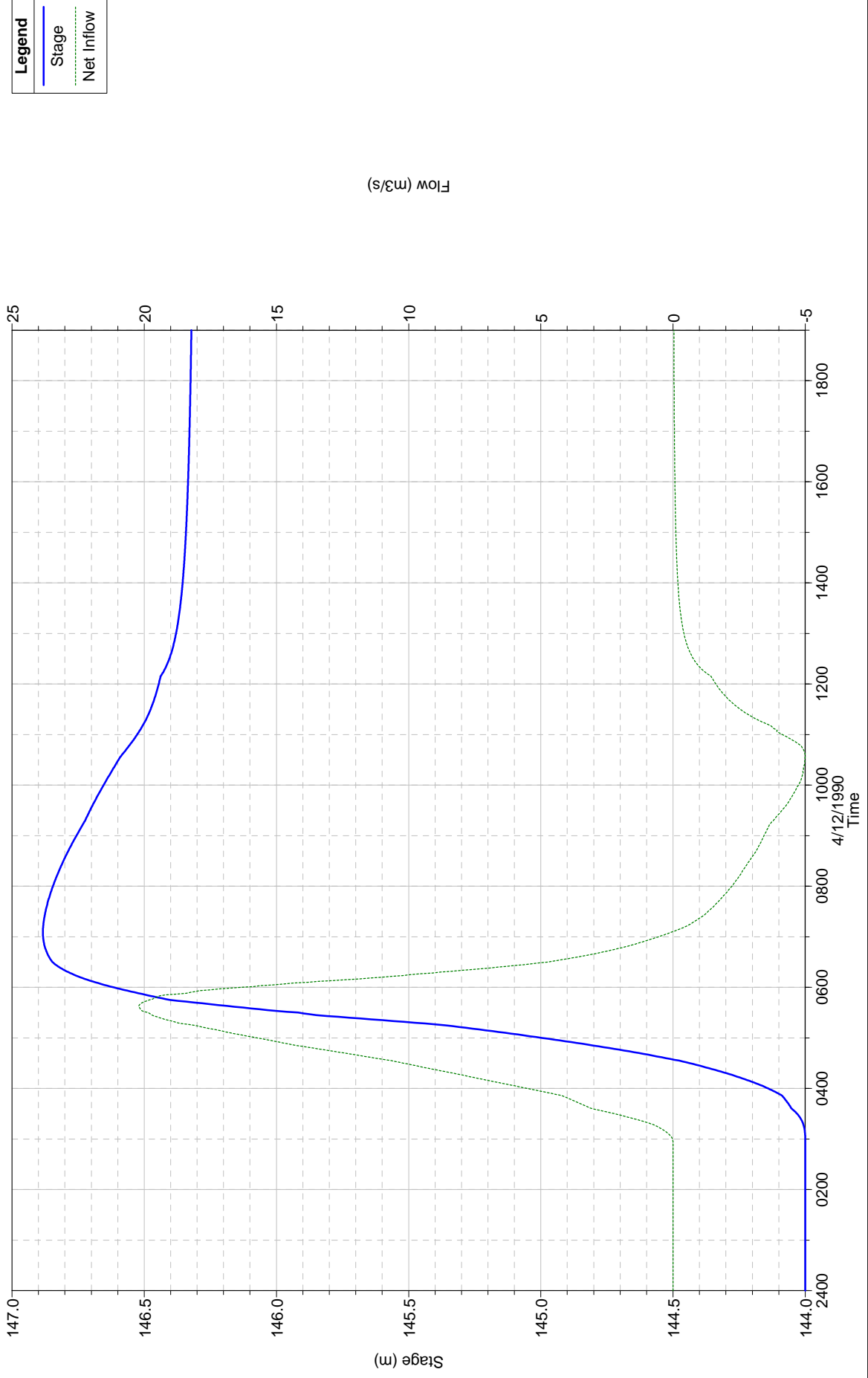
Plan: SA_200_cr Storage Area: Giglio_dx



Plan: SA_200_cr Storage Area: Giglio_dx_valle

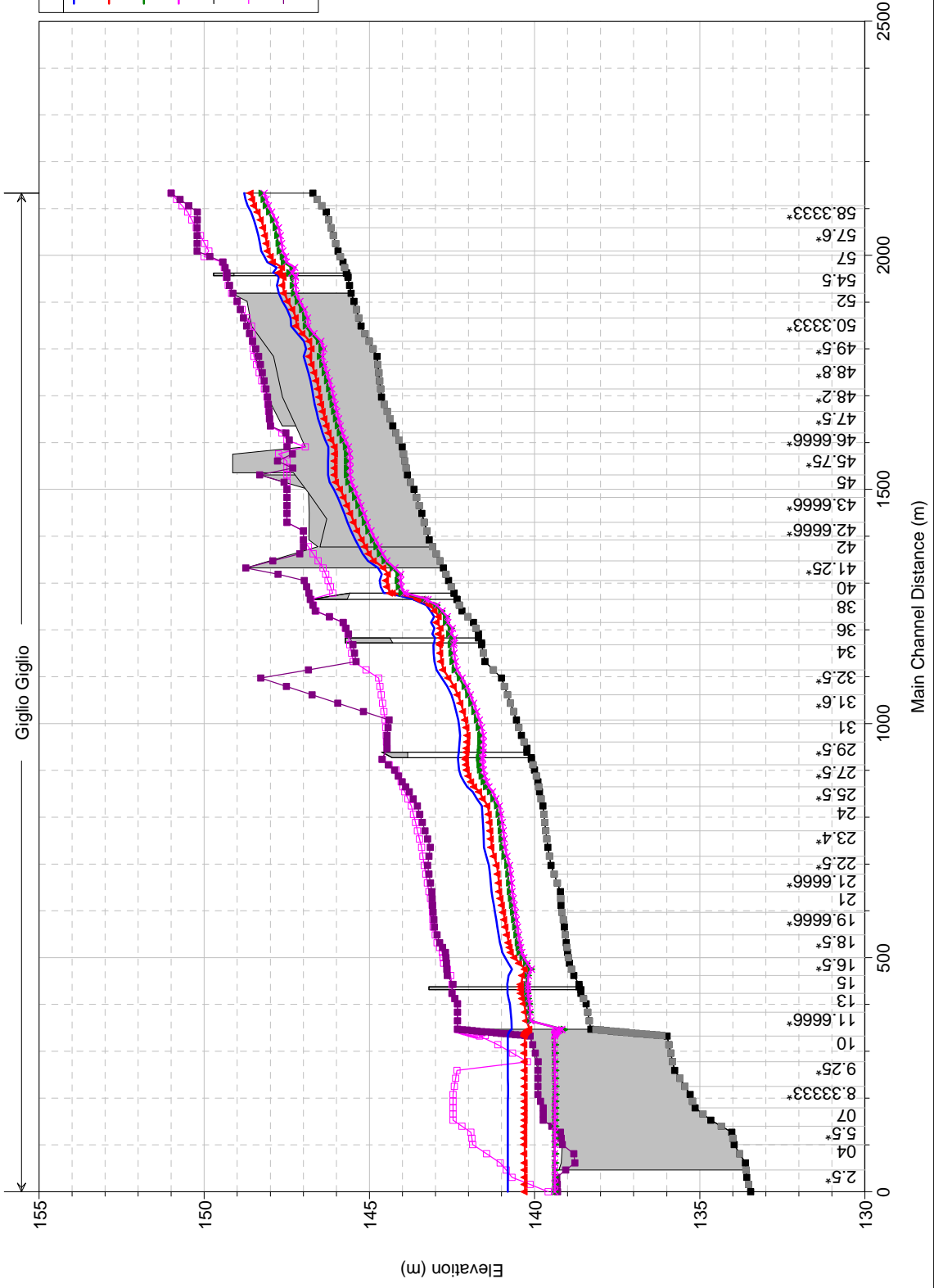


Plan: SA_200_cr Storage Area: Giglio_sx



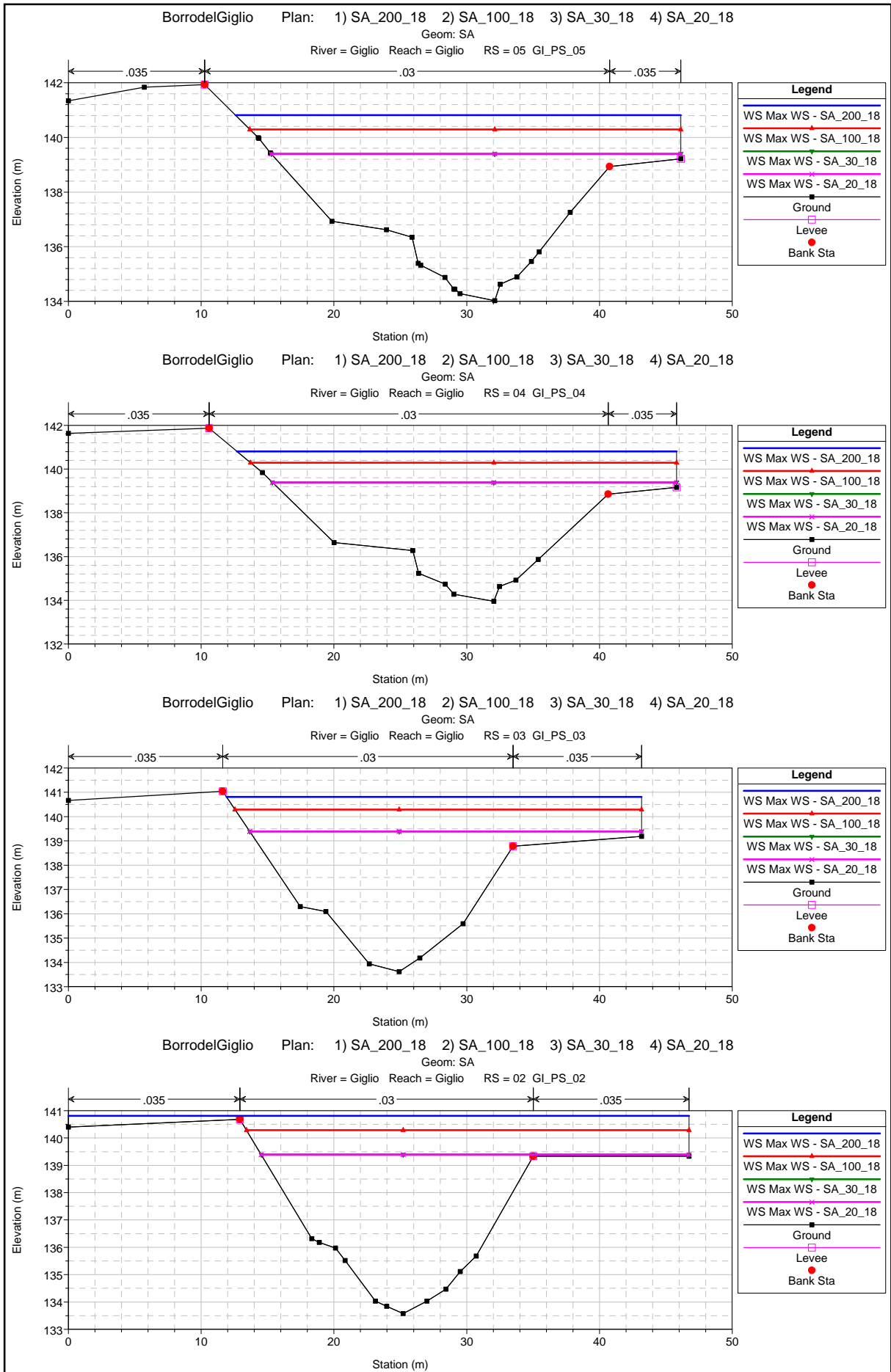
BorrodellGiglio Plan: 1) SA_200_18 2) SA_100_18 3) SA_30_18 4) SA_20_18

