

AUTOSTRADA (A1): MILANO-NAPOLI

AMPLIAMENTO ALLA TERZA CORSIA NEL TRATTO INCISA - VALDARNO

LOTTO 2

PROGETTO ESECUTIVO

DG - DOCUMENTAZIONE GENERALE

IDROLOGIA E IDRAULICA Parte generale

Relazione idrologica Allegato A

IL PROGETTISTA SPECIALISTICO

Ing. Paolo De Paoli
Ord. Ingg. Pavia N. 1739

Responsabile Idrologia e Idraulica

IL RESPONSABILE INTEGRAZIONE
PRESTAZIONI SPECIALISTICHE

Ing. Paola Castiglioni
Ord. Ingg. Varese N. 2725


IL DIRETTORE TECNICO

Ing. Orlando Mazza
Ord. Ingg. Pavia N. 1496

Progettazione Infrastrutture

CODICE IDENTIFICATIVO

RIFERIMENTO PROGETTO		RIFERIMENTO DIRETTORIO					RIFERIMENTO ELABORATO				ORDINATORE
Codice Commessa	Lotto, Sub-Prog. Cod. Appalto	Fase	Capitolo	Paragrafo	W B S	Parte d'opera	Tip.	Disciplina	Progressivo	Rev.	-
119941	LL02	PE	DG	IDR	GE000	00000	R	IDR	0331	-1	SCALA -

 Gruppo Autostrade per l'Italia	PROJECT MANAGER:	SUPPORTO SPECIALISTICO:	REVISIONE	
	Ing. Paola Castiglioni Ord. Ingg. Varese N. 2725		n.	data
			0	LUGLIO 2020
			1	APRILE 2021
REDATTO:		VERIFICATO:		

VISTO DEL COMMITTENTE



IL RESPONSABILE UNICO DEL PROCEDIMENTO
Ing. Furio Cruciani

VISTO DEL CONCEDENTE

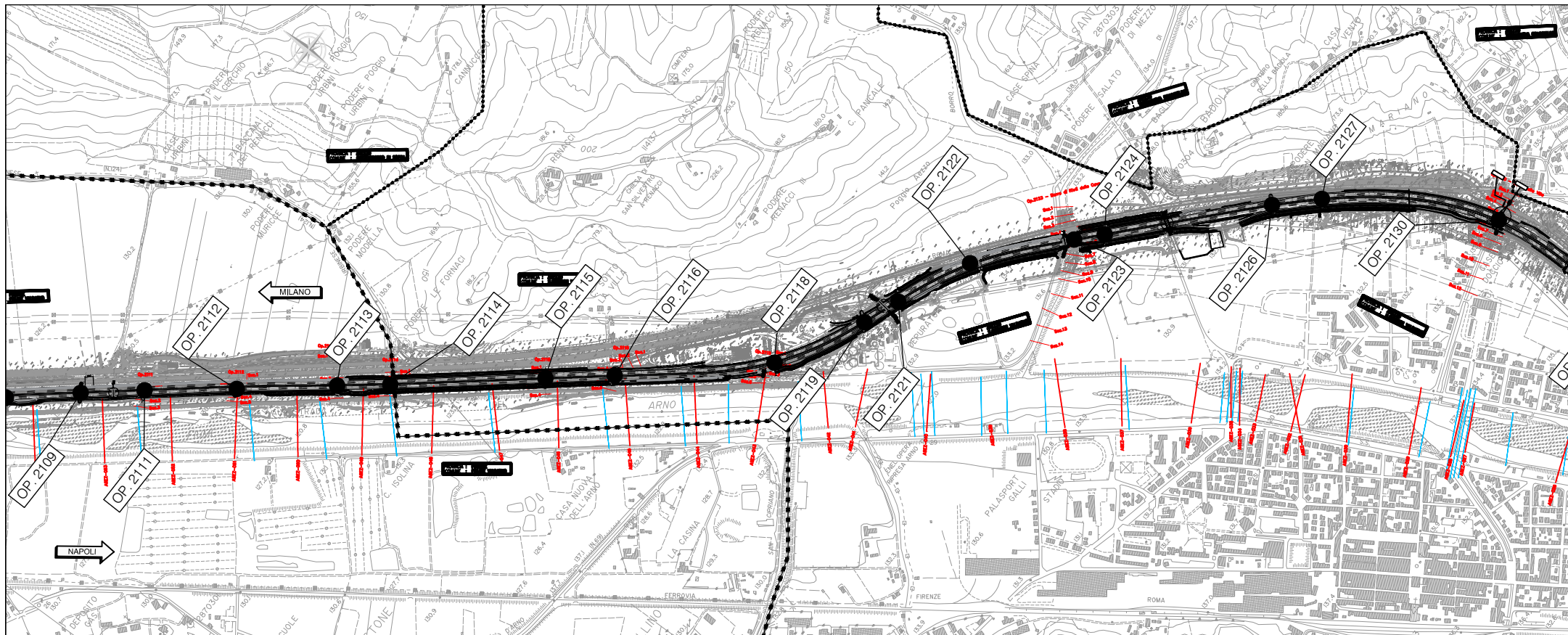


Ministero delle Infrastrutture e dei Trasporti
DIPARTIMENTO PER LE INFRASTRUTTURE, GLI AFFARI GENERALI ED IL PERSONALE
STRUTTURA DI VIGILANZA SULLE CONCESSIONARIE AUTOSTRADALI

OPERE MAGGIORI

COMPATIBILITA' FIUME ARNO

ANTE OPERAM



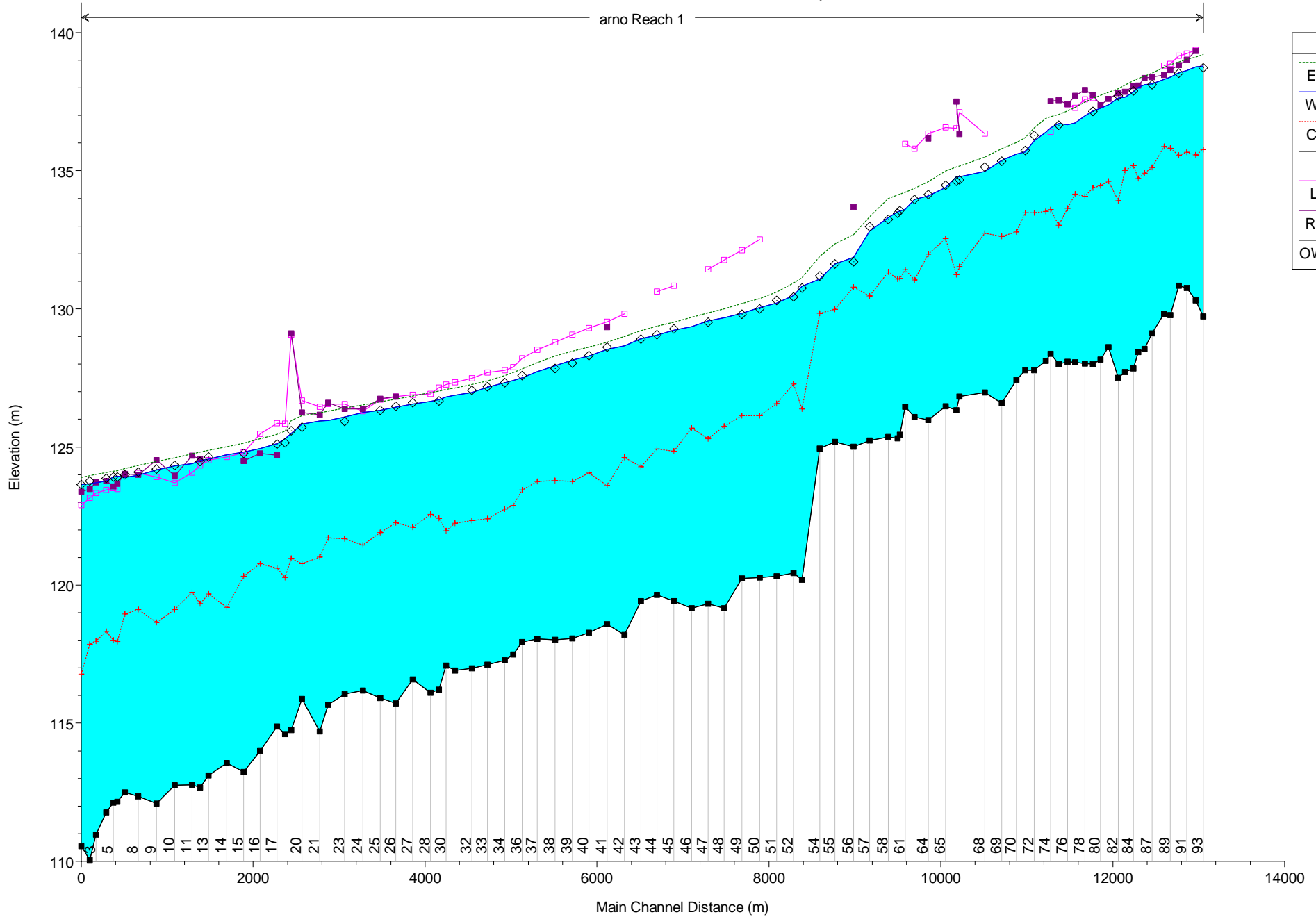
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Reach 1	93	ASEZ-001	2468.25	129.73	138.80	135.77	139.21	0.000960	2.85	871.55	150.98	0.37
Reach 1	92	ASEZ-002	2468.25	130.30	138.76	135.58	139.12	0.000799	2.66	977.68	212.02	0.34
Reach 1	91	ASEZ-003	2468.25	130.75	138.64	135.67	139.03	0.000911	2.80	938.16	214.23	0.36
Reach 1	90	ASEZ-004	2468.25	130.83	138.55	135.56	138.94	0.000907	2.80	936.18	211.82	0.36
Reach 1	89	ASEZ-005	2468.25	129.77	138.39	135.81	138.84	0.001132	3.00	880.91	211.84	0.40
Reach 1	88	ASEZ-006	2468.25	129.83	138.31	135.87	138.74	0.001523	2.95	892.06	226.19	0.40
Reach 1	87	ASEZ-007	2468.25	129.11	138.15	135.11	138.54	0.001183	2.80	924.47	195.90	0.36
Reach 1	86	ASEZ-008	2468.25	128.55	138.12	134.91	138.42	0.000950	2.43	1032.56	185.70	0.32
Reach 1	85	ASEZ-009	2468.25	128.44	138.02	134.72	138.34	0.001060	2.55	980.62	186.16	0.34
Reach 1	84	ASEZ-010	2468.25	127.85	137.86	135.18	138.26	0.001836	2.79	888.63	213.42	0.43
Reach 1	83	ASEZ-011	2468.25	127.71	137.66	135.02	138.09	0.001463	2.94	885.00	195.46	0.40
Reach 1	82	ASEZ-012	2468.25	127.50	137.64	133.91	137.98	0.000888	2.60	980.55	181.91	0.32
Reach 1	81	ASEZ-013	2468.25	128.61	137.39	134.62	137.84	0.001417	2.98	842.51	162.49	0.40
Reach 1	80	ASEZ-014	2468.25	128.17	137.27	134.45	137.73	0.001079	3.00	833.39	154.34	0.39
Reach 1	79	ASEZ-015	2468.25	128.01	137.16	134.38	137.62	0.001388	3.00	823.00	166.40	0.43
Reach 1	78	ASEZ-016	2468.25	128.02	136.98	134.07	137.48	0.001445	3.13	789.70	153.70	0.44
Reach 1	77	ASEZ-017	2468.25	128.07	136.73	134.15	137.30	0.001749	3.34	739.97	150.07	0.48
Reach 1	76	ASEZ-018	2468.25	128.08	136.67	133.64	137.16	0.000986	3.09	799.37	150.32	0.43
Reach 1	75	ASEZ-019	2468.25	128.00	136.72	133.03	137.03	0.000578	2.47	997.59	174.78	0.33
Reach 1	74	ASEZ-020	2468.25	128.37	136.56	133.58	136.96	0.000830	2.80	887.67	178.56	0.39
Reach 1	73	ASEZ-021	2468.25	128.11	136.39	133.53	136.89	0.001063	3.14	786.29	155.36	0.45
Reach 1	72	ASEZ-022	2468.25	127.78	136.09	133.47	136.56	0.010028	3.05	808.38	145.56	0.41
Reach 1	71	ASEZ-023	2468.25	127.77	135.68	133.48	136.20	0.001770	3.20	771.67	172.75	0.48
Reach 1	70	ASEZ-024	2468.25	127.43	135.60	132.78	136.02	0.001185	2.87	861.20	171.60	0.41
Reach 1	69	ASEZ-025	2468.25	126.58	135.37	132.62	135.80	0.001417	2.89	854.41	188.66	0.43
Reach 1	68	ASEZ-026	2468.25	126.97	134.97	132.74	135.49	0.001637	3.19	773.44	161.87	0.47
Reach 1	67	ASEZ-027	2468.25	126.83	134.78	131.52	135.17	0.000624	2.76	892.98	139.18	0.35
Reach 1	66	ASEZ-028	2468.25	126.33	134.78	131.25	135.14	0.000545	2.66	929.38	139.46	0.33
Reach 1	65	ASEZ-029	2468.25	126.47	134.39	132.54	134.99	0.002021	3.44	717.53	160.13	0.52
Reach 1	64	ASEZ-030	2468.25	125.97	134.09	131.99	134.60	0.001678	3.18	775.86	167.29	0.47
Reach 1	62	ASEZ-032	2468.25	126.08	133.97	131.05	134.36	0.000965	2.78	886.42	150.45	0.37
Reach 1	61	ASEZ-033	2468.25	126.45	133.61	131.42	134.22	0.001221	3.48	709.06	127.68	0.47
Reach 1	60	ASEZ-034	2468.25	125.45	133.54	131.09	134.16	0.001065	3.50	738.07	145.33	0.45
Reach 1	59	ASEZ-035	2468.25	125.32	133.51	131.09	134.13	0.001081	3.48	720.07	132.79	0.46
Reach 1	58	ASEZ-036	2468.25	125.36	133.30	131.34	133.99	0.001359	3.70	699.83	177.84	0.51
Reach 1	57	ASEZ-037	2468.25	125.23	132.82	130.47	133.34	0.007876	3.20	775.27	190.08	0.48
Reach 1	56	ASEZ-038	2468.25	125.01	131.87	130.79	132.70	0.001835	4.01	614.84	168.31	0.67
Reach 1	55	ASEZ-039	2468.25	125.18	131.62	129.98	132.35	0.001168	3.77	655.25	150.48	0.56
Reach 1	54	ASEZ-040	2468.25	124.95	131.08	129.83	131.91	0.008436	4.02	614.13	147.91	0.62
Reach 1	53	ASEZ-041	2468.25	120.19	130.83	126.38	131.12	0.001558	2.40	1028.80	142.84	0.29
Reach 1	52	ASEZ-042	2468.25	120.43	130.49	127.29	130.94	0.001760	2.97	830.69	136.87	0.38
Reach 1	51	ASEZ-043	2468.25	120.32	130.21	126.58	130.61	0.001462	2.82	877.65	148.38	0.35
Reach 1	50	ASEZ-044	2468.25	120.28	130.05	126.13	130.38	0.000830	2.54	979.26	171.44	0.31
Reach 1	49	ASEZ-045	2468.25	120.24	129.84	126.14	130.19	0.000933	2.63	944.36	160.48	0.33
Reach 1	48	ASEZ-046	2468.25	119.16	129.68	125.75	130.00	0.000821	2.51	991.03	179.58	0.31
Reach 1	47	ASEZ-047	2468.25	119.32	129.56	125.30	129.85	0.000705	2.40	1041.26	180.32	0.29
Reach 1	46	ASEZ-048	2468.25	119.17	129.36	125.68	129.70	0.000893	2.56	973.33	170.39	0.32
Reach 1	45	ASEZ-049	2468.25	119.42	129.23	124.85	129.52	0.000675	2.38	1055.99	179.94	0.28
Reach 1	44	ASEZ-050	2468.25	119.64	129.05	124.92	129.38	0.000790	2.53	994.57	178.74	0.30
Reach 1	43	ASEZ-051	2468.25	119.42	128.93	124.29	129.21	0.000878	2.37	1070.55	180.25	0.27
Reach 1	42	ASEZ-052	2468.25	118.20	128.66	124.62	129.01	0.001156	2.61	968.38	178.05	0.31
Reach 1	41	ASEZ-053	2468.25	118.58	128.53	123.60	128.79	0.000780	2.30	1095.00	171.13	0.26
Reach 1	40	ASEZ-054	2468.25	118.27	128.29	124.06	128.62	0.000802	2.58	984.64	175.92	0.31
Reach 1	39	ASEZ-055	2468.25	118.07	128.14	123.74	128.47	0.000793	2.53	1001.56	175.09	0.30
Reach 1	38	ASEZ-056	2468.25	118.02	127.94	123.78	128.29	0.000932	2.63	959.92	174.18	0.33
Reach 1	37	ASEZ-057	2468.25	118.05	127.72	123.75	128.05	0.001320	2.55	996.18	184.00	0.31
Reach 1	36	ASEZ-058	2468.25	117.94	127.50	123.45	127.83	0.001265	2.57	998.96	181.18	0.31
Reach 1	35	ASEZ-059	2468.25	117.48	127.41	122.88	127.70	0.001040	2.41	1062.71	186.28	0.28
Reach 1	34	ASEZ-060	2468.25	117.28	127.32	122.75	127.59	0.000997	2.32	1088.66	177.02	0.27
Reach 1	33	ASEZ-061	2468.25	117.12	127.16	122.40	127.40	0.000810	2.16	1183.57	205.96	0.25
Reach 1	32	ASEZ-062	2468.25	116.99	126.98	122.33	127.26	0.000626	2.39	1075.77	177.63	0.27
Reach 1	31	ASEZ-063	2468.25	116.91	126.87	122.24	127.14	0.000597	2.31	1111.00	186.85	0.27
Reach 1	30	ASEZ-064	2468.25	117.08	126.81	121.96	127.08	0.000588	2.32	1108.50	187.07	0.27
Reach 1	29	ASEZ-065	2468.25	116.21	126.71	122.41	127.03	0.000559	2.49	1027.28	175.23	0.29
Reach 1	28	ASEZ-066	2468.25	116.11	126.64	122.57	126.97	0.000602	2.55	1008.73	175.12	0.30
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Reach 1	26	ASEZ-068	2468.25	115.71	126.44	122.25	126.74	0.000544	2.43	1048.93	178.14	0.29
Reach 1	25	ASEZ-069	2468.25	115.91	126.33	121.90	126.64	0.000537	2.48	1032.40	171.37	0.29
Reach 1	24	ASEZ-070	2468.25	116.18	126.24	121.45	126.53	0.000479	2.40	1079.47	173.12	0.27
Reach 1	23	ASEZ-071	2468.25	116.05	126.09	121.67	126.42	0.000553	2.56	1017.81	170.16	0.30
Reach 1	22	ASEZ-072	2468.25	115.67	125.96	121.71	126.30	0.000621	2.62	987.65	168.80	0.31
Reach 1	21	ASEZ-073	2468.25	114.70	125.94	121.02	126.24	0.000464	2.44	1067.17	170.23	0.27
Reach 1	20	ASEZ-074	2468.25	115.87	125.84	120.77	126.14	0.000480	2.46	1057.93	168.19	0.28
Reach 1	19	ASEZ-075	2468.25	114.75	125.48	120.97	125.96	0.010101	3.06	806.84	93.80	0.33
Reach 1	18	ASEZ-076	2468.25	114.60	125.29	120.27	125.57	0.002388	2.38	1100.92	198.24	0.27
Reach 1	17	ASEZ-077	2468.25	114.88	125.12	120.62	125.46	0.000730	2.58	1004.90	176.06	0.30
Reach 1	16	ASEZ-078	2468.25	113.99	124.94	120.77	125.30	0.000839	2.67	974.28	174.58	0.31
Reach 1	15	ASEZ-079	2468.25	113.23	124.81	120.32	125.14	0.000731	2.59	1014.54	178.52	0.29
Reach 1	14	ASEZ-080	2468.25	113.56	124.71	119.20	125.01	0.000531	2.43	1064.51	154.12	0.26
Reach 1	13	ASEZ-081	2468.25	113.11	124.56	119.68	124.88	0.000660	2.52	1022.43	159.45	0.28
Reach 1	12	ASEZ-082	2468.25	112.67	124.51	119.33	124.82	0.000600	2.47	1064.39	167.11	0.27
Reach 1	11	ASEZ-083	2468.25	112.77	124.40	119.74	124.75	0.000735	2.65	993.39	165.38	0.30
Reach 1	10	ASEZ-084	2468.25	112.75	124.31	119.12	124.60	0.000582	2.44	1093.70	184.99	0.27
Reach 1	9	ASEZ-085	2468.25	112.09	124.18	118.65	124.48	0.000594	2.46	1058.82	161.80	0.27
Reach 1	8	ASEZ-086	2468.25	112.35	123.98	119.11	124.33	0.000721	2.66	988.50	154.71	0.30
Reach 1	7	ASEZ-087	2468.25	112.49	123.89	118.95	124.22	0.000674	2.54	1015.58	157.34	0.29
Reach 1	6	ASEZ-088	2468.25	112.16								

HEC-RAS Plan: Ante River: arno Reach: Reach 1 Profile: Tr 200 (Continued)

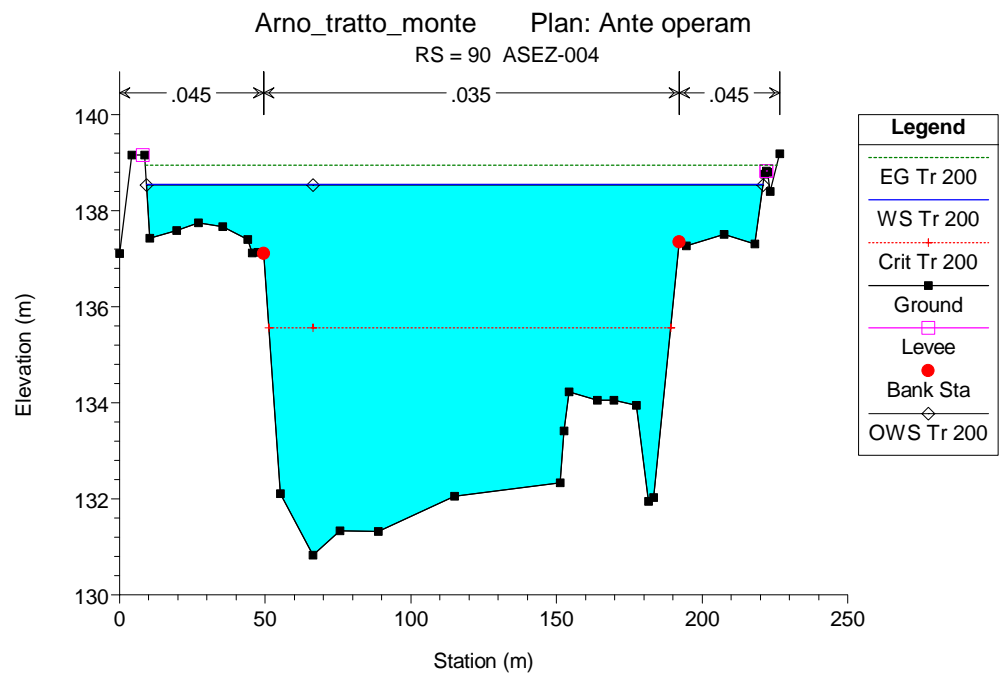
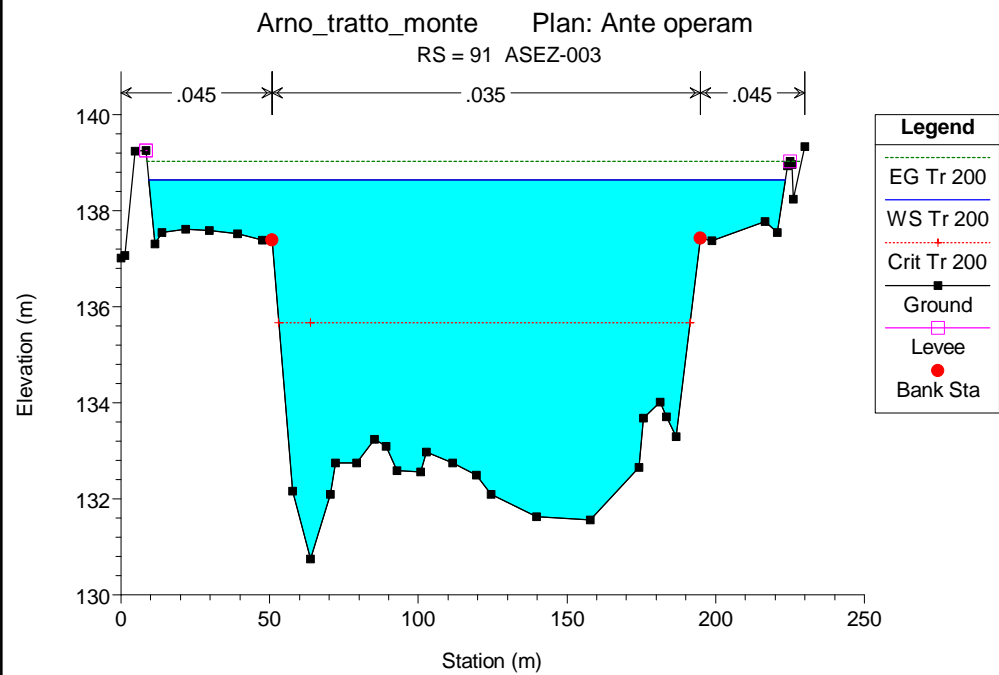
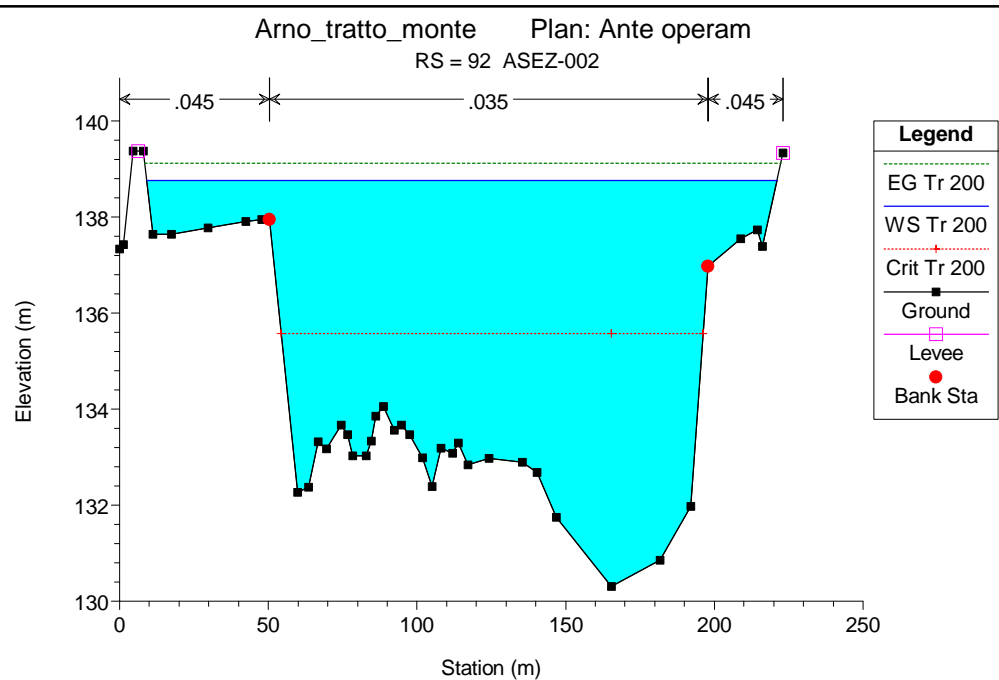
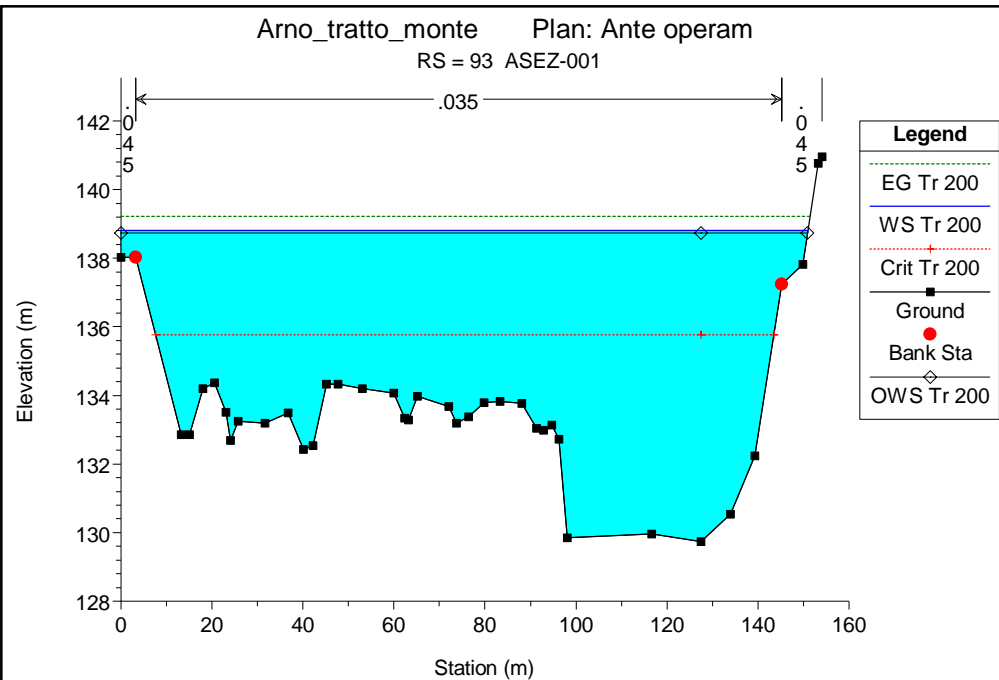
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Reach 1	2 ASEZ-092	Tr 200	2468.25	110.05	123.67	117.87	123.96	0.000528	2.43	1090.86	166.08	0.26
Reach 1	1 ASEZ-093	Tr 200	2468.25	110.55	123.64	116.78	123.90	0.000452	2.31	1155.48	167.60	0.24

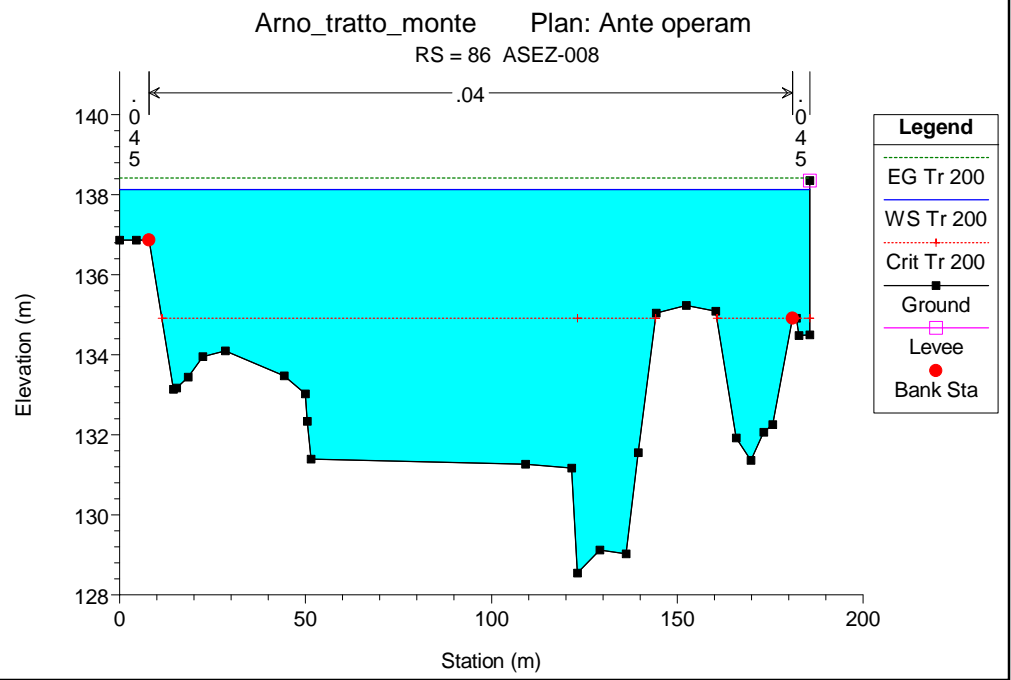
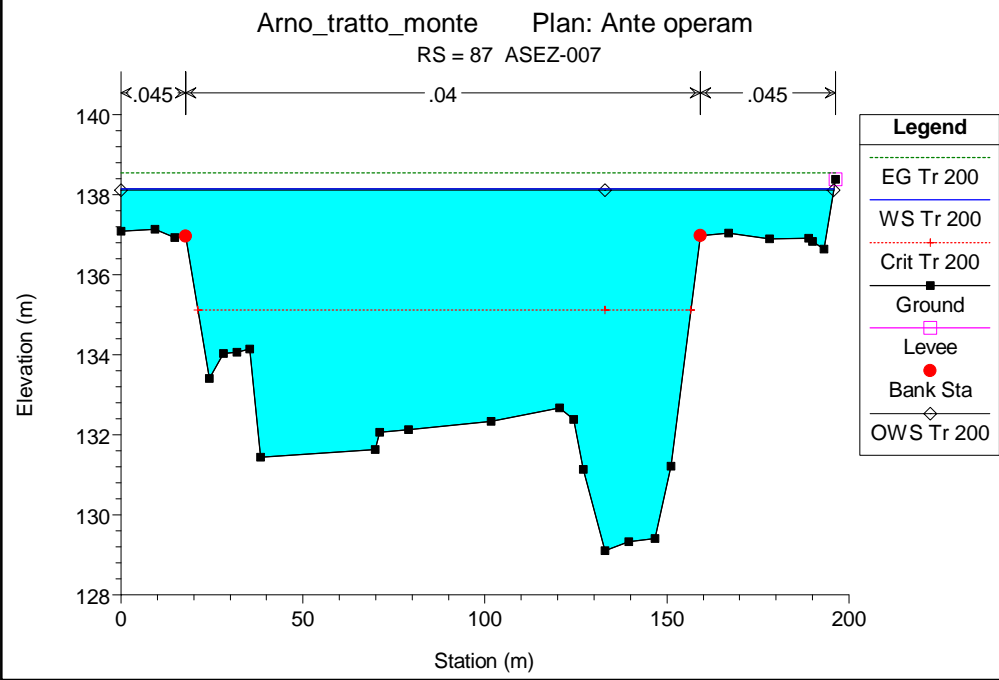
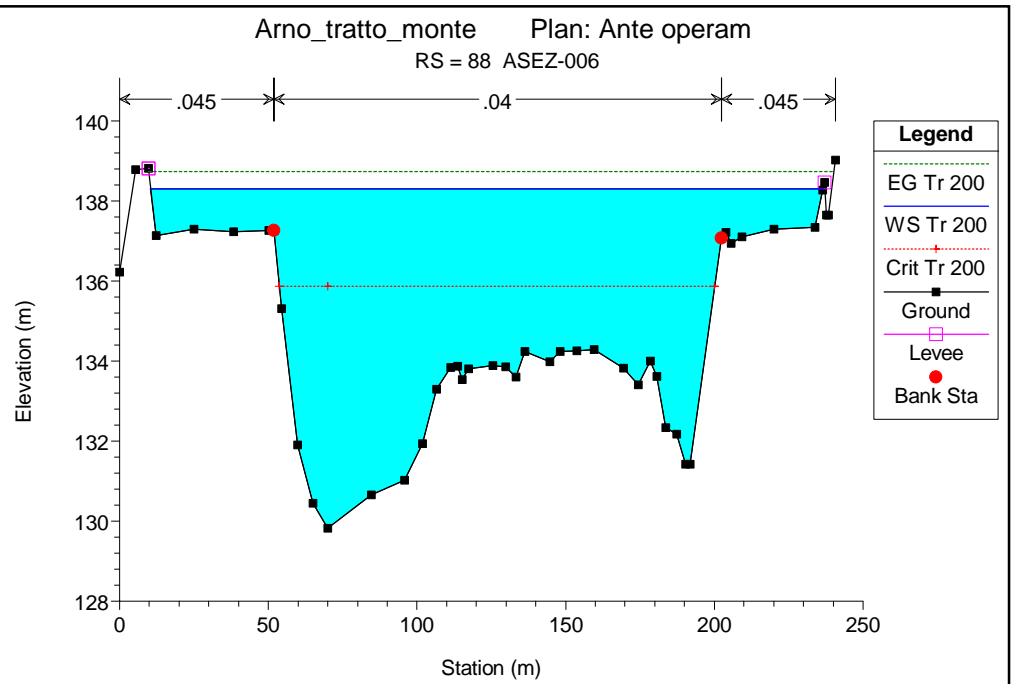
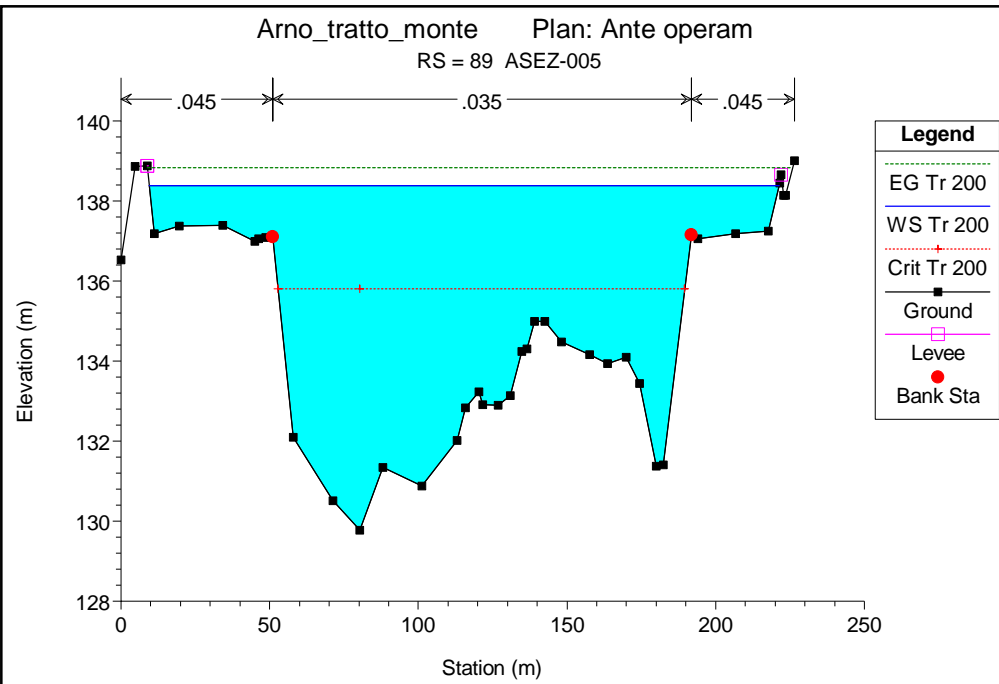
Arno_tratto_monte Plan: Ante operam

arno Reach 1

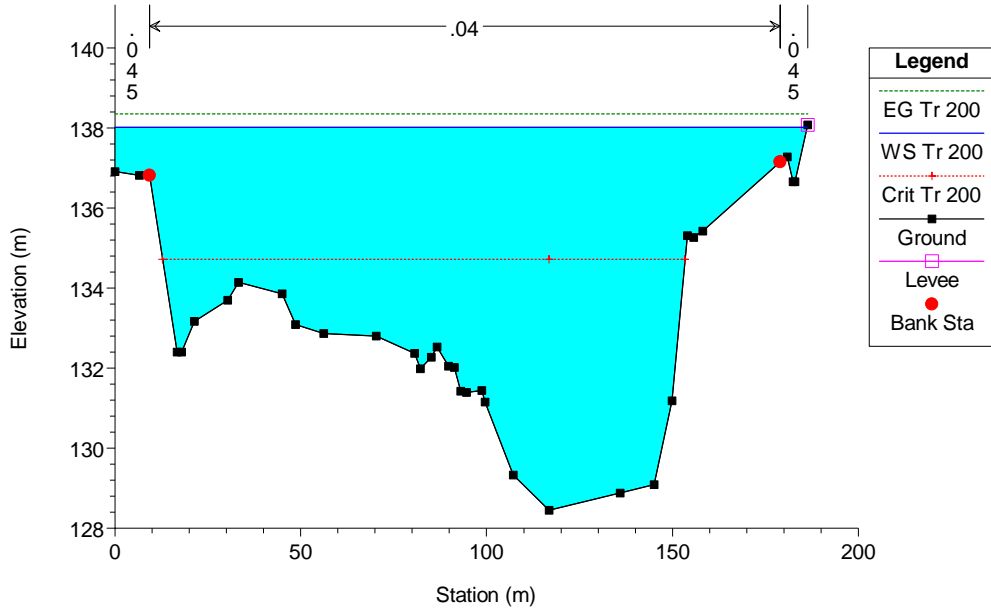


Legend	
EG Tr 200	---
WS Tr 200	—
Crit Tr 200	-.-
Ground	■
Left Levee	□
Right Levee	■
OWS Tr 200	◇

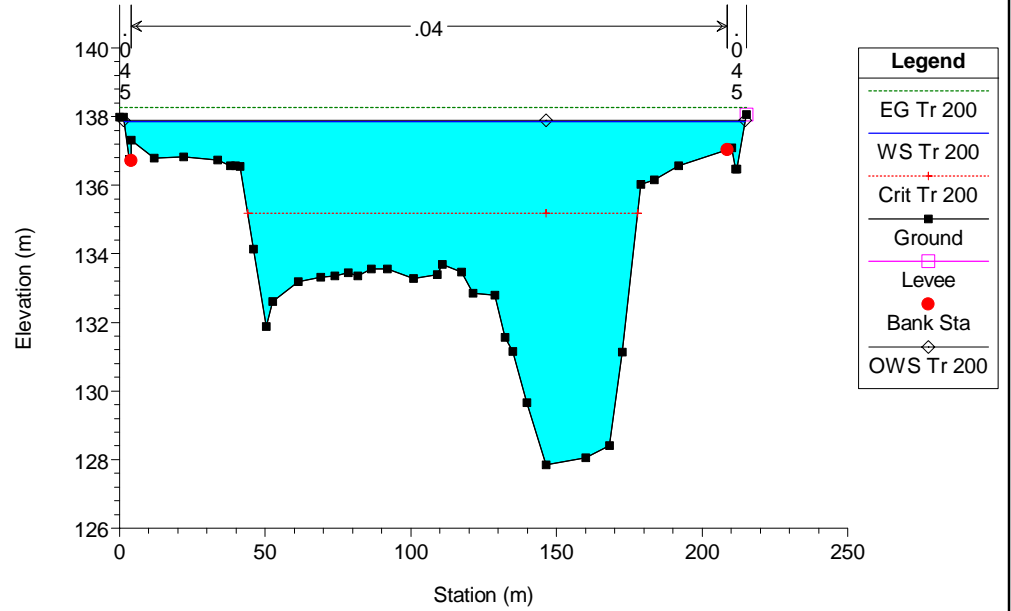




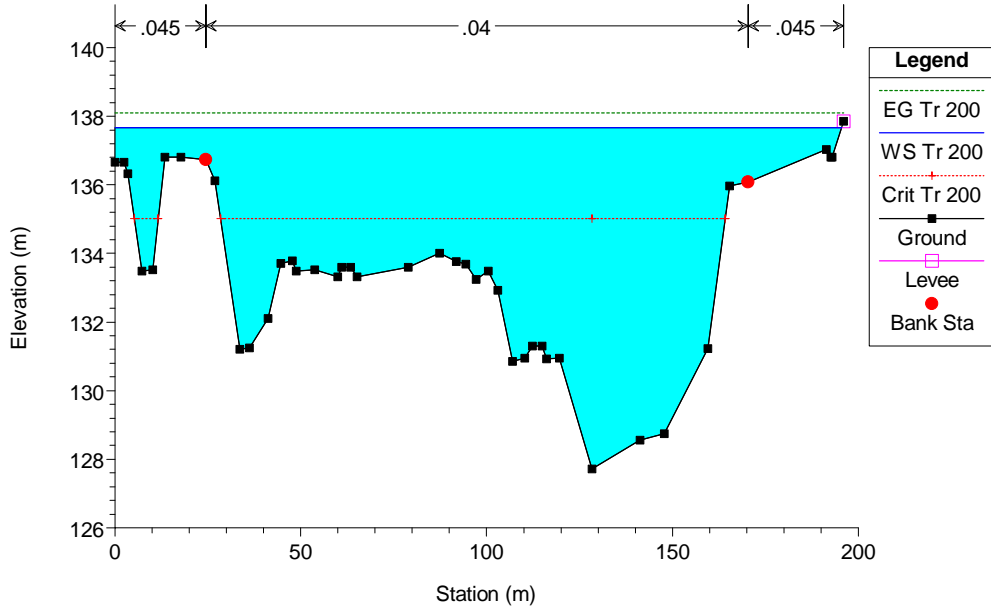
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RS = 85 ASEZ-009