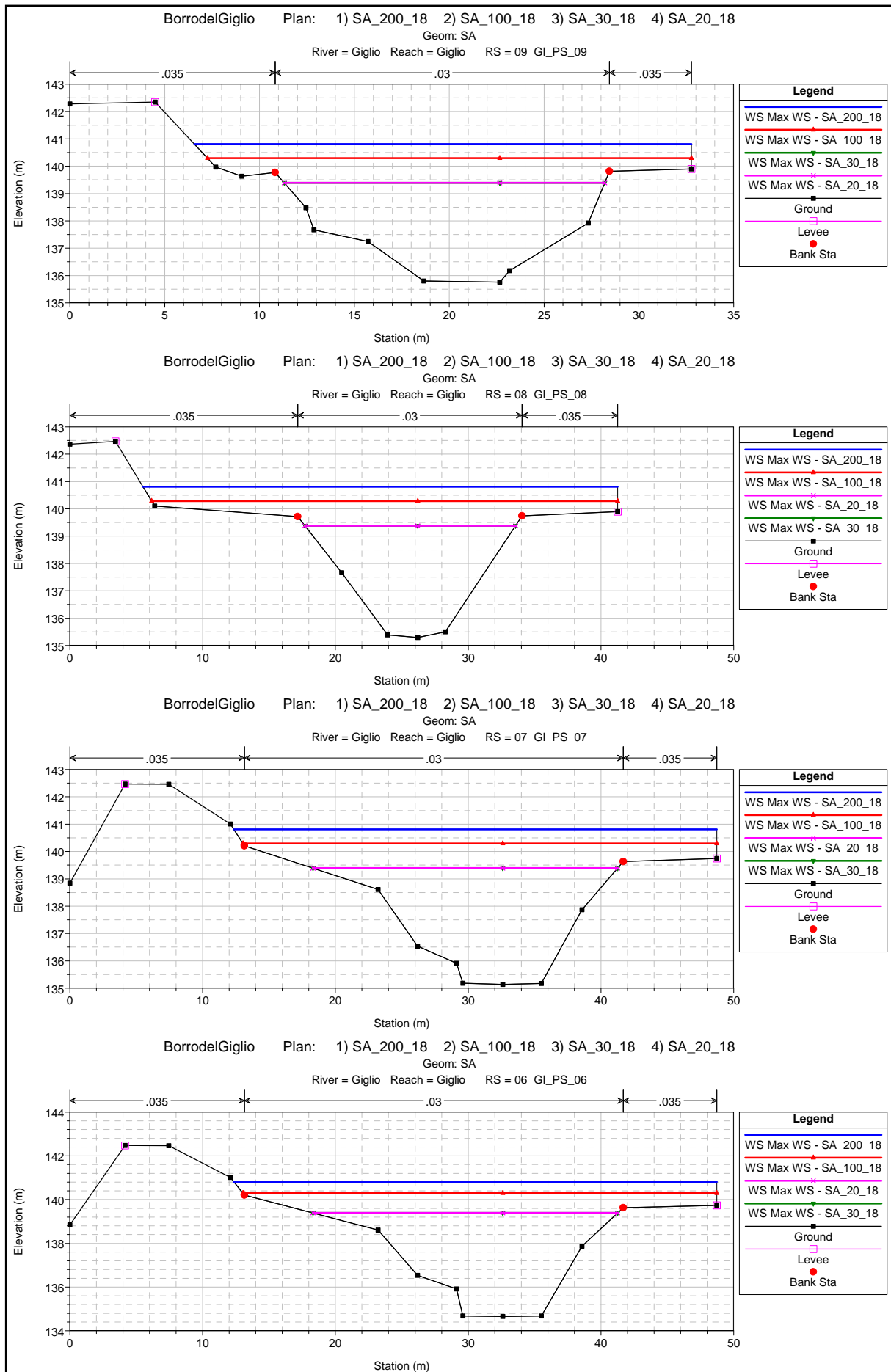
Geom: SA

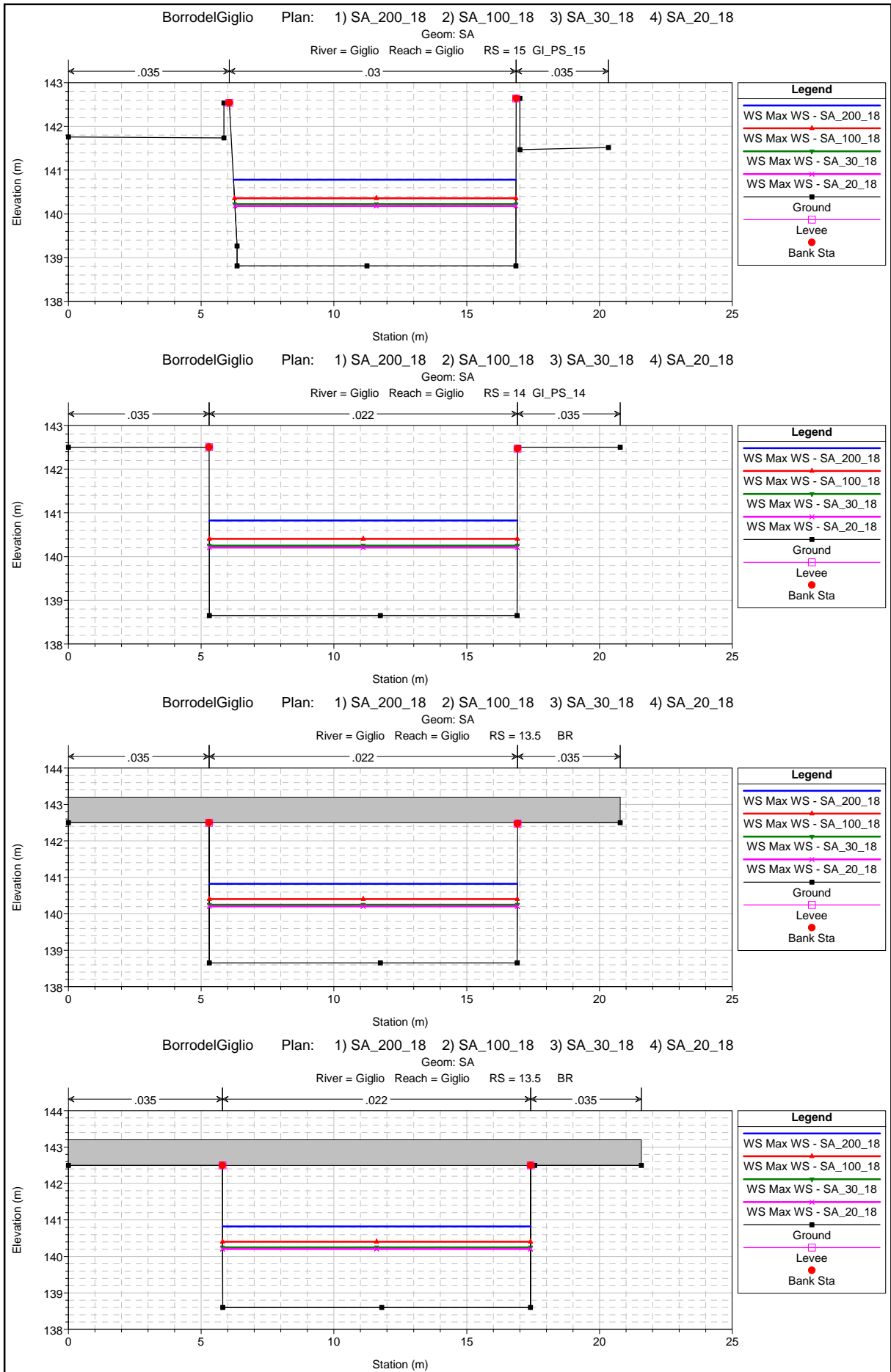


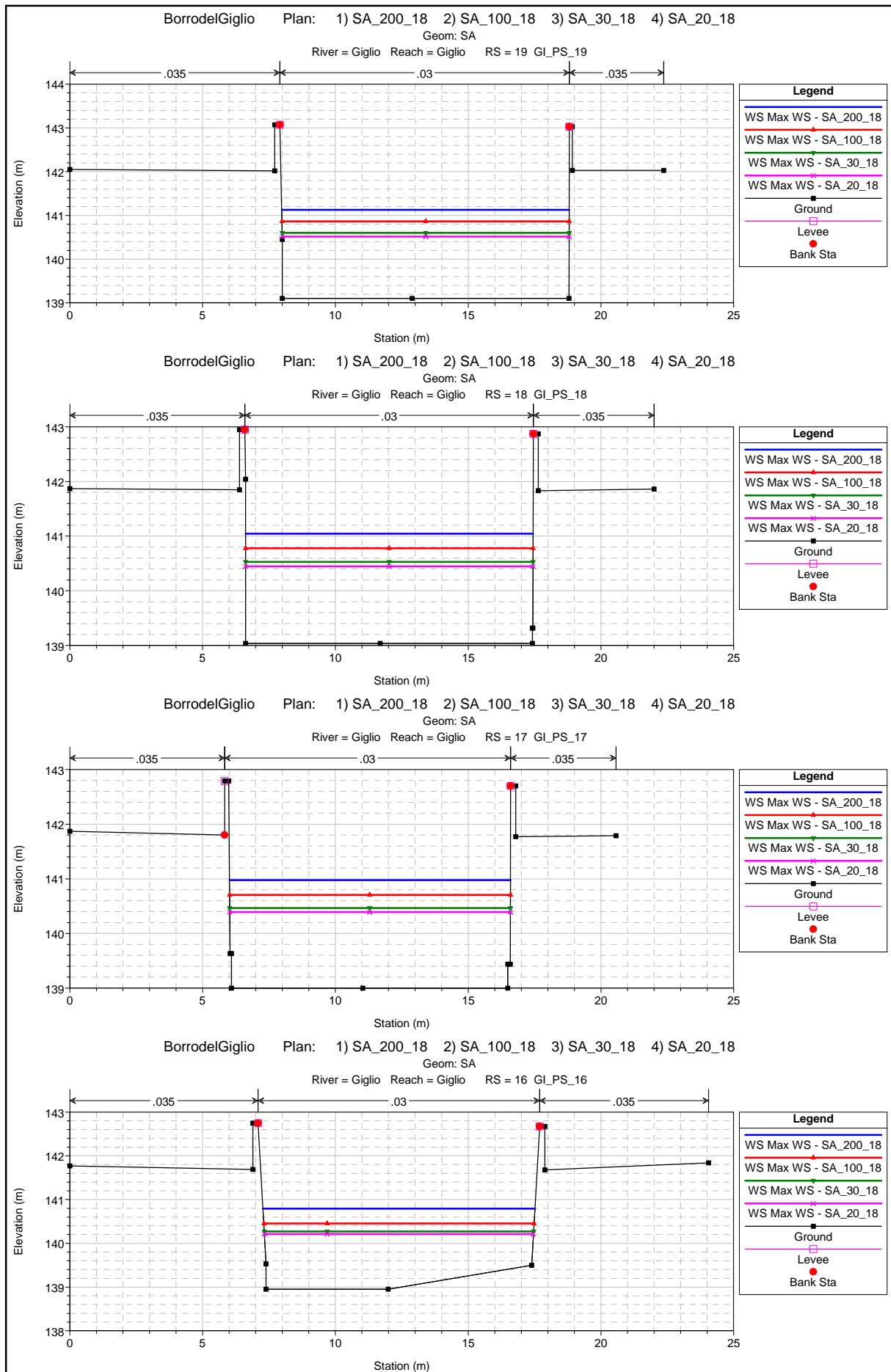
Legend

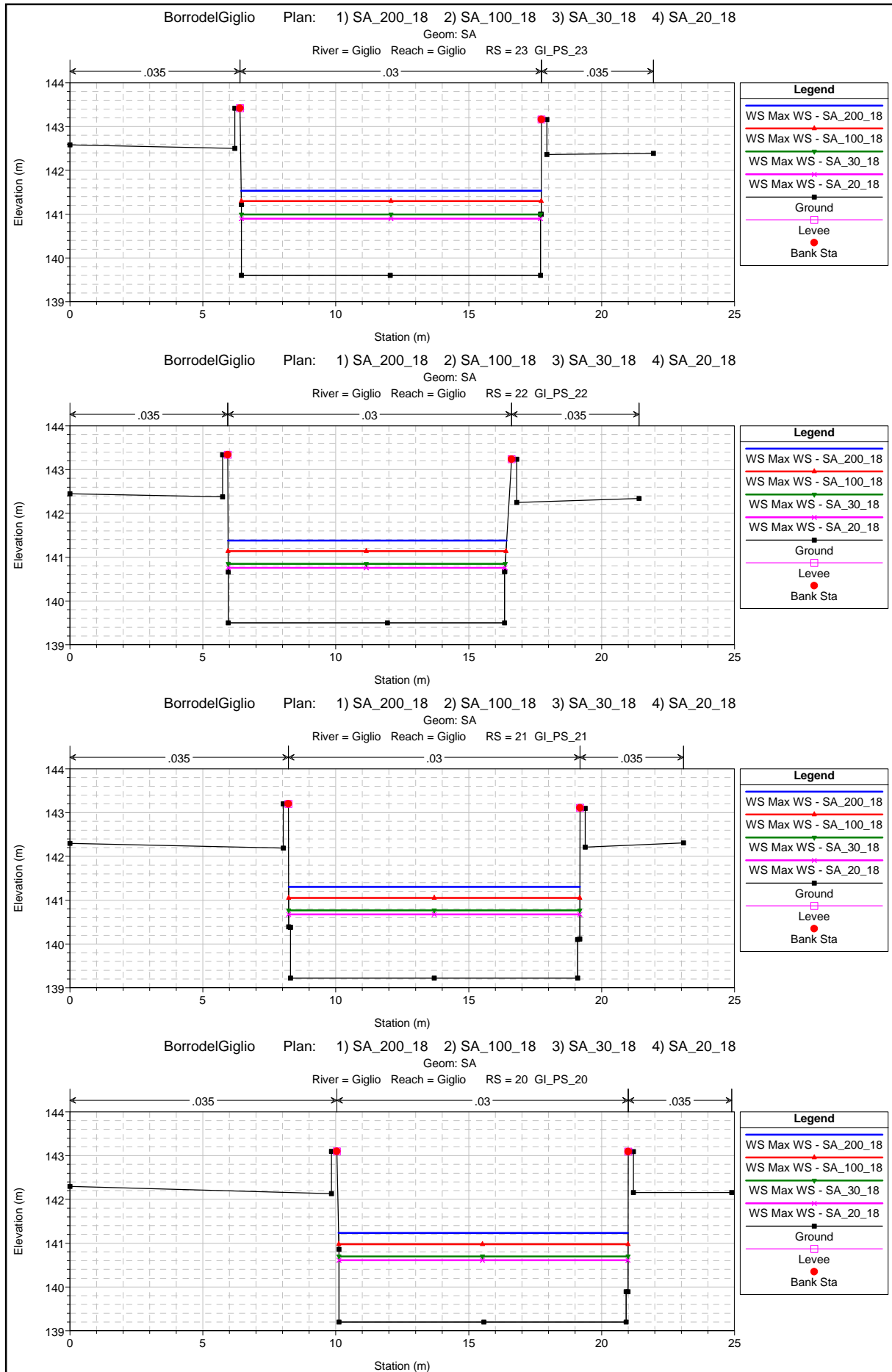
- WS Max WS - SA_200_18
- WS Max WS - SA_100_18
- WS Max WS - SA_30_18
- WS Max WS - SA_20_18
- Ground
- Left Levee
- Right Levee