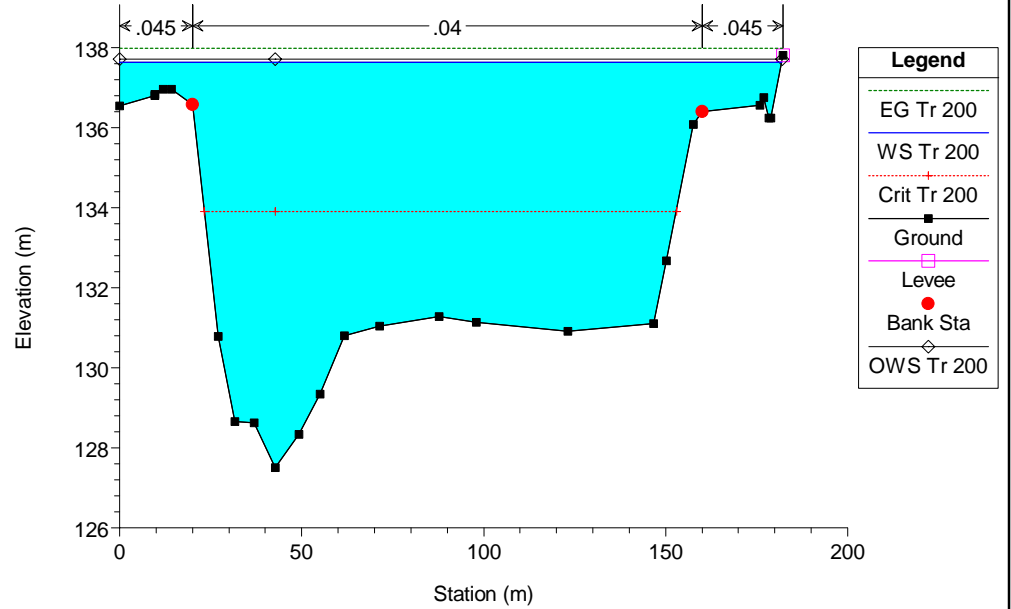
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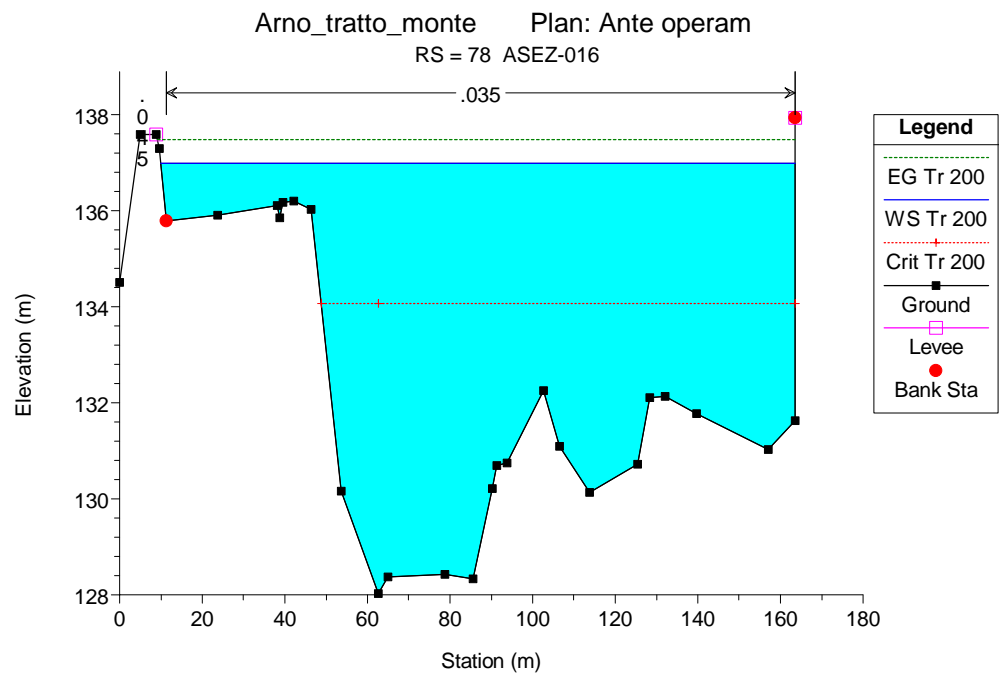
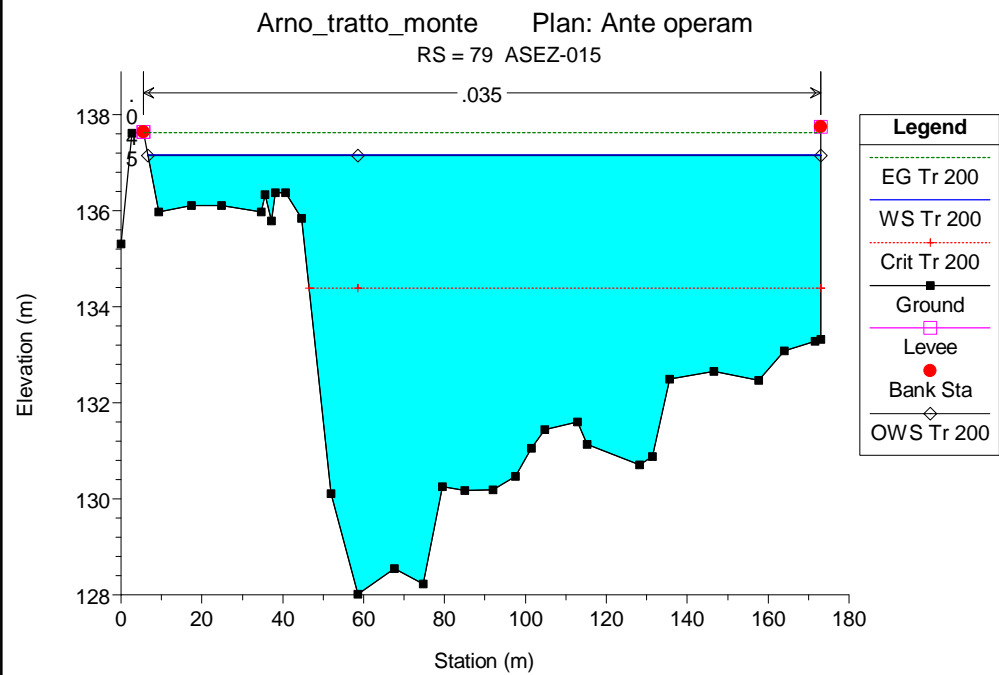
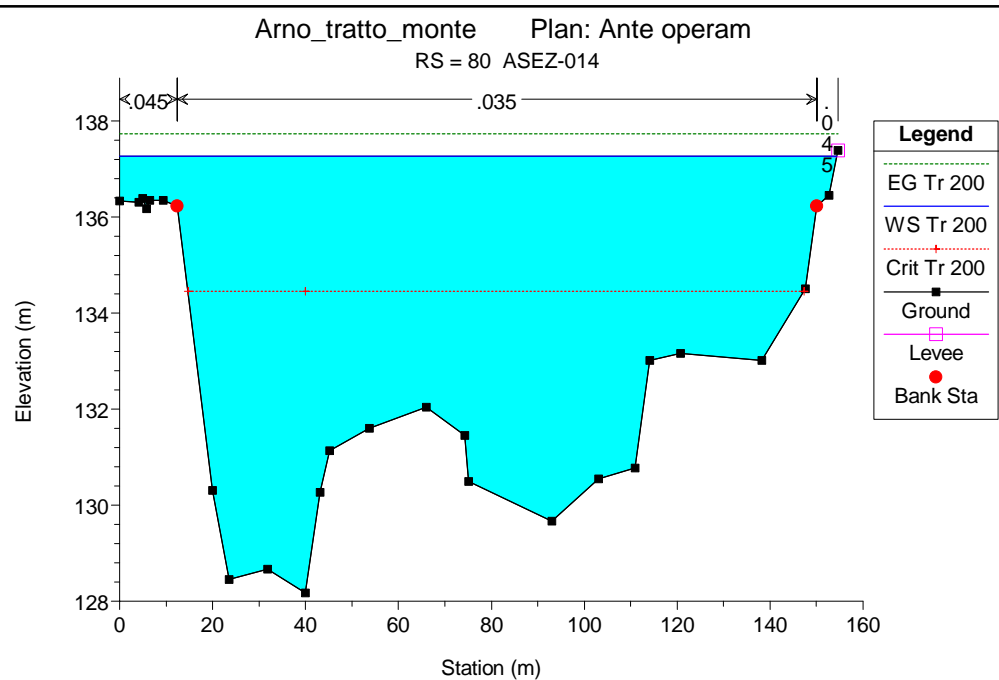
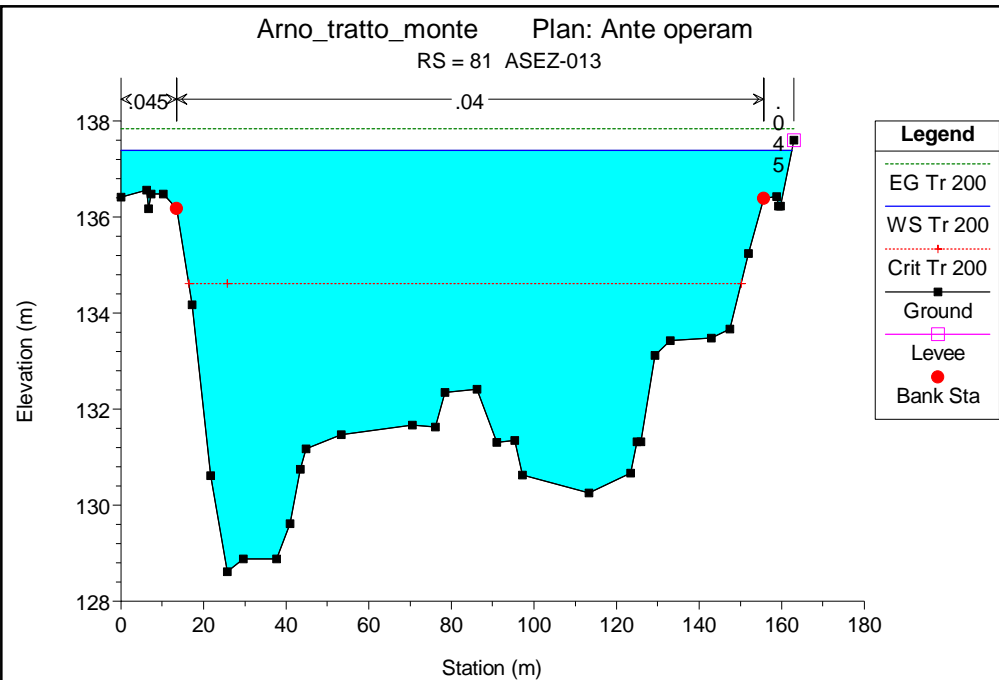


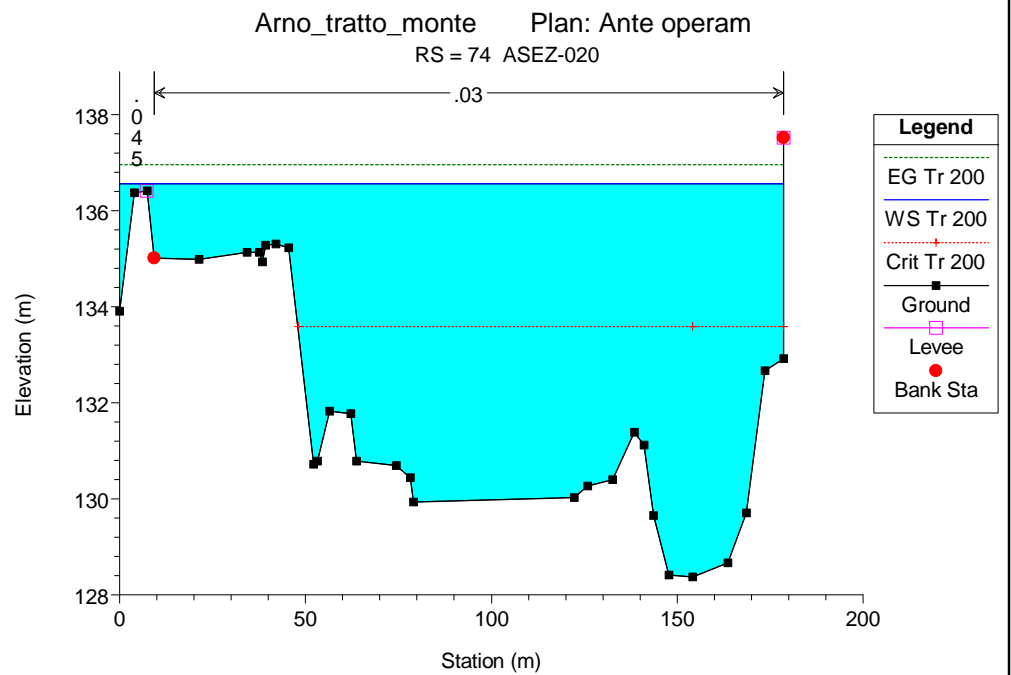
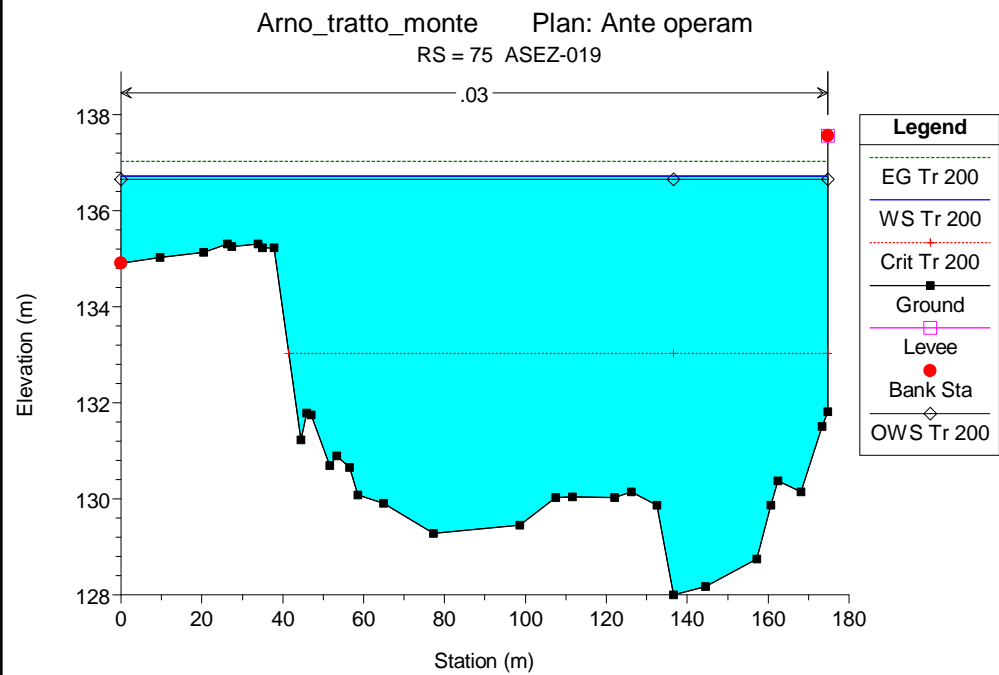
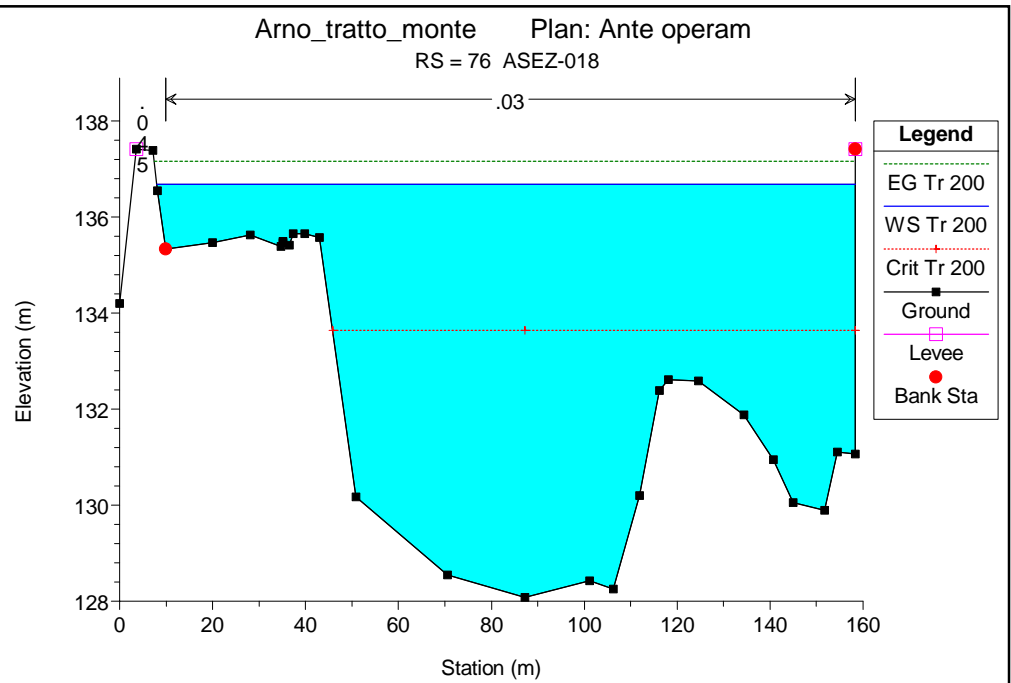
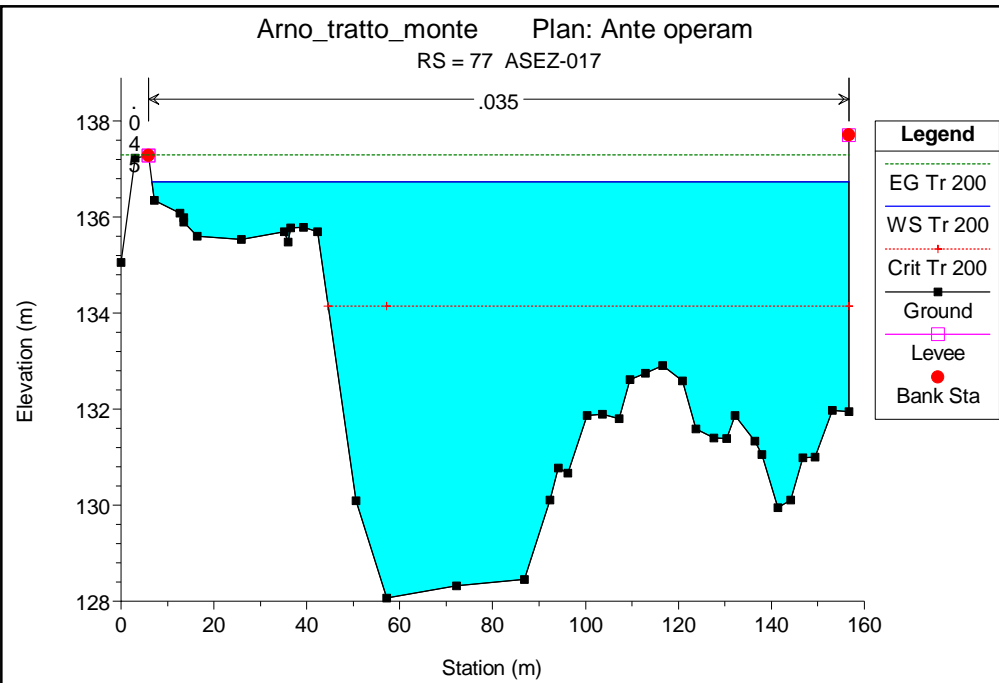
Arno_tratto_monte Plan: Ante operam
RS = 83 ASEZ-011

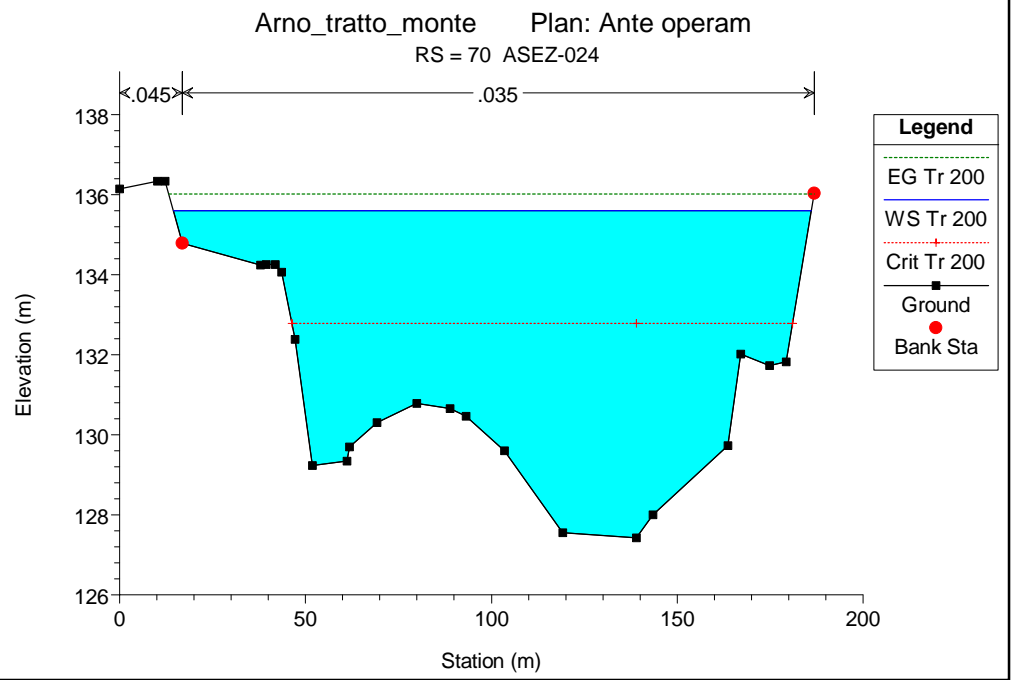
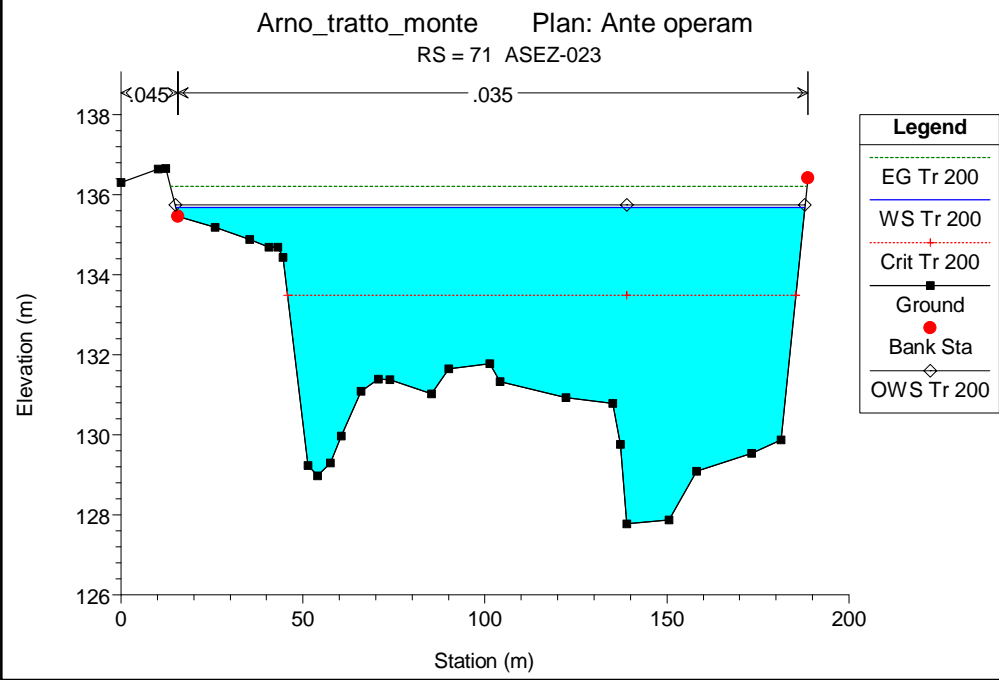
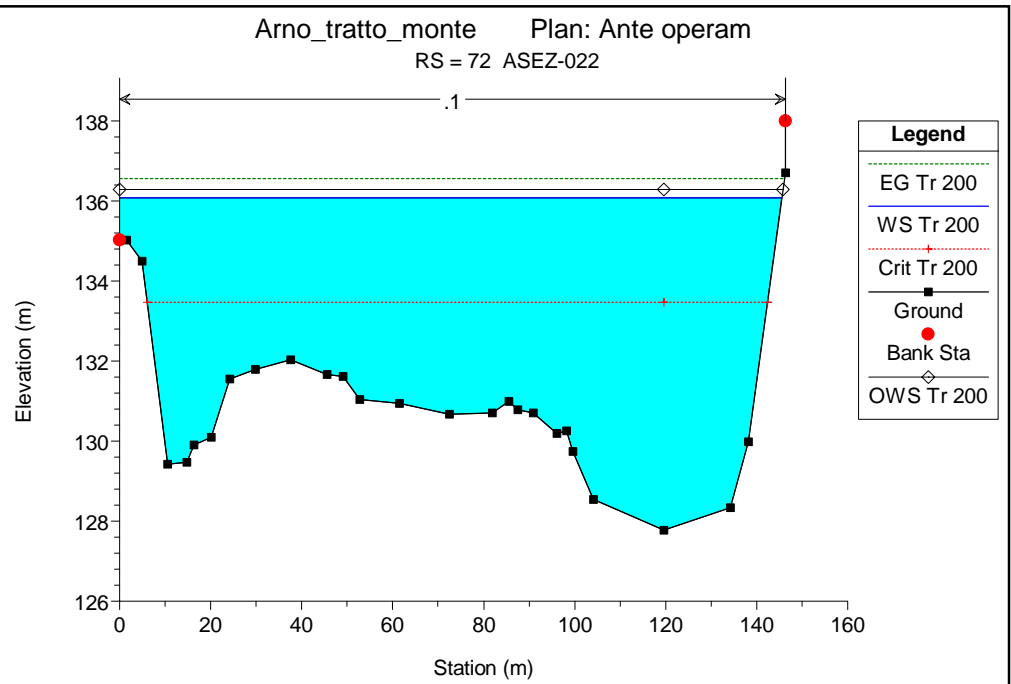
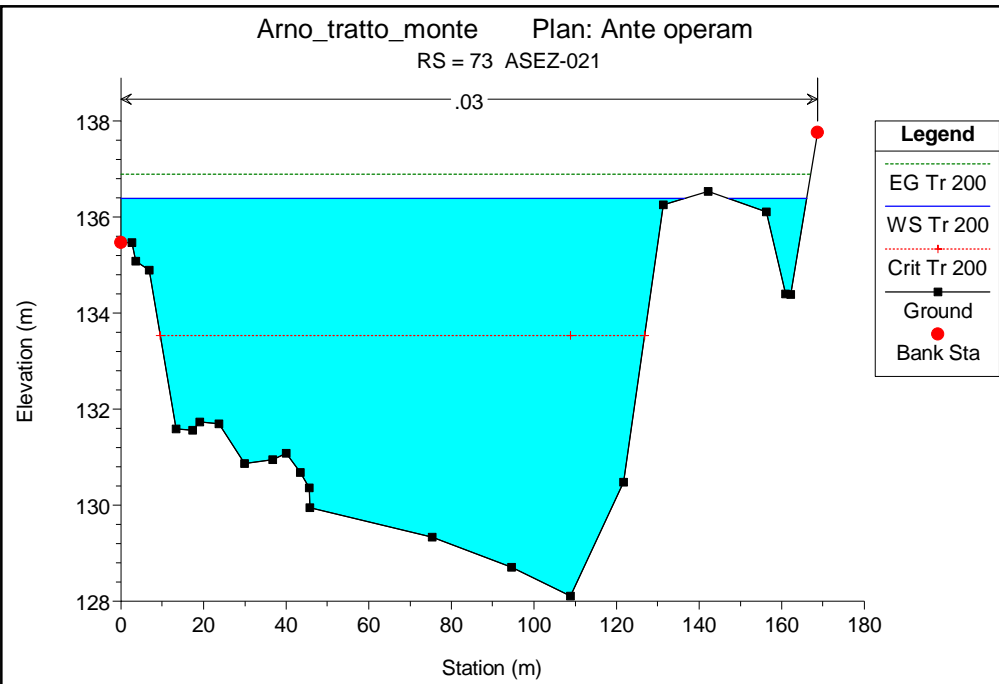


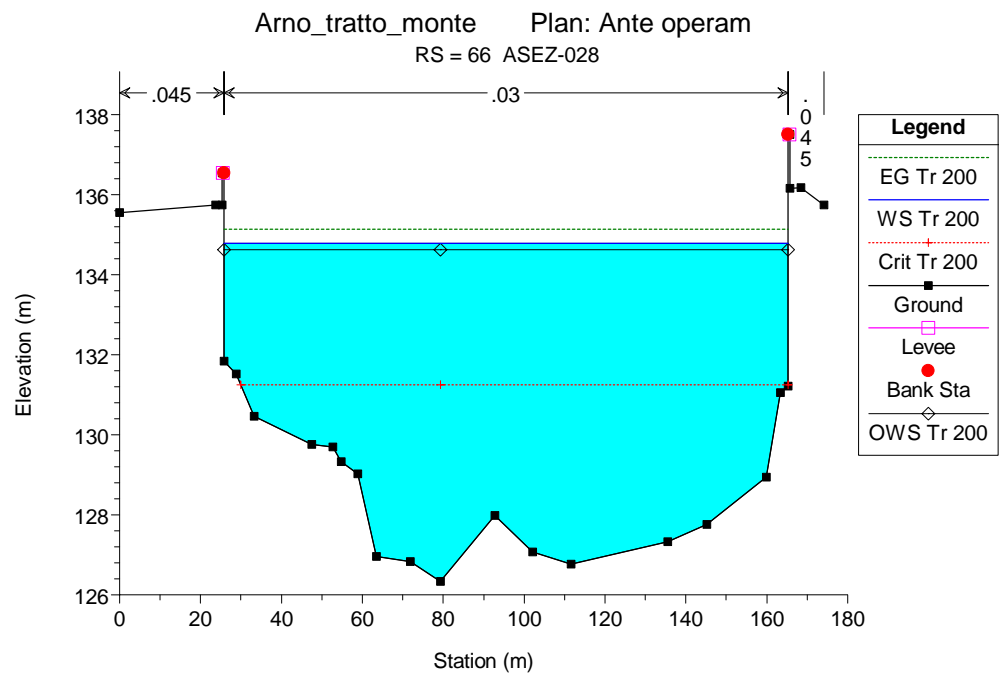
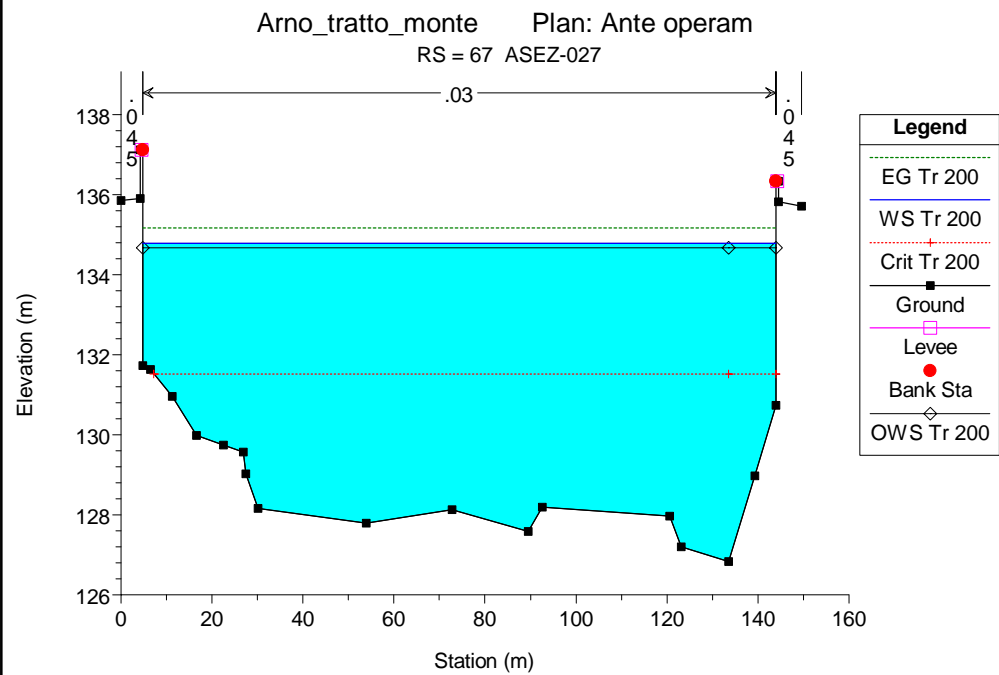
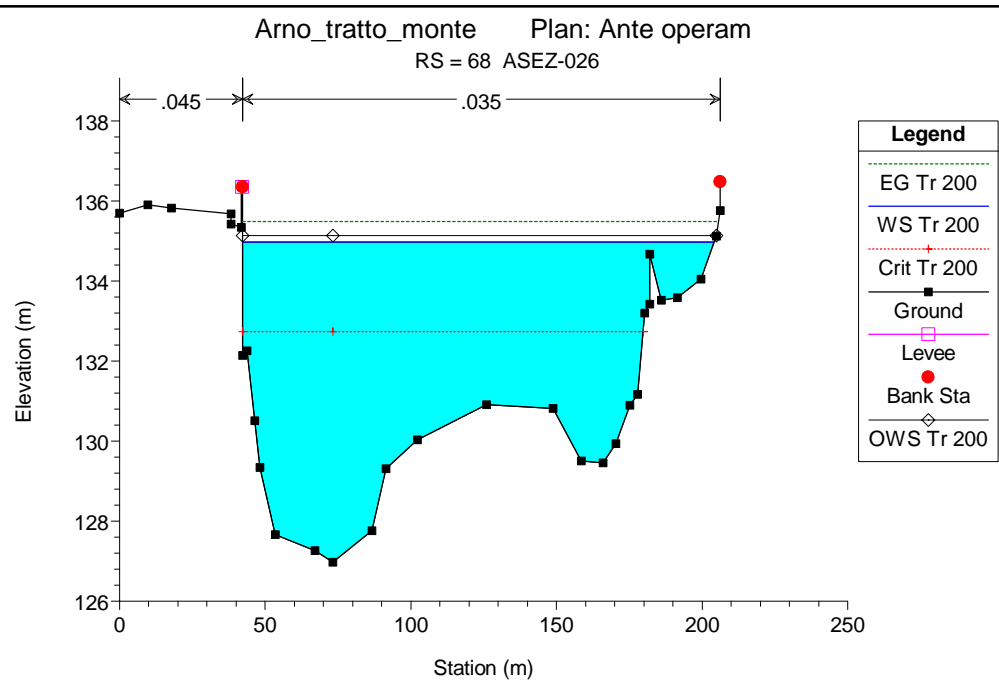
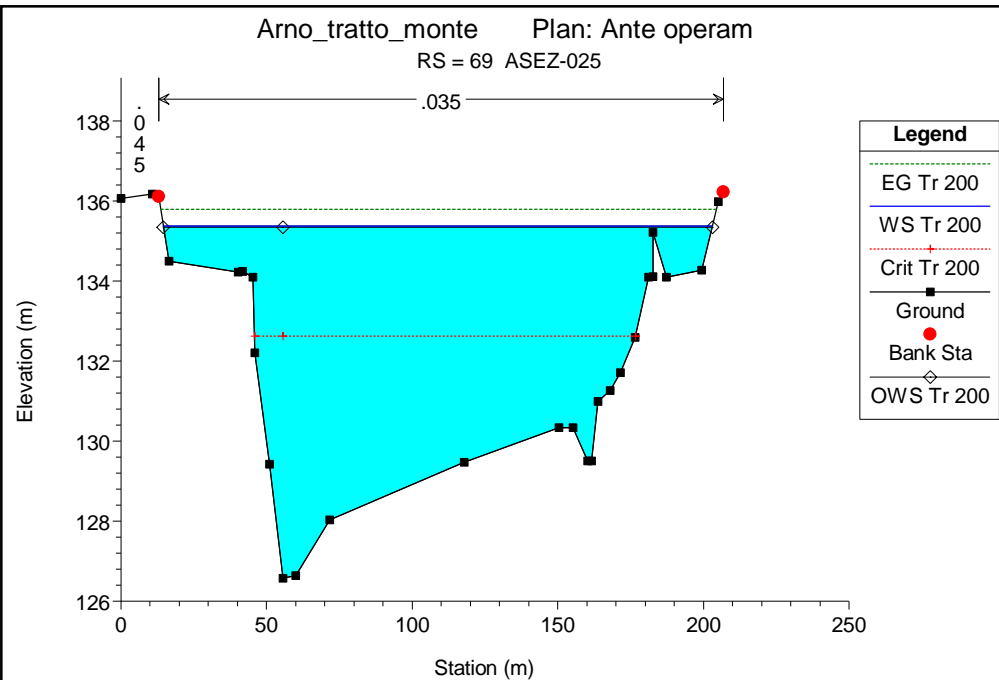
Arno_tratto_monte Plan: Ante operam
RS = 82 ASEZ-012

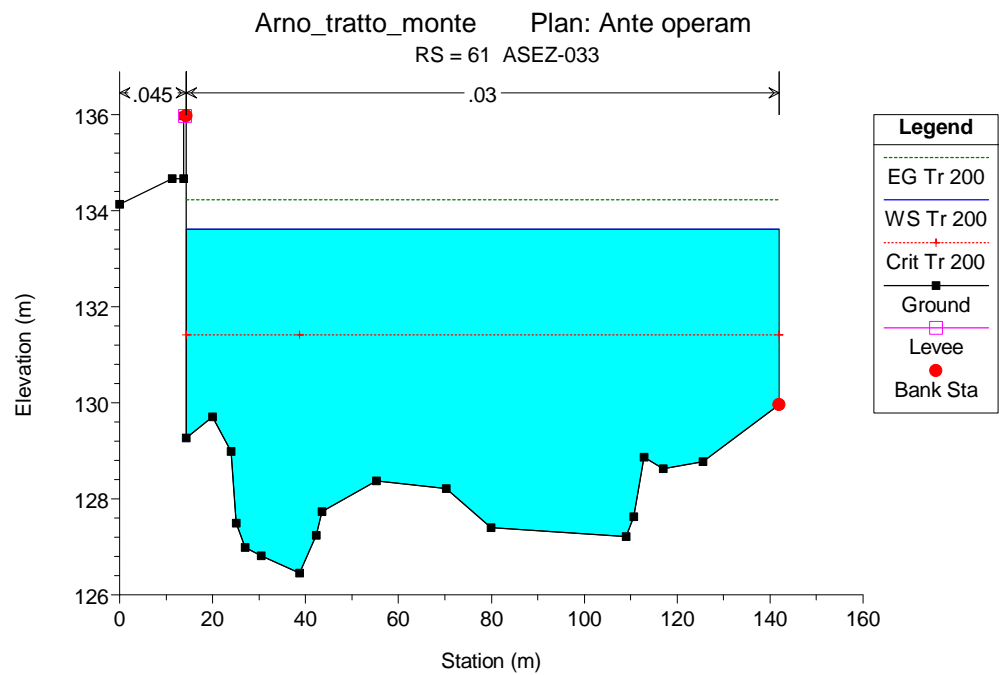
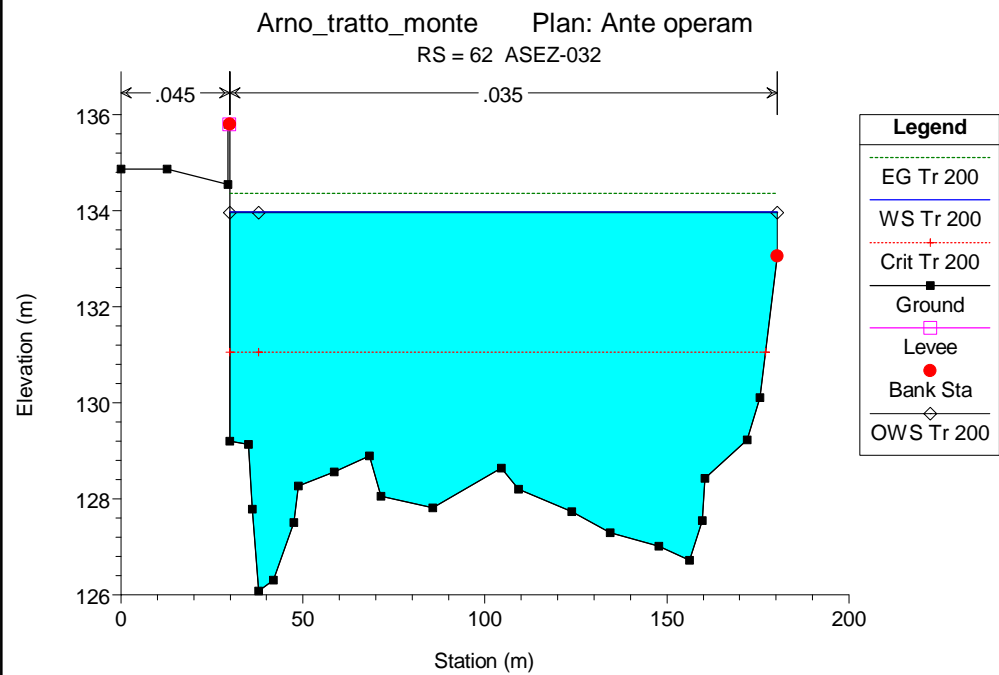
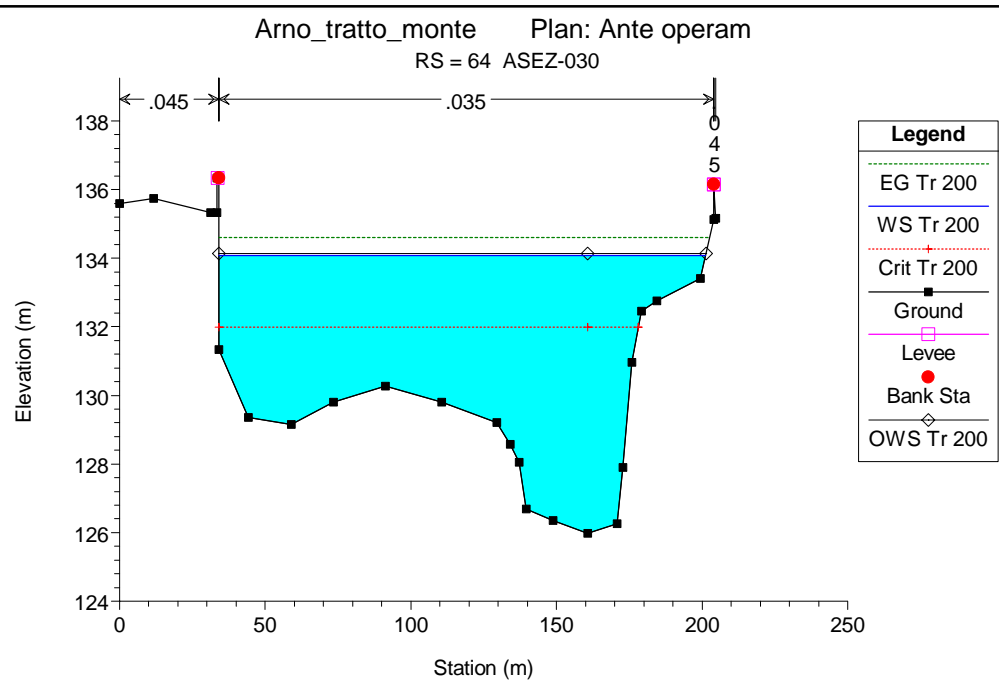
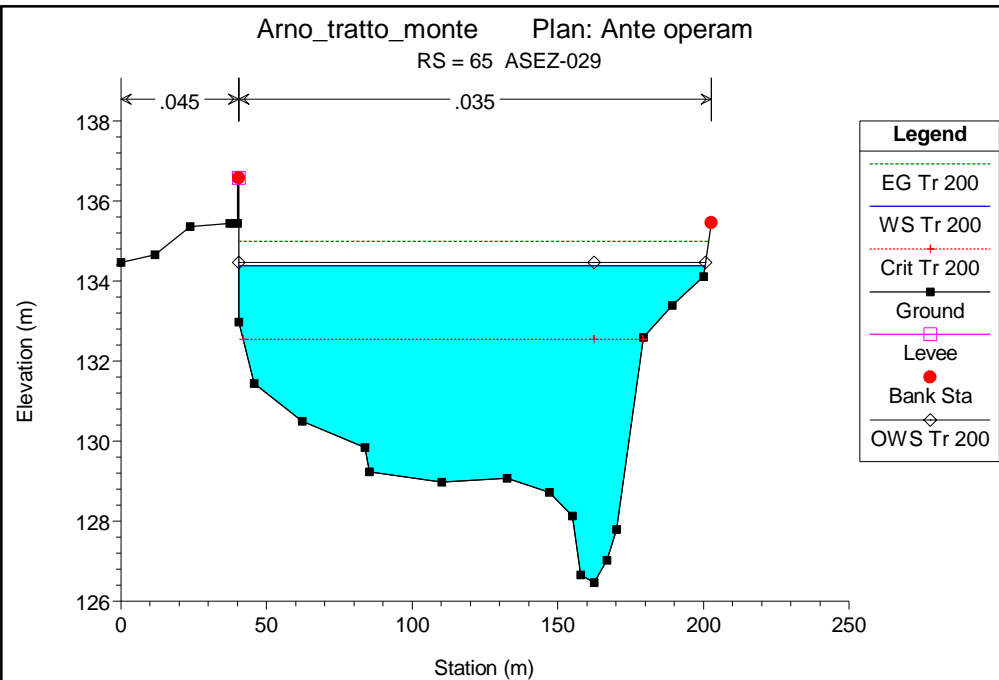