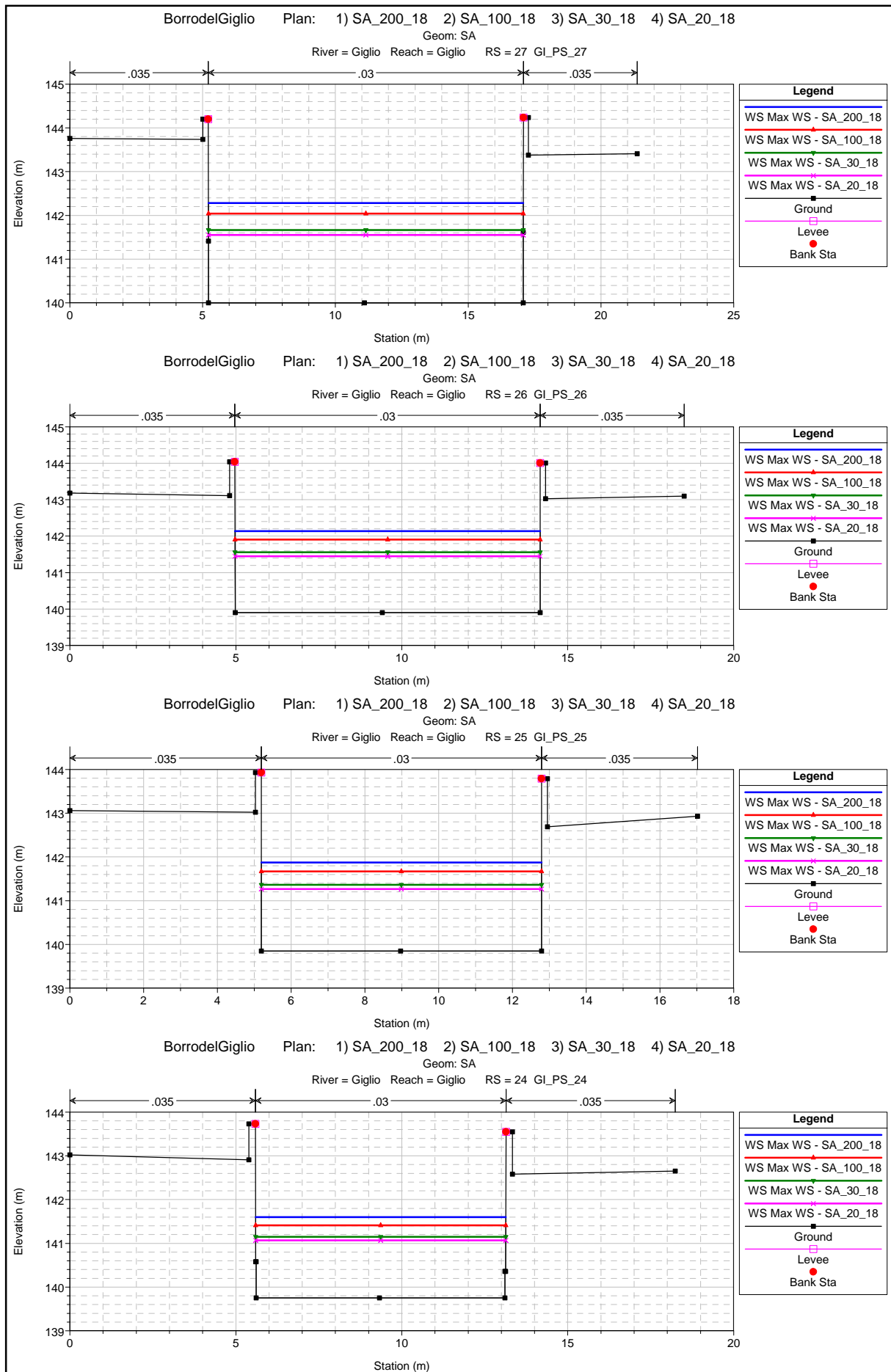


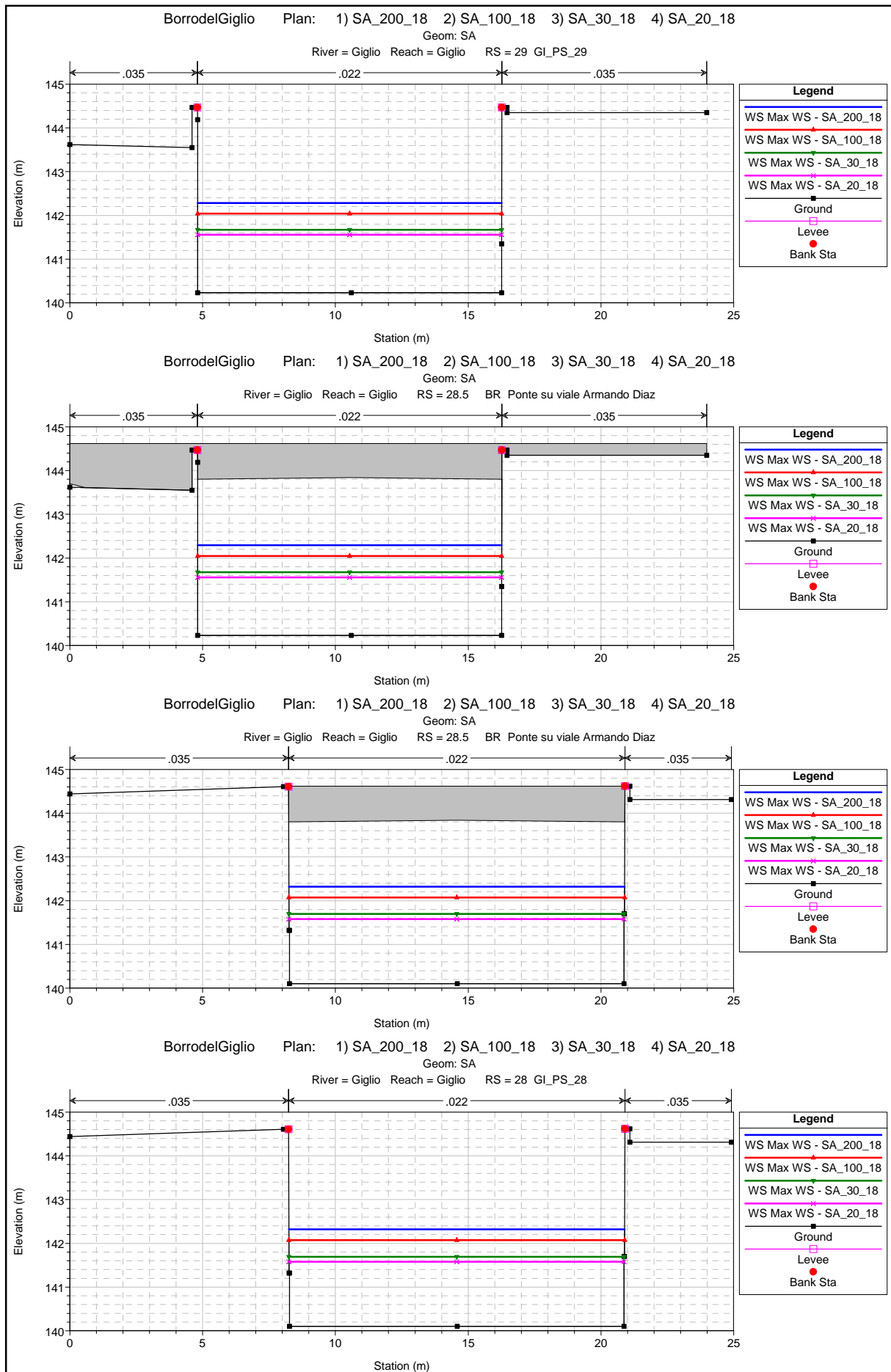


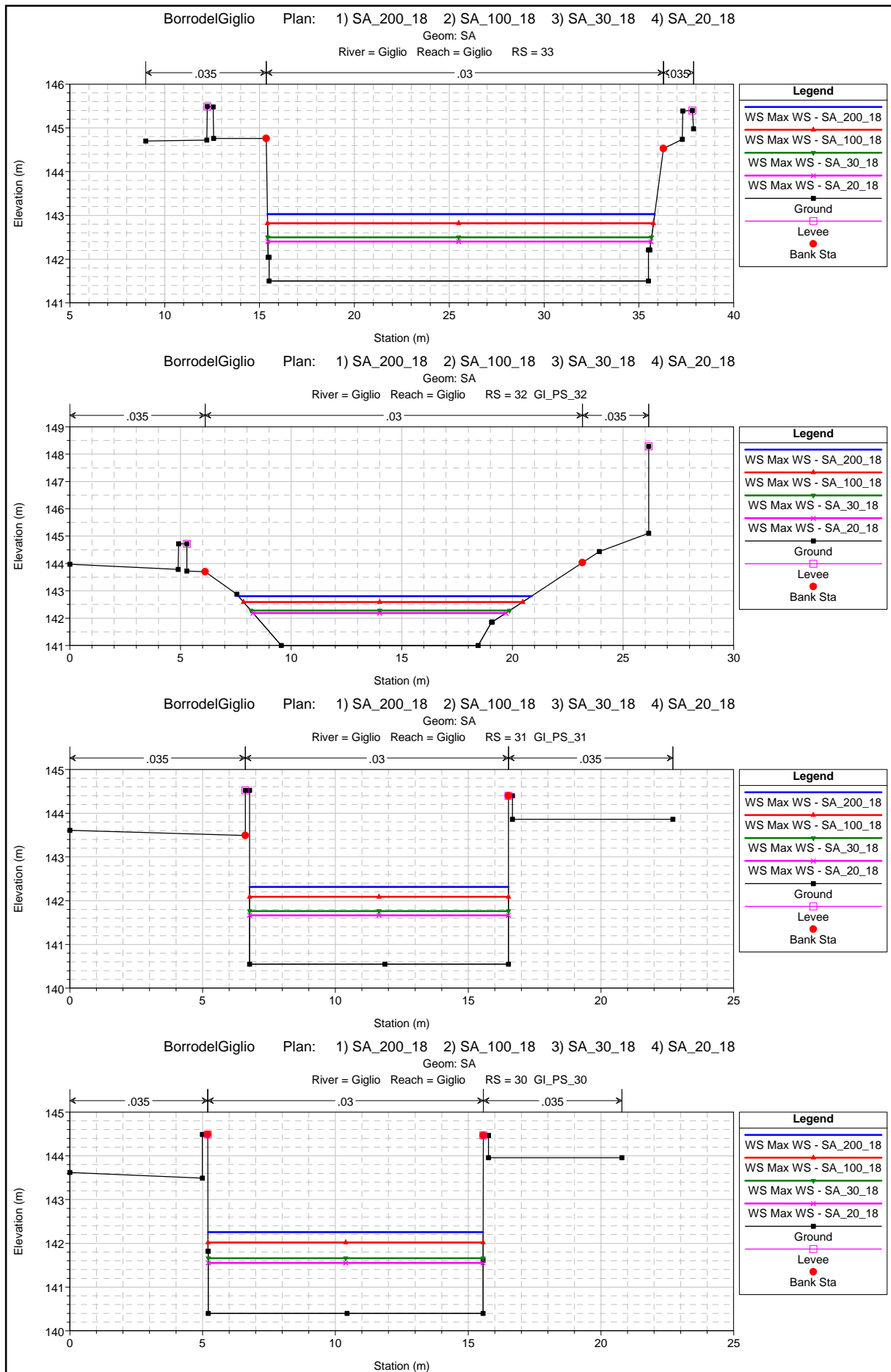


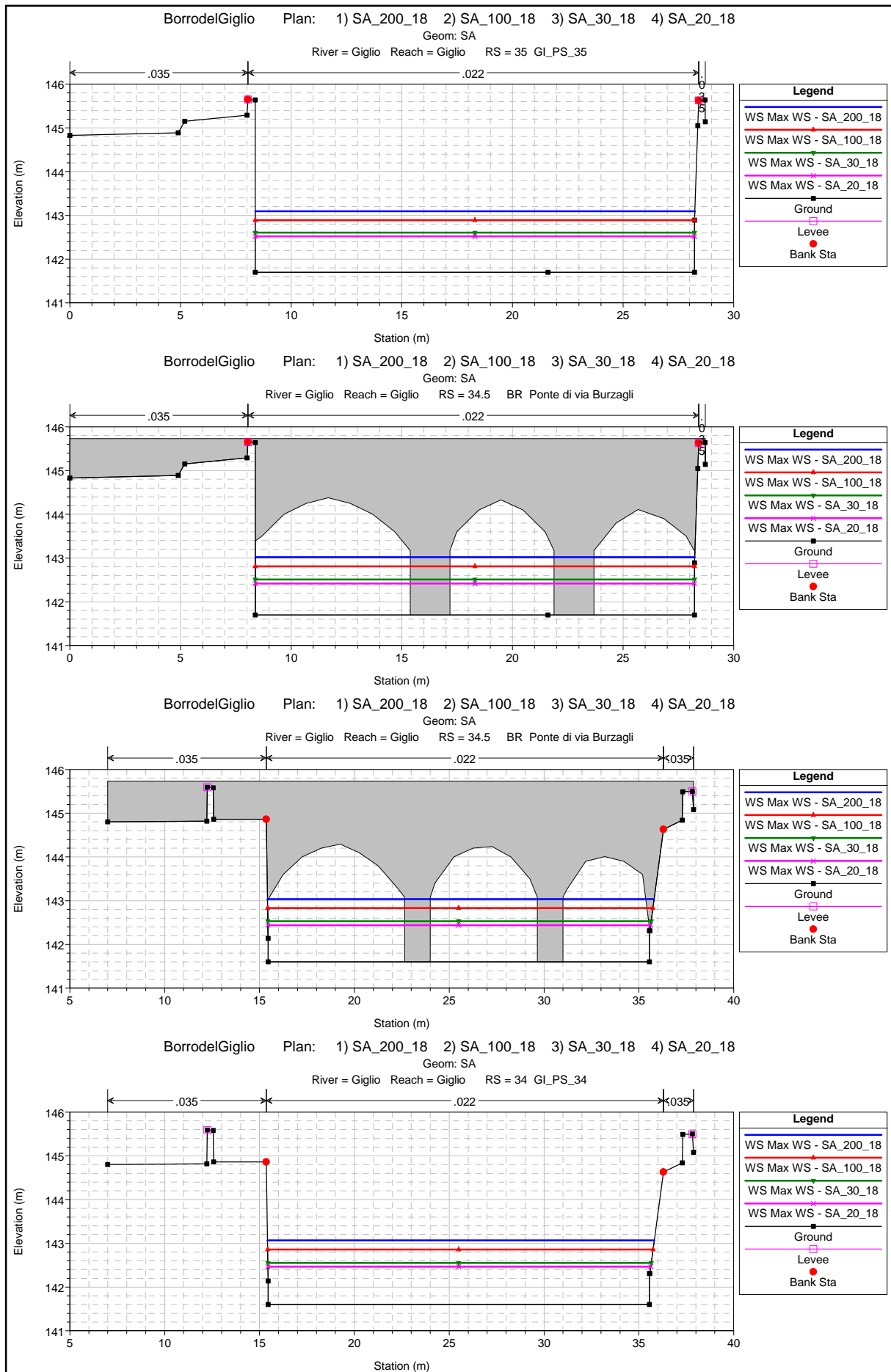


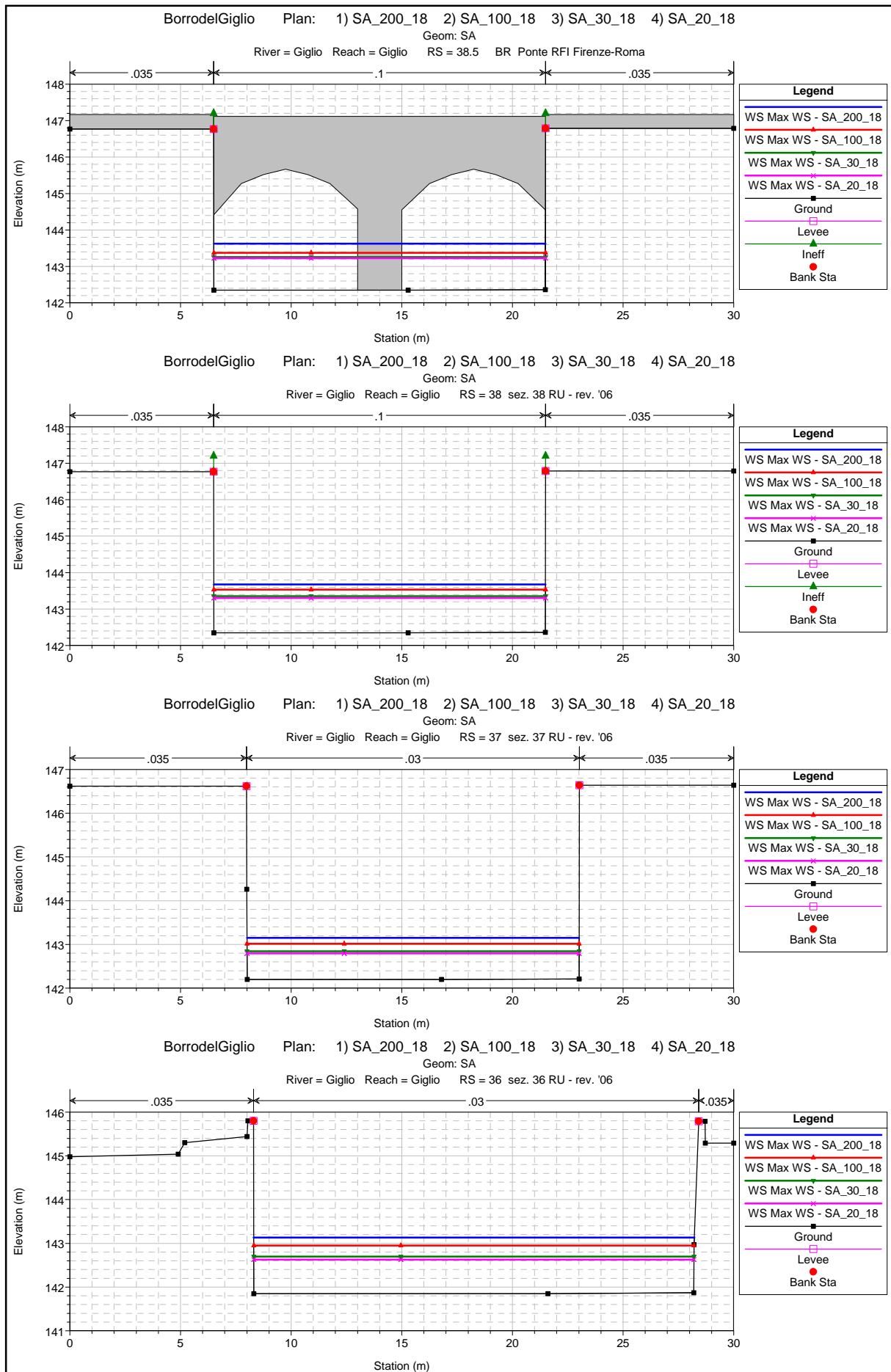


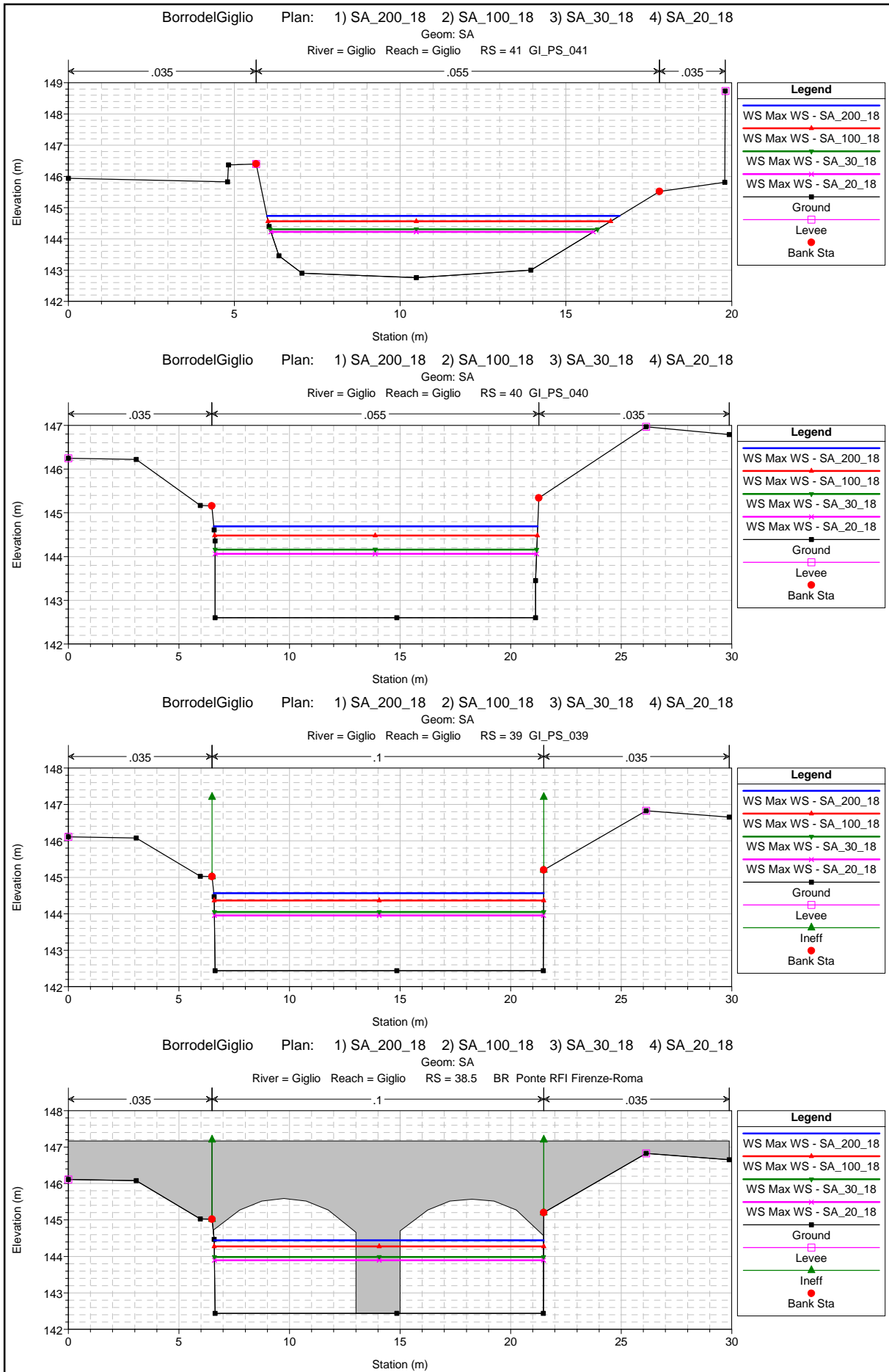


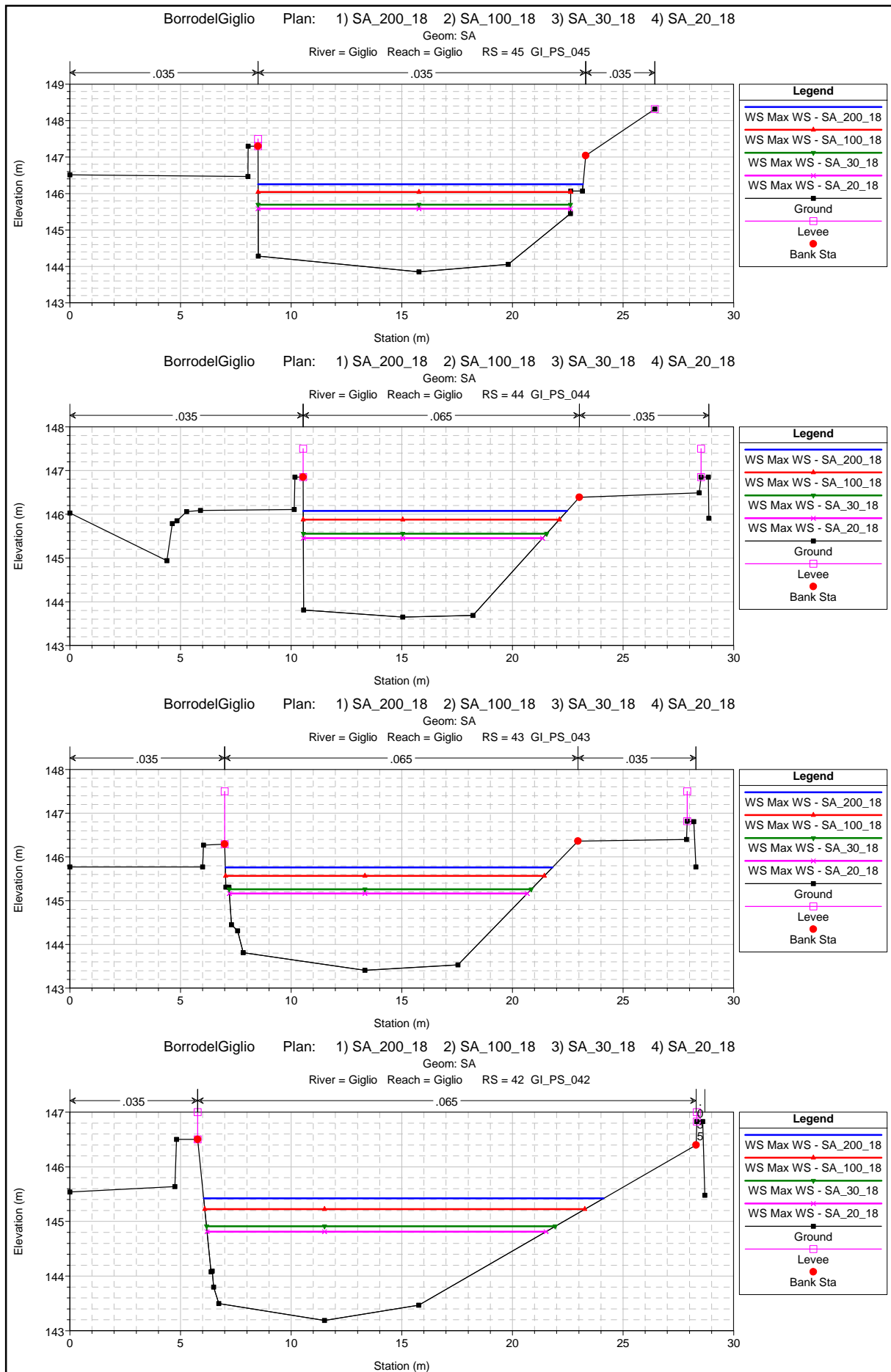


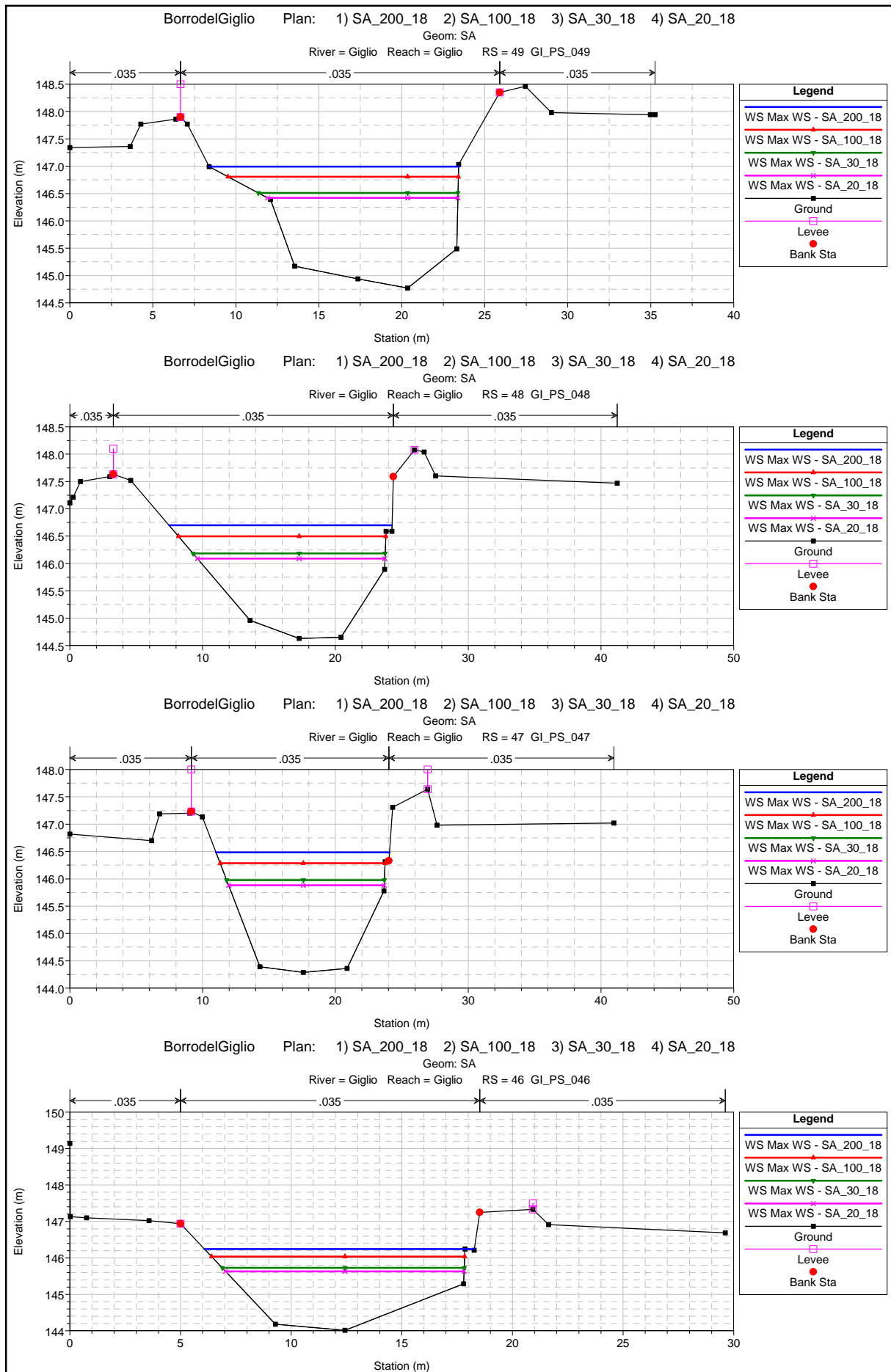


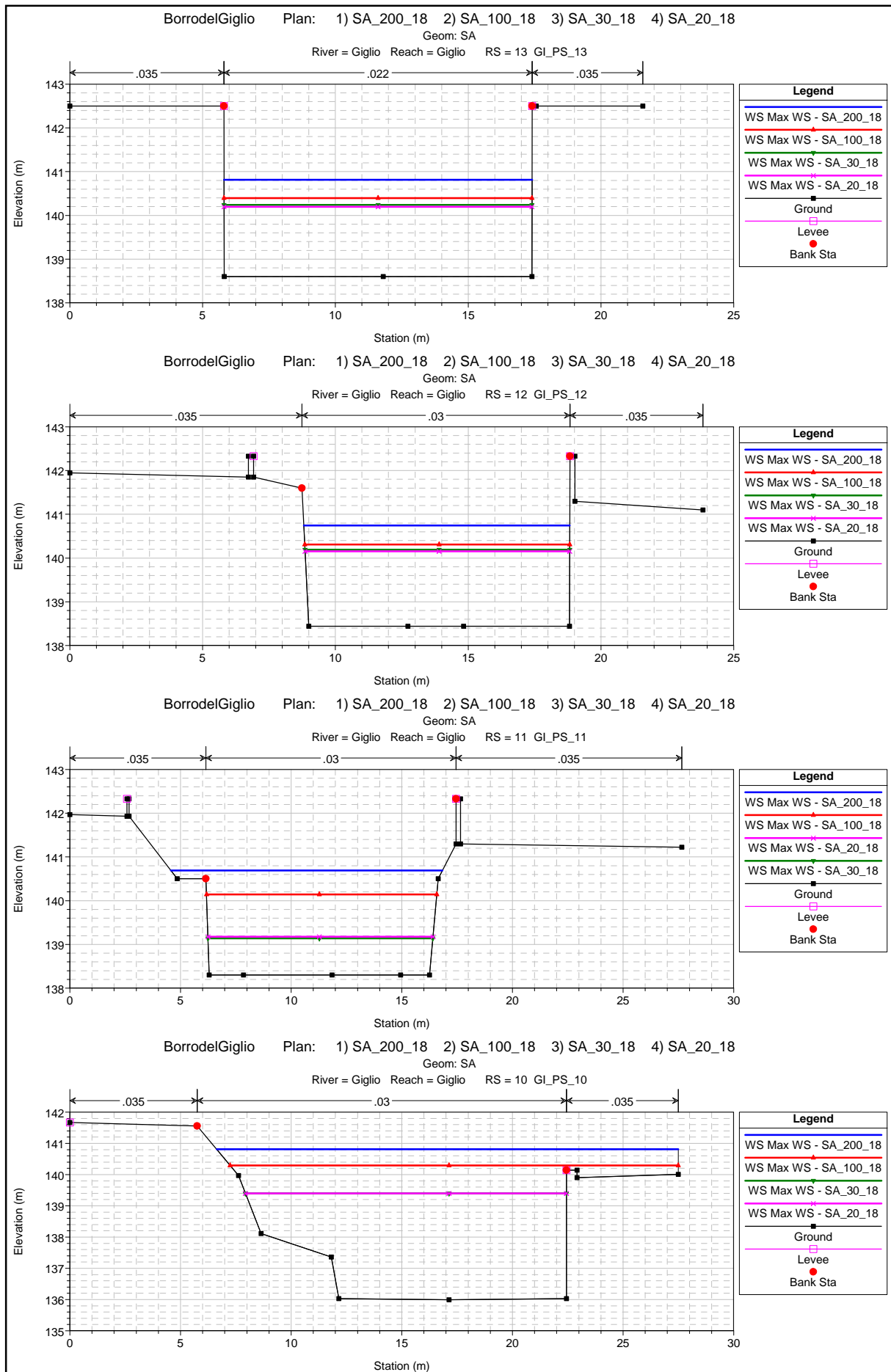


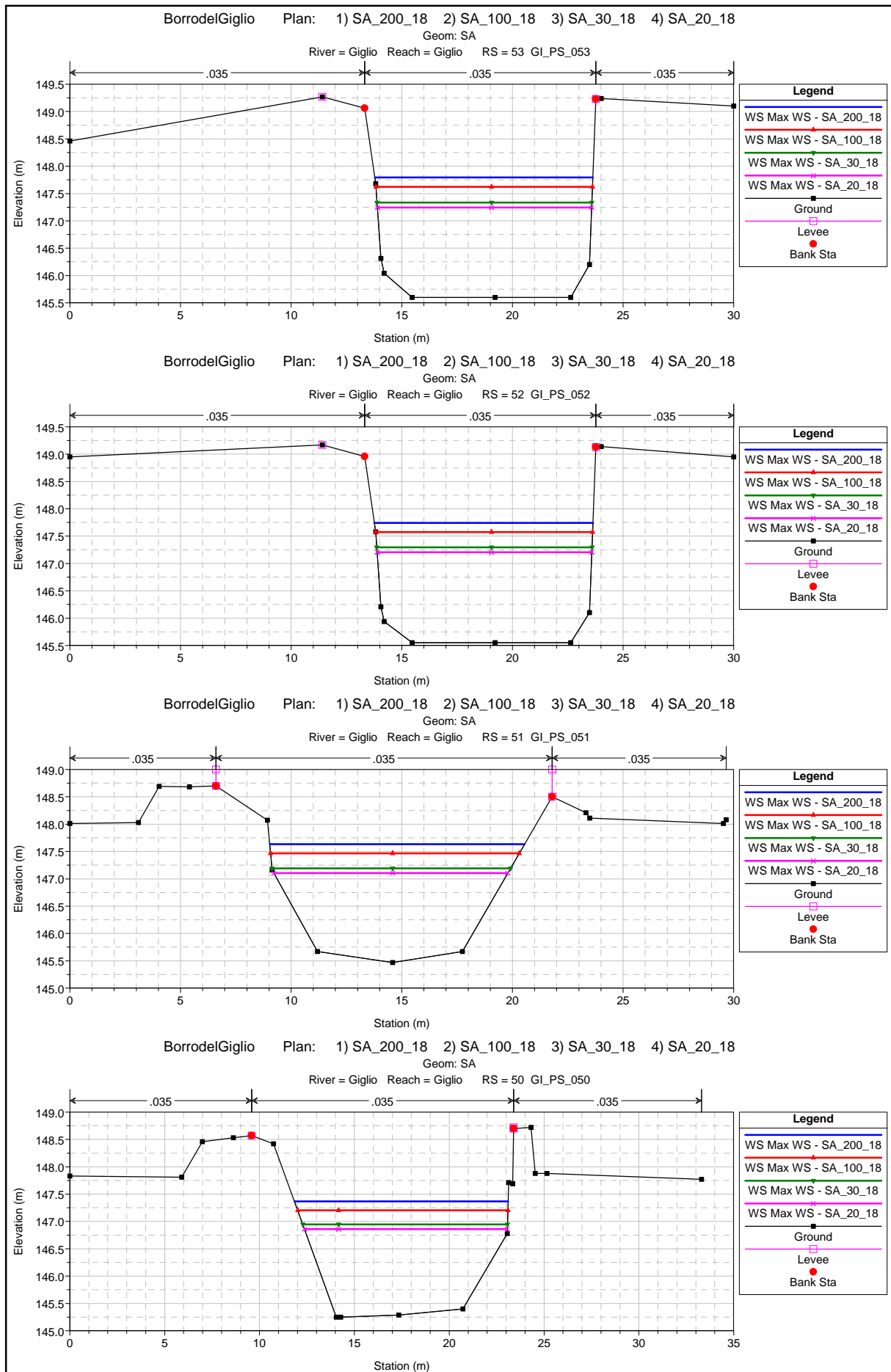


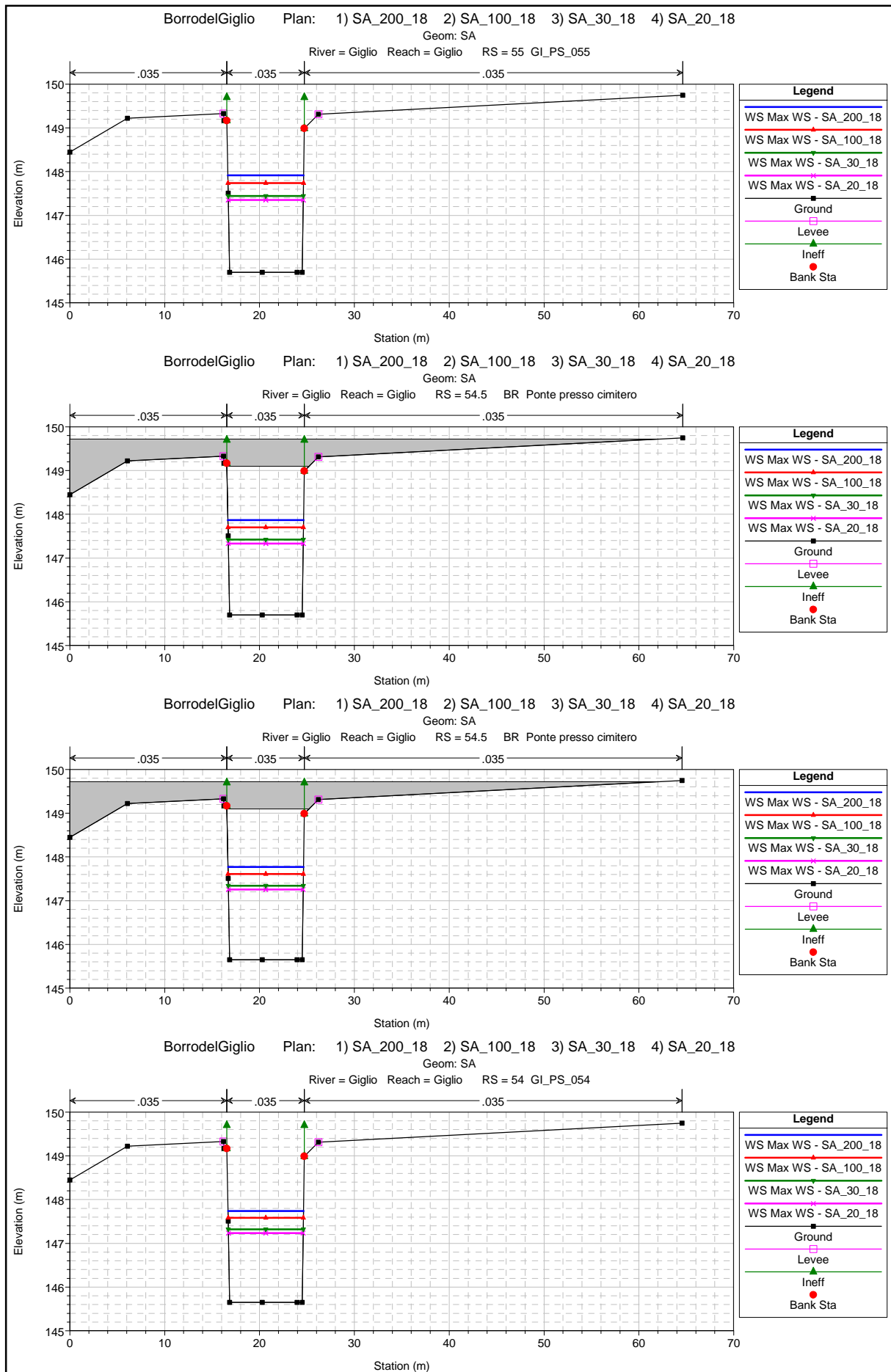


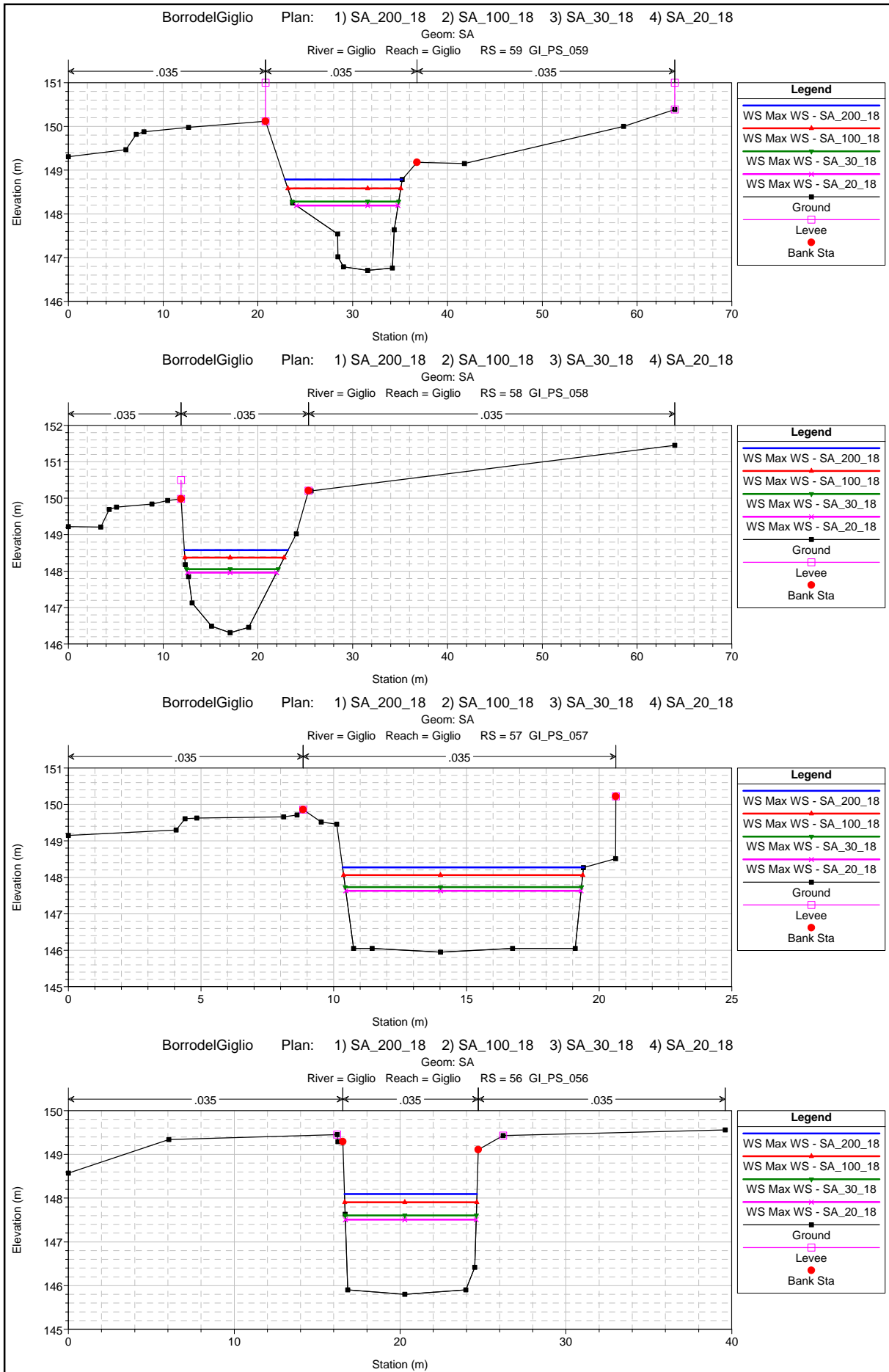








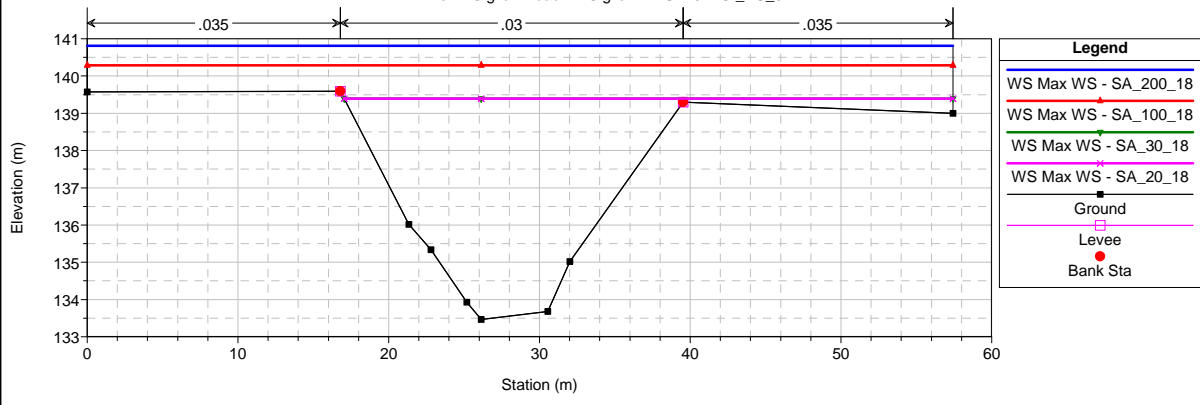




Borrodello Giglio Plan: 1) SA_200_18 2) SA_100_18 3) SA_30_18 4) SA_20_18

Geom: SA

River = Giglio Reach = Giglio RS = 01 GI_PS_01



HEC-RAS River: Giglio Reach: Giglio Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	59	Max WS	SA_200_18	44.81	146.71	148.79		149.14	0.006896	2.64	16.96	12.39	0.72
Giglio	59	Max WS	SA_100_18	37.71	146.71	148.58		148.93	0.007787	2.60	14.48	11.93	0.75
Giglio	59	Max WS	SA_30_18	27.58	146.71	148.28		148.60	0.009542	2.51	10.98	11.24	0.81
Giglio	59	Max WS	SA_20_18	24.70	146.71	148.19		148.50	0.009919	2.48	9.98	10.72	0.82
Giglio	58	Max WS	SA_200_18	44.81	146.31	148.58		148.92	0.005384	2.60	17.22	10.94	0.66
Giglio	58	Max WS	SA_100_18	37.71	146.31	148.37		148.69	0.005628	2.52	14.98	10.48	0.67
Giglio	58	Max WS	SA_30_18	27.58	146.31	148.05		148.33	0.005918	2.34	11.77	9.68	0.68
Giglio	58	Max WS	SA_20_18	24.70	146.31	147.96		148.22	0.005917	2.27	10.87	9.39	0.67
Giglio	57	Max WS	SA_200_18	44.81	145.95	148.27		148.54	0.003633	2.28	19.64	9.09	0.50
Giglio	57	Max WS	SA_100_18	37.71	145.95	148.06		148.29	0.003443	2.12	17.75	9.01	0.48
Giglio	57	Max WS	SA_30_18	27.58	145.95	147.73		147.91	0.003151	1.87	14.77	8.90	0.46
Giglio	57	Max WS	SA_20_18	24.70	145.95	147.63		147.79	0.003070	1.79	13.83	8.87	0.46
Giglio	56	Max WS	SA_200_18	44.81	145.80	148.10		148.44	0.004856	2.58	17.36	7.99	0.56
Giglio	56	Max WS	SA_100_18	37.71	145.80	147.91		148.20	0.004451	2.38	15.86	7.96	0.54
Giglio	56	Max WS	SA_30_18	27.58	145.80	147.60		147.82	0.003824	2.05	13.46	7.90	0.50