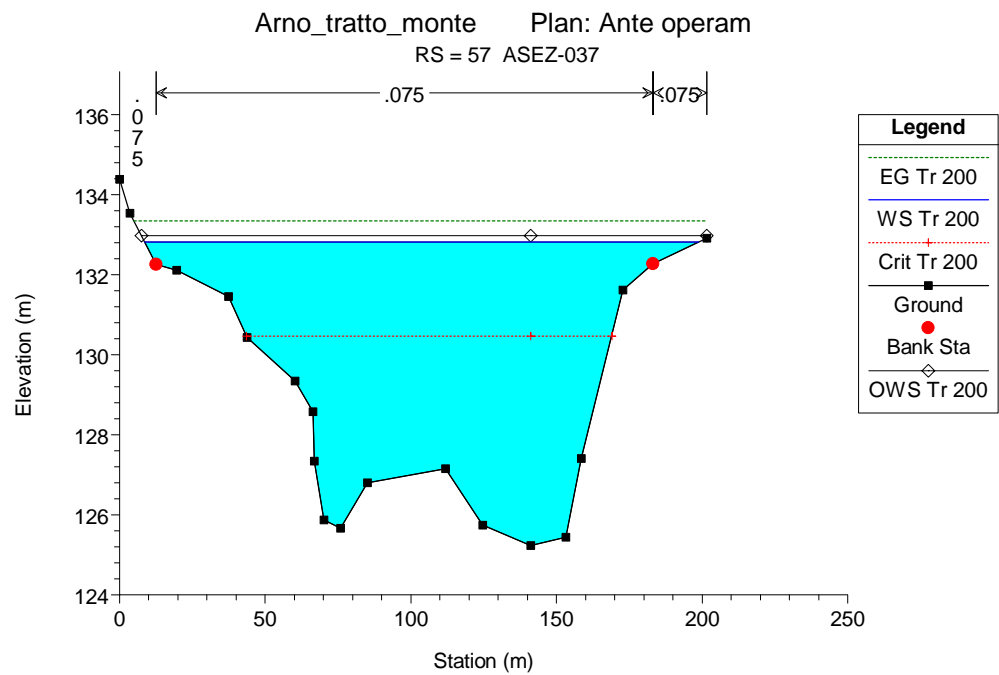
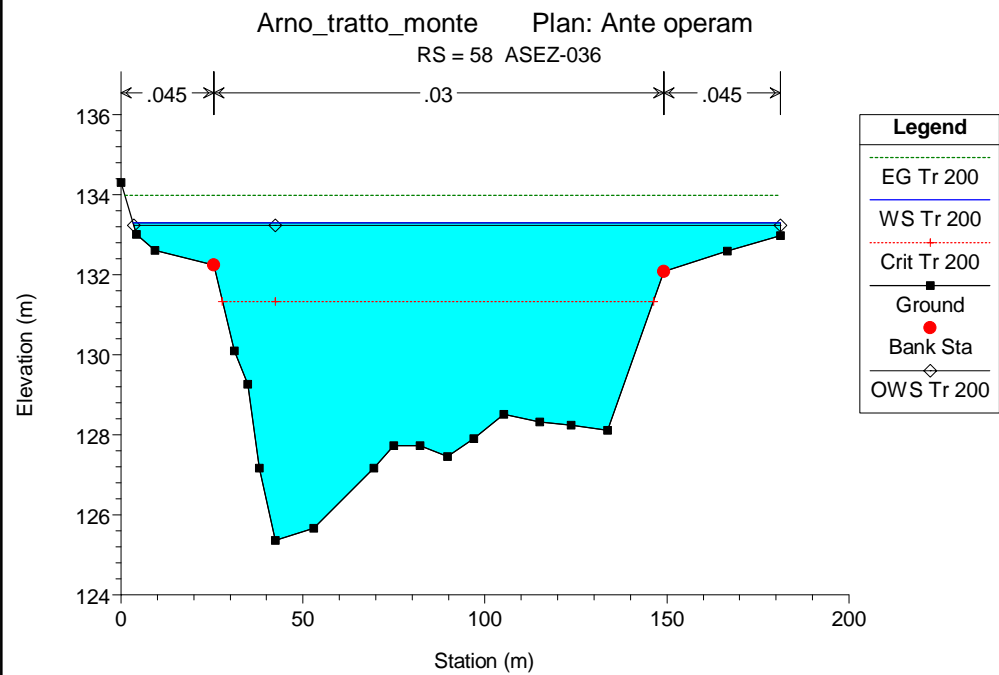
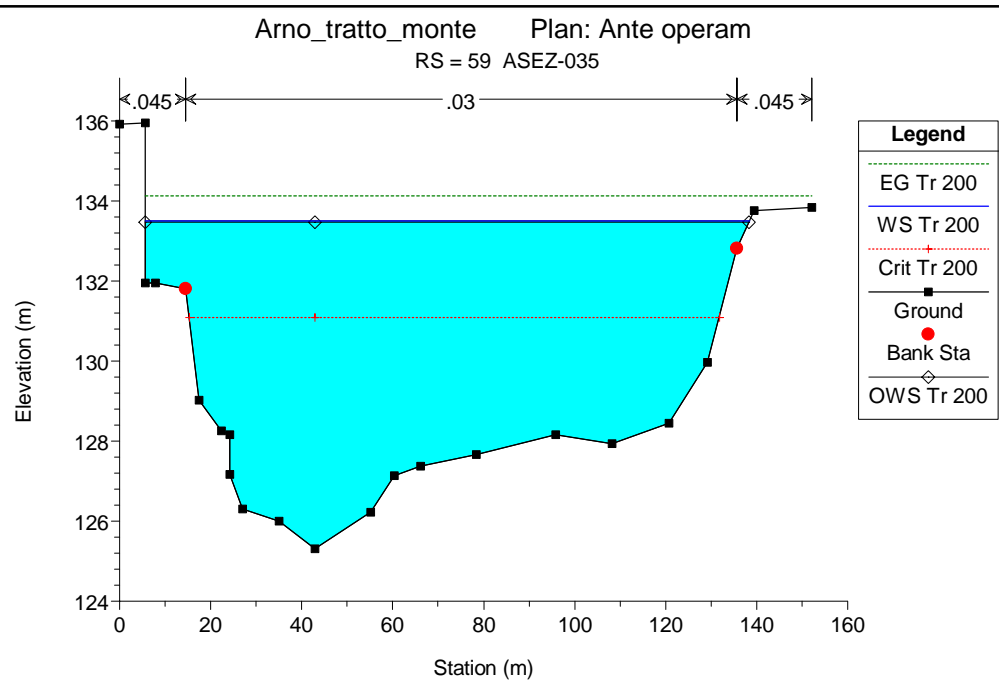
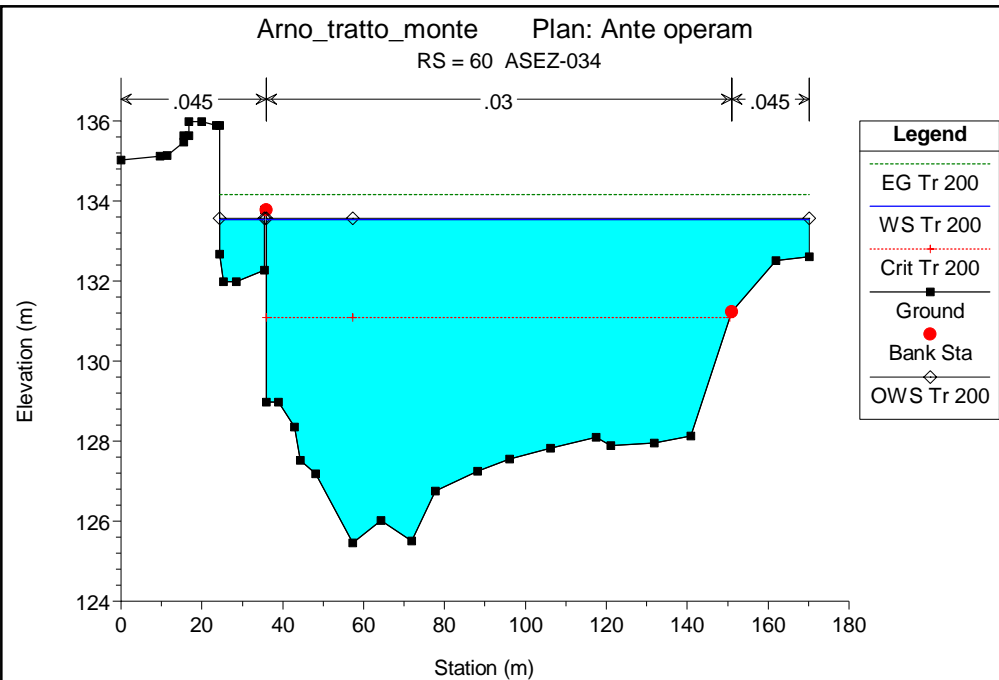




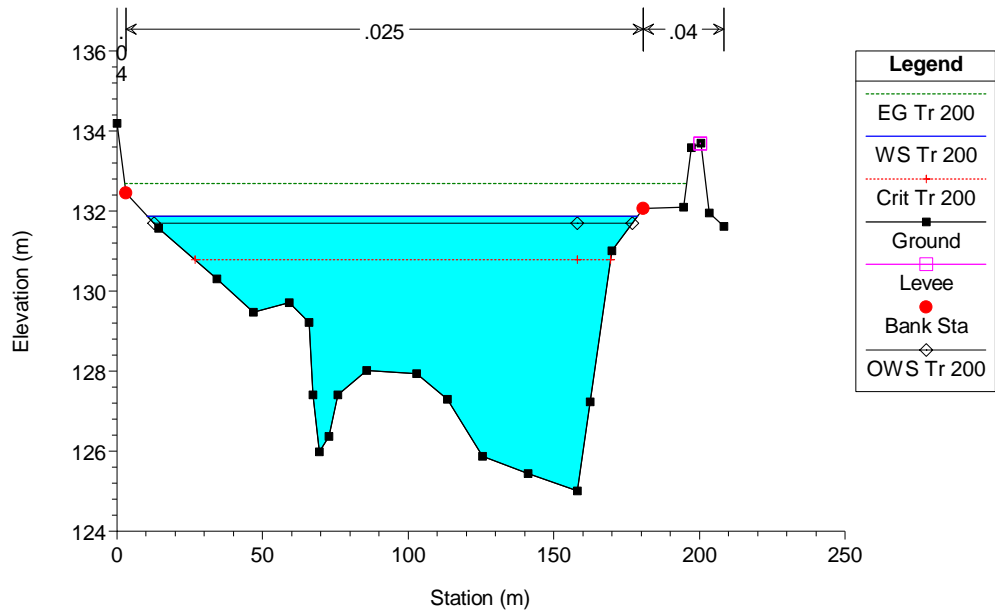




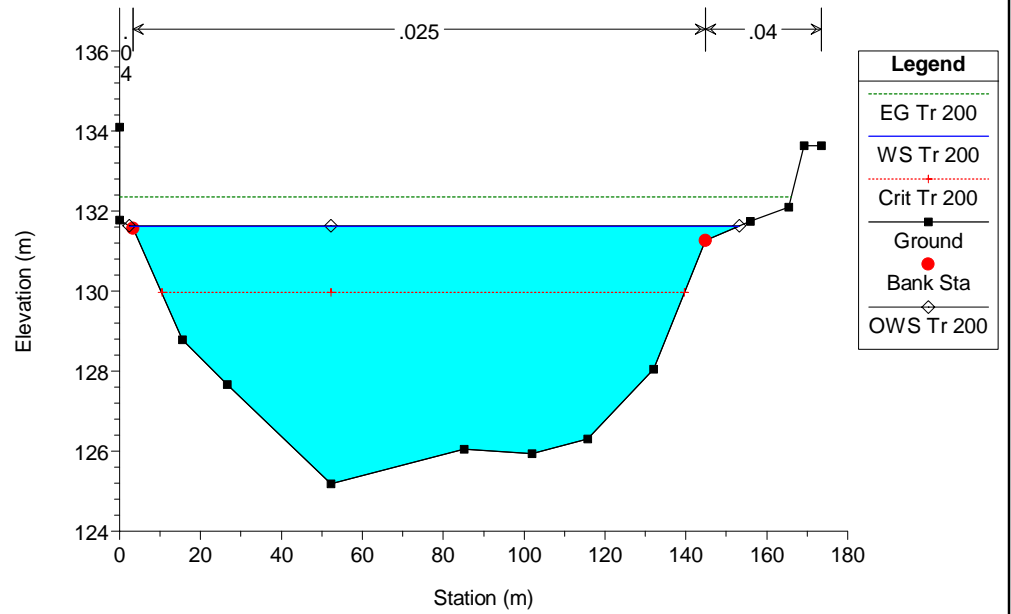




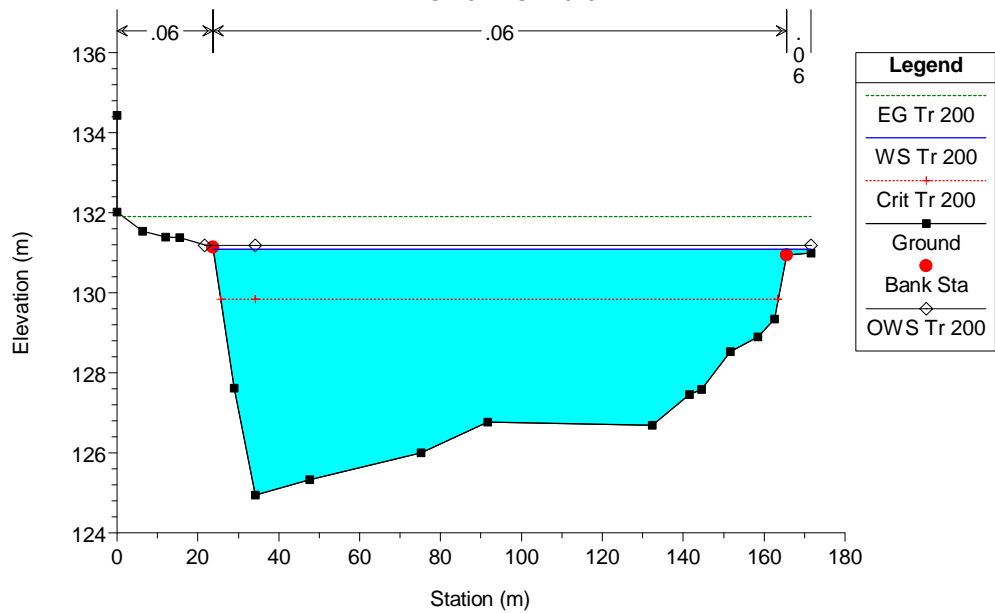
Arno_tratto_monte Plan: Ante operam
RS = 56 ASEZ-038



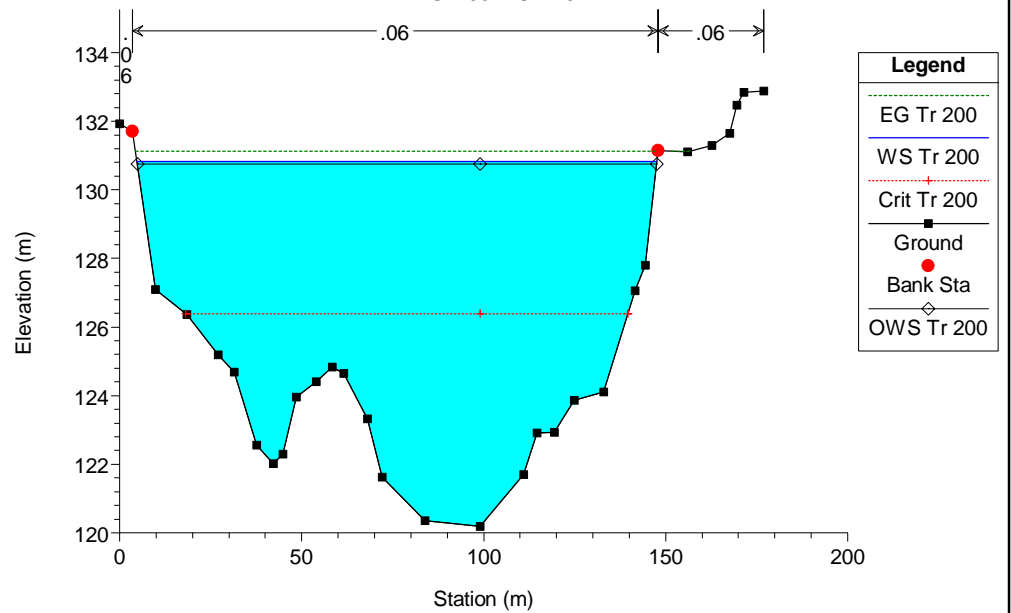
Arno_tratto_monte Plan: Ante operam
RS = 55 ASEZ-039



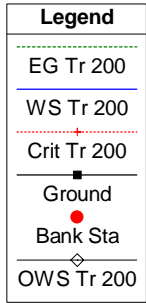
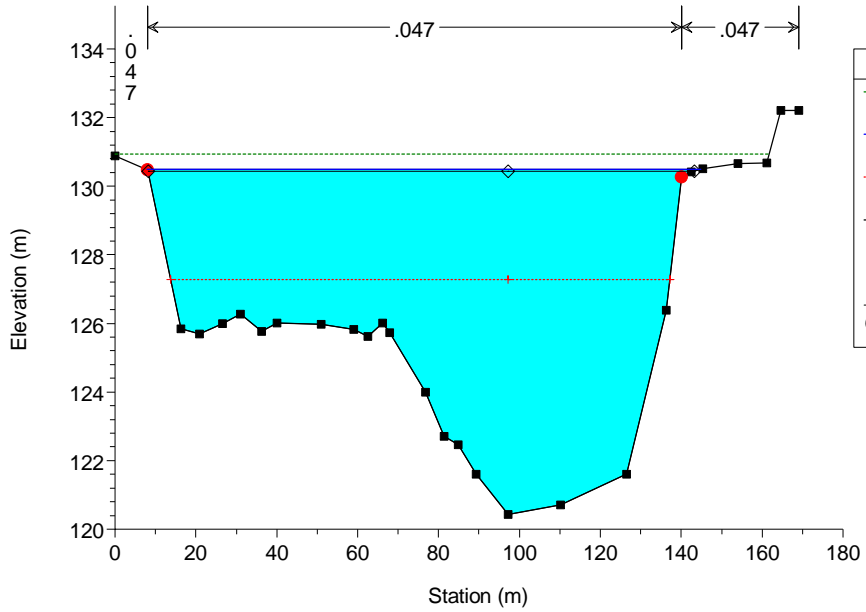
Arno_tratto_monte Plan: Ante operam
RS = 54 ASEZ-040



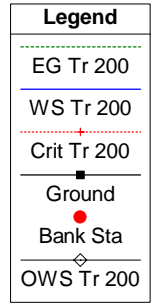
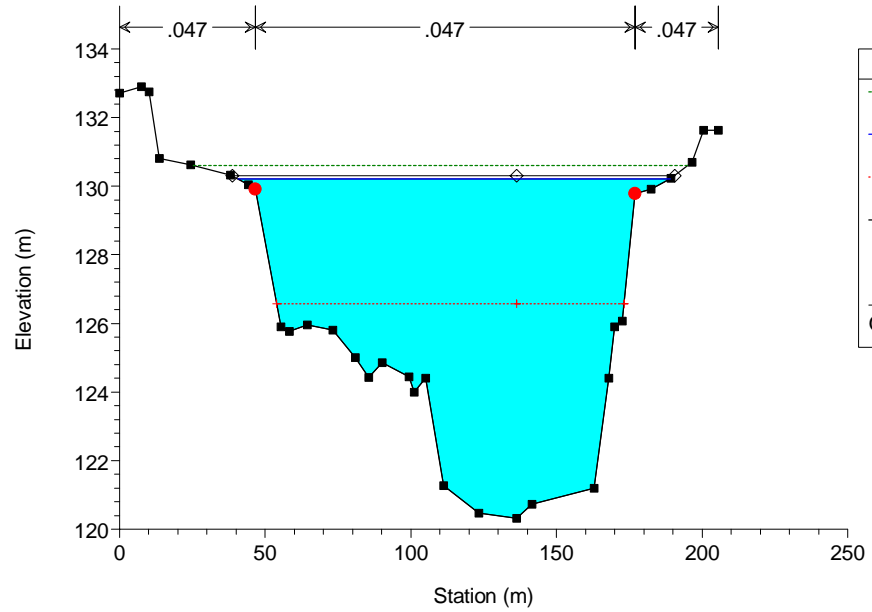
Arno_tratto_monte Plan: Ante operam
RS = 53 ASEZ-041



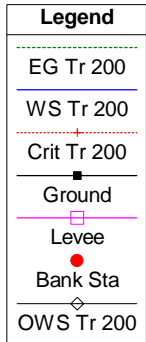
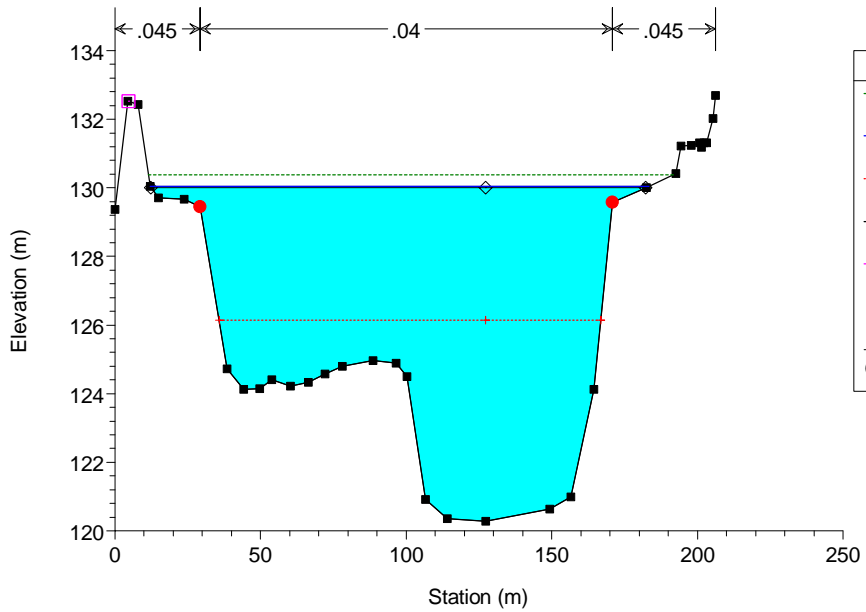
Arno_tratto_monte Plan: Ante operam
RS = 52 ASEZ-042



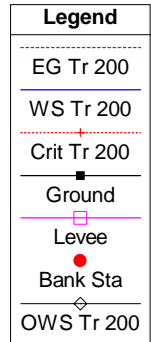
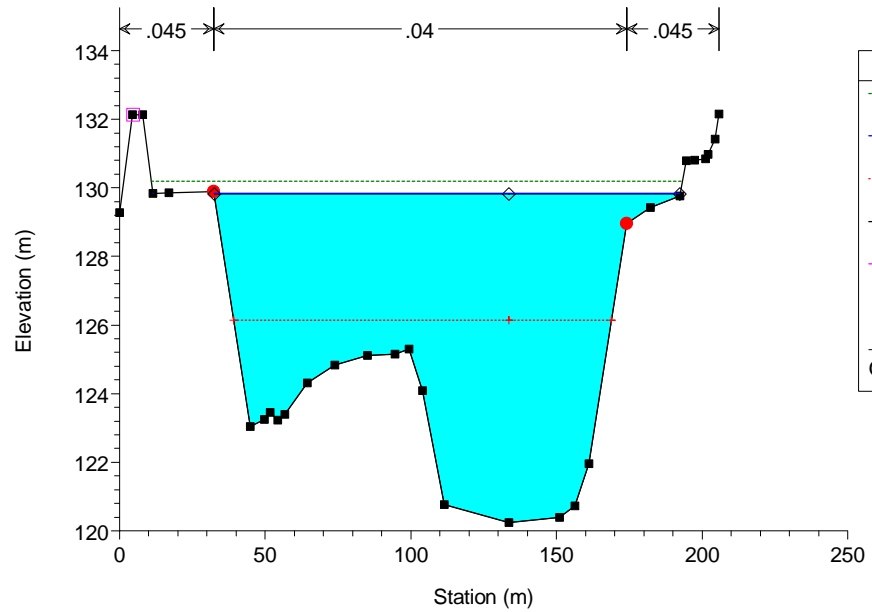
Arno_tratto_monte Plan: Ante operam
RS = 51 ASEZ-043

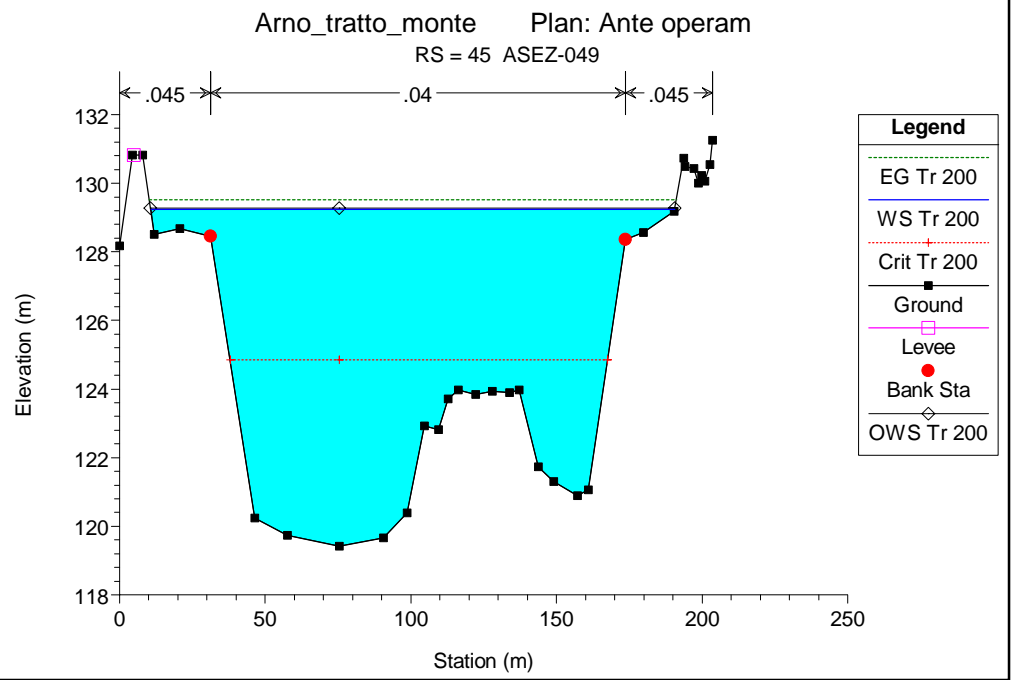
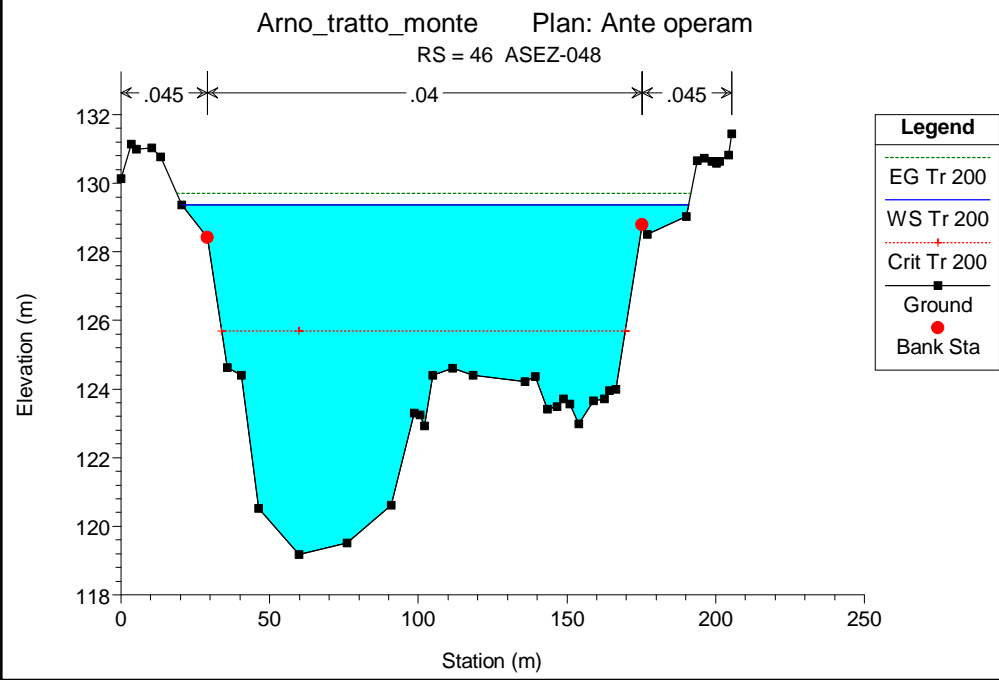
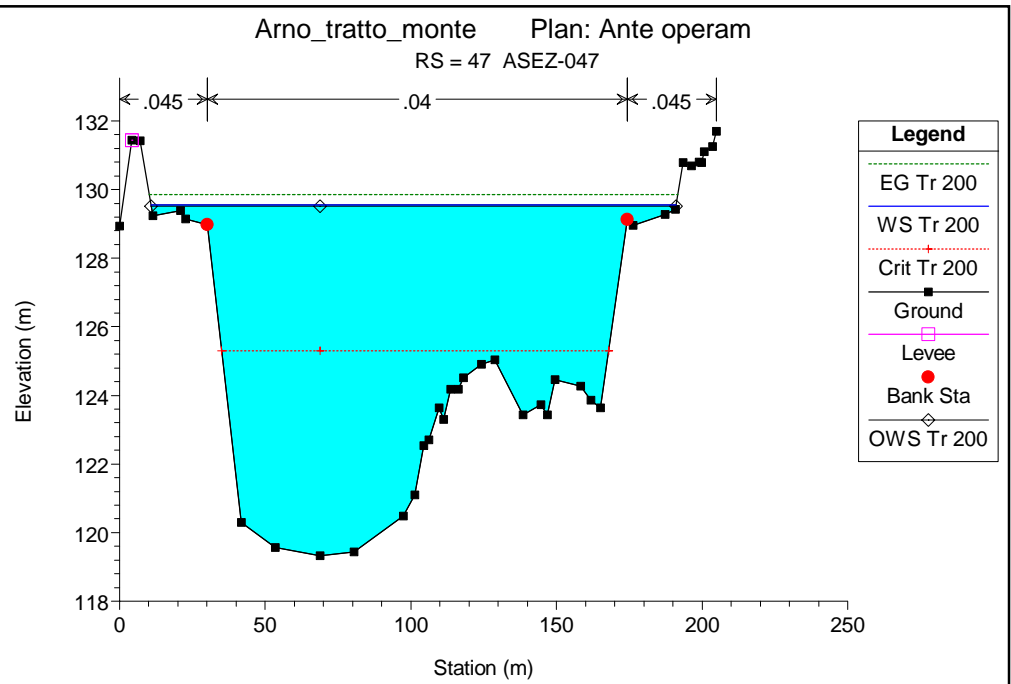
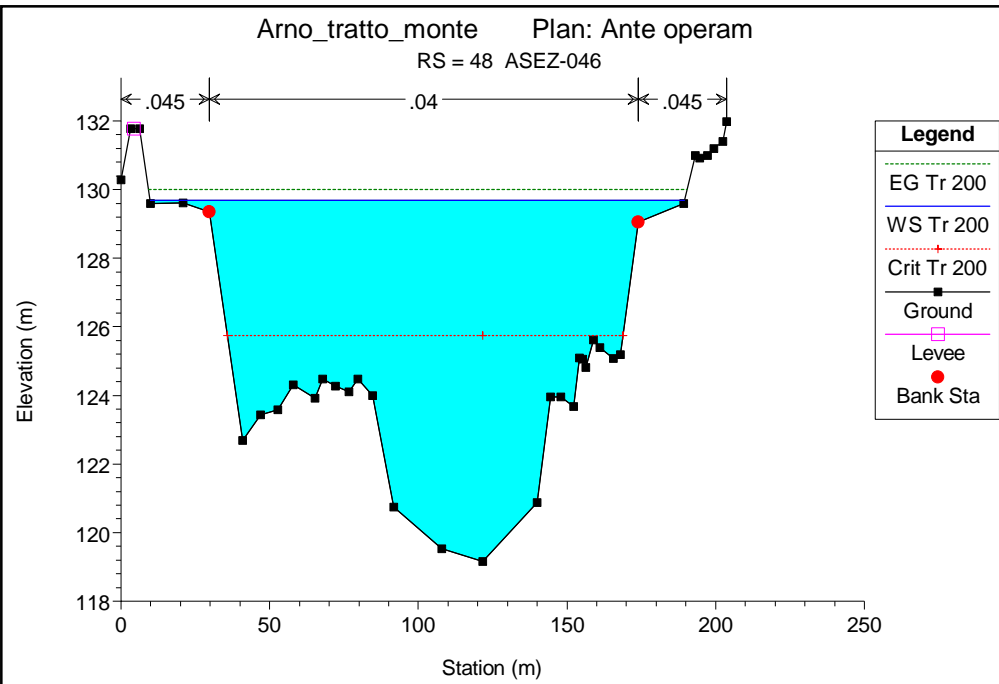


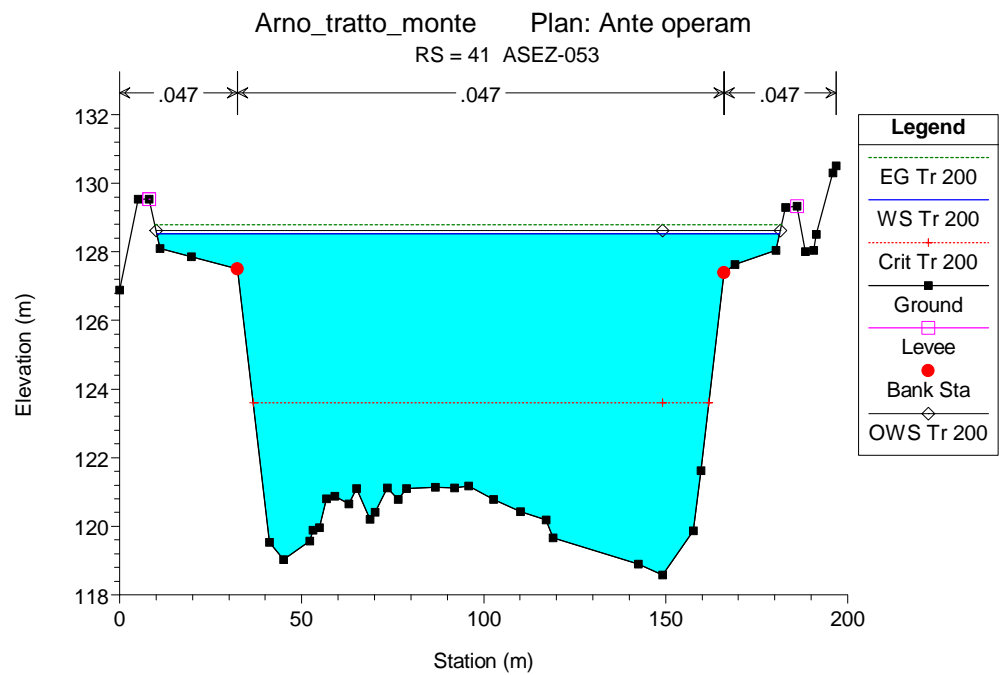
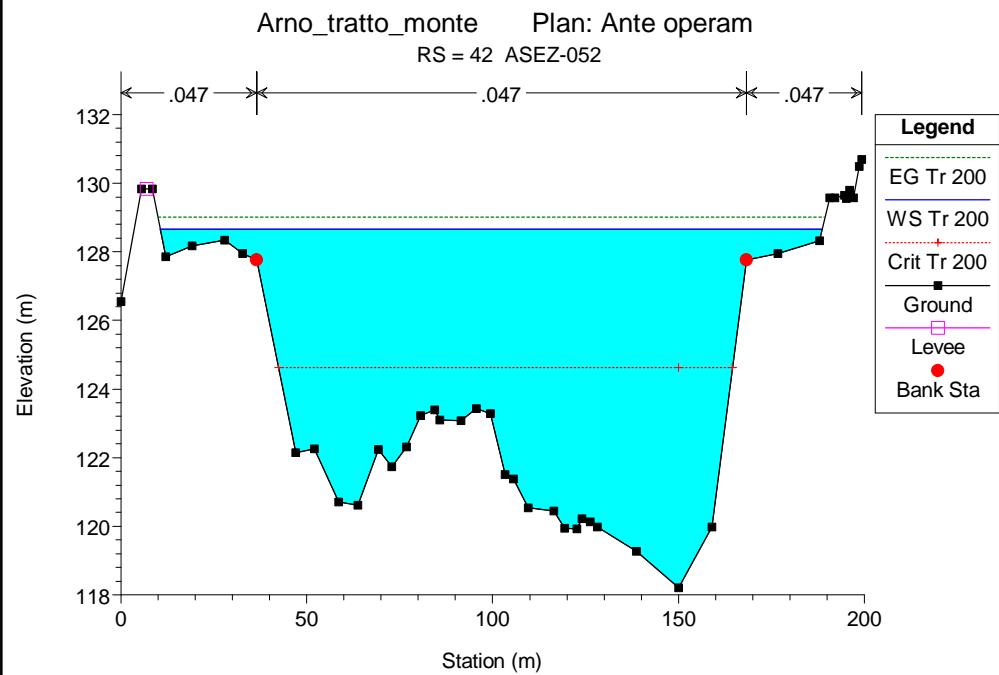
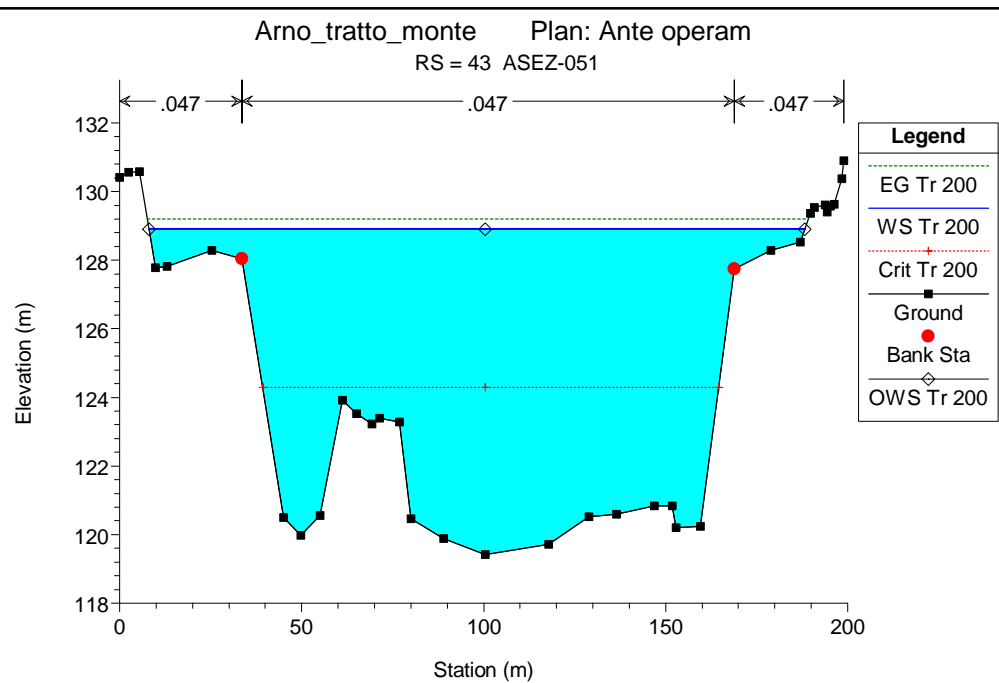
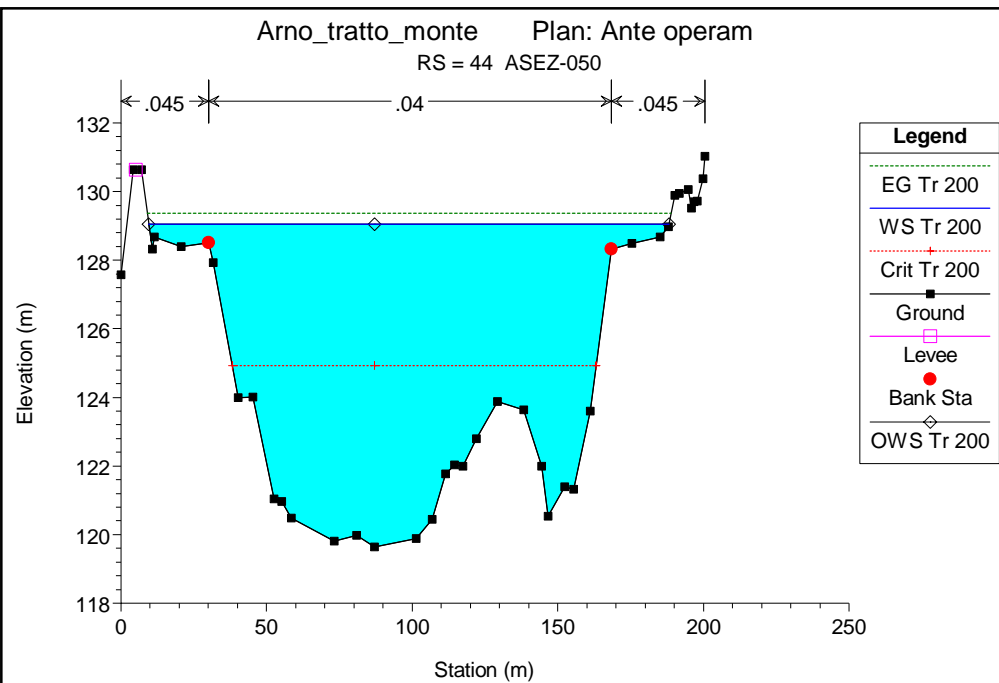
Arno_tratto_monte Plan: Ante operam
RS = 50 ASEZ-044