Giglio	56	Max WS	SA_20_18	24.70	145.80	147.51		147.70	0.003632	1.94	12.70	7.89	0.49
Giglio	55	Max WS	SA_200_18	44.81	145.70	147.92	147.21	148.26	0.005056	2.58	17.35	8.00	0.56
Giglio	55	Max WS	SA_100_18	37.71	145.70	147.74	147.05	148.02	0.004585	2.37	15.92	7.97	0.53
Giglio	55	Max WS	SA_30_18	27.58	145.70	147.44	146.79	147.65	0.003878	2.03	13.59	7.92	0.49
Giglio	55	Max WS	SA_20_18	24.70	145.70	147.35	146.72	147.54	0.003665	1.92	12.85	7.91	0.48
Giglio	54.5			Bridge									
Giglio	54	Max WS	SA_200_18	44.81	145.65	147.74		148.12	0.006014	2.74	16.33	7.97	0.61
Giglio	54	Max WS	SA_100_18	37.71	145.65	147.58		147.90	0.005353	2.50	15.09	7.94	0.58
Giglio	54	Max WS	SA_30_18	27.58	145.65	147.32		147.55	0.004415	2.12	13.00	7.90	0.53
Giglio	54	Max WS	SA_20_18	24.70	145.65	147.23		147.44	0.004148	2.00	12.32	7.89	0.51
Giglio	53	Max WS	SA_200_18	44.81	145.60	147.80		148.04	0.003233	2.20	20.40	9.85	0.49
Giglio	53	Max WS	SA_100_18	37.71	145.60	147.62		147.83	0.002954	2.02	18.69	9.79	0.47
Giglio	53	Max WS	SA_30_18	27.58	145.60	147.34		147.49	0.002541	1.73	15.90	9.71	0.43
Giglio	53	Max WS	SA_20_18	24.70	145.60	147.24		147.38	0.002418	1.65	15.01	9.69	0.42
Giglio	52	Max WS	SA_200_18	44.81	145.55	147.74		147.99	0.003229	2.19	20.44	9.88	0.49

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	52	Max WS	SA_100_18	37.71	145.55	147.57		147.78	0.002922	2.01	18.78	9.80	0.46
Giglio	52	Max WS	SA_30_18	27.58	145.55	147.30		147.45	0.002471	1.72	16.08	9.73	0.43
Giglio	52	Max WS	SA_20_18	24.70	145.55	147.21		147.34	0.002337	1.62	15.21	9.70	0.41
Giglio	51.9			Lat Struct									
Giglio	51.8			Lat Struct									
Giglio	51	Max WS	SA_200_18	44.81	145.47	147.63		147.92	0.004262	2.38	18.80	11.52	0.60
Giglio	51	Max WS	SA_100_18	37.71	145.47	147.46		147.72	0.004116	2.23	16.88	11.24	0.58
Giglio	51	Max WS	SA_30_18	27.58	145.47	147.19		147.39	0.003903	1.99	13.86	10.78	0.56
Giglio	51	Max WS	SA_20_18	24.70	145.47	147.10		147.29	0.003822	1.91	12.93	10.58	0.55
Giglio	50	Max WS	SA_200_18	44.81	145.25	147.37		147.65	0.004058	2.35	19.09	11.27	0.58