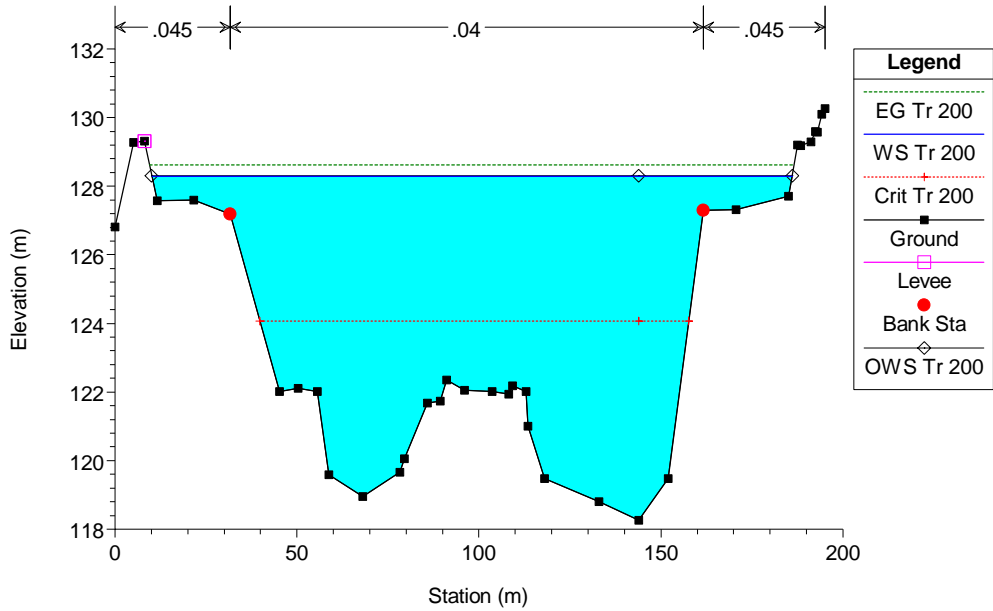
Arno_tratto_monte Plan: Ante operam
RS = 49 ASEZ-045



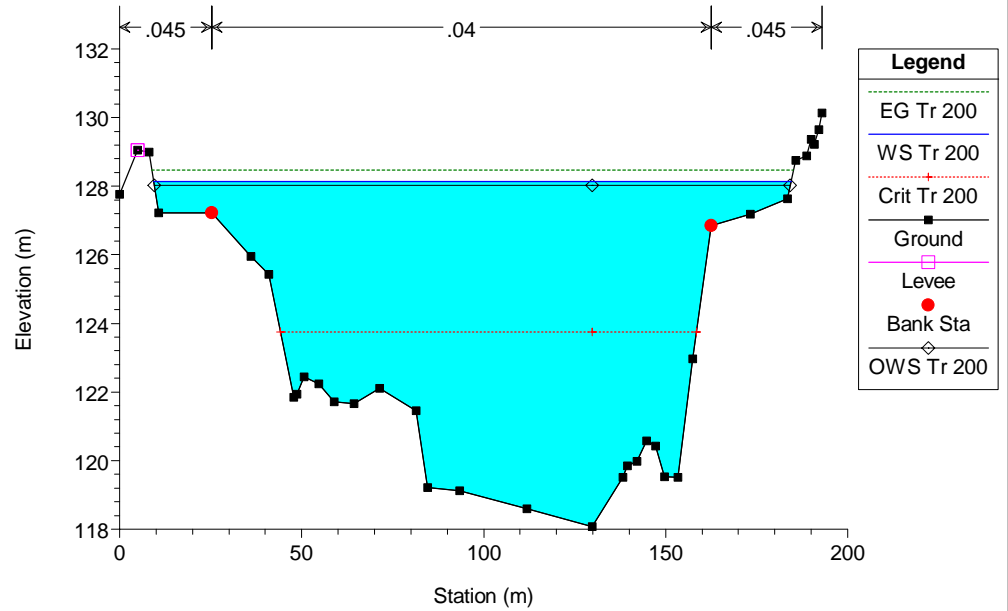




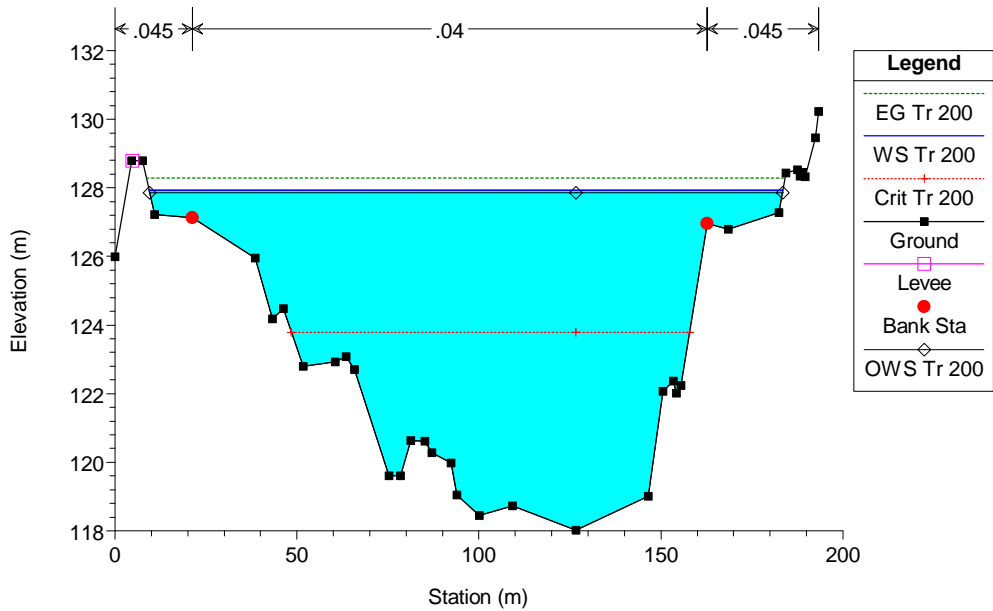
Arno_tratto_monte Plan: Ante operam
RS = 40 ASEZ-054



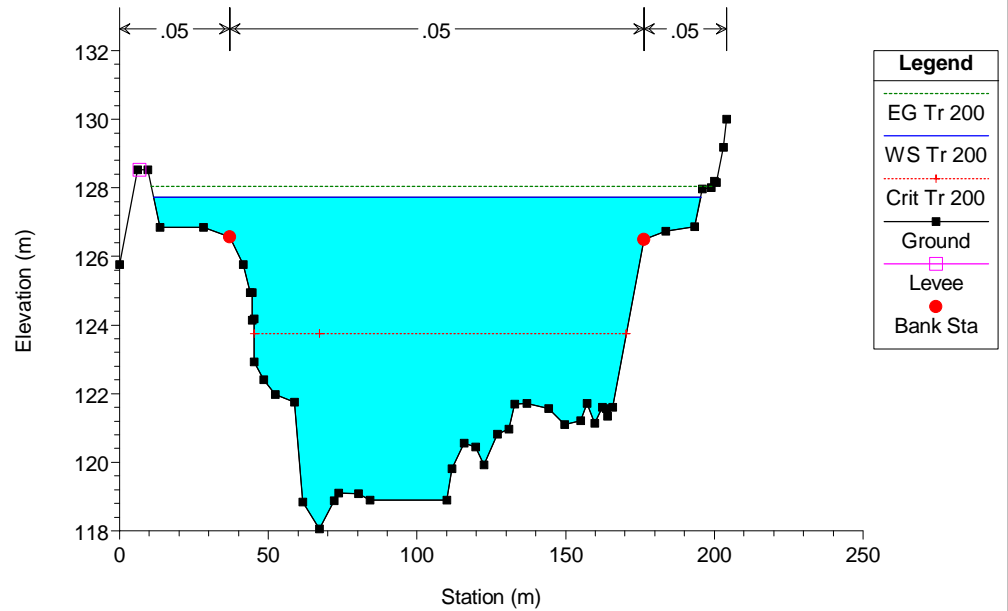
Arno_tratto_monte Plan: Ante operam
RS = 39 ASEZ-055

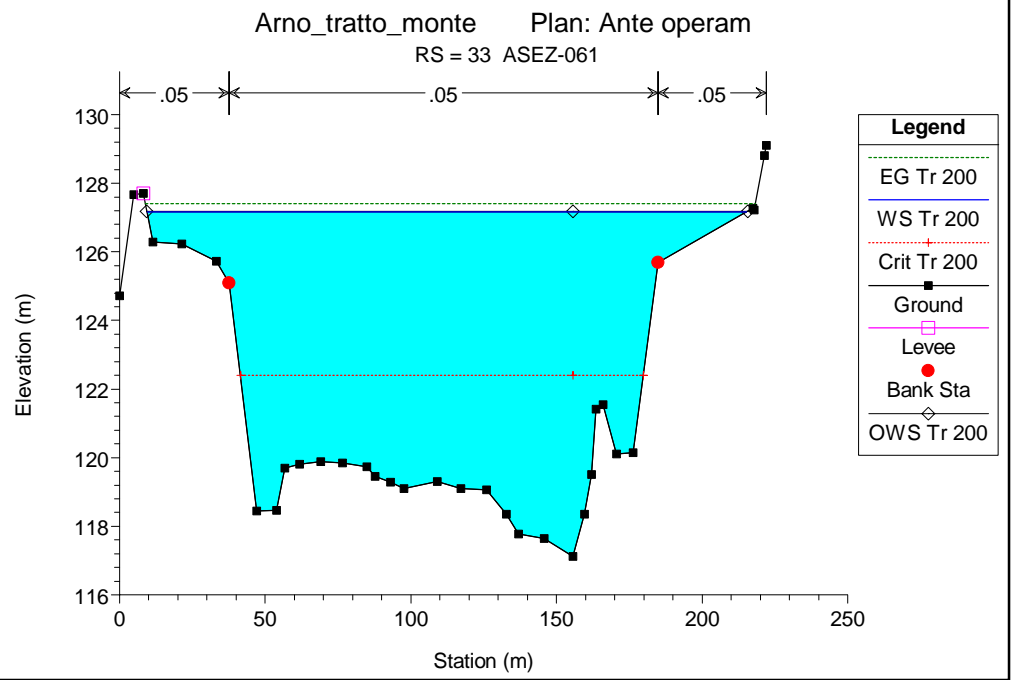
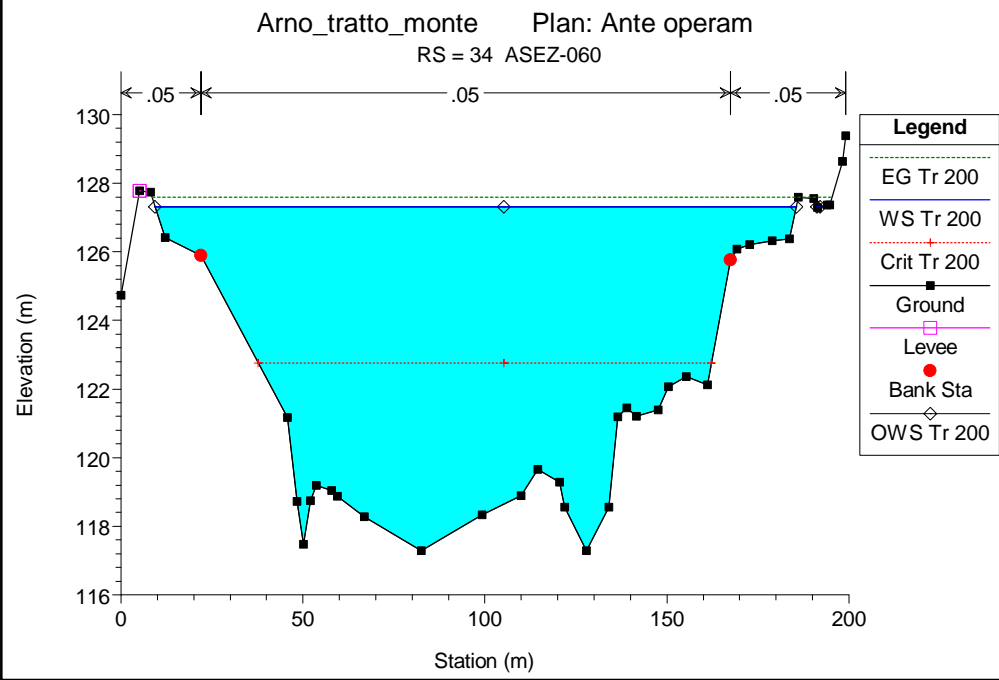
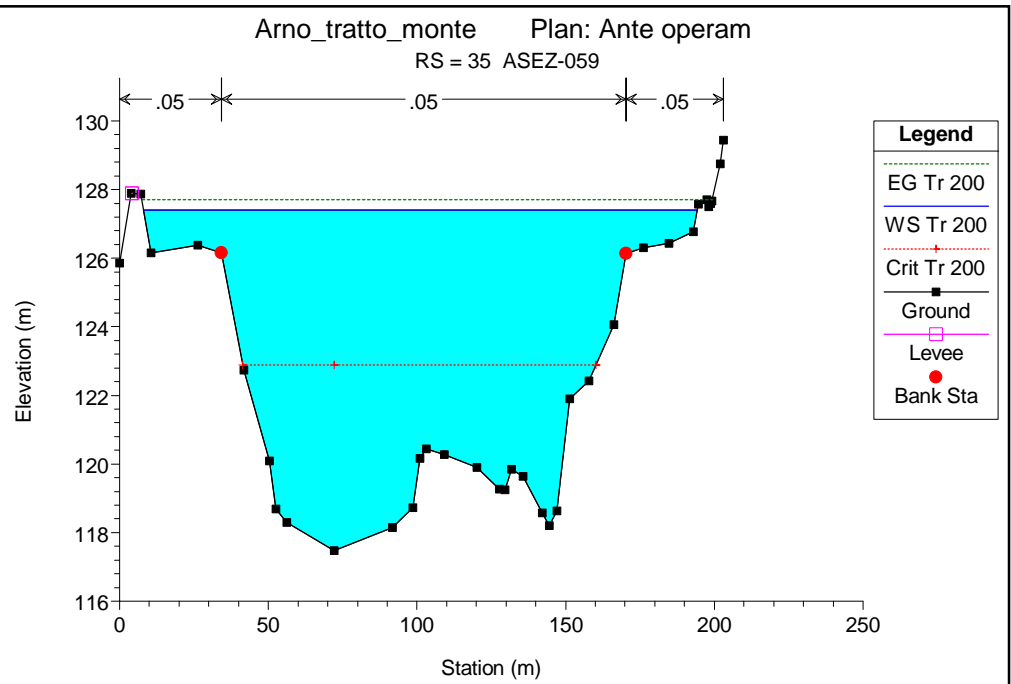
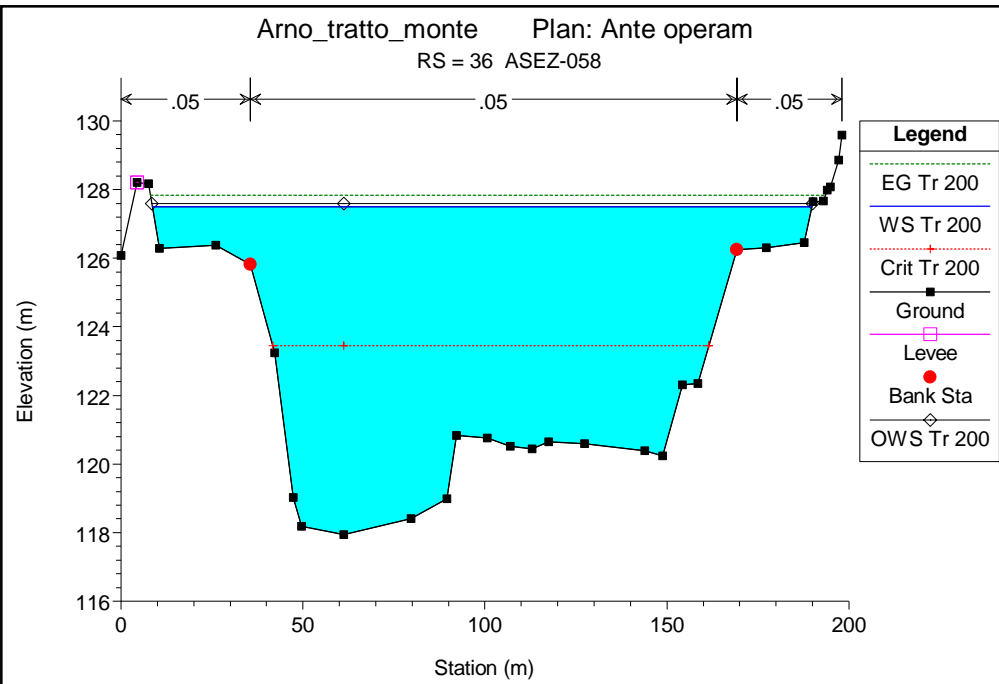


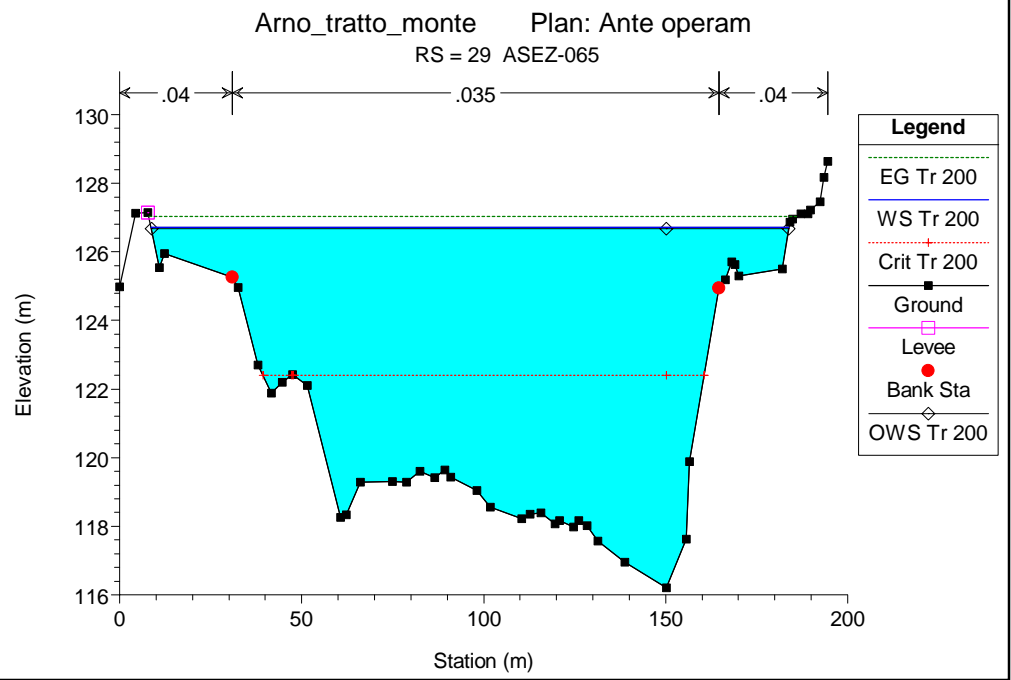
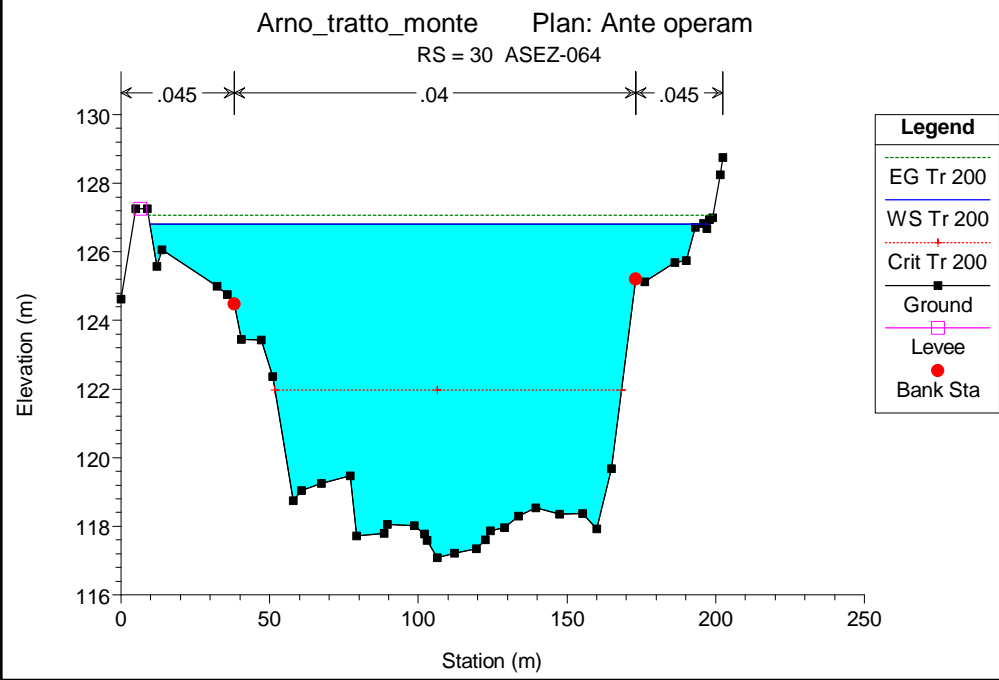
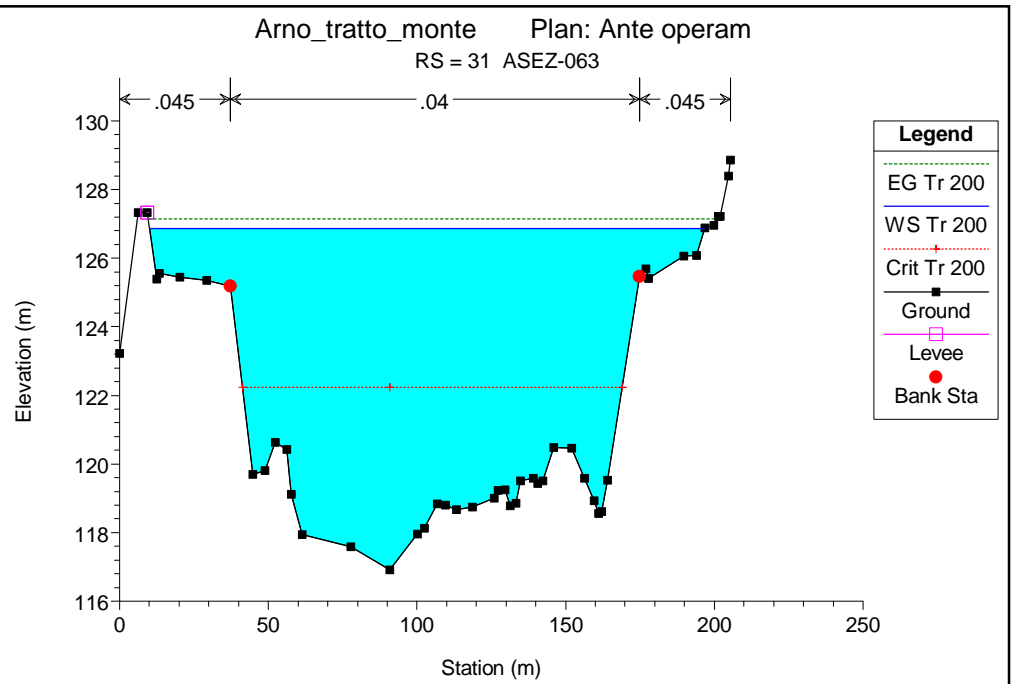
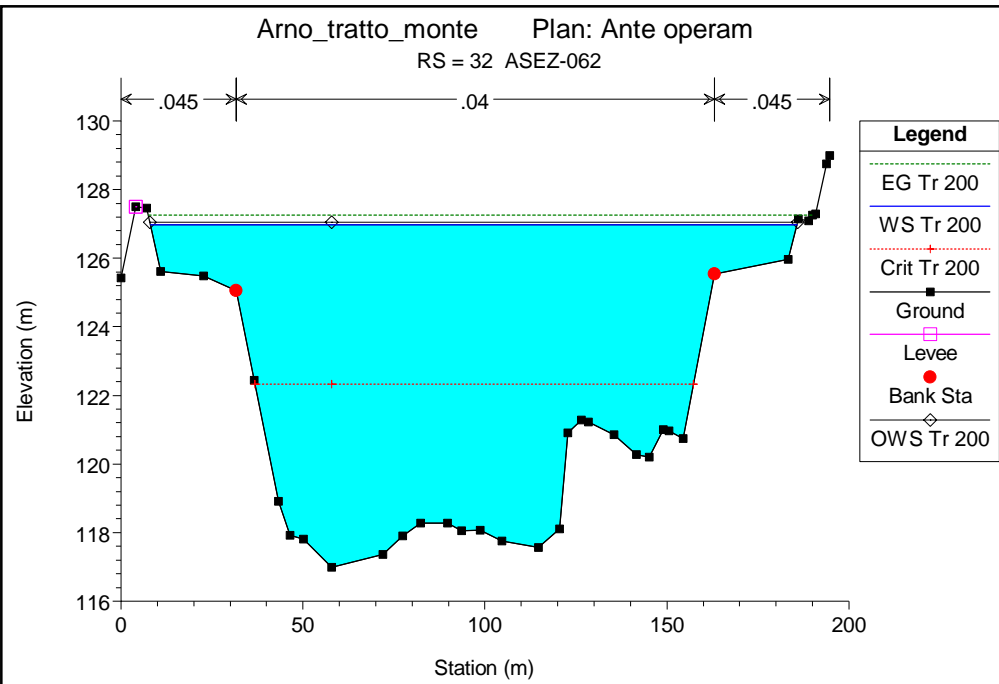
Arno_tratto_monte Plan: Ante operam
RS = 38 ASEZ-056

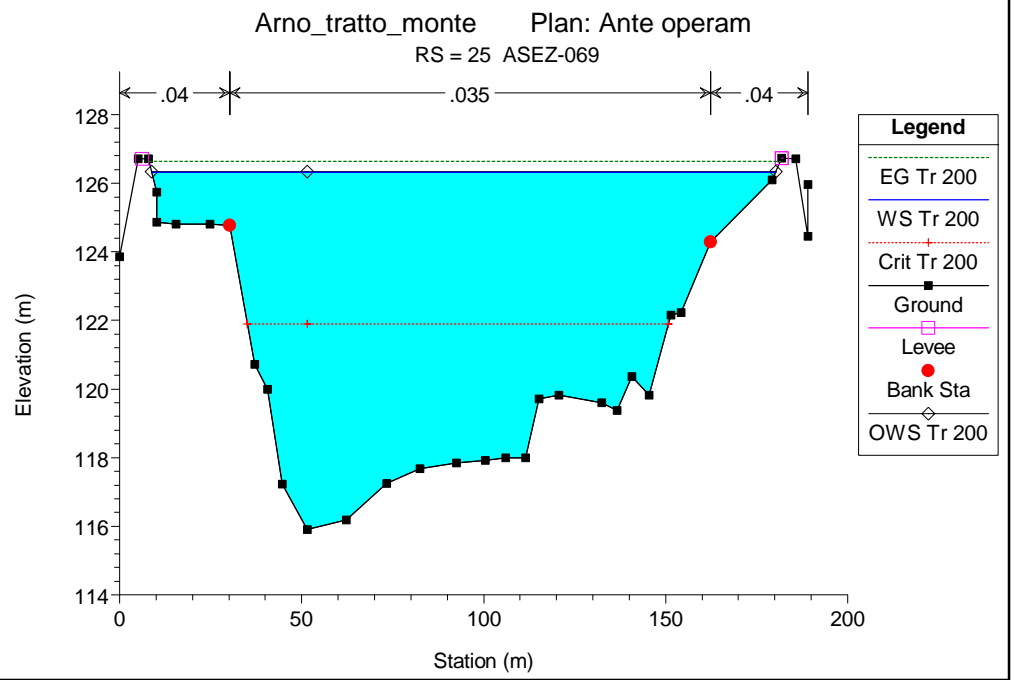
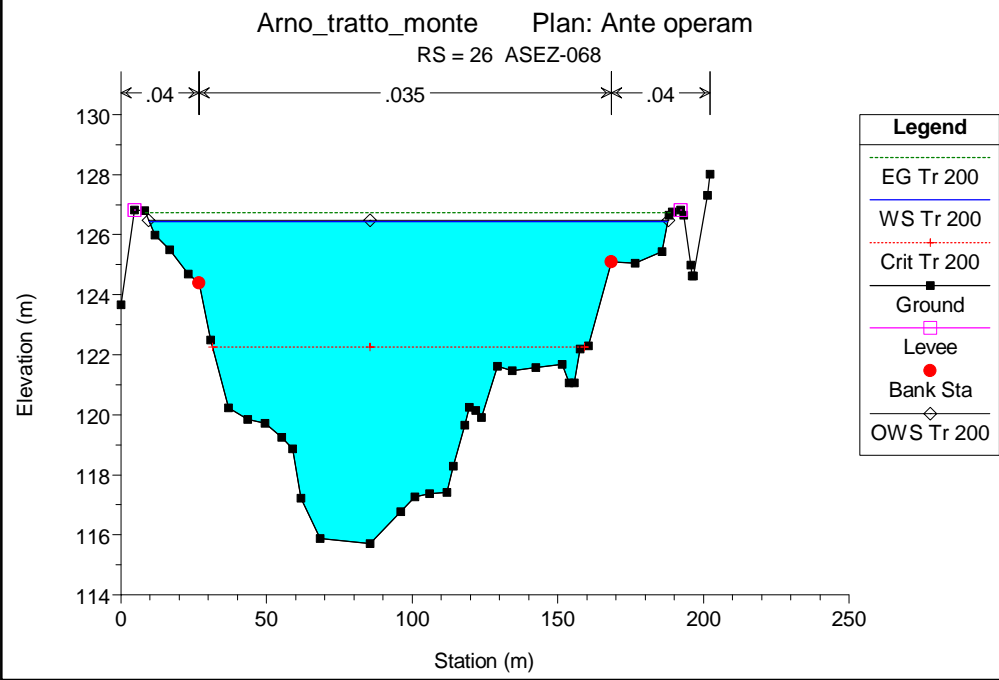
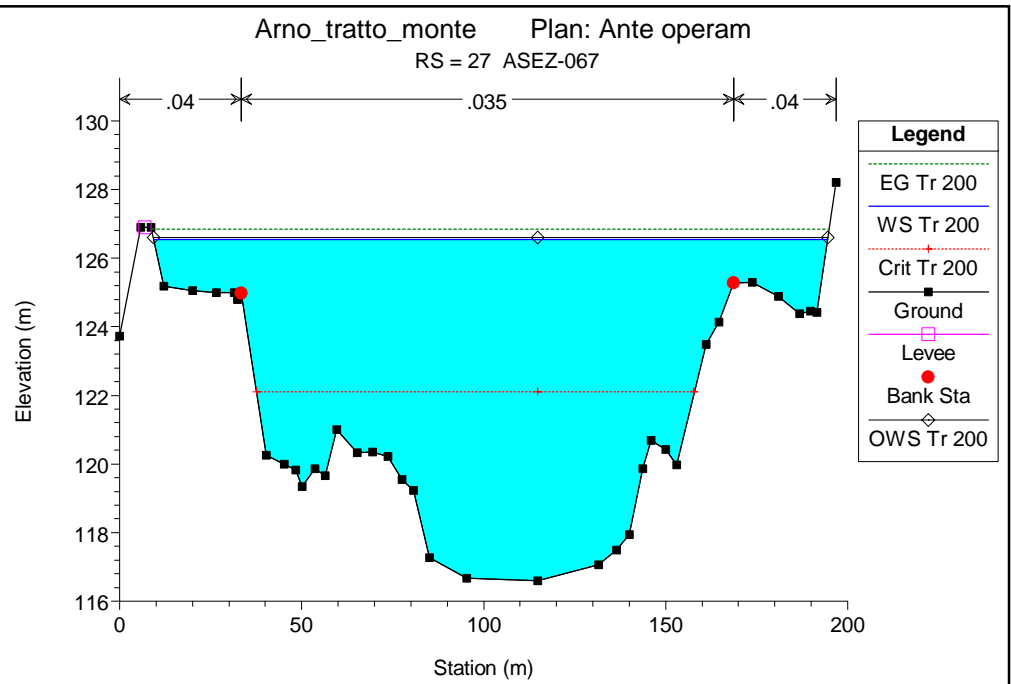
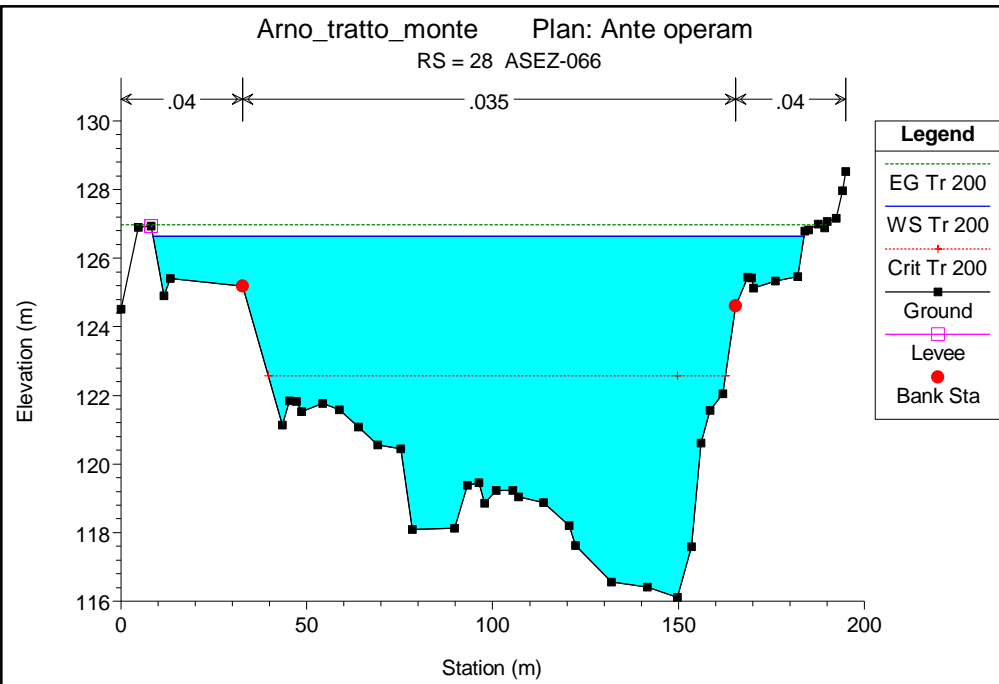


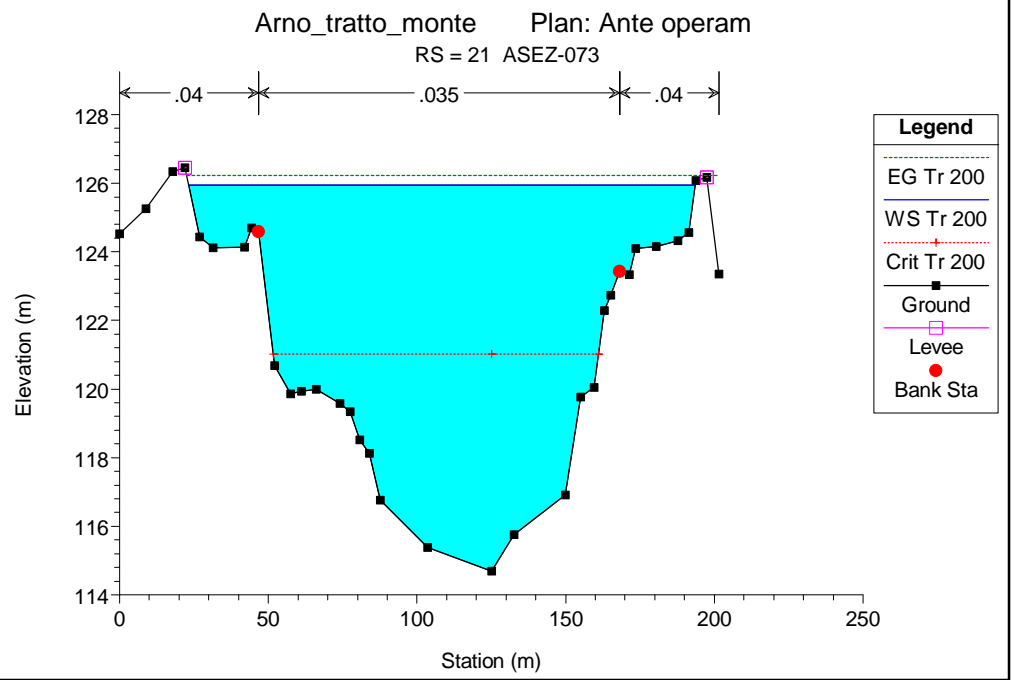
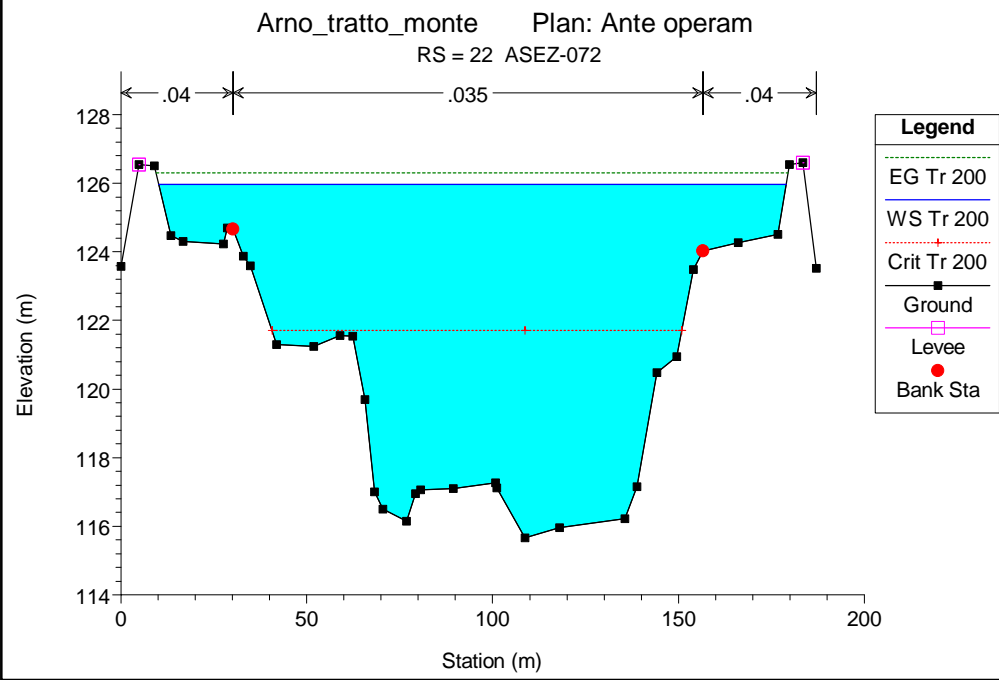
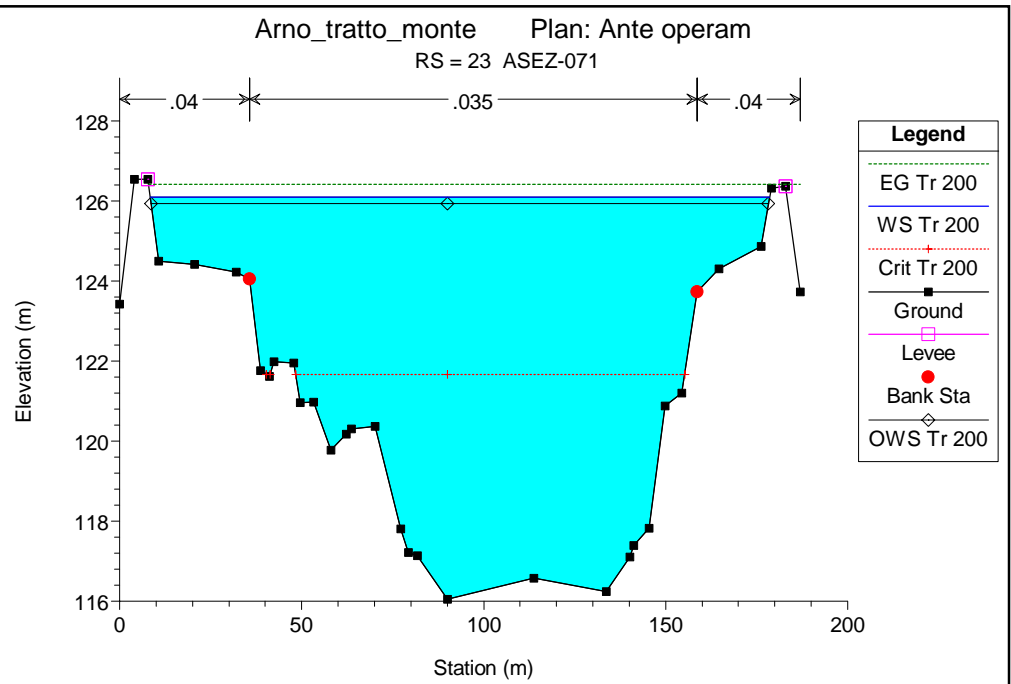
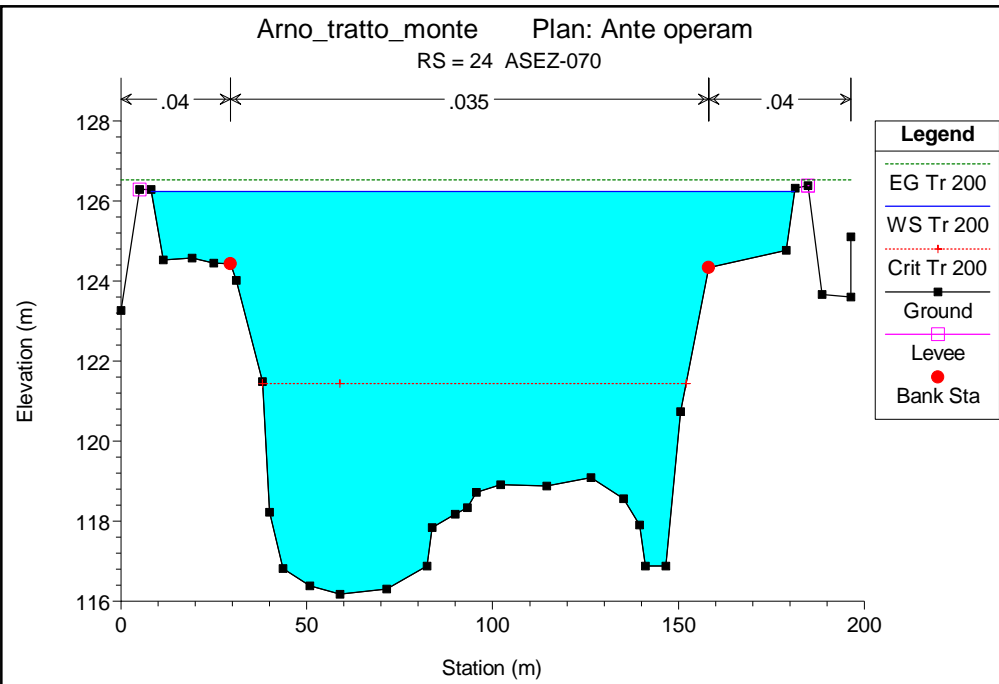
Arno_tratto_monte Plan: Ante operam
RS = 37 ASEZ-057

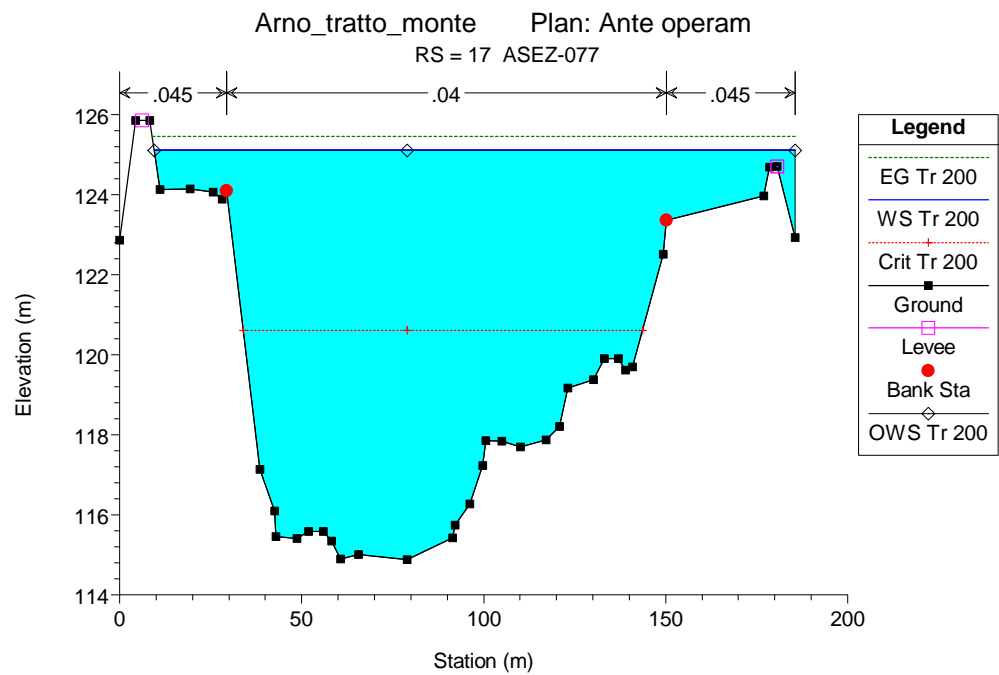
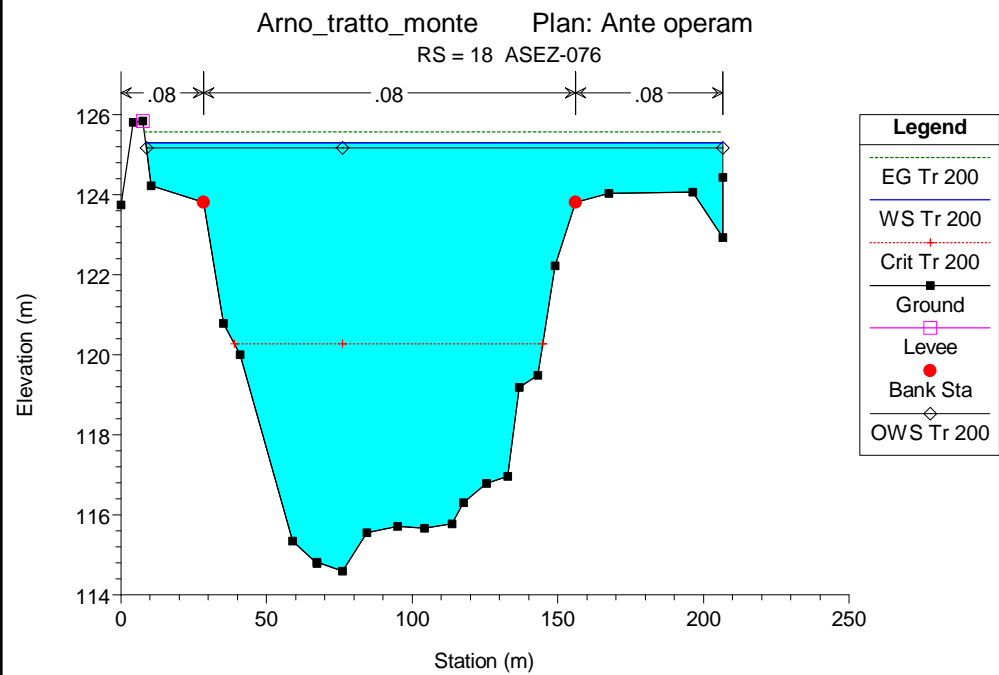
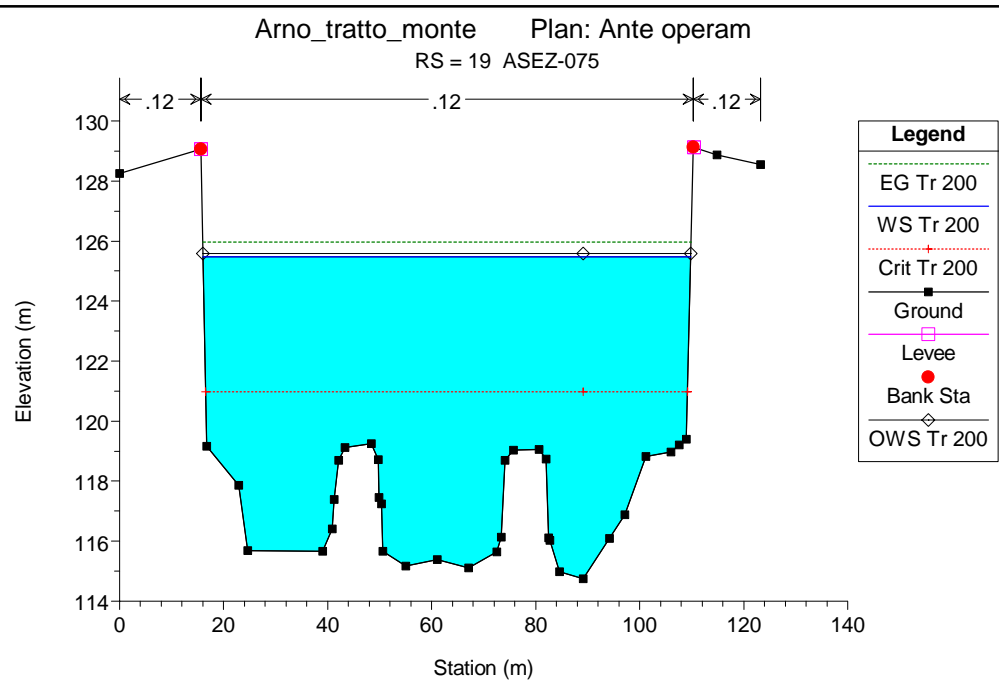
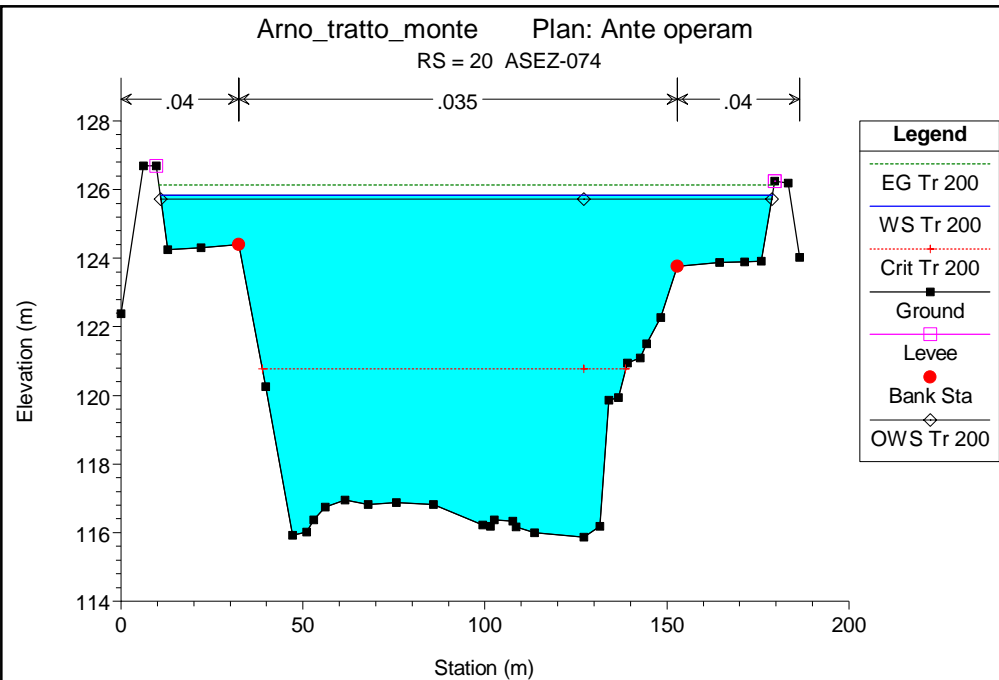


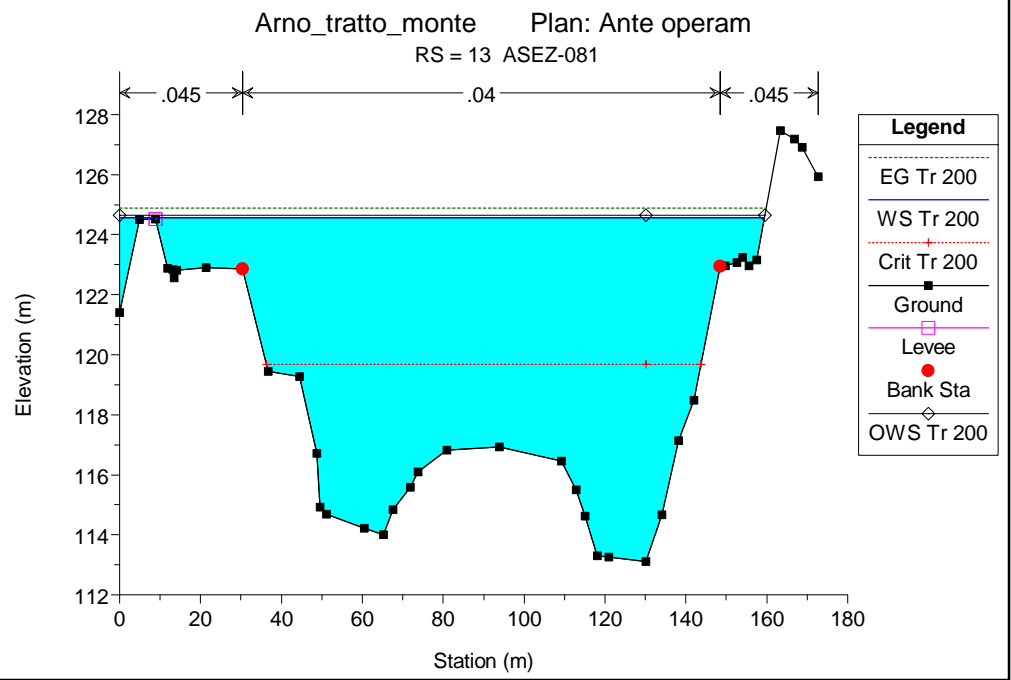
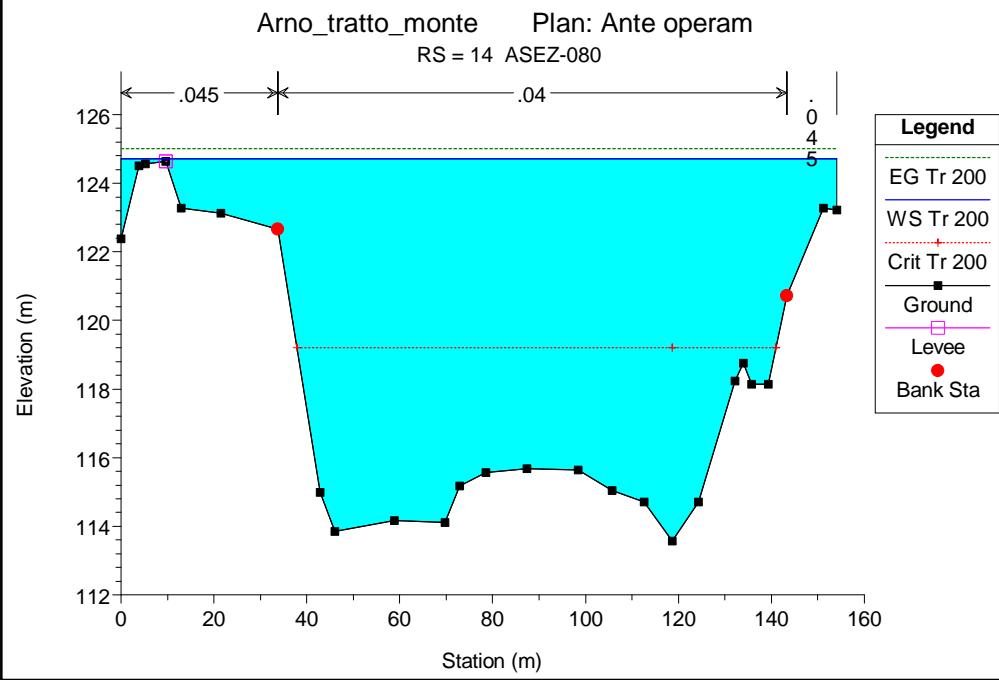
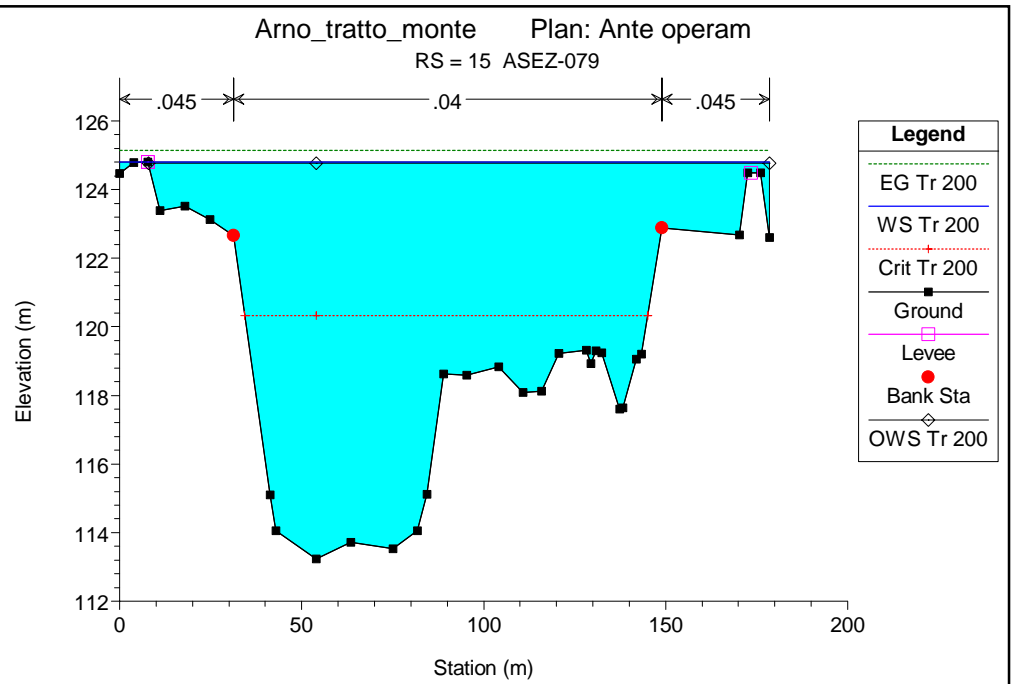
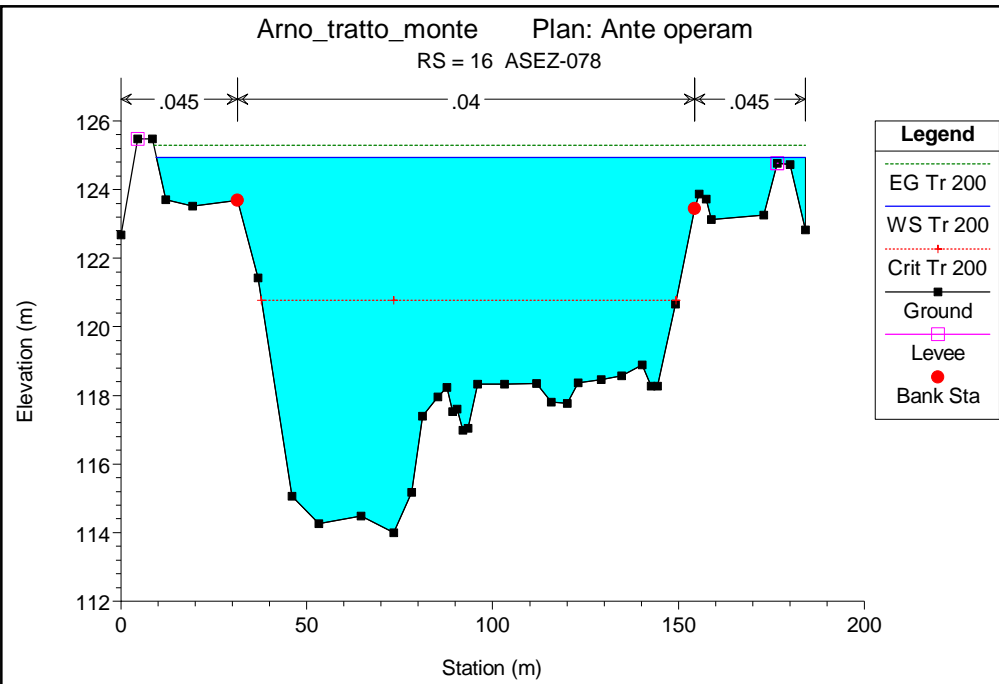


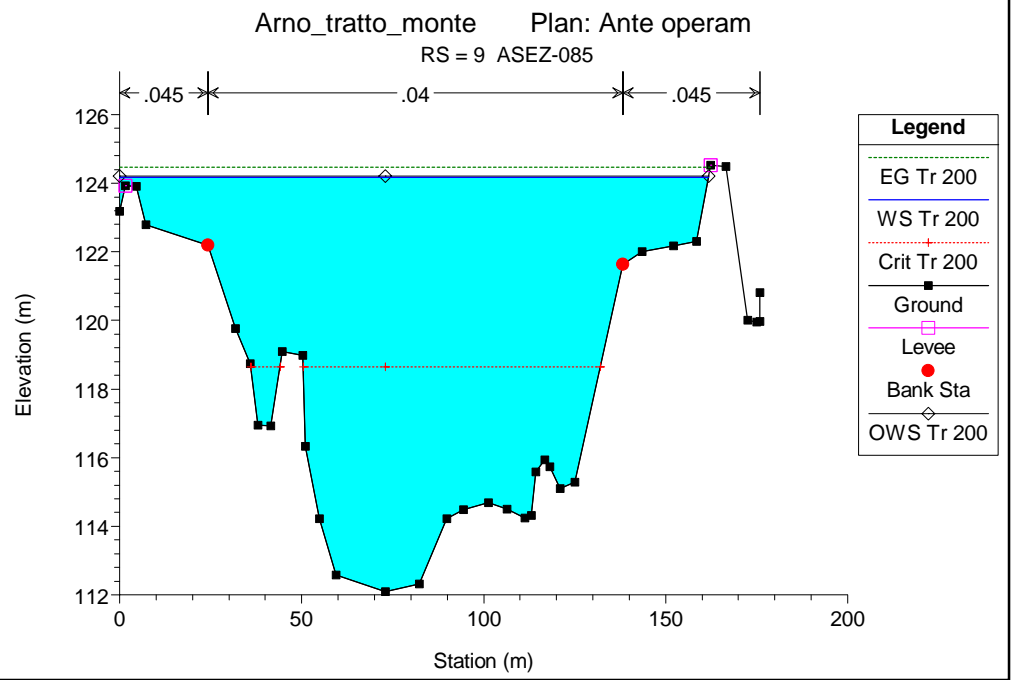
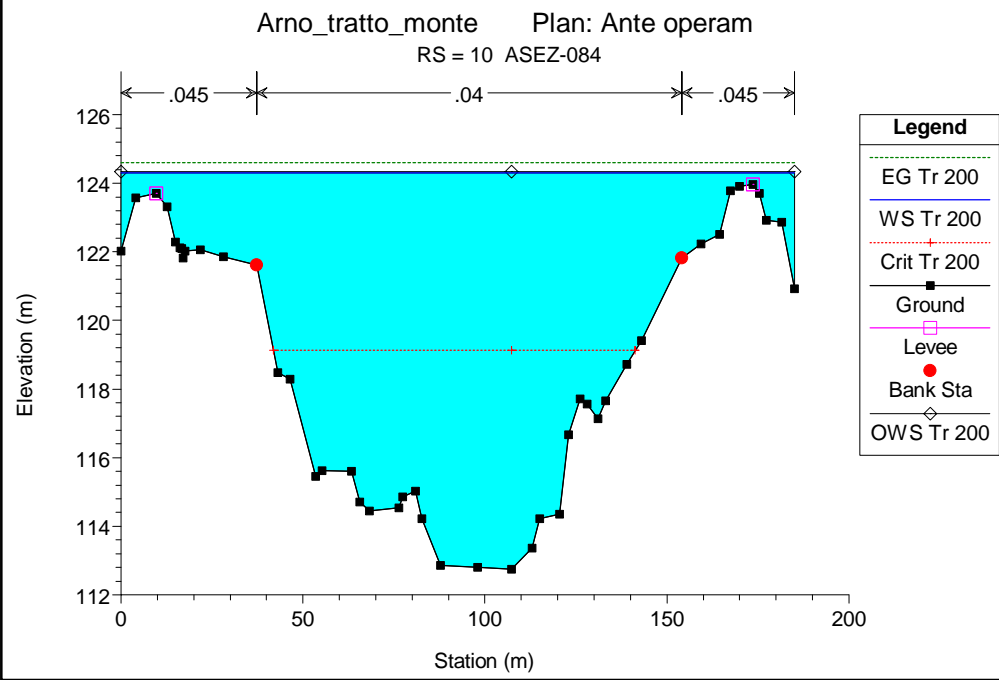
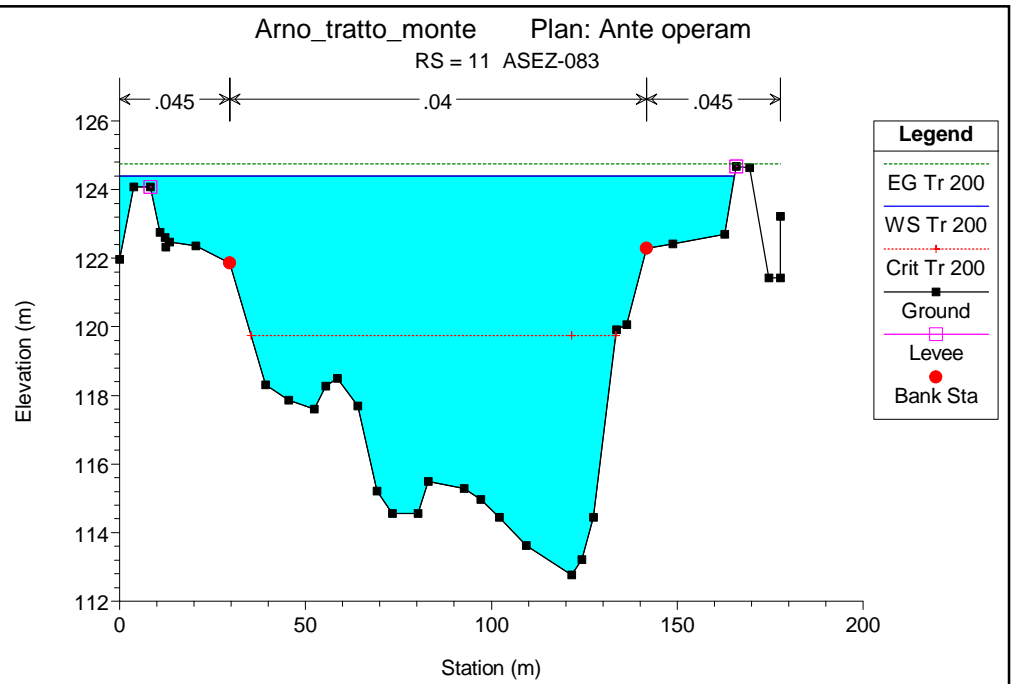
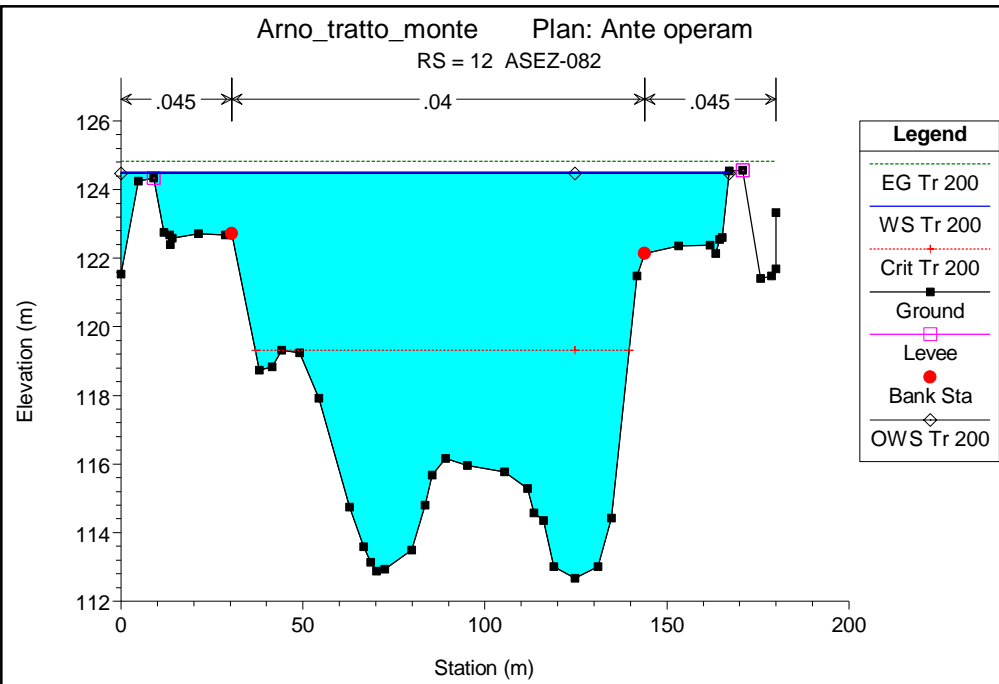


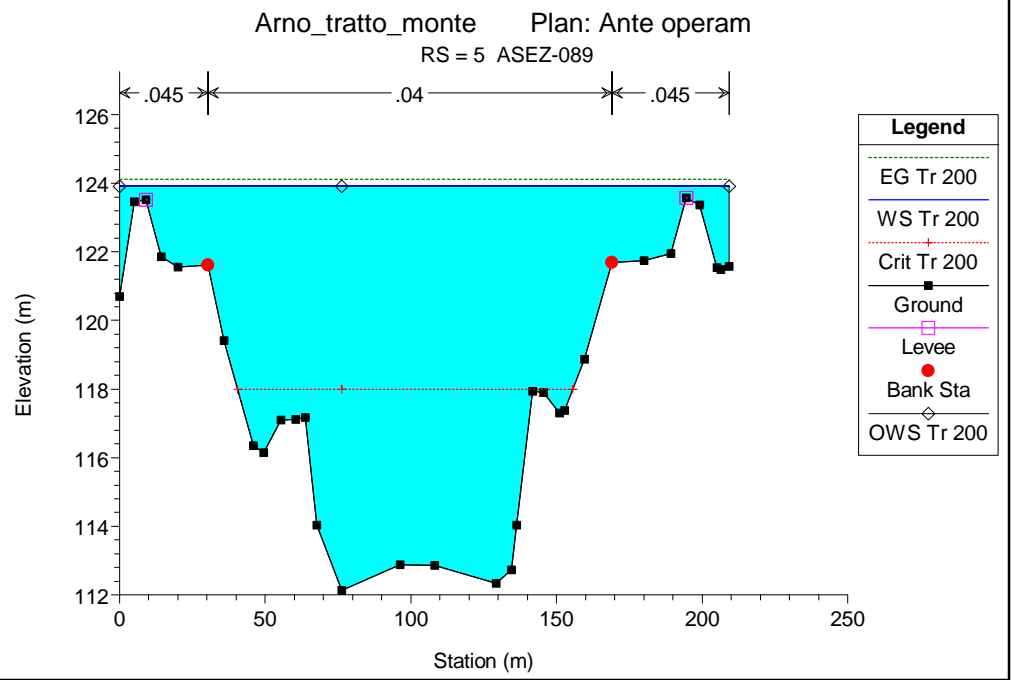
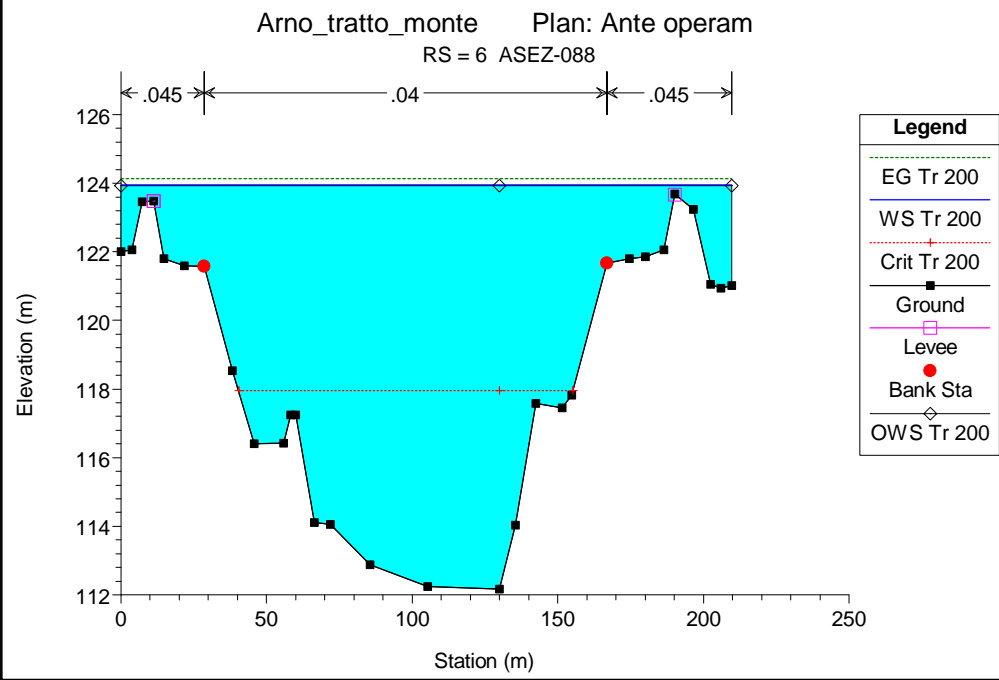
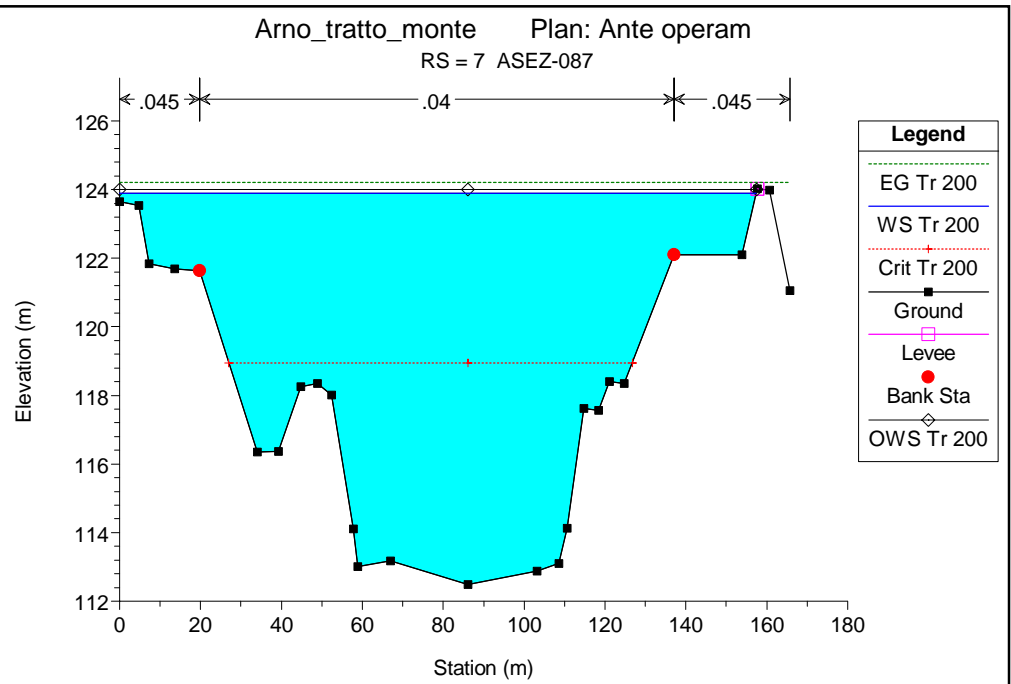
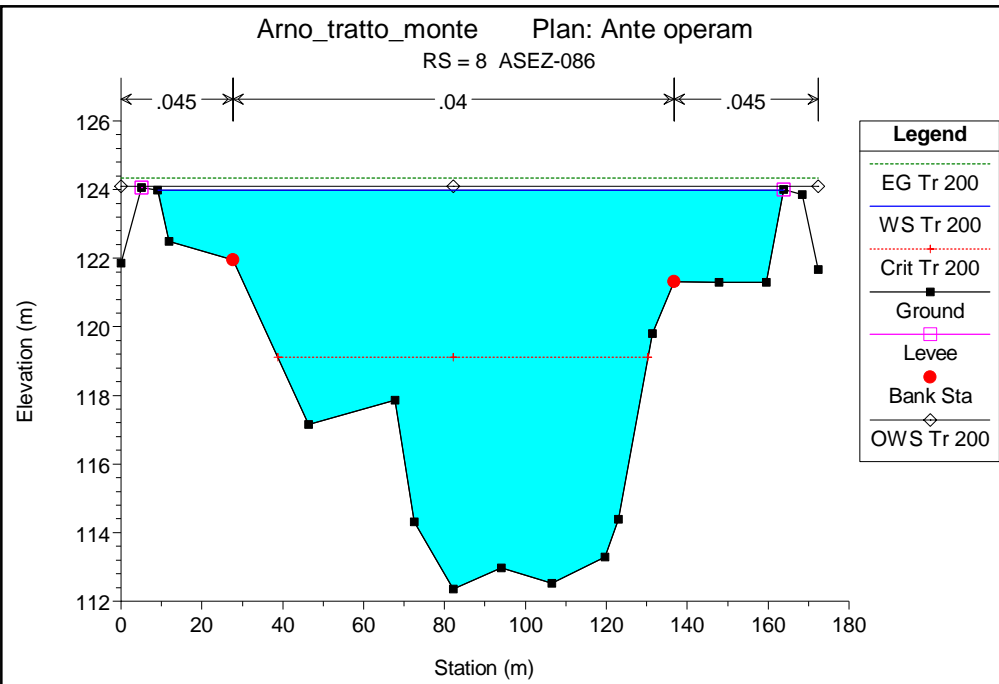


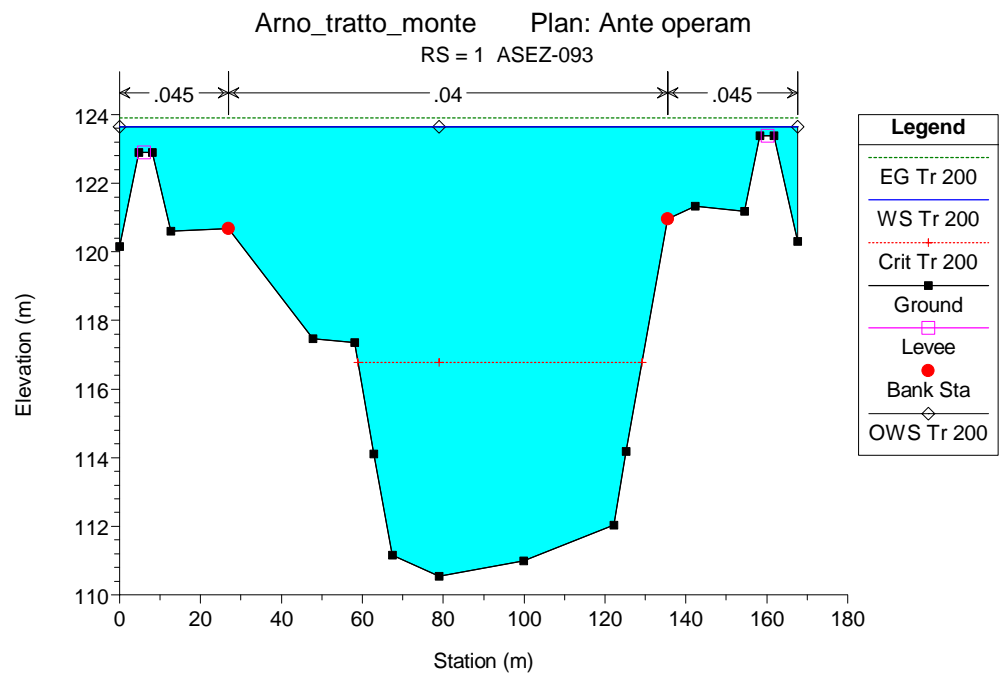
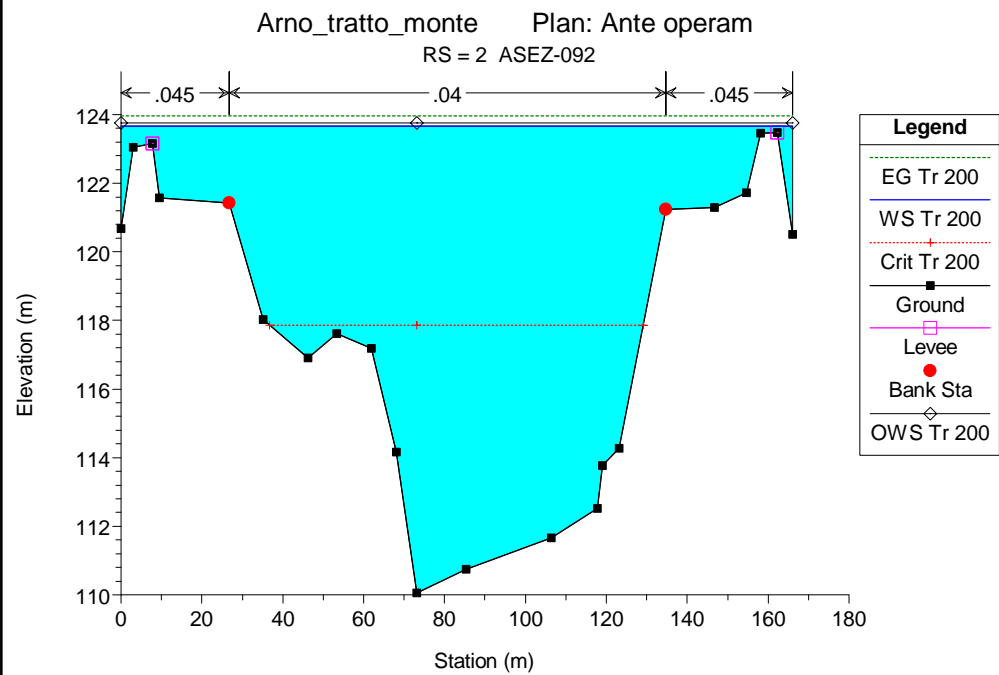
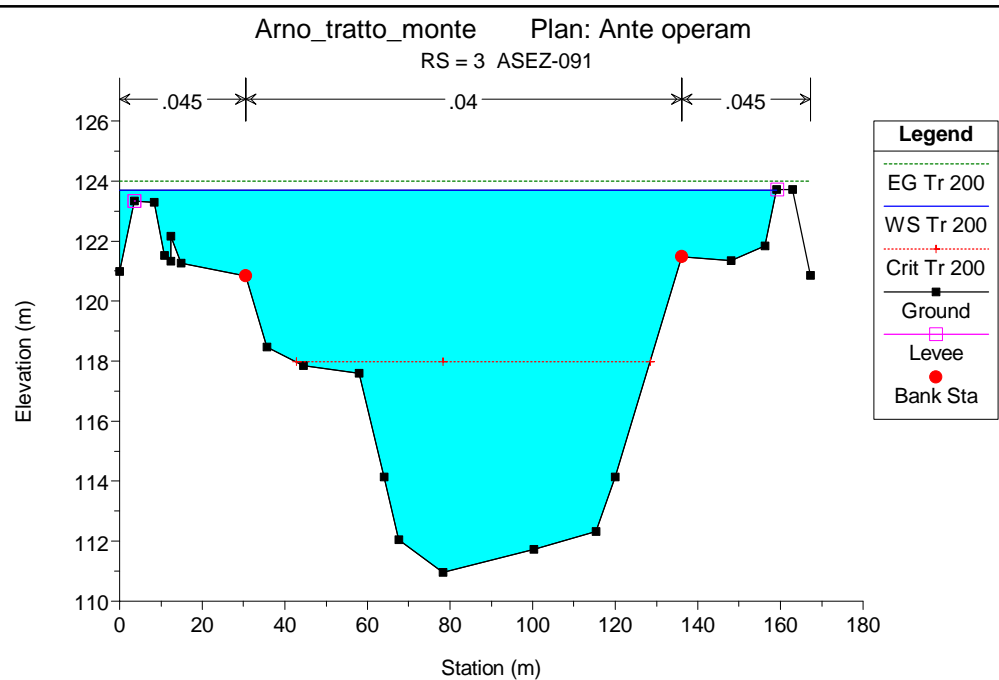
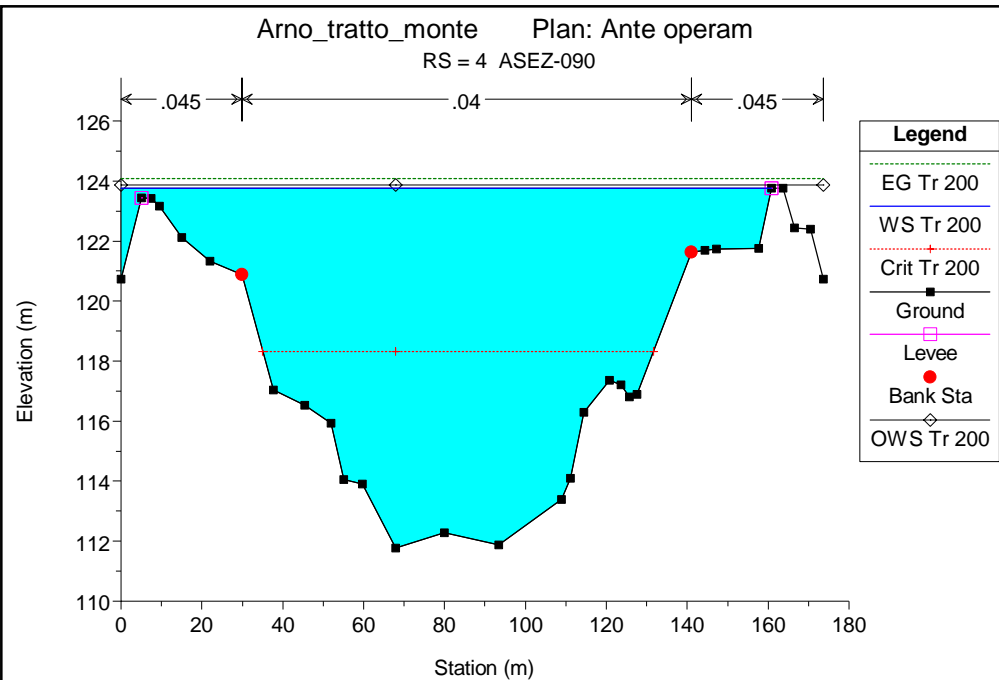