Giglio	50	Max WS	SA_100_18	37.71	145.25	147.21		147.45	0.003849	2.18	17.28	11.08	0.56
Giglio	50	Max WS	SA_30_18	27.58	145.25	146.94		147.13	0.003507	1.91	14.42	10.79	0.53
Giglio	50	Max WS	SA_20_18	24.70	145.25	146.86		147.03	0.003411	1.83	13.52	10.70	0.52
Giglio	49	Max WS	SA_200_18	44.81	144.77	146.99		147.20	0.003472	2.01	22.25	15.03	0.53
Giglio	49	Max WS	SA_100_18	37.71	144.77	146.81		147.00	0.003386	1.93	19.56	13.88	0.52
Giglio	49	Max WS	SA_30_18	27.58	144.77	146.51		146.67	0.003081	1.75	15.73	12.04	0.49
Giglio	49	Max WS	SA_20_18	24.70	144.77	146.42		146.57	0.002913	1.68	14.68	11.49	0.47
Giglio	48	Max WS	SA_200_18	44.81	144.63	146.70		146.88	0.003058	1.90	23.63	16.79	0.51
Giglio	48	Max WS	SA_100_18	37.71	144.63	146.50		146.67	0.003212	1.85	20.33	15.62	0.52
Giglio	48	Max WS	SA_30_18	27.58	144.63	146.18		146.34	0.003660	1.77	15.62	14.47	0.54
Giglio	48	Max WS	SA_20_18	24.70	144.63	146.09		146.24	0.003817	1.73	14.27	14.12	0.55
Giglio	47	Max WS	SA_200_18	44.81	144.29	146.48		146.70	0.003076	2.07	21.61	13.07	0.51
Giglio	47	Max WS	SA_100_18	37.71	144.29	146.29		146.48	0.003101	1.98	19.06	12.42	0.51
Giglio	47	Max WS	SA_30_18	27.58	144.29	145.98		146.14	0.003154	1.80	15.30	11.88	0.51
Giglio	47	Max WS	SA_20_18	24.70	144.29	145.88		146.04	0.003167	1.74	14.18	11.71	0.51
Giglio	46	Max WS	SA_200_18	44.81	144.01	146.24		146.54	0.004778	2.41	18.63	12.19	0.62
Giglio	46	Max WS	SA_100_18	37.71	144.01	146.04		146.31	0.004806	2.32	16.26	11.45	0.62
Giglio	46	Max WS	SA_30_18	27.58	144.01	145.73		145.97	0.005229	2.16	12.77	10.94	0.64
Giglio	46	Max WS	SA_20_18	24.70	144.01	145.63		145.86	0.005395	2.10	11.74	10.78	0.64

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	38	Max WS	SA_200_18	44.81	142.35	143.67		143.93	0.043844	2.26	19.80	14.99	0.63
Giglio	38	Max WS	SA_100_18	37.71	142.35	143.53		143.76	0.044488	2.14	17.66	14.99	0.63
Giglio	38	Max WS	SA_30_18	27.58	142.35	143.35		143.52	0.040145	1.84	14.97	14.98	0.59
Giglio	38	Max WS	SA_20_18	24.70	142.35	143.30		143.45	0.038004	1.74	14.21	14.98	0.57
Giglio	37	Max WS	SA_200_18	44.81	142.20	143.15	143.17	143.66	0.011193	3.15	14.24	15.01	1.03