FIUME ARNO – COMPATIBILITA' IDRAULICA

POST OPERAM

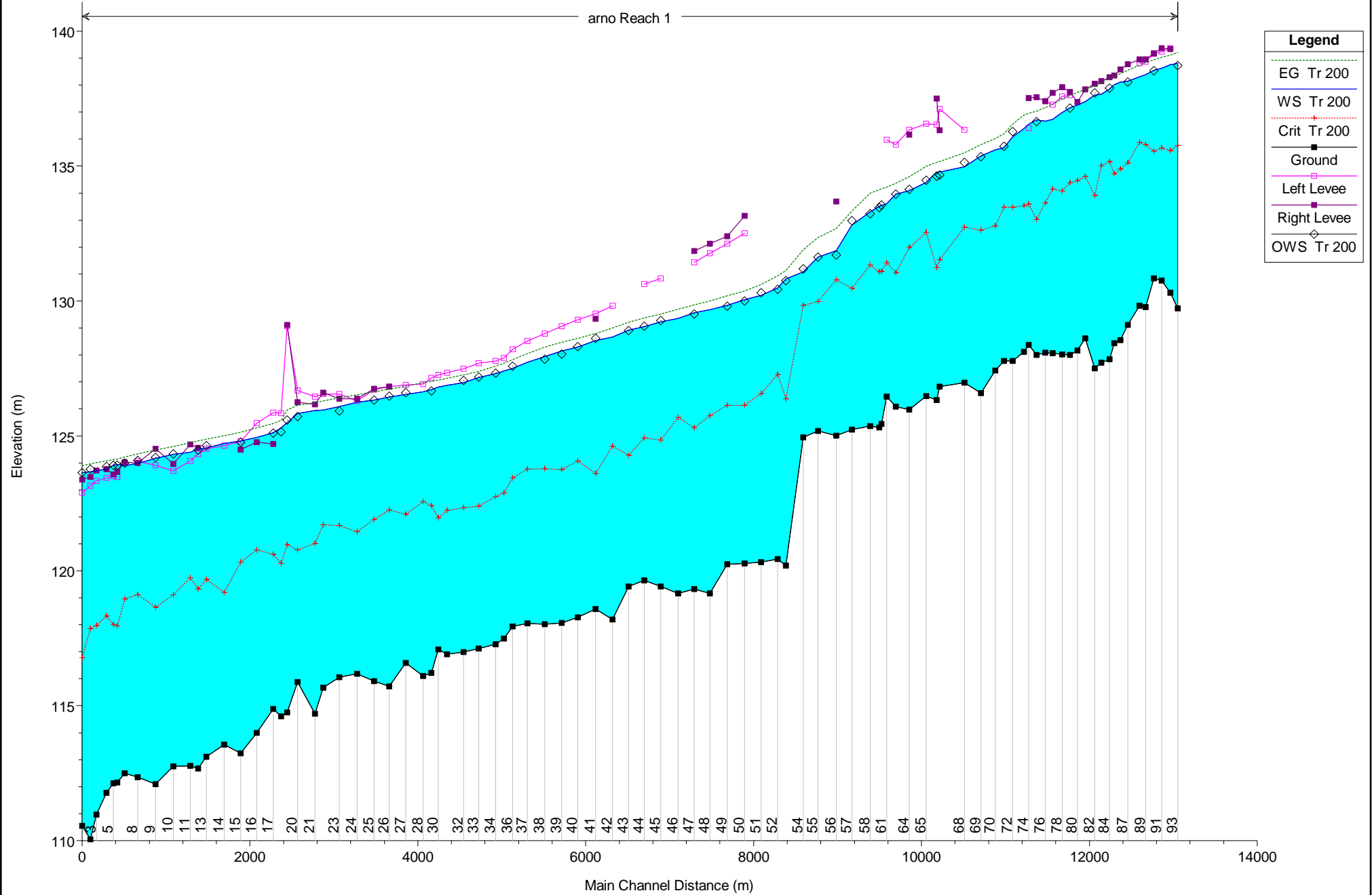
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl	
Reach 1	93	ASEZ-001	Tr 200	2468.25	129.73	138.80	135.77	139.22	0.000959	2.85	871.70	150.98	0.37
Reach 1	92	ASEZ-002	Tr 200	2468.25	130.30	138.77	135.58	139.12	0.000798	2.66	977.90	212.02	0.34
Reach 1	91	ASEZ-003	Tr 200	2468.25	130.75	138.64	135.67	139.03	0.000910	2.80	938.41	214.23	0.36
Reach 1	90	ASEZ-004	Tr 200	2468.25	130.83	138.55	135.56	138.94	0.000906	2.80	936.44	211.83	0.36
Reach 1	89	ASEZ-005	Tr 200	2468.25	129.77	138.39	135.81	138.84	0.001131	3.00	881.20	211.85	0.40
Reach 1	88	ASEZ-006	Tr 200	2468.25	129.83	138.31	135.87	138.74	0.001522	2.95	891.65	224.94	0.40
Reach 1	87	ASEZ-007	Tr 200	2468.25	129.11	138.15	135.12	138.54	0.001191	2.81	916.40	190.11	0.36
Reach 1	86	ASEZ-008	Tr 200	2468.25	128.55	138.12	134.90	138.42	0.000967	2.45	1015.97	181.24	0.32
Reach 1	85	ASEZ-009	Tr 200	2468.25	128.44	138.02	134.72	138.35	0.001063	2.55	975.74	180.40	0.34
Reach 1	84	ASEZ-010	Tr 200	2468.25	127.85	137.86	135.18	138.26	0.001844	2.80	883.29	207.52	0.43
Reach 1	83	ASEZ-011	Tr 200	2468.25	127.71	137.66	135.02	138.09	0.001466	2.94	881.27	189.42	0.40
Reach 1	82	ASEZ-012	Tr 200	2468.25	127.50	137.63	133.91	137.98	0.000891	2.60	975.29	176.25	0.32
Reach 1	81	ASEZ-013	Tr 200	2468.25	128.61	137.39	134.61	137.84	0.001421	2.98	839.12	158.30	0.40
Reach 1	80	ASEZ-014	Tr 200	2468.25	128.17	137.27	134.45	137.73	0.001079	3.00	833.39	154.34	0.39
Reach 1	79	ASEZ-015	Tr 200	2468.25	128.01	137.16	134.38	137.62	0.001388	3.00	823.00	166.40	0.43
Reach 1	78	ASEZ-016	Tr 200	2468.25	128.02	136.98	134.07	137.48	0.001445	3.13	789.70	153.70	0.44
Reach 1	77	ASEZ-017	Tr 200	2468.25	128.07	136.73	134.15	137.30	0.001749	3.34	739.97	150.07	0.48
Reach 1	76	ASEZ-018	Tr 200	2468.25	128.08	136.67	133.64	137.16	0.000986	3.09	799.37	150.32	0.43
Reach 1	75	ASEZ-019	Tr 200	2468.25	128.00	136.72	133.03	137.03	0.000578	2.47	997.59	174.78	0.33
Reach 1	74	ASEZ-020	Tr 200	2468.25	128.37	136.56	133.58	136.96	0.000830	2.80	887.67	178.56	0.39
Reach 1	73	ASEZ-021	Tr 200	2468.25	128.11	136.39	133.53	136.89	0.001063	3.14	786.29	155.36	0.45
Reach 1	72	ASEZ-022	Tr 200	2468.25	127.78	136.09	133.47	136.56	0.010028	3.05	808.38	145.56	0.41
Reach 1	71	ASEZ-023	Tr 200	2468.25	127.77	135.68	133.48	136.20	0.001770	3.20	771.67	172.75	0.48
Reach 1	70	ASEZ-024	Tr 200	2468.25	127.43	135.60	132.78	136.02	0.001185	2.87	861.20	171.60	0.41
Reach 1	69	ASEZ-025	Tr 200	2468.25	126.58	135.37	132.62	135.80	0.001417	2.89	854.41	188.66	0.43
Reach 1	68	ASEZ-026	Tr 200	2468.25	126.97	134.97	132.74	135.49	0.001637	3.19	773.44	161.87	0.47
Reach 1	67	ASEZ-027	Tr 200	2468.25	126.83	134.78	131.52	135.17	0.000624	2.76	892.98	139.18	0.35
Reach 1	66	ASEZ-028	Tr 200	2468.25	126.33	134.78	131.25	135.14	0.000545	2.66	929.38	139.46	0.33
Reach 1	65	ASEZ-029	Tr 200	2468.25	126.47	134.39	132.54	134.99	0.002021	3.44	717.53	160.13	0.52
Reach 1	64	ASEZ-030	Tr 200	2468.25	125.97	134.09	131.99	134.60	0.001678	3.18	775.86	167.29	0.47
Reach 1	62	ASEZ-032	Tr 200	2468.25	126.08	133.97	131.05	134.36	0.000965	2.78	886.42	150.45	0.37
Reach 1	61	ASEZ-033	Tr 200	2468.25	126.45	133.61	131.42	134.22	0.001221	3.48	709.06	127.68	0.47
Reach 1	60	ASEZ-034	Tr 200	2468.25	125.45	133.54	131.09	134.16	0.001065	3.50	738.07	145.33	0.45
Reach 1	59	ASEZ-035	Tr 200	2468.25	125.32	133.51	131.09	134.13	0.001081	3.48	720.07	132.79	0.46
Reach 1	58	ASEZ-036	Tr 200	2468.25	125.36	133.30	131.34	133.99	0.001359	3.70	699.83	177.84	0.51
Reach 1	57	ASEZ-037	Tr 200	2468.25	125.23	132.82	130.47	133.34	0.007876	3.20	775.27	190.08	0.48
Reach 1	56	ASEZ-038	Tr 200	2468.25	125.01	131.87	130.79	132.70	0.001835	4.01	614.84	168.31	0.67
Reach 1	55	ASEZ-039	Tr 200	2468.25	125.18	131.62	129.98	132.35	0.001168	3.77	655.25	150.48	0.56
Reach 1	54	ASEZ-040	Tr 200	2468.25	124.95	131.08	129.83	131.91	0.008436	4.02	614.13	147.91	0.62
Reach 1	53	ASEZ-041	Tr 200	2468.25	120.19	130.83	126.38	131.12	0.001558	2.40	1028.81	142.84	0.29
Reach 1	52	ASEZ-042	Tr 200	2468.25	120.43	130.49	127.29	130.94	0.001760	2.97	830.69	136.87	0.38
Reach 1	51	ASEZ-043	Tr 200	2468.25	120.32	130.21	126.58	130.61	0.001462	2.82	877.65	148.38	0.35
Reach 1	50	ASEZ-044	Tr 200	2468.25	120.28	130.05	126.13	130.38	0.000830	2.54	979.26	171.10	0.31
Reach 1	49	ASEZ-045	Tr 200	2468.25	120.24	129.84	126.14	130.19	0.000934	2.63	943.86	161.74	0.33
Reach 1	48	ASEZ-046	Tr 200	2468.25	119.16	129.68	125.75	130.00	0.000821	2.51	990.90	182.37	0.31
Reach 1	47	ASEZ-047	Tr 200	2468.25	119.32	129.56	125.30	129.85	0.000705	2.40	1041.69	182.92	0.29
Reach 1	46	ASEZ-048	Tr 200	2468.25	119.17	129.36	125.68	129.70	0.000892	2.56	974.53	173.80	0.32
Reach 1	45	ASEZ-049	Tr 200	2468.25	119.42	129.23	124.85	129.52	0.000675	2.38	1055.21	178.35	0.28
Reach 1	44	ASEZ-050	Tr 200	2468.25	119.64	129.05	124.92	129.37	0.000790	2.53	994.53	178.74	0.30
Reach 1	43	ASEZ-051	Tr 200	2468.25	119.42	128.93	124.29	129.21	0.000878	2.37	1070.52	180.25	0.27
Reach 1	42	ASEZ-052	Tr 200	2468.25	118.20	128.66	124.62	129.01	0.001156	2.61	968.35	178.05	0.31
Reach 1	41	ASEZ-053	Tr 200	2468.25	118.58	128.53	123.61	128.79	0.000780	2.30	1094.96	171.13	0.26
Reach 1	40	ASEZ-054	Tr 200	2468.25	118.27	128.29	124.07	128.62	0.000802	2.58	984.60	175.92	0.31
Reach 1	39	ASEZ-055	Tr 200	2468.25	118.07	128.14	123.74	128.47	0.000794	2.53	1001.51	175.09	0.30
Reach 1	38	ASEZ-056	Tr 200	2468.25	118.02	127.94	123.78	128.29	0.000932	2.63	959.86	174.18	0.33
Reach 1	37	ASEZ-057	Tr 200	2468.25	118.05	127.72	123.76	128.05	0.001320	2.55	996.12	183.99	0.31
Reach 1	36	ASEZ-058	Tr 200	2468.25	117.94	127.50	123.44	127.83	0.001265	2.57	998.88	181.18	0.31
Reach 1	35	ASEZ-059	Tr 200	2468.25	117.48	127.41	122.88	127.70	0.001040	2.41	1062.63	186.27	0.28
Reach 1	34	ASEZ-060	Tr 200	2468.25	117.28	127.32	122.76	127.59	0.000997	2.32	1088.58	176.99	0.27
Reach 1	33	ASEZ-061	Tr 200	2468.25	117.12	127.16	122.40	127.40	0.000810	2.16	1183.41	205.87	0.25
Reach 1	32	ASEZ-062	Tr 200	2468.25	116.99	126.98	122.33	127.26	0.000626	2.39	1075.67	177.63	0.27
Reach 1	31	ASEZ-063	Tr 200	2468.25	116.91	126.87	122.24	127.14	0.000597	2.31	1110.33	185.43	0.27
Reach 1	30	ASEZ-064	Tr 200	2468.25	117.08	126.81	121.96	127.08	0.000588	2.32	1108.19	183.22	0.27
Reach 1	29	ASEZ-065	Tr 200	2468.25	116.21	126.71	122.41	127.03	0.000559	2.49	1027.22	175.23	0.29
Reach 1	28	ASEZ-066	Tr 200	2468.25	116.11	126.64	122.57	126.97	0.000603	2.55	1008.66	175.12	0.30
Reach 1	27	ASEZ-067	Tr 200	2468.25	116.59	126.55	122.10	126.84	0.000526	2.43	1054.33	177.10	0.29
Reach 1	26	ASEZ-068	Tr 200	2468.25	115.71	126.44	122.25	126.74	0.000544	2.43	1048.93	178.14	0.29
Reach 1	25	ASEZ-069	Tr 200	2468.25	115.91	126.33	121.90	126.64	0.000537	2.48	1032.40	171.37	0.29
Reach 1	24	ASEZ-070	Tr 200	2468.25	116.18	126.24	121.45	126.53	0.000479	2.40	1079.47	173.12	0.27
Reach 1	23	ASEZ-071	Tr 200	2468.25	116.05	126.09	121.67	126.42	0.000553	2.56	1017.81	170.16	0.30
Reach 1	22	ASEZ-072	Tr 200	2468.25	115.67	125.96	121.71	126.30	0.000621	2.62	987.65	168.80	0.31
Reach 1	21	ASEZ-073	Tr 200	2468.25	114.70	125.94	121.02	126.24	0.000464	2.44	1067.17	170.23	0.27
Reach 1	20	ASEZ-074	Tr 200	2468.25	115.87	125.84	120.77	126.14	0.000480	2.46	1057.93	168.19	0.28
Reach 1	19	ASEZ-075	Tr 200	2468.25	114.75	125.48	120.97	125.96	0.010101	3.06	806.84	93.80	0.33
Reach 1	18	ASEZ-076	Tr 200	2468.25	114.60	125.29	120.27	125.57	0.002388	2.38	1100.92	198.24	0.27
Reach 1	17	ASEZ-077	Tr 200	2468.25	114.88	125.12	120.62	125.46	0.000730	2.58	1004.90	176.06	0.30
Reach 1	16	ASEZ-078	Tr 200	2468.25	113.99	124.94	120.77	125.30	0.000839	2.67	974.28	174.58	0.31
Reach 1	15	ASEZ-079	Tr 200	2468.25	113.23	124.81	120.32	125.14	0.000731	2.59	1014.54	178.52	0.29
Reach 1	14	ASEZ-080	Tr 200	2468.25	113.56	124.71	119.20	125.01	0.000531	2.43	1064.51	154.12	0.26
Reach 1	13	ASEZ-081	Tr 200	2468.25	113.11	124.56	119.68	124.88	0.000660	2.52	1022.43	159.45	0.28
Reach 1	12	ASEZ-082	Tr 200	2468.25	112.67	124.51	119.33	124.82</					

HEC-RAS Plan: Post River: arno Reach: Reach 1 Profile: Tr 200 (Continued)

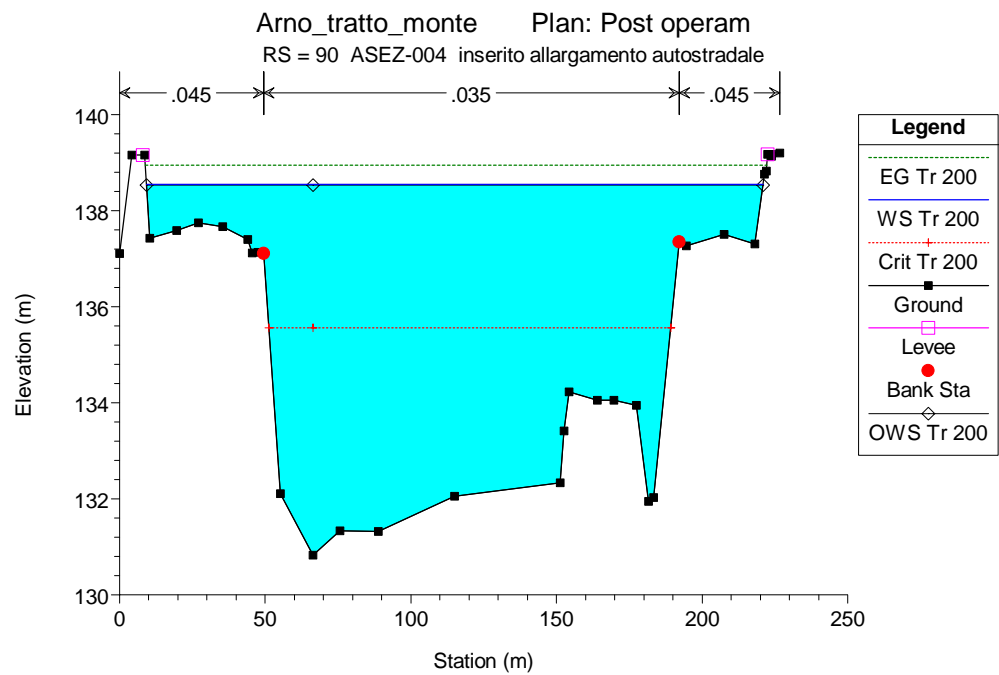
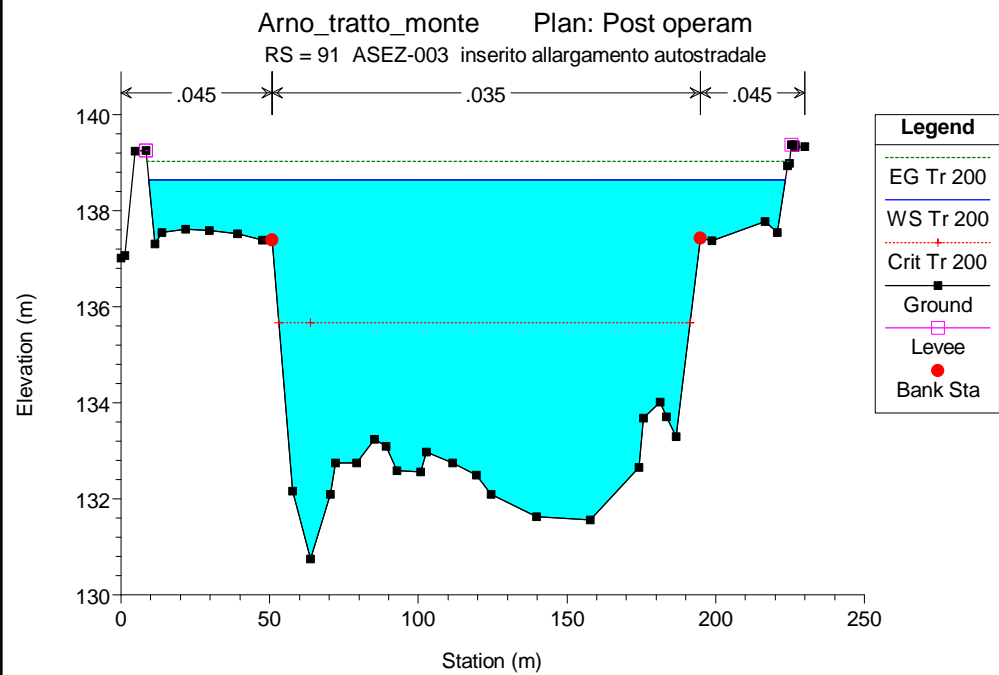
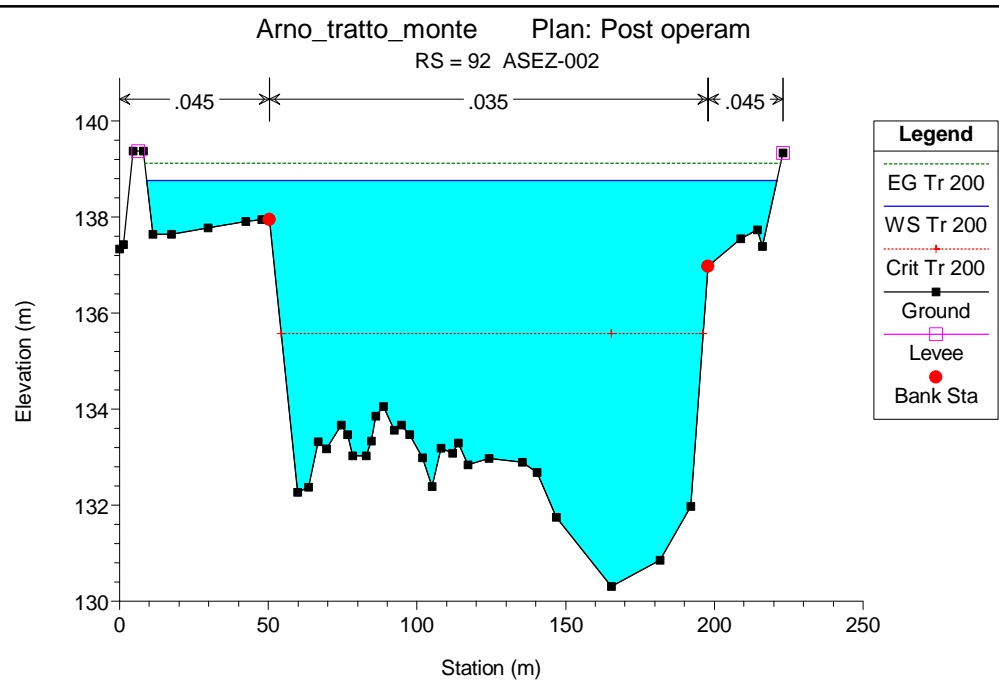
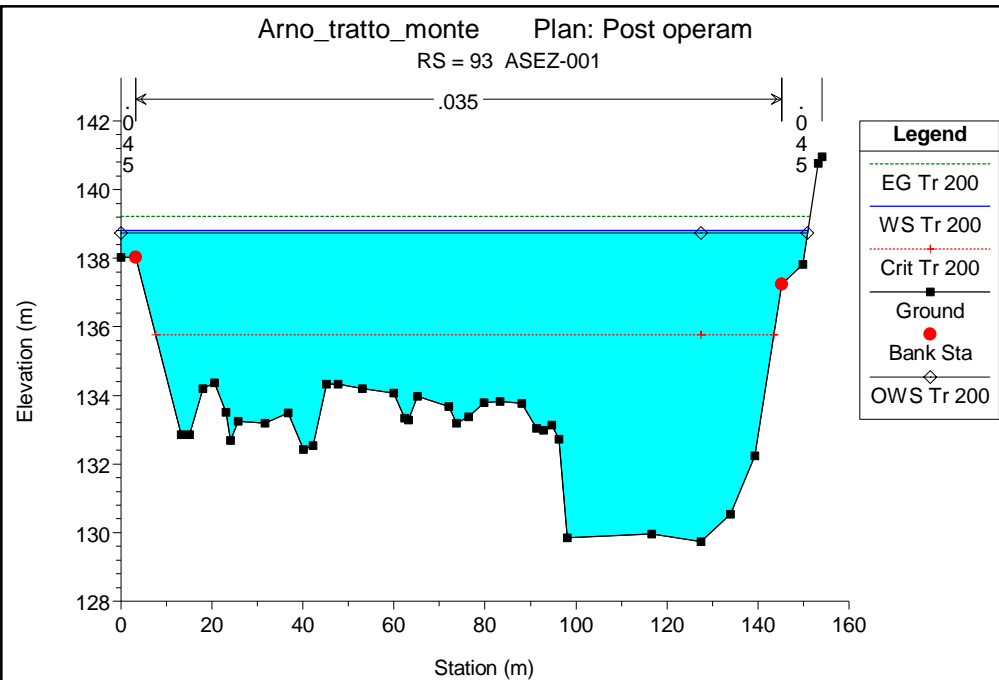
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Reach 1	2 ASEZ-092	Tr 200	2468.25	110.05	123.67	117.87	123.96	0.000528	2.43	1090.86	166.08	0.26
Reach 1	1 ASEZ-093	Tr 200	2468.25	110.55	123.64	116.78	123.90	0.000452	2.31	1155.48	167.60	0.24

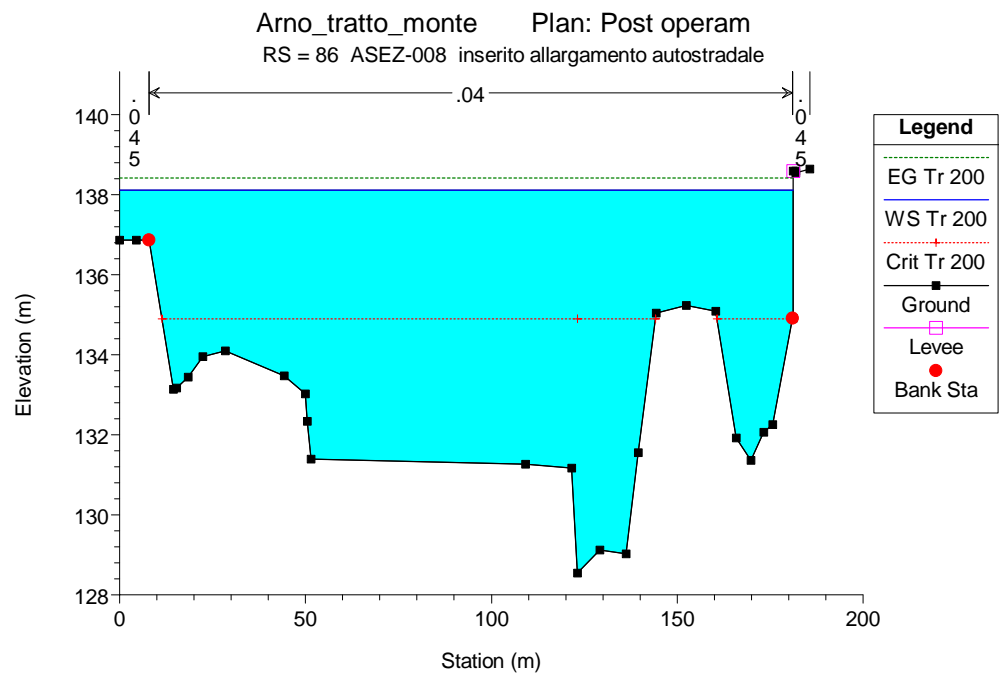
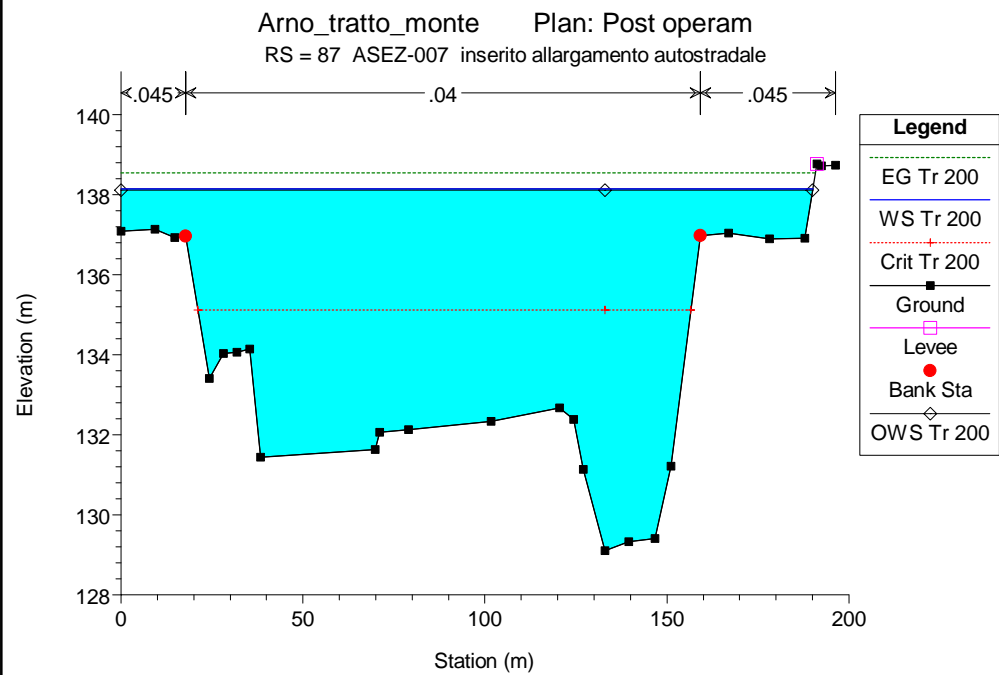
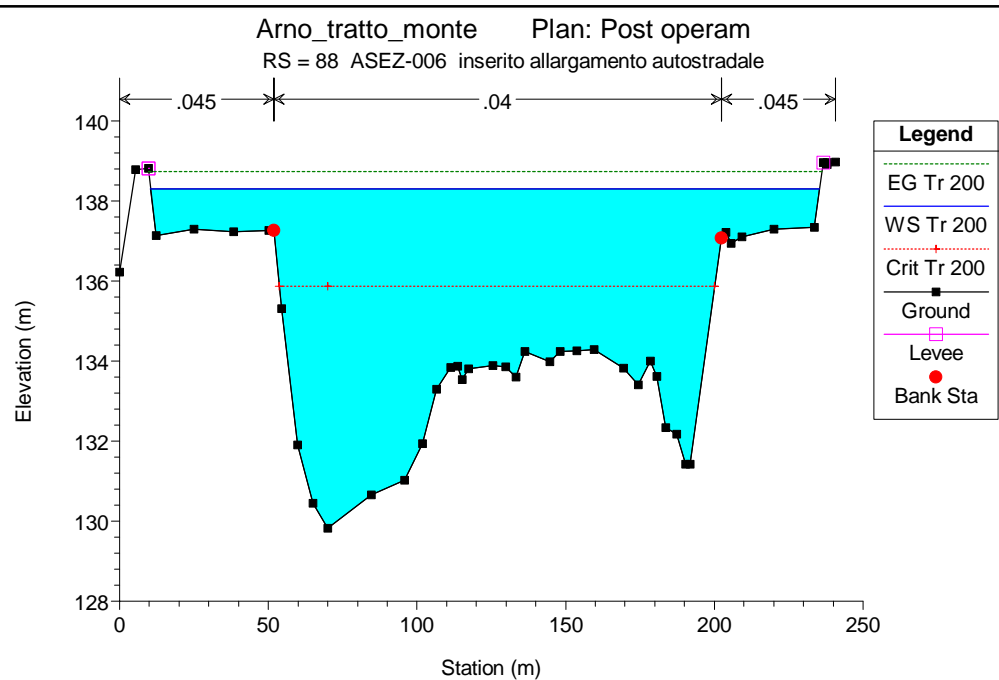
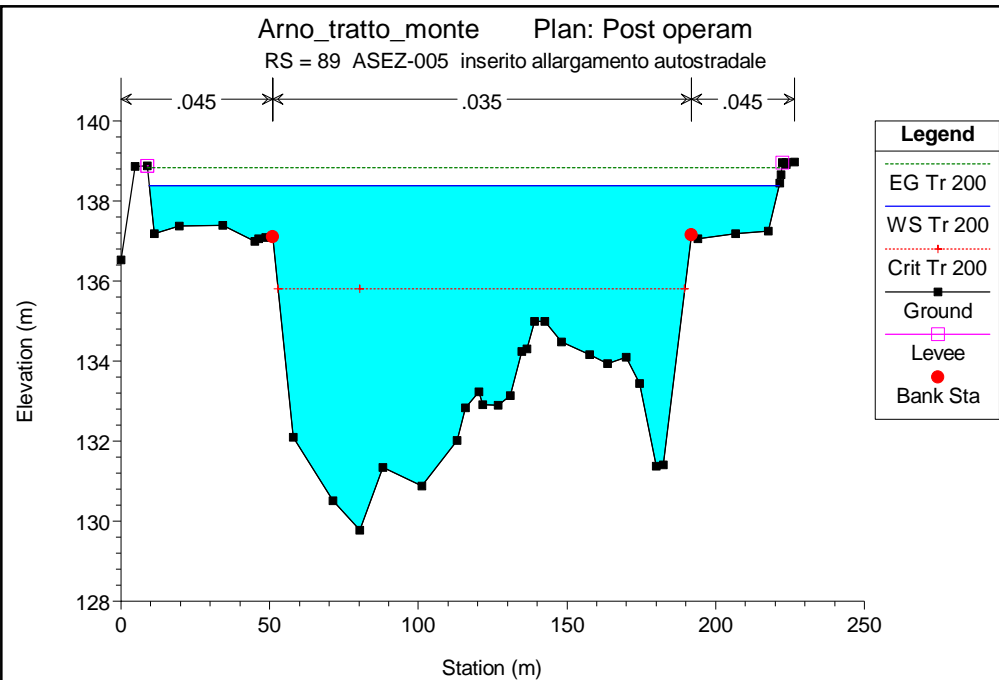
Arno_tratto_monte Plan: Post operam

arno Reach 1

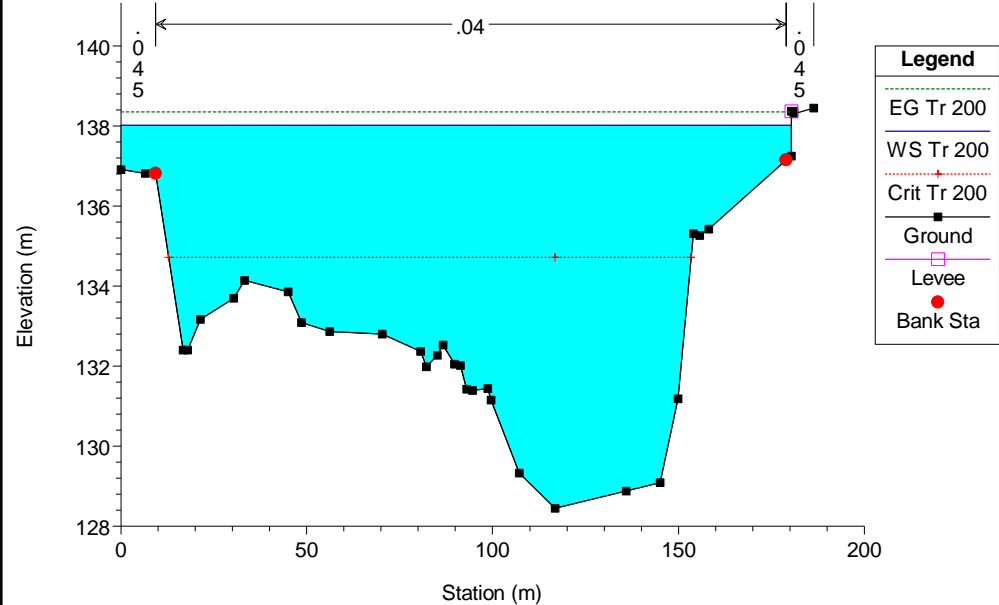


Legend	
EG Tr 200	---
WS Tr 200	—
Crit Tr 200	...
Ground	—■—
Left Levee	—□—
Right Levee	—■—
OWS Tr 200	---

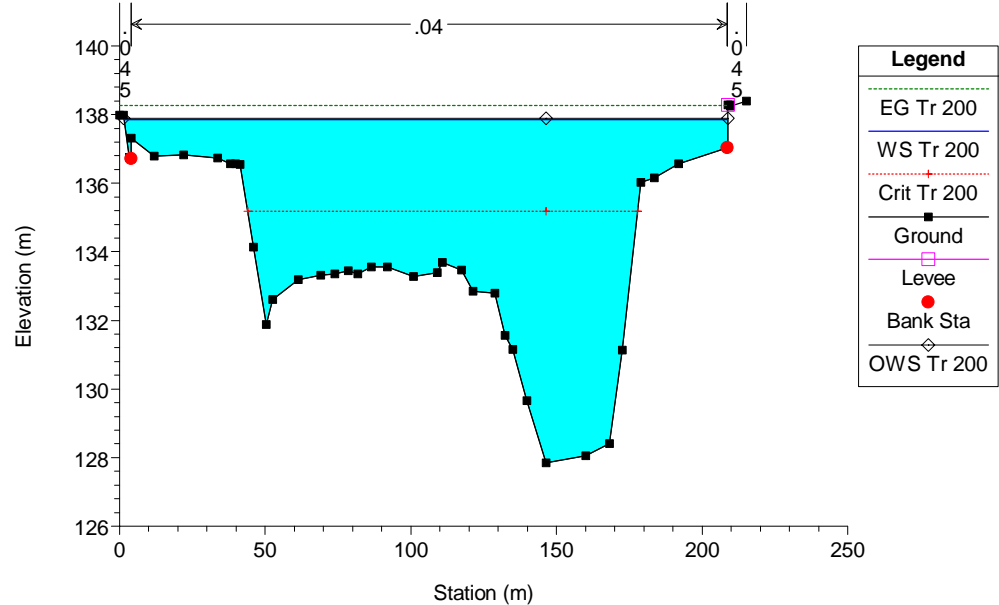




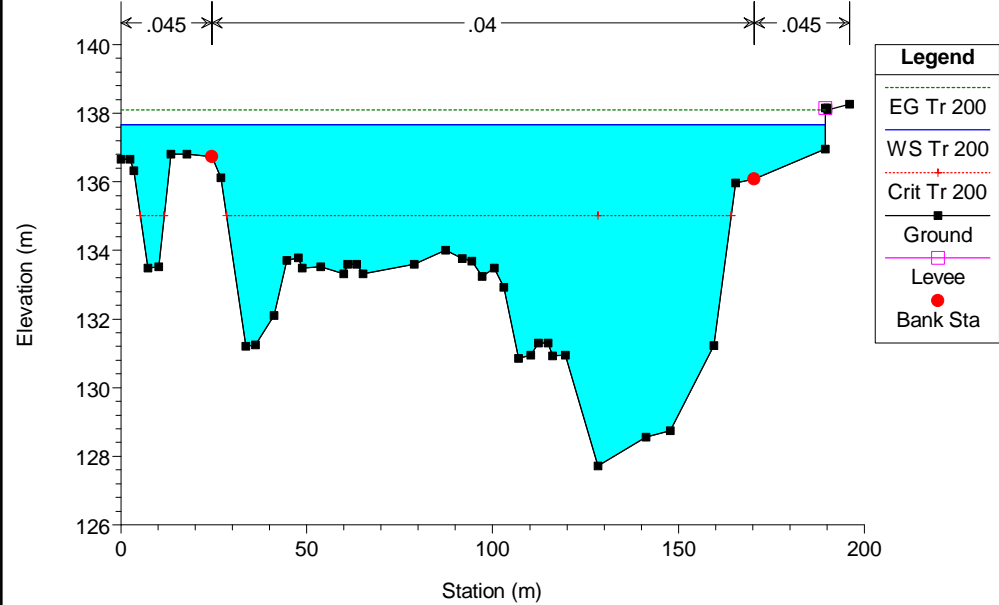
Arno_tratto_monte Plan: Post operam
RS = 85 ASEZ-009 inserito allargamento autostradale



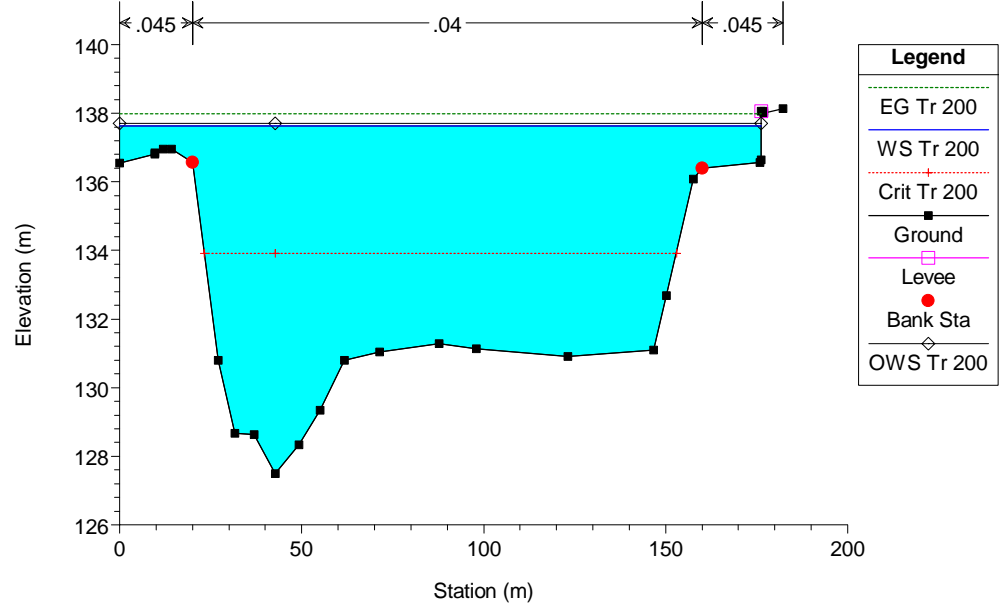
Arno_tratto_monte Plan: Post operam
RS = 84 ASEZ-010 inserito allargamento autostradale