Giglio	37	Max WS	SA_100_18	37.71	142.20	143.02	143.07	143.50	0.012941	3.09	12.21	15.01	1.09
Giglio	37	Max WS	SA_30_18	27.58	142.20	142.84	142.90	143.26	0.014848	2.86	9.63	15.01	1.14
Giglio	37	Max WS	SA_20_18	24.70	142.20	142.80	142.85	143.19	0.015203	2.77	8.93	15.01	1.14
Giglio	36	Max WS	SA_200_18	44.81	141.85	143.13		143.29	0.002345	1.76	25.50	19.92	0.50
Giglio	36	Max WS	SA_100_18	37.71	141.85	142.95		143.10	0.002729	1.73	21.82	19.90	0.53
Giglio	36	Max WS	SA_30_18	27.58	141.85	142.70		142.84	0.003377	1.64	16.81	19.90	0.57
Giglio	36	Max WS	SA_20_18	24.70	141.85	142.63		142.76	0.003567	1.60	15.44	19.90	0.58
Giglio	35	Max WS	SA_200_18	44.81	141.70	143.09	142.50	143.23	0.000975	1.62	27.63	19.86	0.44
Giglio	35	Max WS	SA_100_18	37.71	141.70	142.89	142.42	143.02	0.001133	1.59	23.65	19.85	0.47
Giglio	35	Max WS	SA_30_18	27.58	141.70	142.60	142.28	142.72	0.001472	1.54	17.93	19.85	0.52
Giglio	35	Max WS	SA_20_18	24.70	141.70	142.52	142.24	142.64	0.001611	1.52	16.29	19.85	0.53
Giglio	34.5		Bridge										
Giglio	34	Max WS	SA_200_18	44.81	141.60	143.07		143.18	0.000798	1.51	29.58	20.40	0.40
Giglio	34	Max WS	SA_100_18	37.71	141.60	142.86		142.97	0.000922	1.49	25.36	20.33	0.42
Giglio	34	Max WS	SA_30_18	27.58	141.60	142.55		142.66	0.001208	1.44	19.16	20.22	0.47
Giglio	34	Max WS	SA_20_18	24.70	141.60	142.46		142.57	0.001328	1.42	17.38	20.19	0.49
Giglio	33	Max WS	SA_200_18	44.81	141.50	143.03		143.14	0.001297	1.45	30.88	20.42	0.38
Giglio	33	Max WS	SA_100_18	37.71	141.50	142.82		142.92	0.001488	1.42	26.51	20.35	0.40
Giglio	33	Max WS	SA_30_18	27.58	141.50	142.50		142.59	0.001962	1.38	19.99	20.24	0.44
Giglio	33	Max WS	SA_20_18	24.70	141.50	142.40		142.50	0.002189	1.37	18.04	20.20	0.46
Giglio	32	Max WS	SA_200_18	44.81	141.00	142.81		143.08	0.003216	2.29	19.55	13.25	0.60
Giglio	32	Max WS	SA_100_18	37.71	141.00	142.59		142.85	0.003535	2.25	16.77	12.62	0.62
Giglio	32	Max WS	SA_30_18	27.58	141.00	142.28		142.51	0.004000	2.13	12.94	11.69	0.65
Giglio	32	Max WS	SA_20_18	24.70	141.00	142.19		142.41	0.004118	2.08	11.89	11.42	0.65

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	31	Max WS	SA_200_18	44.81	140.55	142.31		142.66	0.004341	2.61	17.18	9.75	0.63
Giglio	31	Max WS	SA_100_18	37.71	140.55	142.09		142.41	0.004615	2.51	15.00	9.75	0.65
Giglio	31	Max WS	SA_30_18	27.55	140.55	141.76		142.04	0.005109	2.33	11.80	9.75	0.68
Giglio	31	Max WS	SA_20_18	24.67	140.55	141.67		141.93	0.005260	2.27	10.88	9.75	0.69
Giglio	30	Max WS	SA_200_18	44.81	140.40	142.26		142.53	0.003233	2.33	19.21	10.36	0.55
Giglio	30	Max WS	SA_100_18	37.71	140.40	142.02		142.28	0.003453	2.25	16.75	10.36	0.57
Giglio	30	Max WS	SA_30_18	27.55	140.40	141.66		141.89	0.003949	2.11	13.04	10.35	0.60
Giglio	30	Max WS	SA_20_18	24.67	140.40	141.55		141.77	0.004177	2.07	11.92	10.35	0.62
Giglio	29	Max WS	SA_200_18	44.81	140.23	142.28	141.39	142.47	0.001012	1.90	23.52	11.45	0.42
Giglio	29	Max WS	SA_100_18	37.71	140.23	142.04	141.26	142.21	0.001046	1.82	20.73	11.45	0.43
Giglio	29	Max WS	SA_30_18	27.55	140.23	141.67	141.07	141.81	0.001121	1.67	16.49	11.45	0.44
Giglio	29	Max WS	SA_20_18	24.67	140.23	141.56	141.01	141.69	0.001157	1.62	15.19	11.45	0.45
Giglio	28.5			Bridge									
Giglio	28	Max WS	SA_200_18	44.81	140.10	142.32		142.45	0.000643	1.60	27.98	12.65	0.34
Giglio	28	Max WS	SA_100_18	37.71	140.10	142.07		142.19	0.000650	1.52	24.85	12.64	0.35
Giglio	28	Max WS	SA_30_18	27.55	140.10	141.69		141.79	0.000662	1.37	20.09	12.62	0.35
Giglio	28	Max WS	SA_20_18	24.67	140.10	141.58		141.67	0.000669	1.32	18.63	12.62	0.35
Giglio	27	Max WS	SA_200_18	44.81	140.00	142.28		142.42	0.001267	1.66	27.06	11.86	0.35
Giglio	27	Max WS	SA_100_18	37.71	140.00	142.04		142.16	0.001258	1.56	24.16	11.85	0.35
Giglio	27	Max WS	SA_30_18	27.55	140.00	141.66		141.76	0.001237	1.40	19.73	11.85	0.35
Giglio	27	Max WS	SA_20_18	24.67	140.00	141.55		141.64	0.001233	1.34	18.37	11.85	0.34
Giglio	26	Max WS	SA_200_18	44.81	139.90	142.14		142.38	0.002477	2.18	20.57	9.20	0.47
Giglio	26	Max WS	SA_100_18	37.71	139.90	141.91		142.12	0.002409	2.04	18.44	9.19	0.46
Giglio	26	Max WS	SA_30_18	27.55	139.90	141.56		141.72	0.002268	1.81	15.22	9.19	0.45
Giglio	26	Max WS	SA_20_18	24.67	139.90	141.45		141.60	0.002224	1.73	14.23	9.19	0.44
Giglio	25	Max WS	SA_200_18	44.81	139.85	141.87		142.30	0.005289	2.92	15.36	7.60	0.65
Giglio	25	Max WS	SA_100_18	37.71	139.85	141.67		142.05	0.005090	2.73	13.82	7.60	0.65
Giglio	25	Max WS	SA_30_18	27.54	139.85	141.36		141.65	0.004654	2.40	11.49	7.60	0.62
Giglio	25	Max WS	SA_20_18	24.67	139.85	141.27		141.53	0.004515	2.29	10.78	7.60	0.61
Giglio	24	Max WS	SA_200_18	44.81	139.75	141.60		142.13	0.007039	3.22	13.90	7.54	0.76

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	24	Max WS	SA_100_18	37.71	139.75	141.41		141.88	0.006807	3.02	12.49	7.54	0.75
Giglio	24	Max WS	SA_30_18	27.54	139.75	141.15		141.50	0.006034	2.62	10.51	7.53	0.71
Giglio	24	Max WS	SA_20_18	24.66	139.75	141.07		141.38	0.005786	2.49	9.90	7.53	0.69
Giglio	23	Max WS	SA_200_18	44.80	139.60	141.53		141.75	0.002350	2.06	21.77	11.29	0.47
Giglio	23	Max WS	SA_100_18	37.71	139.60	141.30		141.50	0.002462	1.97	19.12	11.28	0.48
Giglio	23	Max WS	SA_30_18	27.53	139.60	140.99		141.15	0.002401	1.76	15.66	11.25	0.48
Giglio	23	Max WS	SA_20_18	24.65	139.60	140.90		141.04	0.002394	1.69	14.59	11.25	0.47
Giglio	22	Max WS	SA_200_18	44.80	139.50	141.38		141.65	0.003067	2.29	19.57	10.48	0.53
Giglio	22	Max WS	SA_100_18	37.71	139.50	141.14		141.39	0.003289	2.21	17.04	10.46	0.55
Giglio	22	Max WS	SA_30_18	27.52	139.50	140.85		141.04	0.003183	1.97	14.00	10.43	0.54
Giglio	22	Max WS	SA_20_18	24.65	139.50	140.75		140.94	0.003171	1.89	13.05	10.42	0.54
Giglio	21	Max WS	SA_200_18	44.80	139.22	141.31		141.50	0.002039	1.97	22.69	10.96	0.44
Giglio	21	Max WS	SA_100_18	37.70	139.22	141.05		141.24	0.002126	1.89	19.93	10.96	0.45
Giglio	21	Max WS	SA_30_18	27.52	139.22	140.76		140.90	0.001912	1.64	16.76	10.95	0.42
Giglio	21	Max WS	SA_20_18	24.64	139.22	140.67		140.80	0.001849	1.56	15.76	10.95	0.42
Giglio	20	Max WS	SA_200_18	44.79	139.20	141.23		141.44	0.002209	2.03	22.05	10.89	0.46
Giglio	20	Max WS	SA_100_18	37.37	139.20	140.98		141.17	0.002300	1.94	19.27	10.88	0.47
Giglio	20	Max WS	SA_30_18	27.52	139.20	140.70		140.84	0.002095	1.69	16.24	10.87	0.44
Giglio	20	Max WS	SA_20_18	24.64	139.20	140.61		140.74	0.002024	1.61	15.27	10.87	0.43
Giglio	19	Max WS	SA_200_18	44.78	139.10	141.13		141.34	0.002241	2.04	21.90	10.83	0.46
Giglio	19	Max WS	SA_100_18	37.34	139.10	140.87		141.06	0.002357	1.96	19.07	10.82	0.47
Giglio	19	Max WS	SA_30_18	27.52	139.10	140.60		140.75	0.002092	1.70	16.21	10.81	0.44
Giglio	19	Max WS	SA_20_18	24.63	139.10	140.52		140.65	0.001998	1.61	15.31	10.81	0.43
Giglio	18	Max WS	SA_200_18	44.77	139.04	141.05		141.26	0.002302	2.06	21.71	10.82	0.46
Giglio	18	Max WS	SA_100_18	37.33	139.04	140.78		140.98	0.002455	1.98	18.82	10.82	0.48
Giglio	18	Max WS	SA_30_18	27.52	139.04	140.53		140.68	0.002144	1.71	16.09	10.82	0.45
Giglio	18	Max WS	SA_20_18	24.63	139.04	140.45		140.58	0.002029	1.62	15.24	10.82	0.43
Giglio	17	Max WS	SA_200_18	44.73	139.00	140.98		141.21	0.002571	2.15	20.81	10.59	0.49
Giglio	17	Max WS	SA_100_18	37.31	139.00	140.70		140.93	0.002792	2.08	17.93	10.58	0.51
Giglio	17	Max WS	SA_30_18	27.51	139.00	140.47		140.63	0.002399	1.78	15.42	10.58	0.47
Giglio	17	Max WS	SA_20_18	24.63	139.00	140.39		140.54	0.002256	1.68	14.63	10.58	0.46

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	16	Max WS	SA_200_18	43.75	138.95	140.79		141.13	0.004179	2.56	17.08	10.24	0.63
Giglio	16	Max WS	SA_100_18	37.20	138.95	140.45		140.83	0.005945	2.73	13.65	10.18	0.75
Giglio	16	Max WS	SA_30_18	27.49	138.95	140.27		140.55	0.005118	2.34	11.76	10.14	0.69
Giglio	16	Max WS	SA_20_18	24.62	138.95	140.21		140.46	0.004776	2.20	11.20	10.13	0.67
Giglio	15	Max WS	SA_200_18	43.73	138.81	140.78		141.01	0.002434	2.10	20.84	10.64	0.48
Giglio	15	Max WS	SA_100_18	37.10	138.81	140.36		140.62	0.003646	2.27	16.32	10.60	0.58
Giglio	15	Max WS	SA_30_18	27.48	138.81	140.22		140.40	0.002657	1.85	14.87	10.59	0.50
Giglio	15	Max WS	SA_20_18	24.60	138.81	140.18		140.33	0.002327	1.70	14.44	10.58	0.47
Giglio	14	Max WS	SA_200_18	43.75	138.65	140.82	139.78	140.98	0.000791	1.74	25.21	11.60	0.38
Giglio	14	Max WS	SA_100_18	37.14	138.65	140.41	139.67	140.58	0.001079	1.82	20.38	11.60	0.44
Giglio	14	Max WS	SA_30_18	27.48	138.65	140.25	139.48	140.36	0.000784	1.48	18.56	11.60	0.37
Giglio	14	Max WS	SA_20_18	24.60	138.65	140.21	139.42	140.30	0.000686	1.36	18.04	11.60	0.35
Giglio	13.5			Bridge									
Giglio	13	Max WS	SA_200_18	43.75	138.60	140.81		140.96	0.000748	1.70	25.68	11.60	0.37
Giglio	13	Max WS	SA_100_18	37.12	138.60	140.39		140.56	0.001012	1.78	20.80	11.60	0.43
Giglio	13	Max WS	SA_30_18	27.48	138.60	140.24		140.35	0.000726	1.44	19.04	11.60	0.36
Giglio	13	Max WS	SA_20_18	24.62	138.60	140.20		140.29	0.000632	1.33	18.53	11.60	0.34
Giglio	12	Max WS	SA_200_18	43.72	138.44	140.75		140.93	0.001783	1.91	22.86	10.02	0.40
Giglio	12	Max WS	SA_100_18	37.06	138.44	140.31		140.51	0.002385	2.00	18.51	9.98	0.47
Giglio	12	Max WS	SA_30_18	27.48	138.44	140.19		140.32	0.001595	1.59	17.33	9.97	0.38
Giglio	12	Max WS	SA_20_18	24.60	138.44	140.16		140.26	0.001359	1.45	16.98	9.97	0.35
Giglio	11	Max WS	SA_200_18	33.08	138.30	140.69		140.78	0.000823	1.35	24.78	12.28	0.28
Giglio	11	Max WS	SA_100_18	27.90	138.30	140.14		140.25	0.001307	1.49	18.75	10.41	0.35
Giglio	11	Max WS	SA_30_18	27.08	138.30	139.14	139.21	139.66	0.014413	3.22	8.41	10.16	1.13
Giglio	11	Max WS	SA_20_18	22.57	138.30	139.17		139.51	0.008710	2.57	8.79	10.17	0.88
Giglio	10.99			Lat Struct									
Giglio	10	Max WS	SA_200_18	43.78	135.99	140.81		140.83	0.000134	0.68	67.01	20.86	0.11
Giglio	10	Max WS	SA_100_18	36.85	135.99	140.29		140.32	0.000148	0.67	56.38	20.25	0.11
Giglio	10	Max WS	SA_30_18	27.03	135.99	139.40		139.42	0.000141	0.65	41.56	14.51	0.12

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	10	Max WS	SA_20_18	24.26	135.99	139.40		139.42	0.000114	0.58	41.54	14.51	0.11
Giglio	09	Max WS	SA_200_18	43.49	135.76	140.81		140.83	0.000074	0.63	74.38	26.21	0.10
Giglio	09	Max WS	SA_100_18	36.00	135.76	140.29		140.31	0.000087	0.62	60.98	25.51	0.11
Giglio	09	Max WS	SA_30_18	27.02	135.76	139.39		139.41	0.000137	0.65	41.63	16.90	0.13
Giglio	09	Max WS	SA_20_18	24.22	135.76	139.39		139.41	0.000110	0.58	41.63	16.90	0.12
Giglio	08	Max WS	SA_200_18	43.62	135.29	140.81		140.82	0.000073	0.62	80.90	35.75	0.10
Giglio	08	Max WS	SA_100_18	36.50	135.29	140.28		140.30	0.000094	0.64	62.42	35.11	0.11
Giglio	08	Max WS	SA_30_18	27.02	135.29	139.38		139.41	0.000145	0.68	39.98	15.87	0.14
Giglio	08	Max WS	SA_20_18	24.21	135.29	139.38		139.40	0.000116	0.61	40.01	15.87	0.12
Giglio	07	Max WS	SA_200_18	43.58	135.14	140.81		140.82	0.000044	0.45	100.80	36.37	0.08
Giglio	07	Max WS	SA_100_18	36.71	135.14	140.29		140.30	0.000057	0.46	82.04	35.68	0.09
Giglio	07	Max WS	SA_30_18	27.02	135.14	139.39		139.40	0.000082	0.50	54.25	22.94	0.10
Giglio	07	Max WS	SA_20_18	24.21	135.14	139.39		139.40	0.000066	0.45	54.26	22.95	0.09
Giglio	06	Max WS	SA_200_18	43.23	134.66	140.81		140.82	0.000039	0.43	104.54	36.37	0.08
Giglio	06	Max WS	SA_100_18	36.60	134.66	140.29		140.30	0.000051	0.44	85.78	35.68	0.08
Giglio	06	Max WS	SA_30_18	27.02	134.66	139.39		139.40	0.000068	0.47	58.00	22.94	0.09
Giglio	06	Max WS	SA_20_18	24.21	134.66	139.39		139.40	0.000055	0.42	58.00	22.94	0.08
Giglio	05	Max WS	SA_200_18	42.69	134.03	140.81		140.82	0.000021	0.36	123.96	33.54	0.06
Giglio	05	Max WS	SA_100_18	36.24	134.03	140.29		140.30	0.000023	0.35	106.79	32.46	0.06
Giglio	05	Max WS	SA_30_18	26.94	134.03	139.39		139.40	0.000029	0.35	78.37	30.83	0.06
Giglio	05	Max WS	SA_20_18	24.13	134.03	139.39		139.40	0.000024	0.31	78.35	30.83	0.06
Giglio	04	Max WS	SA_200_18	41.76	133.96	140.81		140.82	0.000019	0.35	125.67	33.12	0.05
Giglio	04	Max WS	SA_100_18	35.56	133.96	140.29		140.30	0.000021	0.34	108.70	32.09	0.06
Giglio	04	Max WS	SA_30_18	26.69	133.96	139.39		139.40	0.000026	0.34	80.59	30.45	0.06
Giglio	04	Max WS	SA_20_18	23.90	133.96	139.39		139.40	0.000021	0.30	80.58	30.44	0.05
Giglio	03	Max WS	SA_200_18	40.38	133.62	140.81		140.82	0.000020	0.37	117.60	31.26	0.06
Giglio	03	Max WS	SA_100_18	34.76	133.62	140.29		140.30	0.000022	0.37	101.50	30.62	0.06
Giglio	03	Max WS	SA_30_18	26.34	133.62	139.39		139.40	0.000028	0.37	74.44	29.51	0.06
Giglio	03	Max WS	SA_20_18	23.54	133.62	139.39		139.40	0.000022	0.33	74.43	29.51	0.06
Giglio	02	Max WS	SA_200_18	39.89	133.58	140.81		140.82	0.000019	0.36	122.96	46.74	0.05