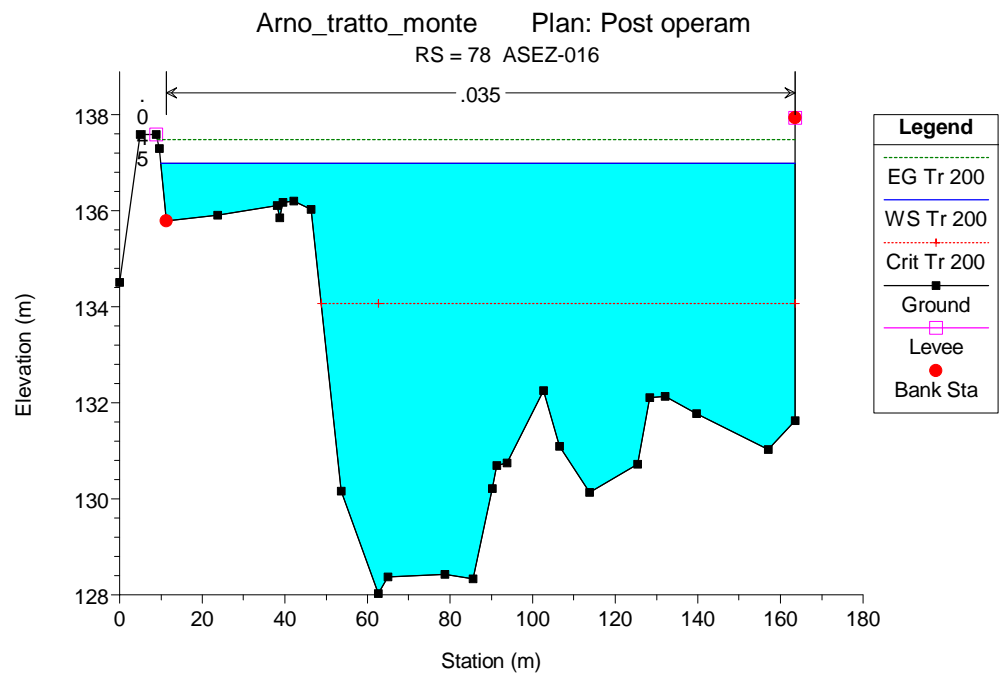
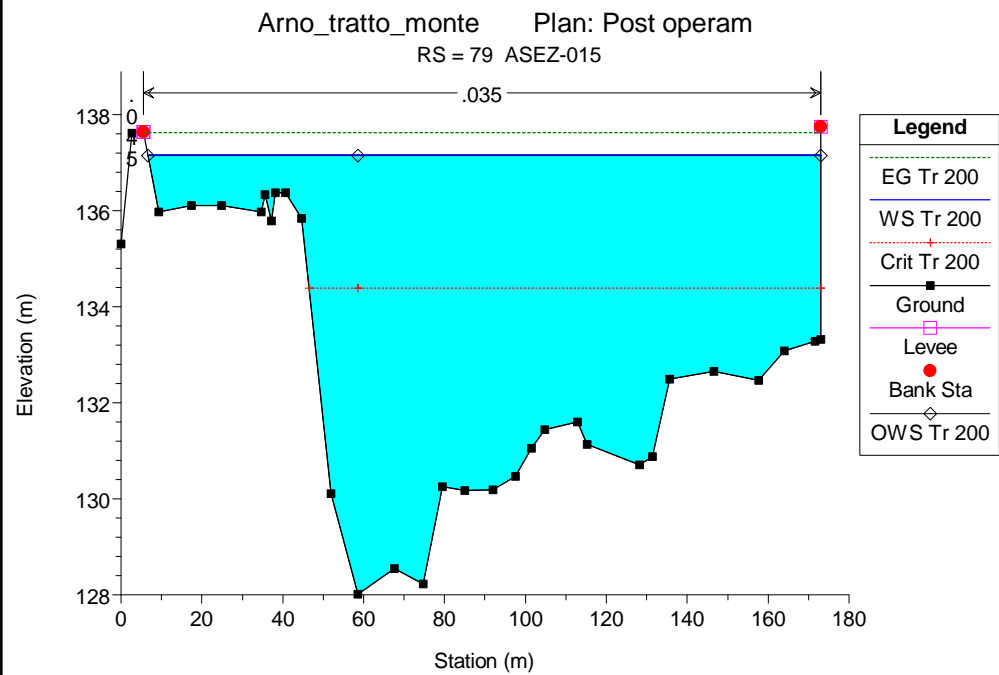
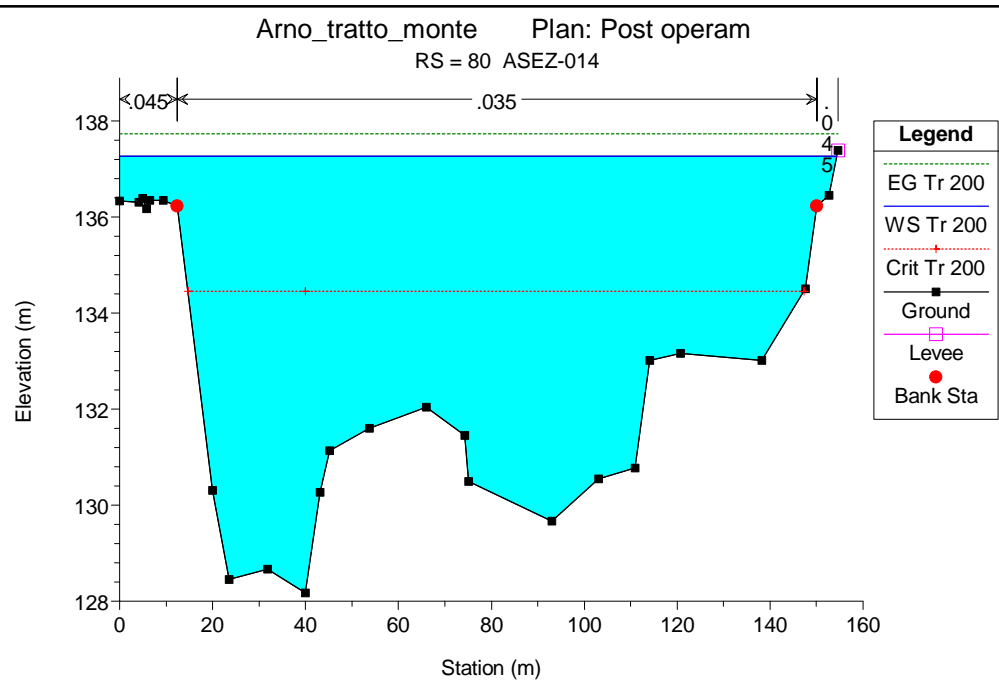
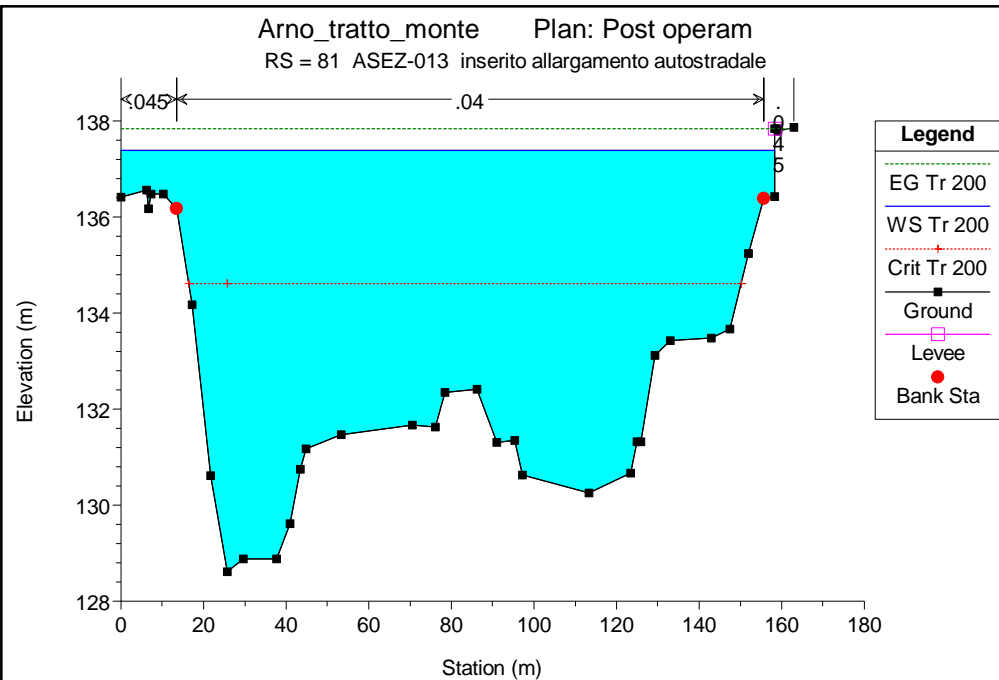


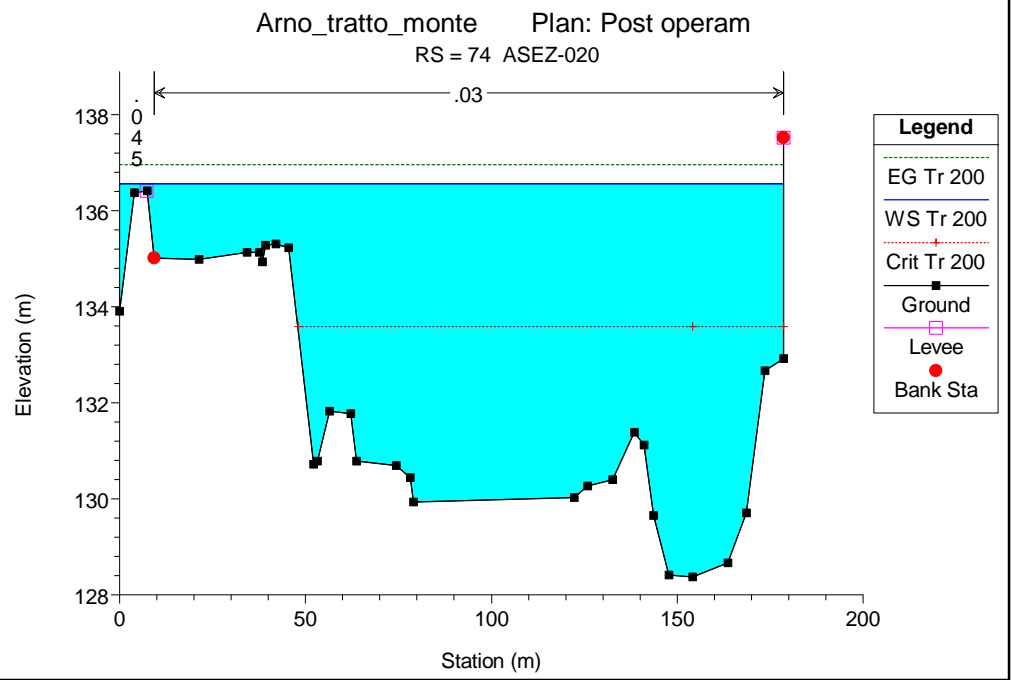
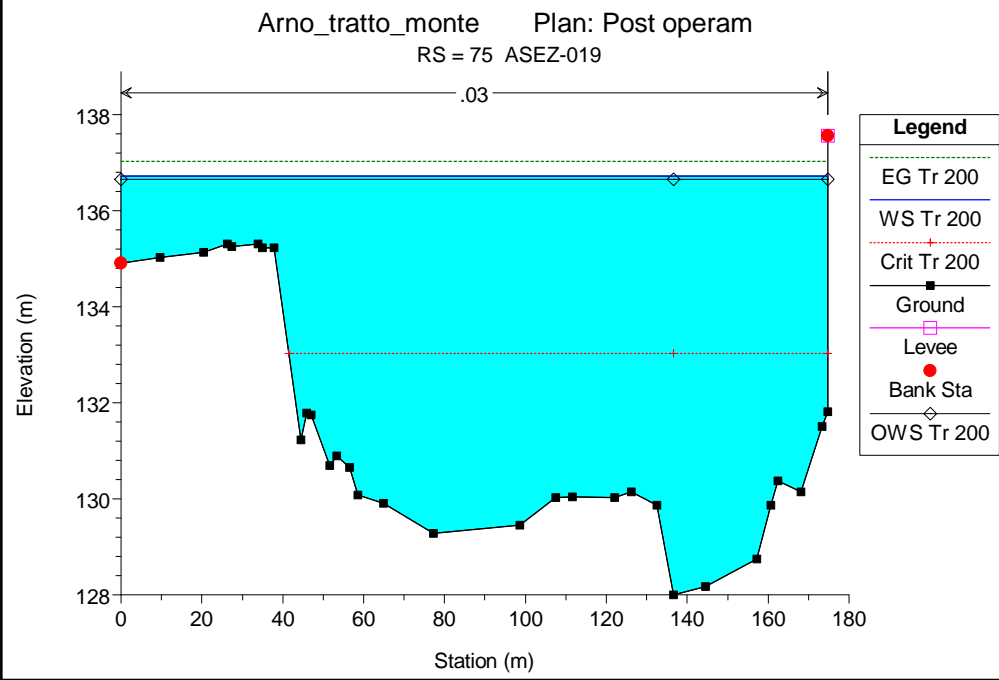
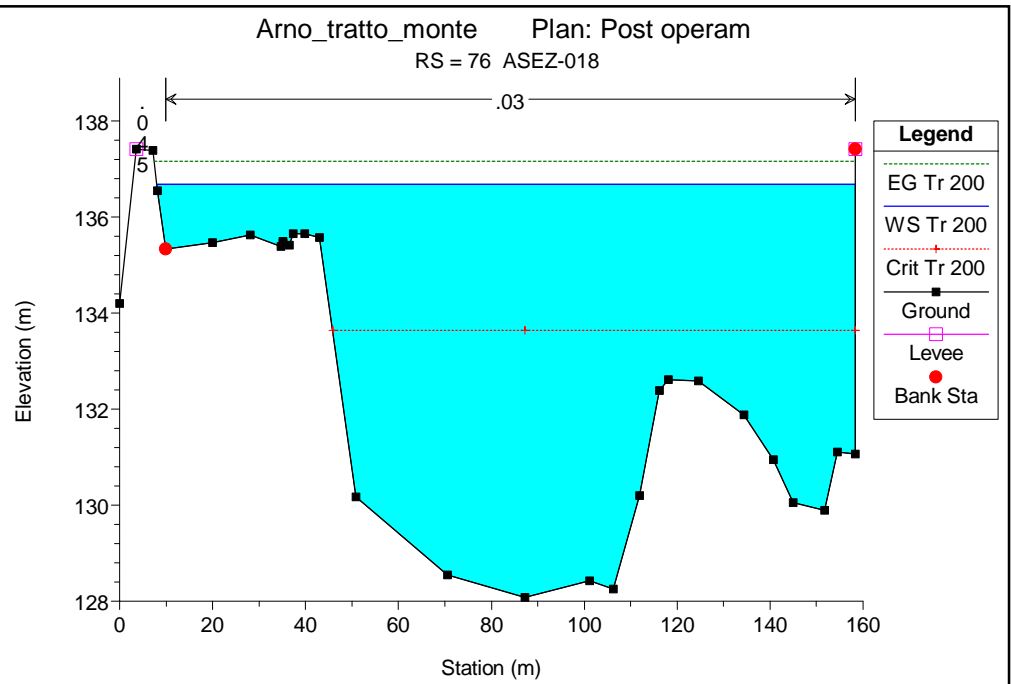
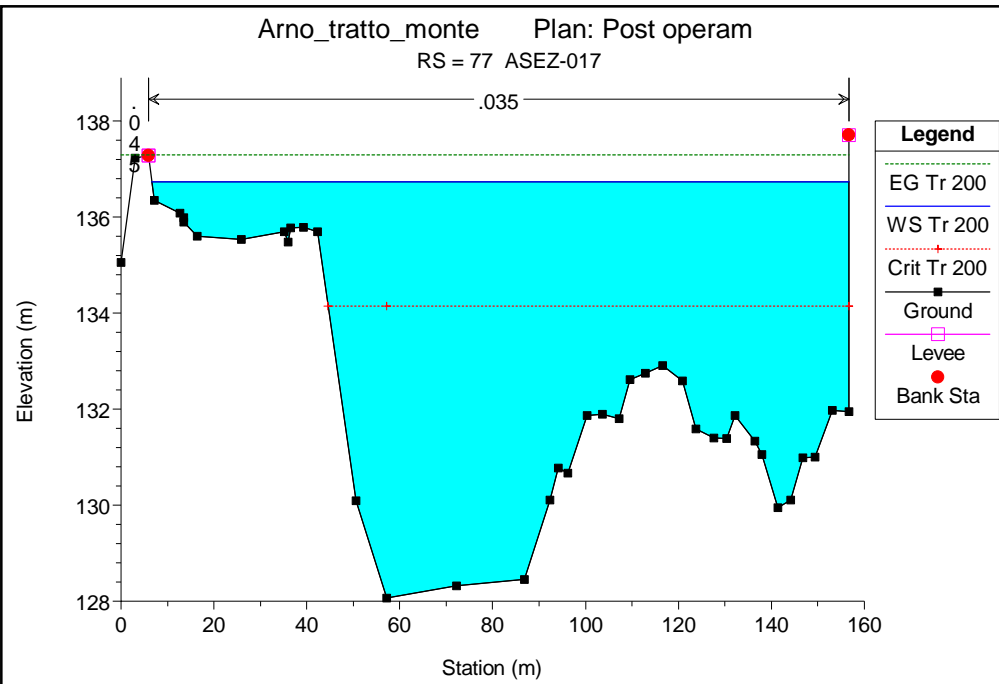
Arno_tratto_monte Plan: Post operam
RS = 83 ASEZ-011 inserito allargamento autostradale

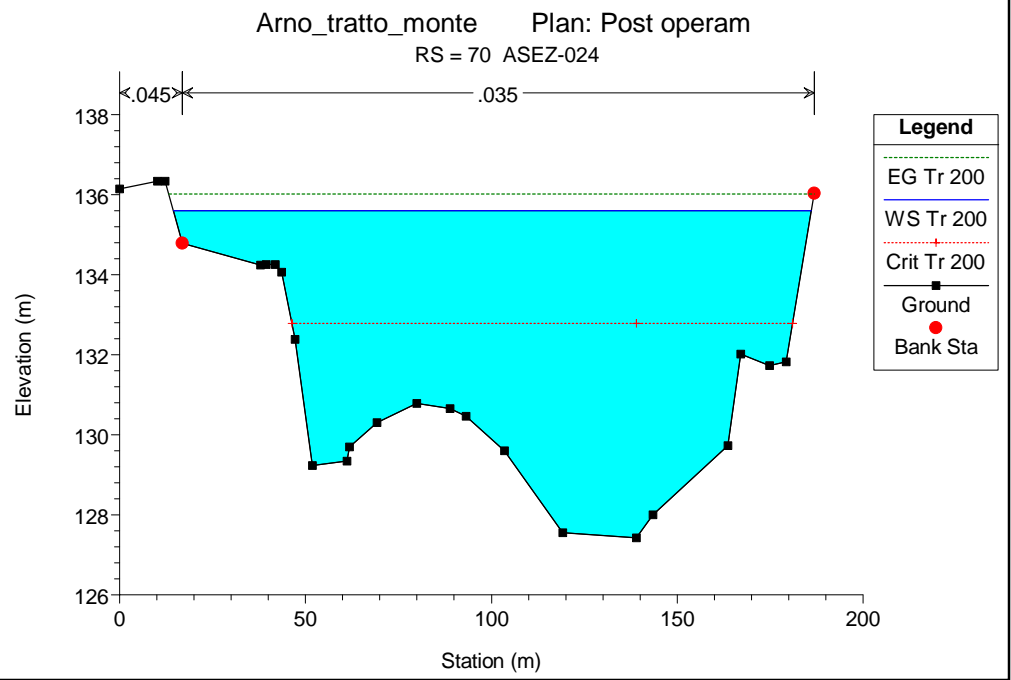
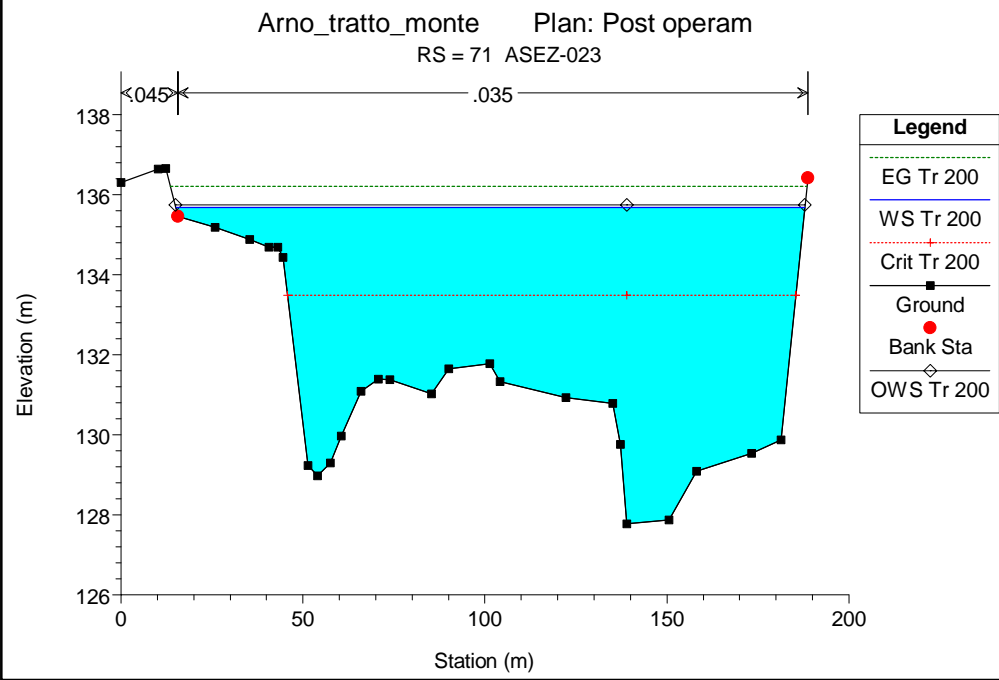
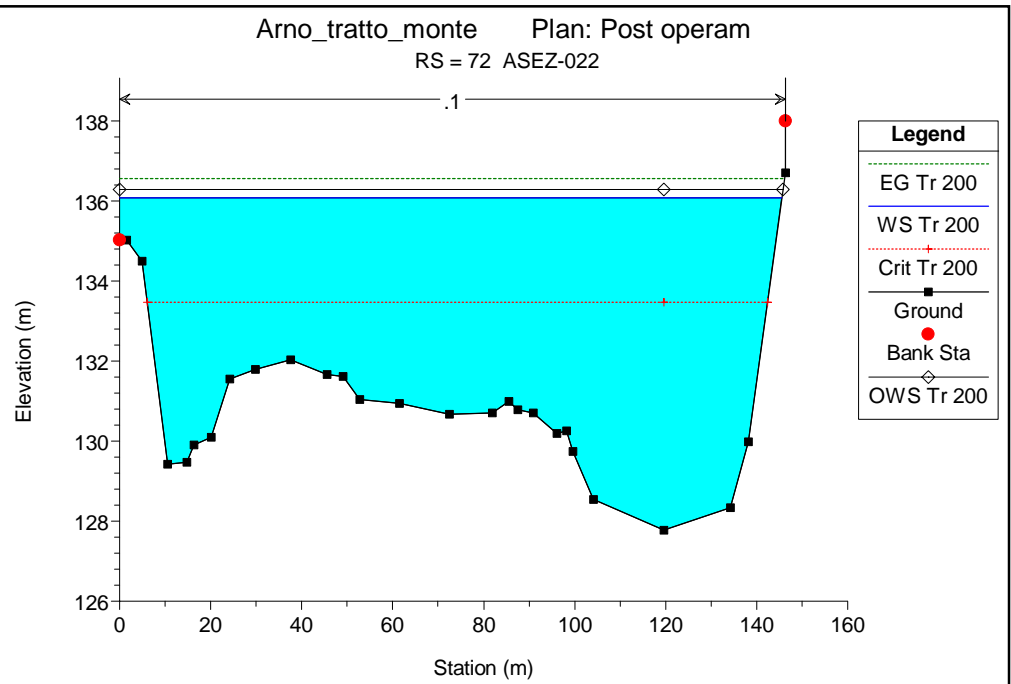
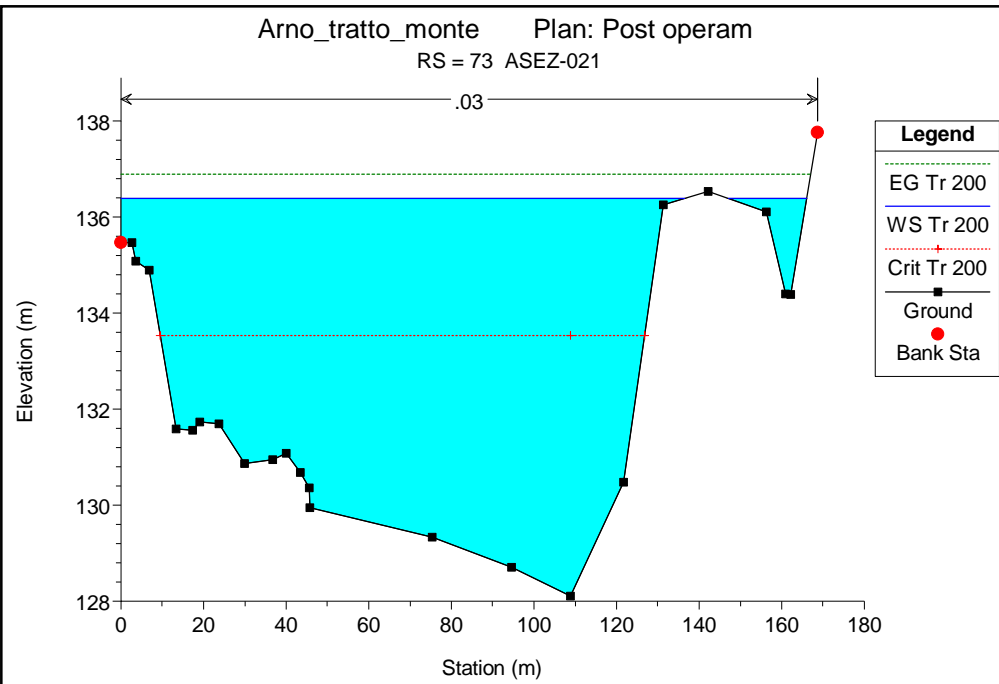


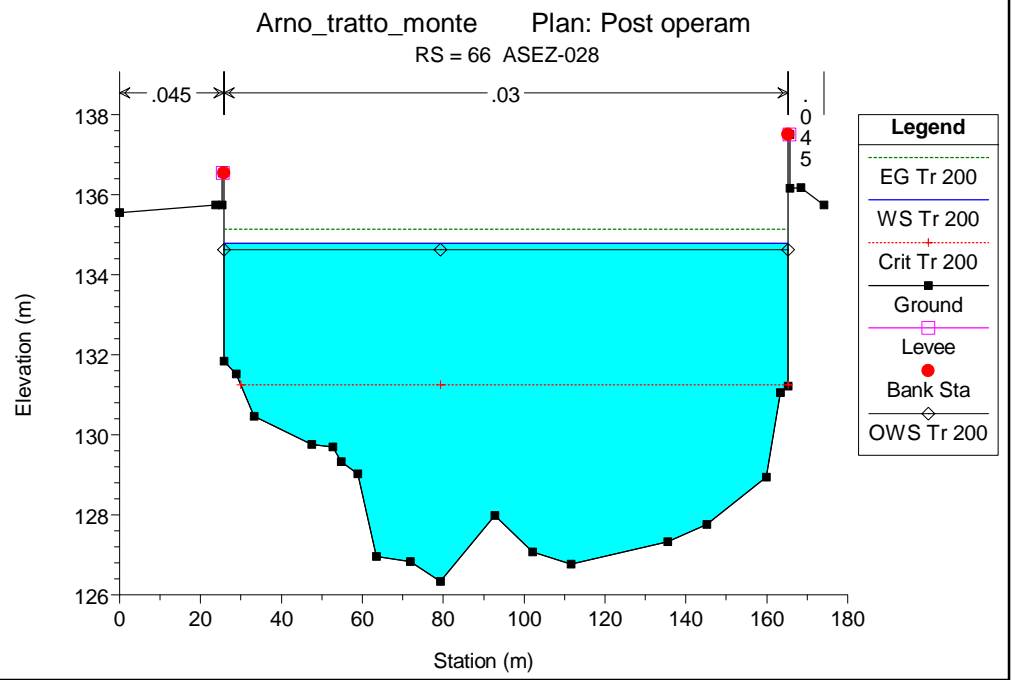
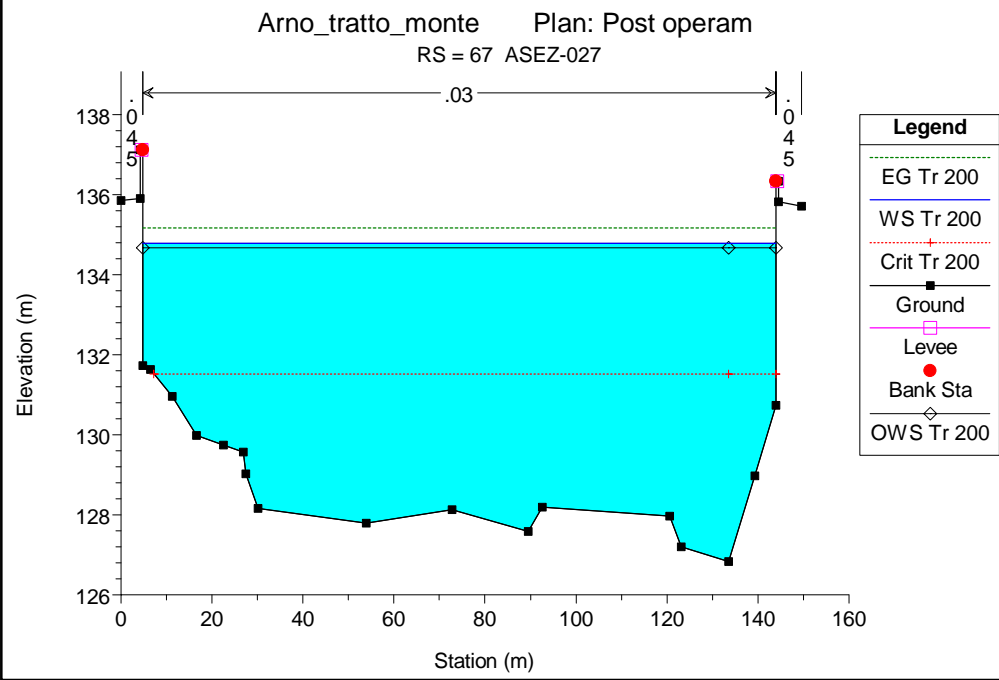
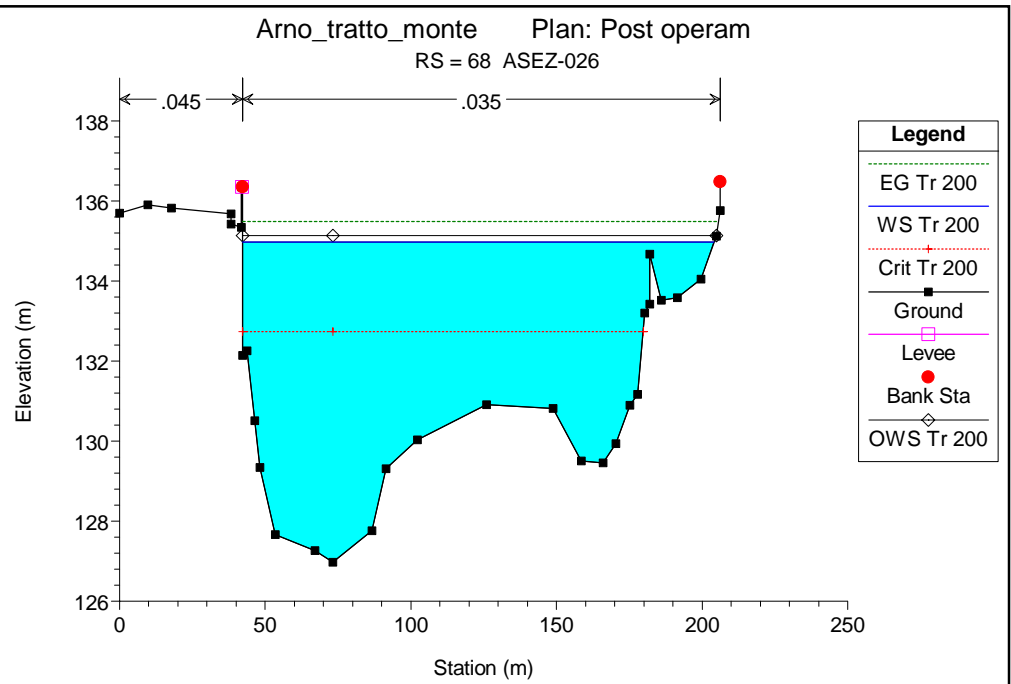
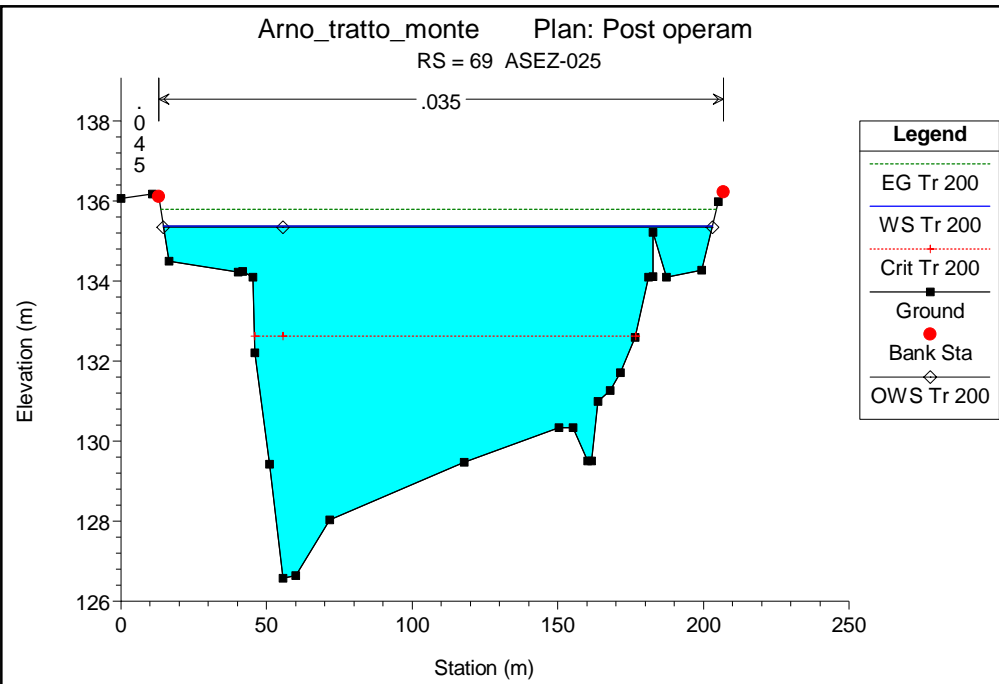
Arno_tratto_monte Plan: Post operam
RS = 82 ASEZ-012 inserito allargamento autostradale

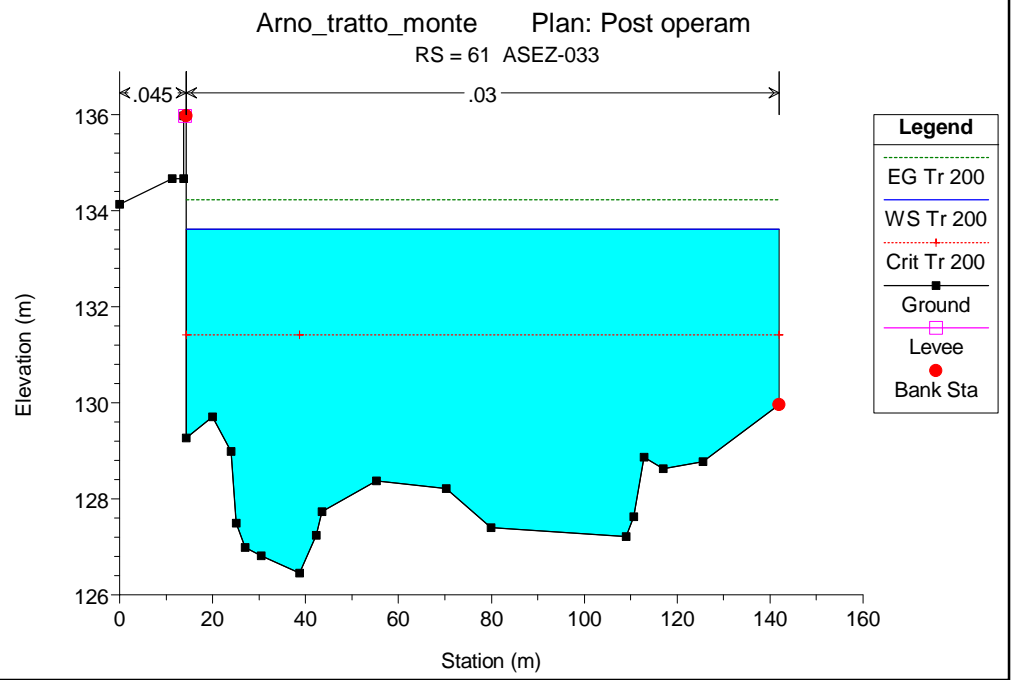
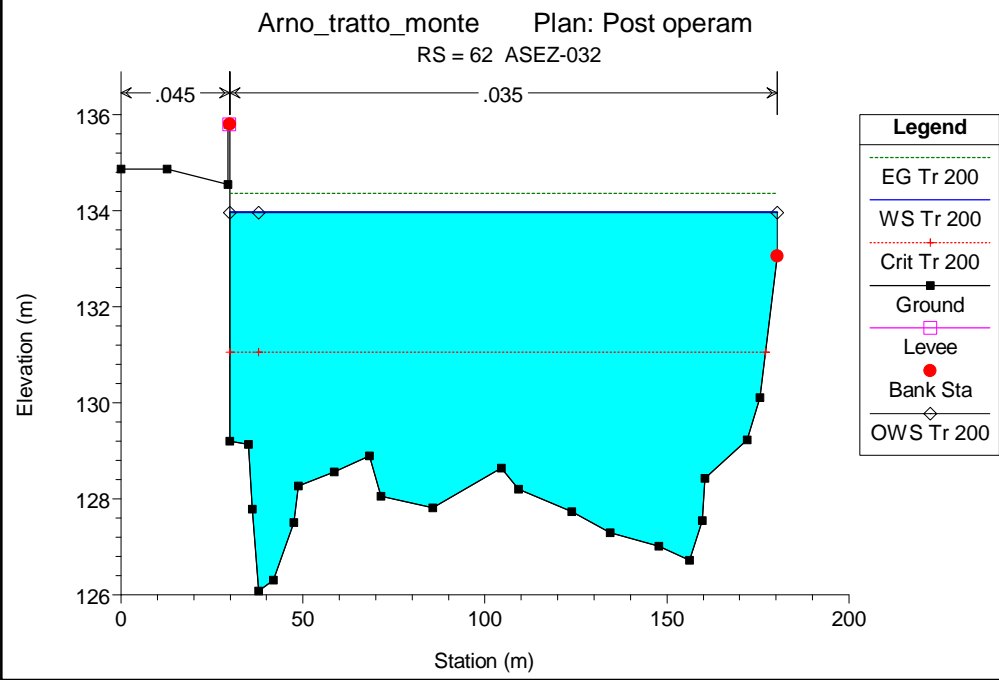
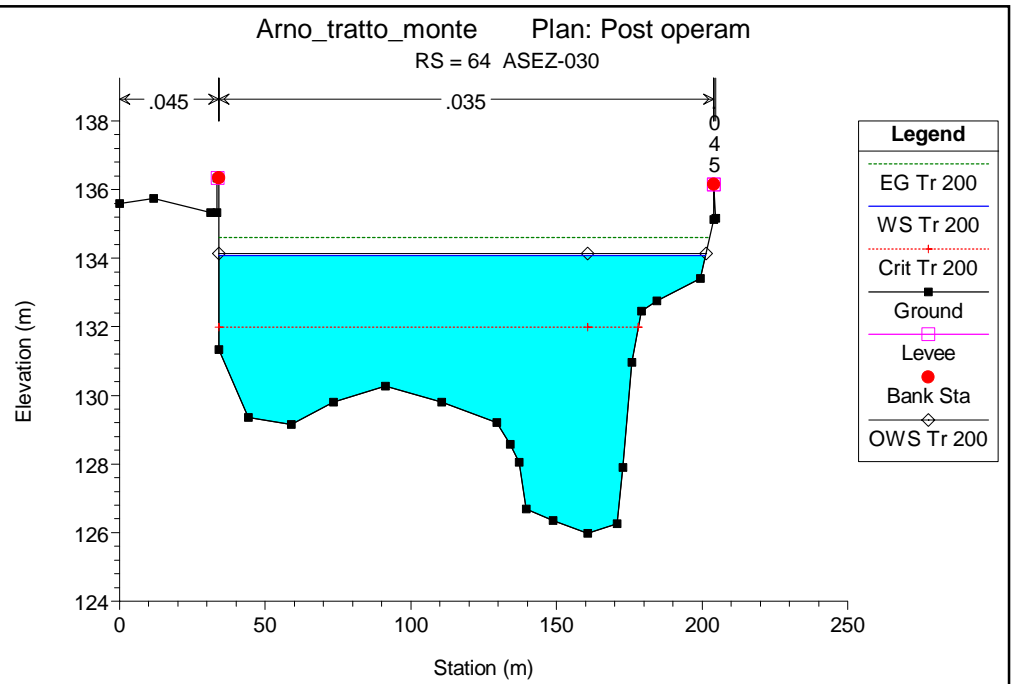
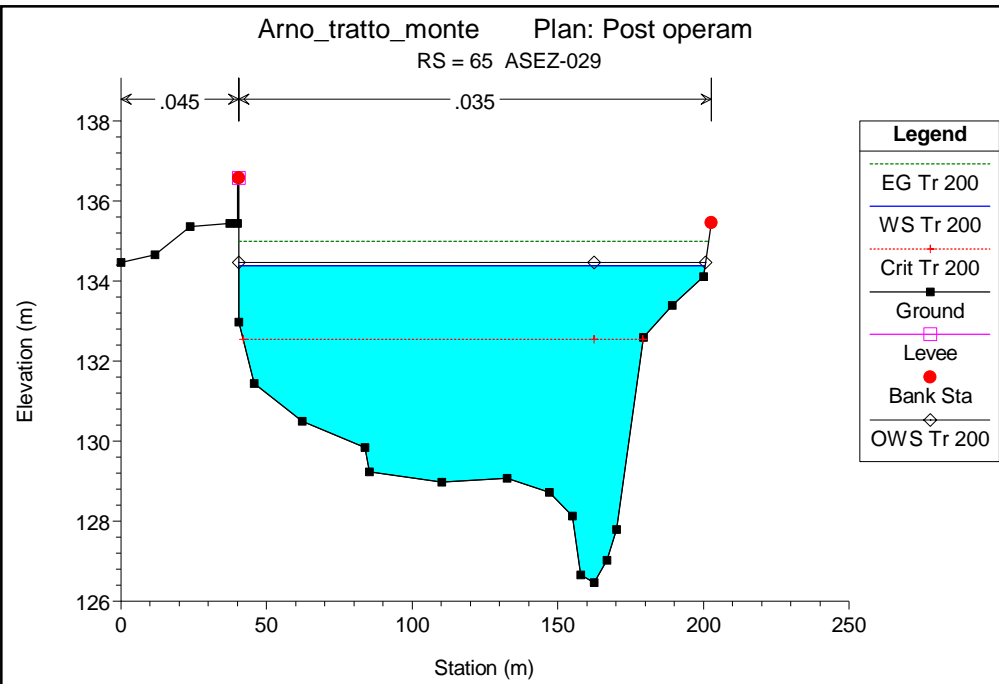