HEC-RAS River: Giglio Reach: Giglio Profile: Max WS (Continued)

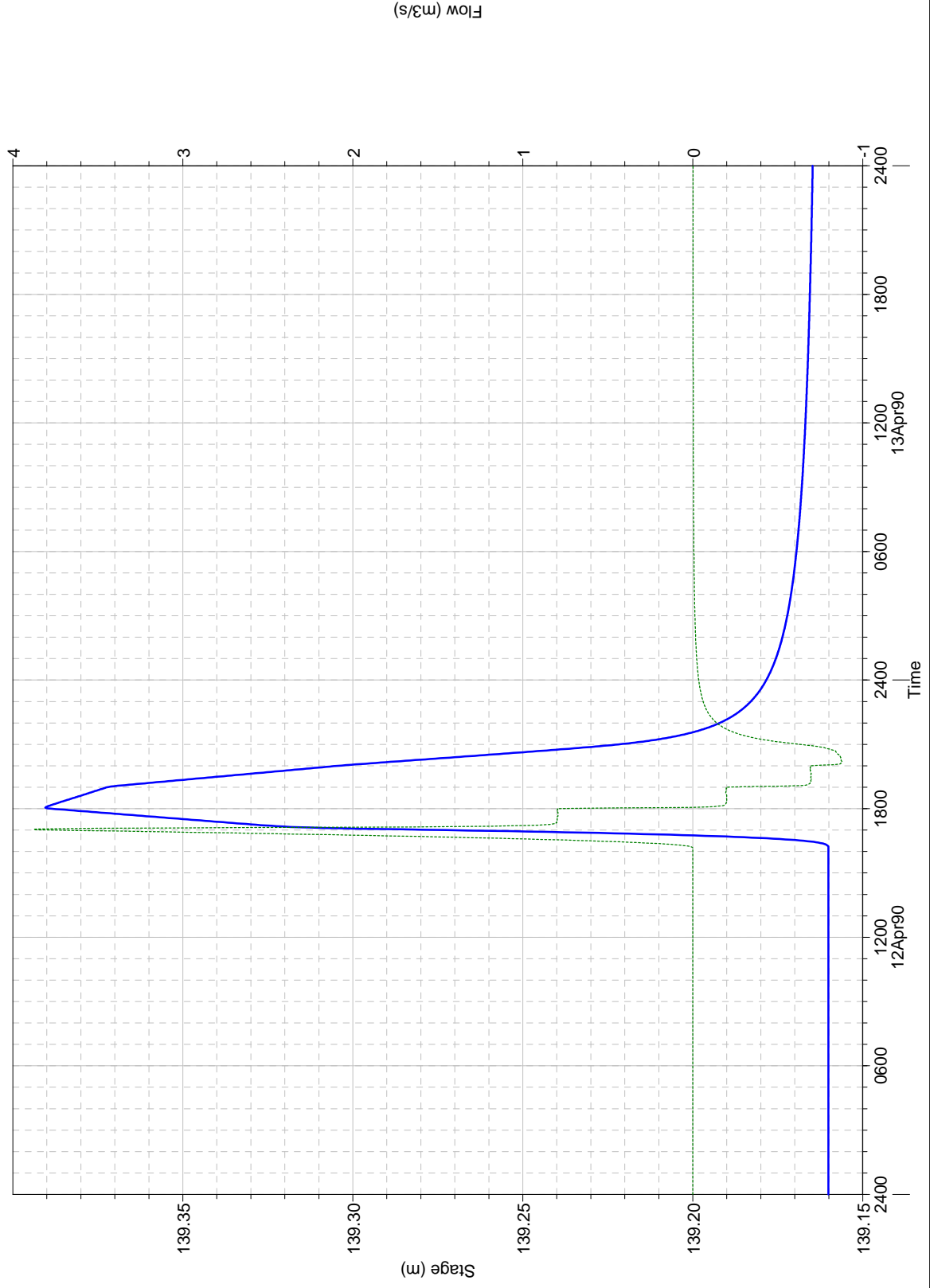
Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Giglio	02	Max WS	SA_100_18	34.59	133.58	140.29		140.30	0.000022	0.37	101.94	33.34	0.06
Giglio	02	Max WS	SA_30_18	26.17	133.58	139.39		139.40	0.000028	0.36	72.41	32.22	0.06
Giglio	02	Max WS	SA_20_18	23.43	133.58	139.39		139.40	0.000022	0.33	72.41	32.22	0.06
Giglio	01	Max WS	SA_200_18	39.88	133.46	140.81	135.23	140.81	0.000012	0.30	161.86	57.43	0.04
Giglio	01	Max WS	SA_100_18	34.58	133.46	140.29	135.09	140.29	0.000015	0.31	132.00	57.43	0.05
Giglio	01	Max WS	SA_30_18	26.10	133.46	139.39	134.86	139.40	0.000022	0.33	83.52	40.39	0.06
Giglio	01	Max WS	SA_20_18	23.28	133.46	139.39	134.78	139.39	0.000017	0.29	83.52	40.39	0.05

HEC-RAS Profile: Max WS

Storage Area	Profile	Plan	W.S. Elev (m)	SA Min El (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
Dx_Arno	Max WS	SA_200_18	140.81	139.16	2.39	278.42	255.03
Dx_Arno	Max WS	SA_100_18	140.29	139.16	1.40	278.42	110.51
Dx_Arno	Max WS	SA_30_18	139.39	139.16	0.42	35.88	8.28
Dx_Arno	Max WS	SA_20_18	139.39	139.16	0.40	35.88	8.27
Giglio_dx	Max WS	SA_200_18	144.00	144.00	0.00	50.00	0.00
Giglio_dx	Max WS	SA_100_18	144.00	144.00	0.00	50.00	0.00
Giglio_dx	Max WS	SA_30_18	144.00	144.00	0.00	50.00	0.00
Giglio_dx	Max WS	SA_20_18	144.00	144.00	0.00	50.00	0.00
Giglio_dx_valle	Max WS	SA_200_18	145.00	145.00	0.00	9.00	0.00
Giglio_dx_valle	Max WS	SA_100_18	145.00	145.00	0.00	9.00	0.00
Giglio_dx_valle	Max WS	SA_30_18	145.00	145.00	0.00	9.00	0.00
Giglio_dx_valle	Max WS	SA_20_18	145.00	145.00	0.00	9.00	0.00
Giglio_sx	Max WS	SA_200_18	144.00	144.00	0.00	24.01	0.00
Giglio_sx	Max WS	SA_100_18	144.00	144.00	0.00	24.01	0.00
Giglio_sx	Max WS	SA_30_18	144.00	144.00	0.00	24.01	0.00
Giglio_sx	Max WS	SA_20_18	144.00	144.00	0.00	24.01	0.00

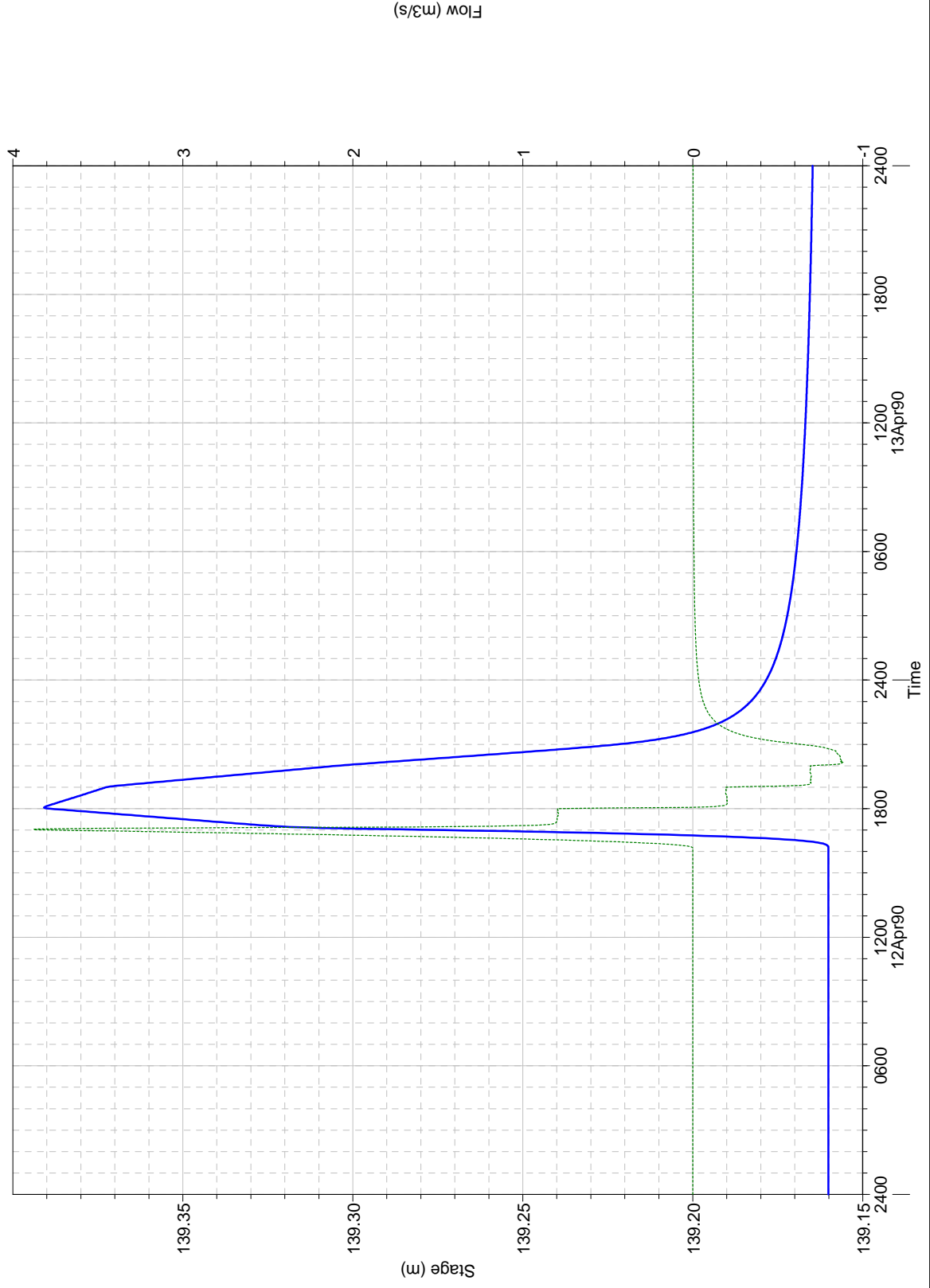
Plan: SA_20_18 Storage Area: Dx_Arno

Legend	
—	Stage
---	Net Inflow

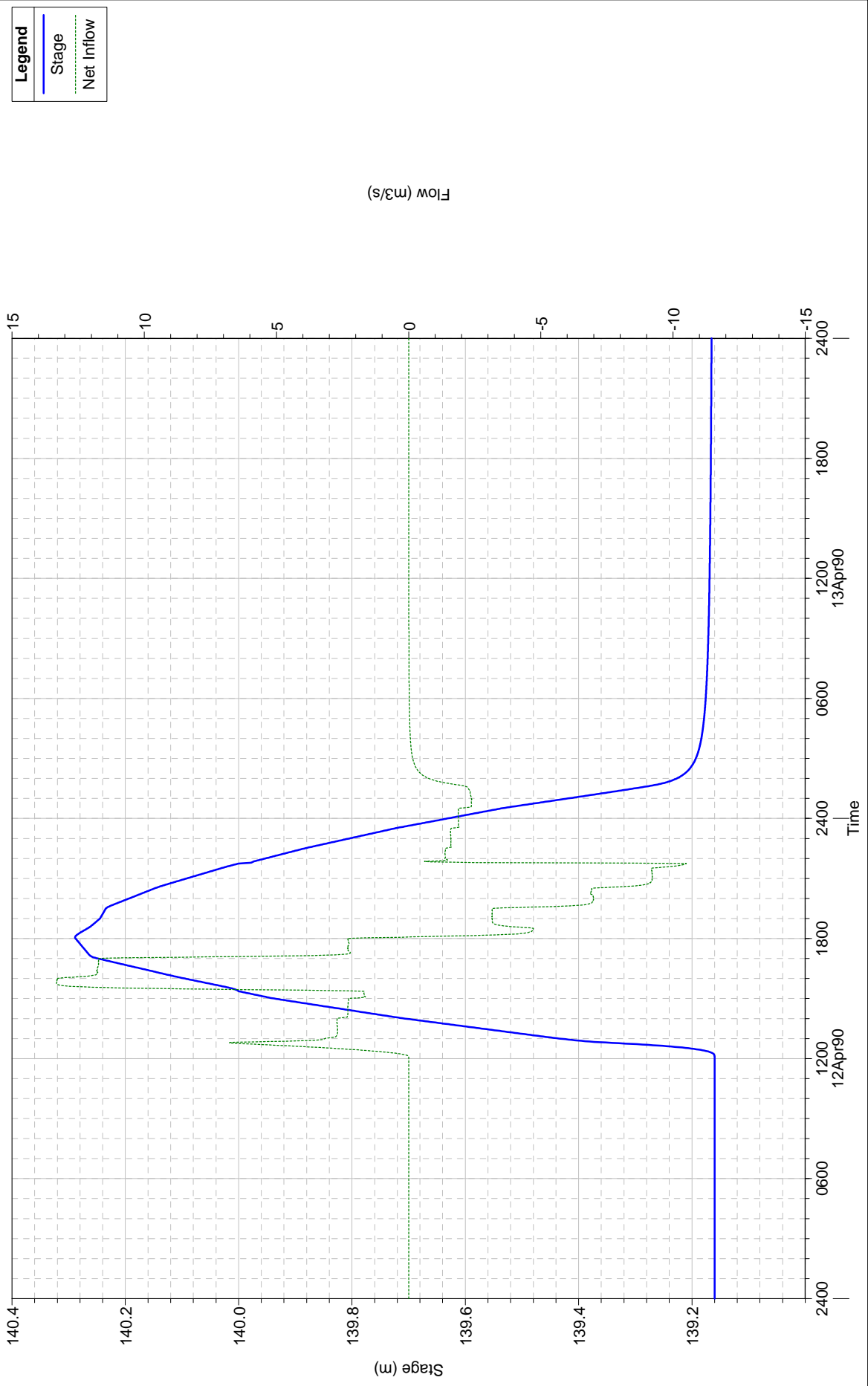


Plan: SA_30_18 Storage Area: Dx_Arno

Legend	
—	Stage
---	Net Inflow



Plan: SA_100_18 Storage Area: Dx_Arno



Plan: SA_200_18 Storage Area: Dx_Arno