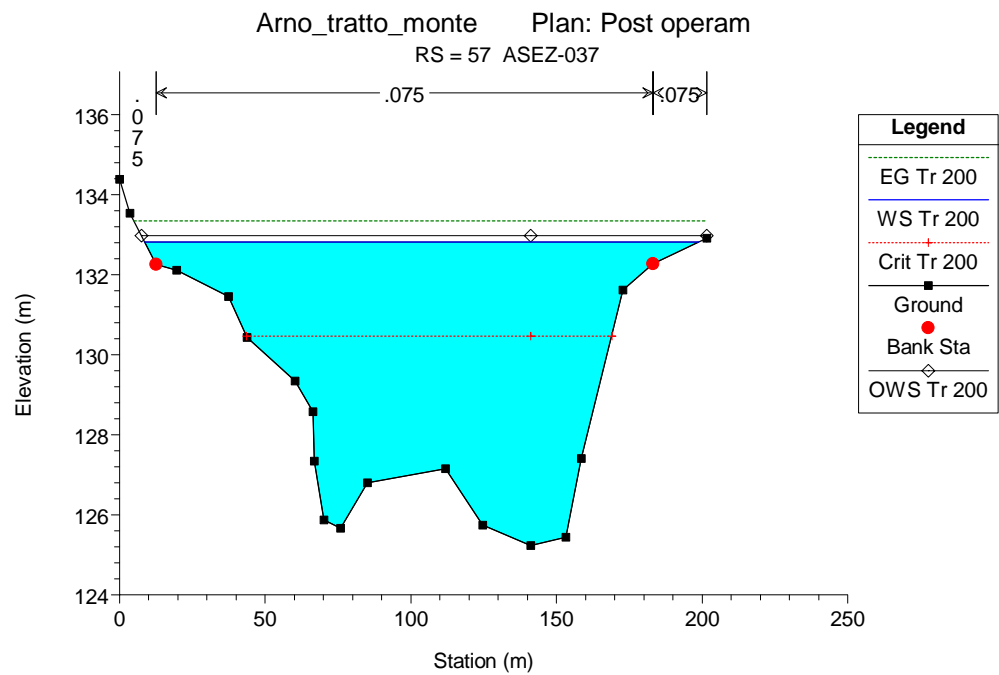
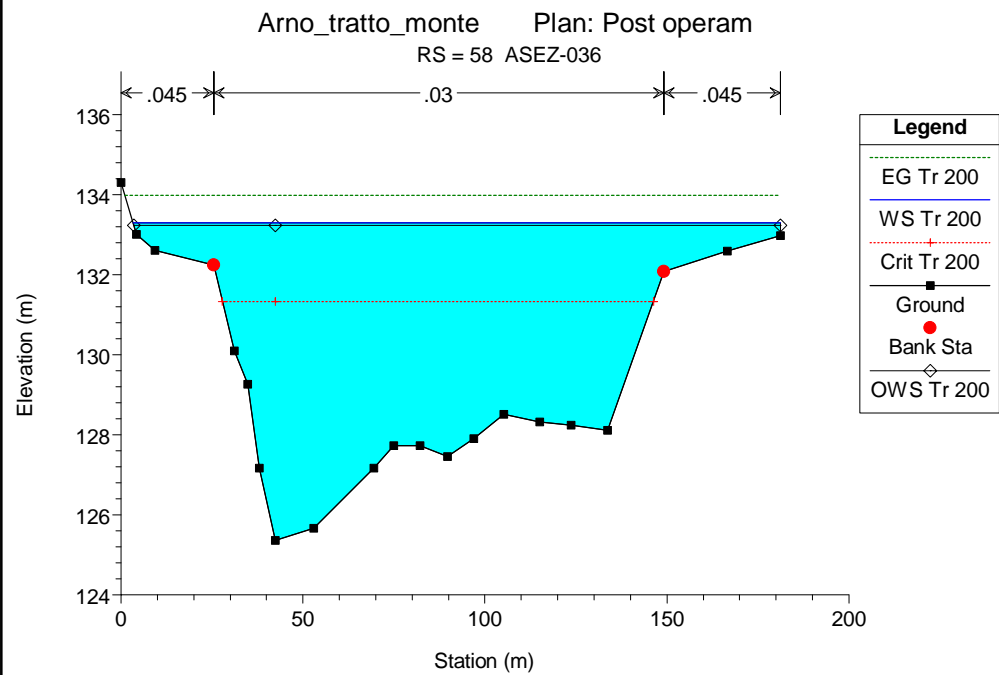
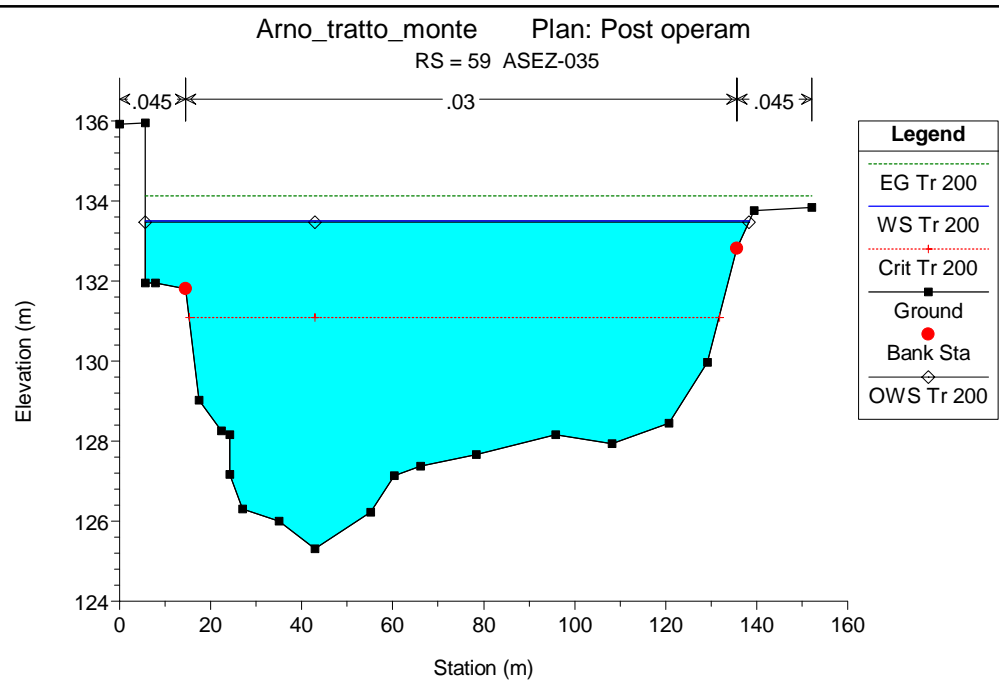
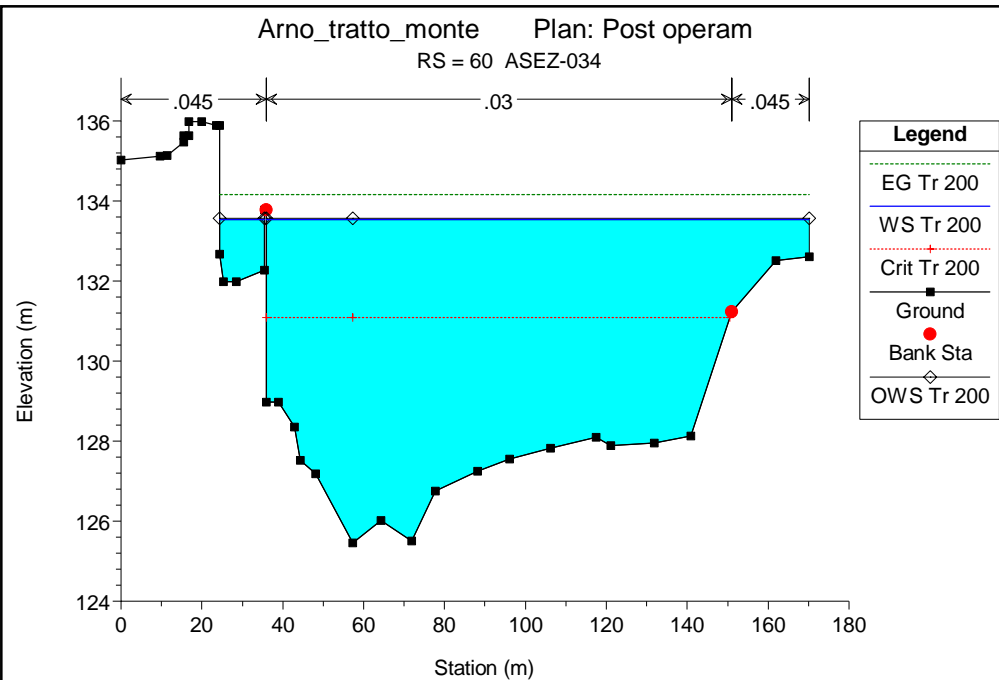




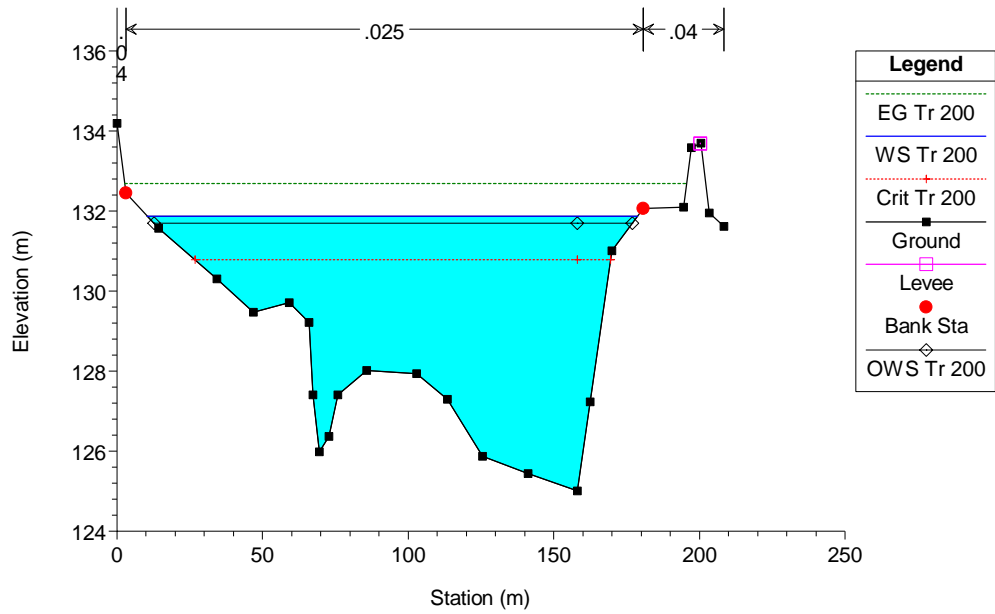




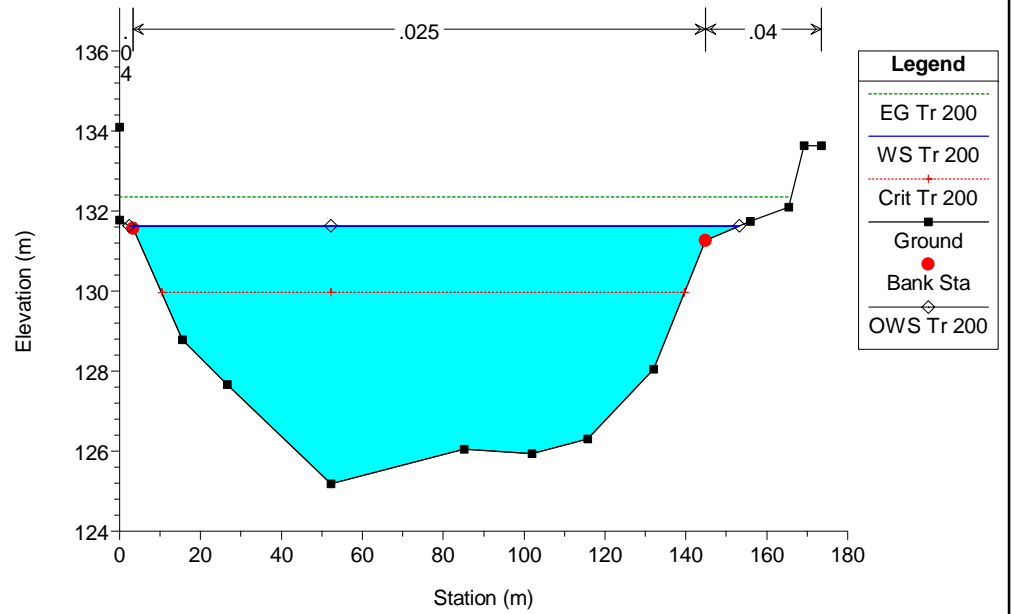




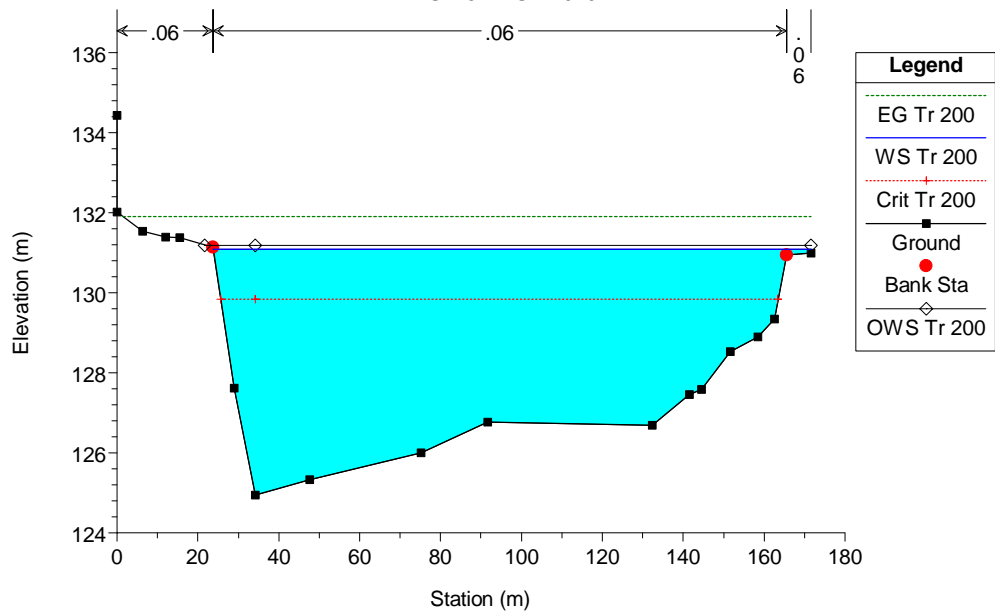
Arno_tratto_monte Plan: Post operam
RS = 56 ASEZ-038



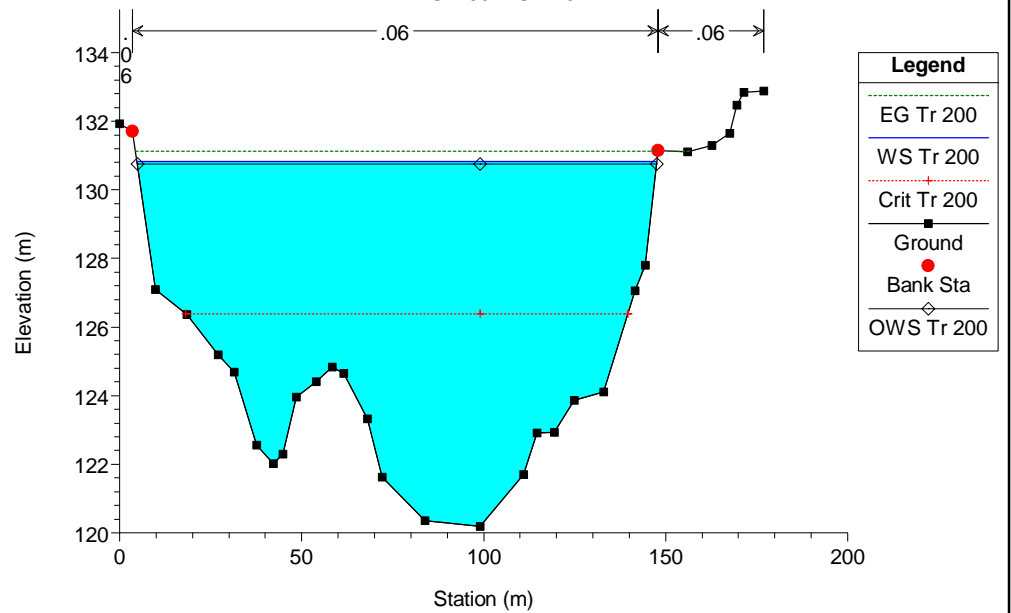
Arno_tratto_monte Plan: Post operam
RS = 55 ASEZ-039



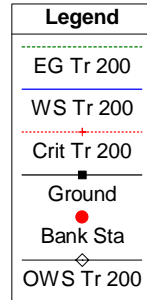
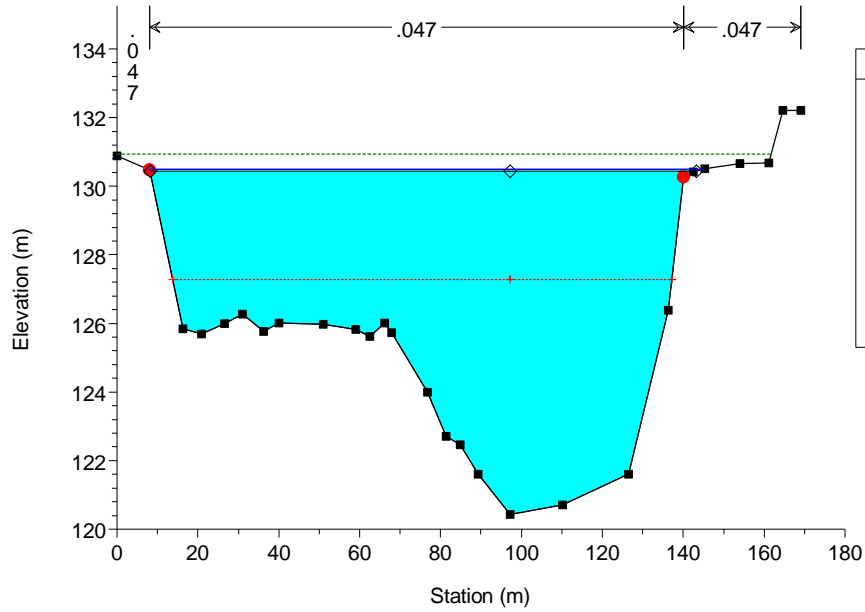
Arno_tratto_monte Plan: Post operam
RS = 54 ASEZ-040



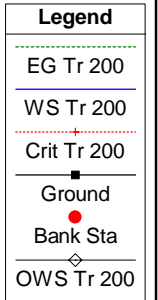
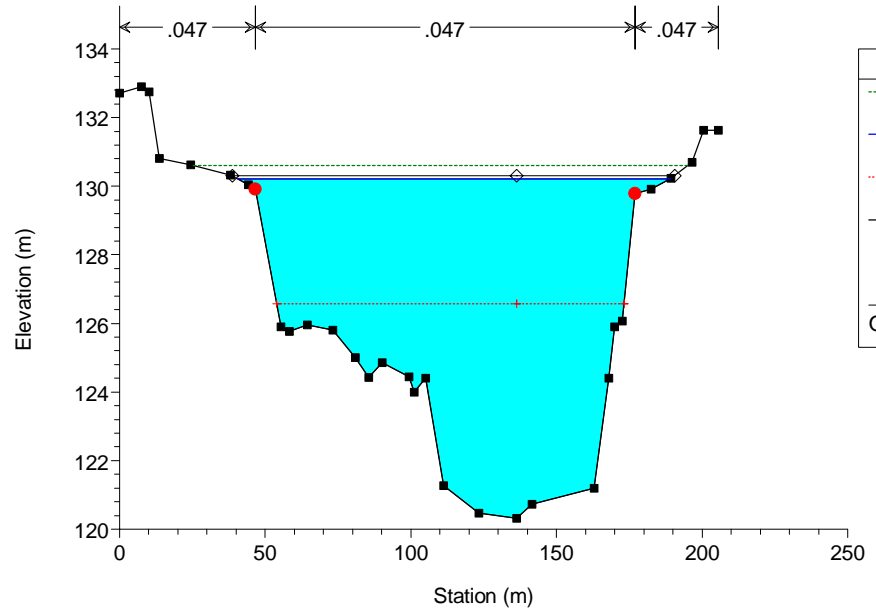
Arno_tratto_monte Plan: Post operam
RS = 53 ASEZ-041



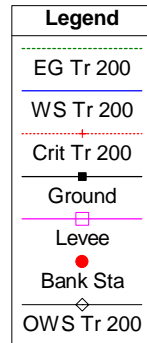
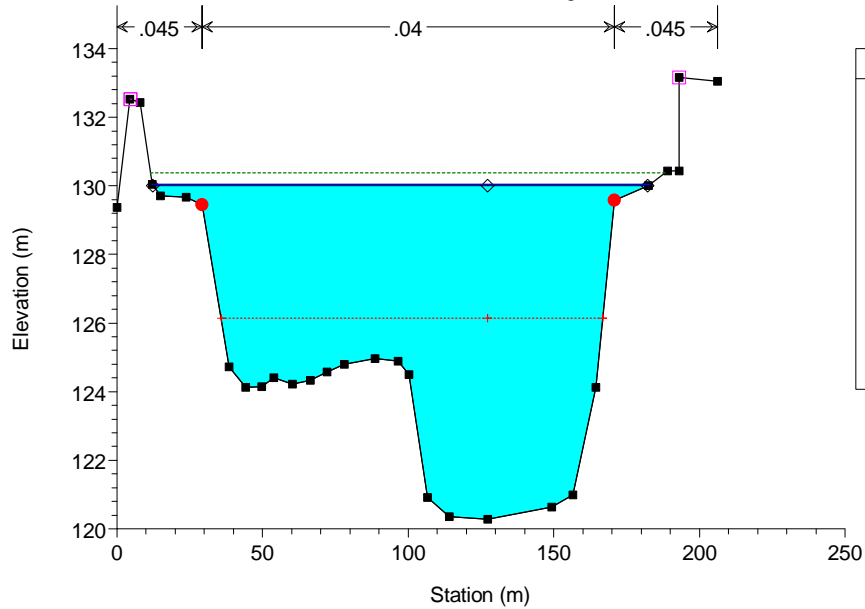
Arno_tratto_monte Plan: Post operam
RS = 52 ASEZ-042



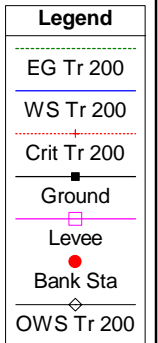
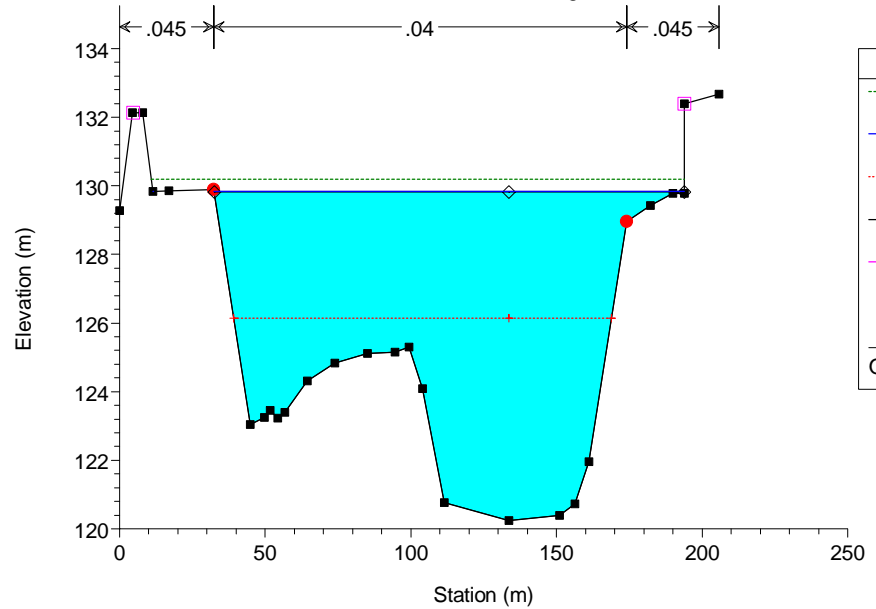
Arno_tratto_monte Plan: Post operam
RS = 51 ASEZ-043

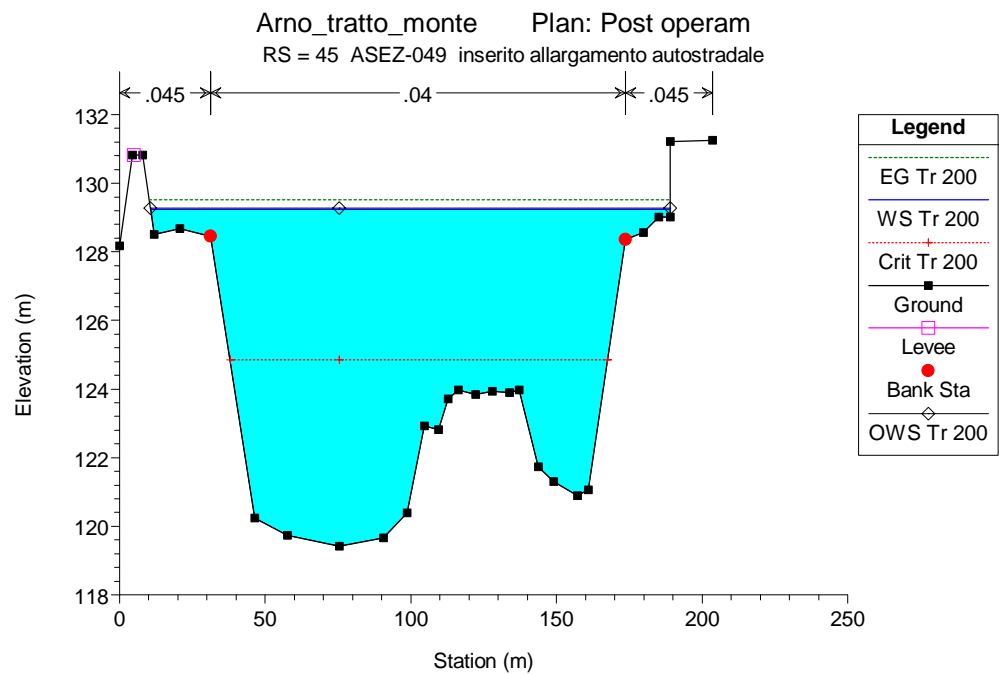
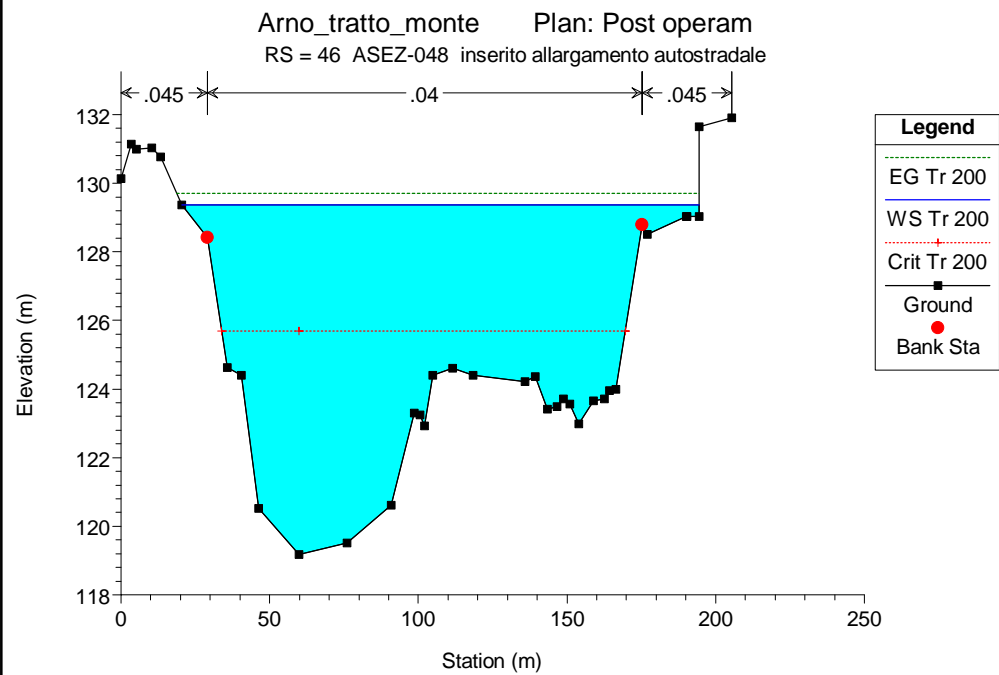
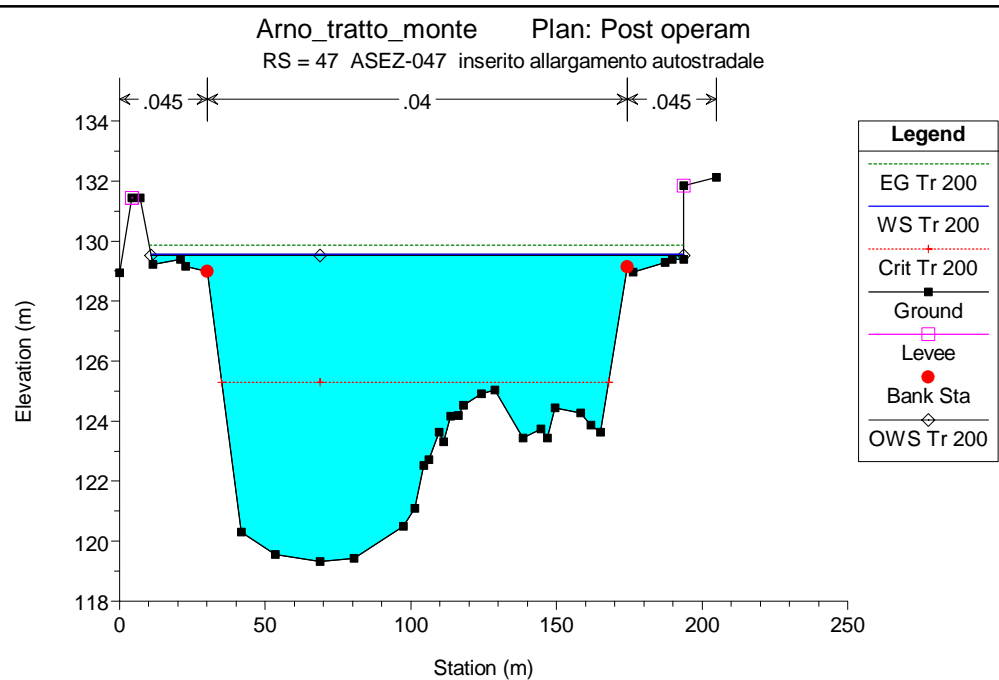
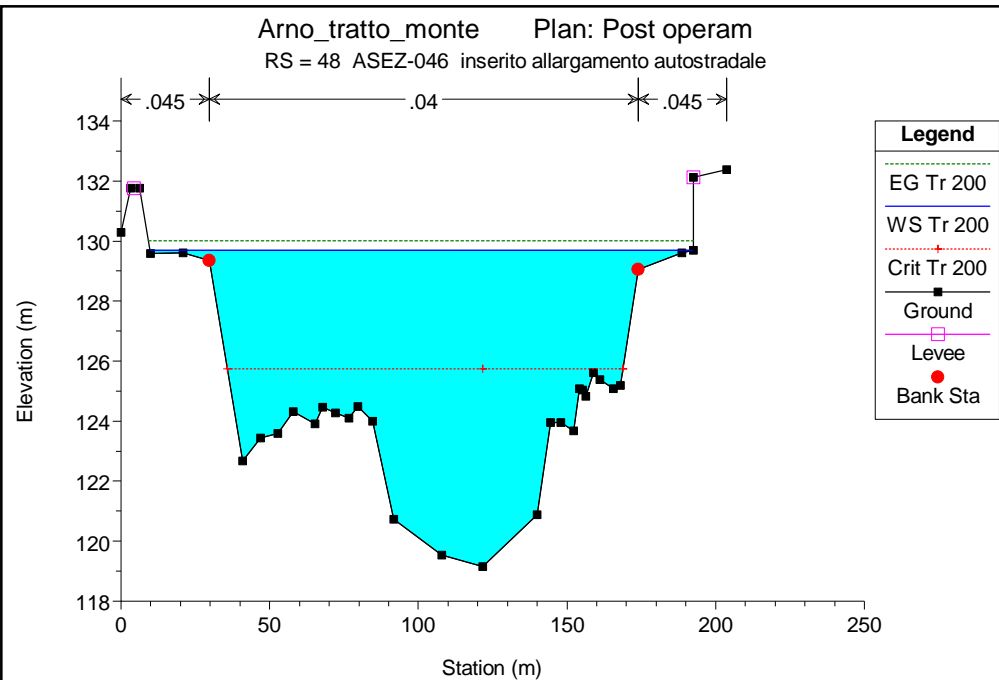


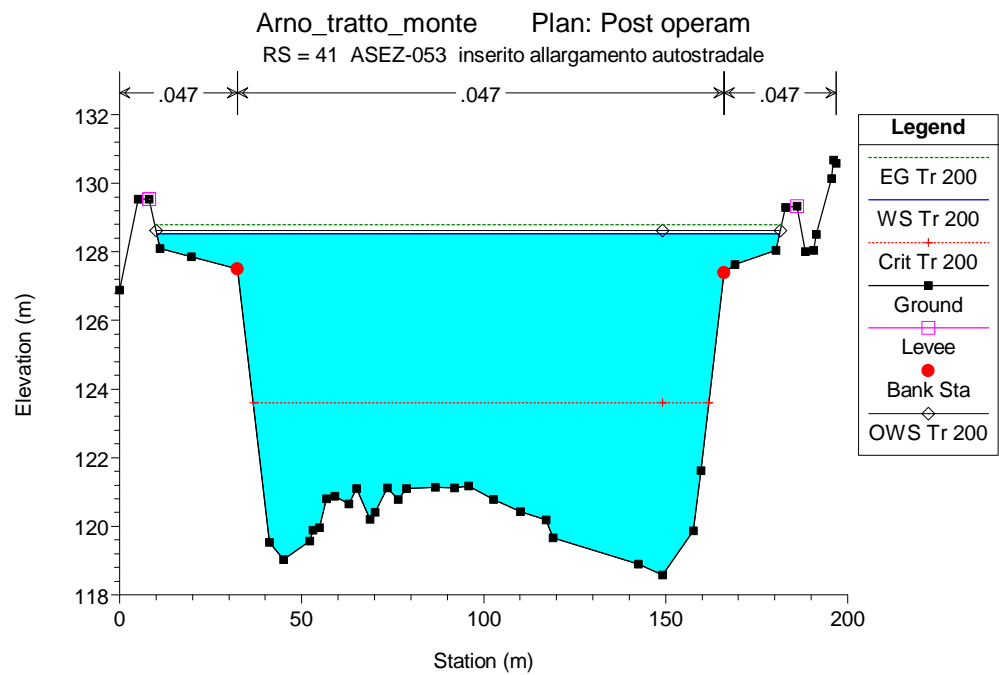
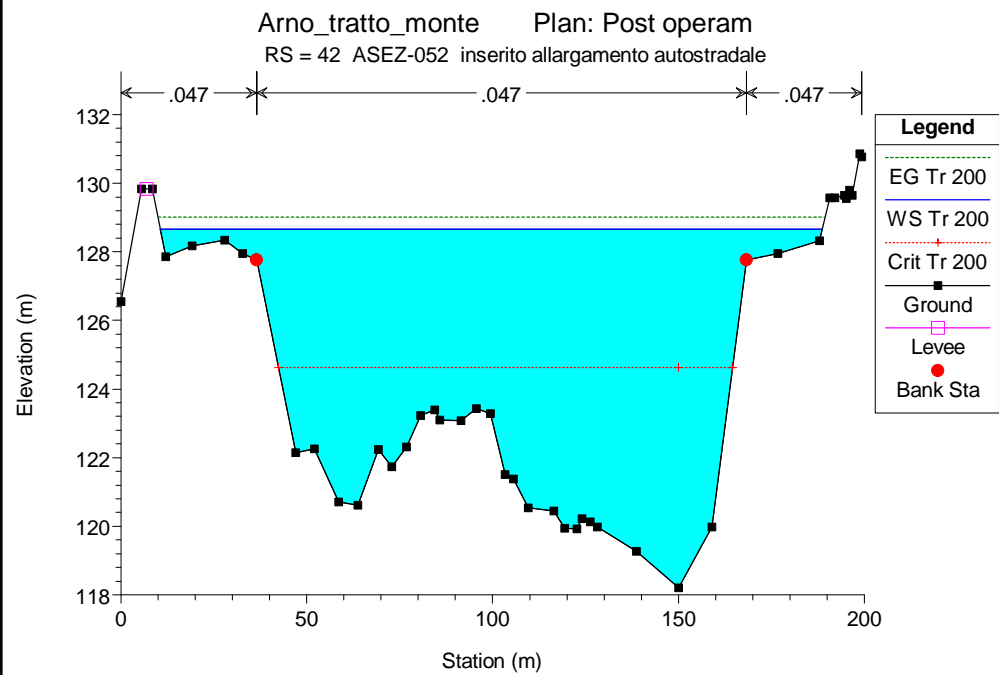
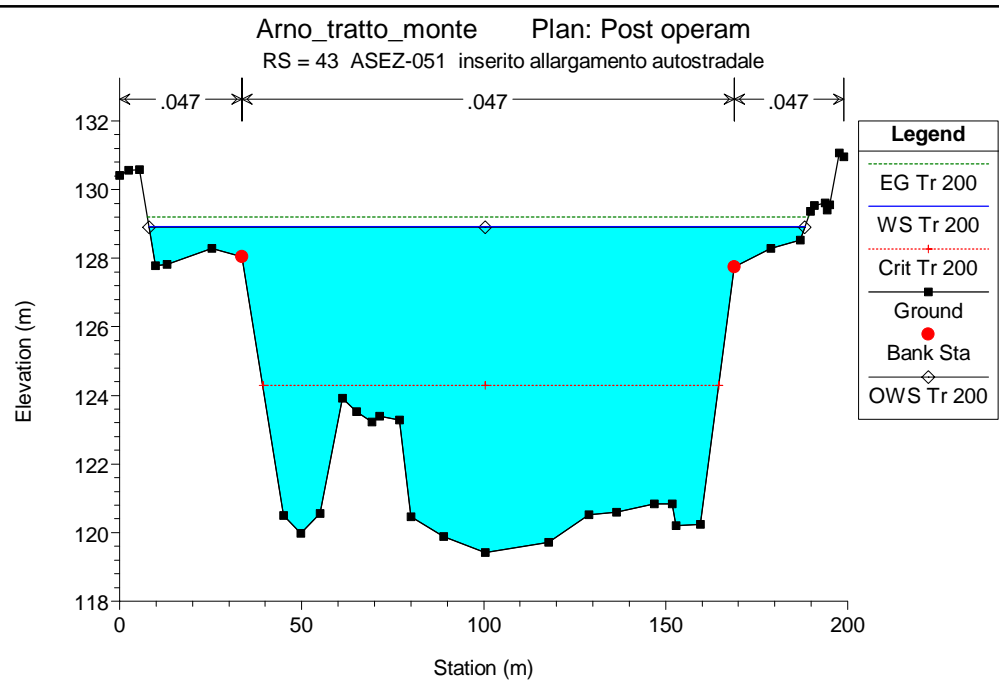
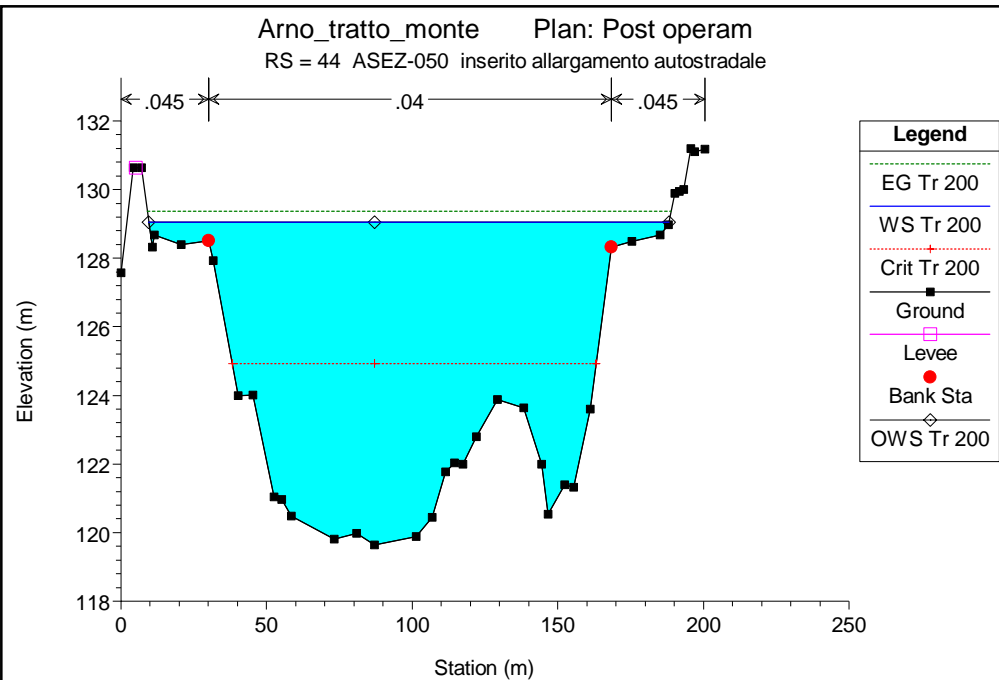
Arno_tratto_monte Plan: Post operam
RS = 50 ASEZ-044 inserito allargamento autostradale

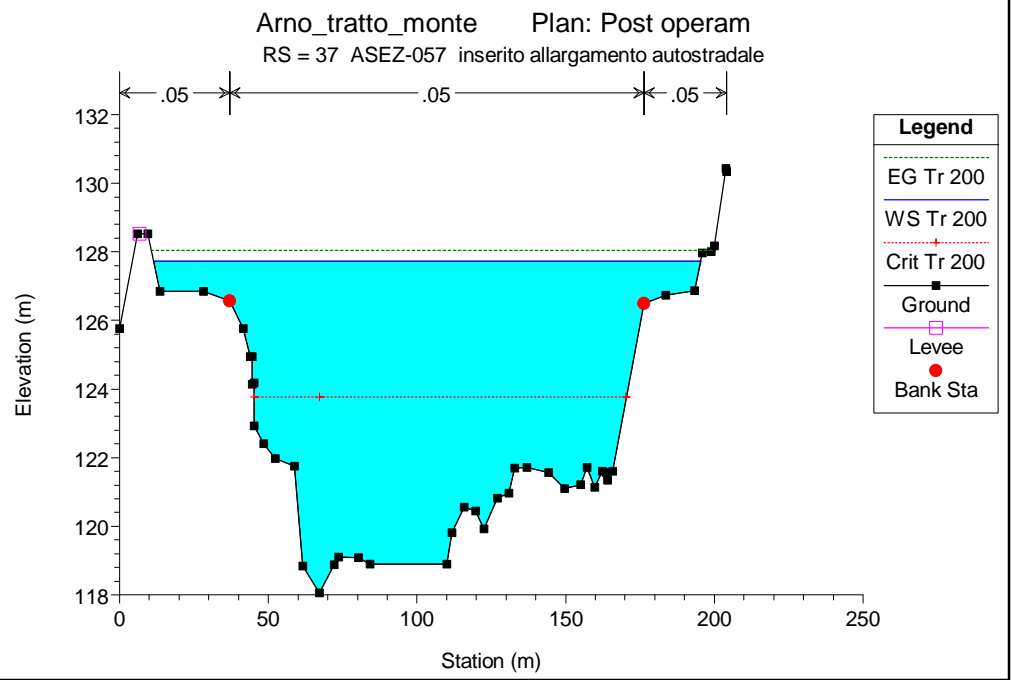
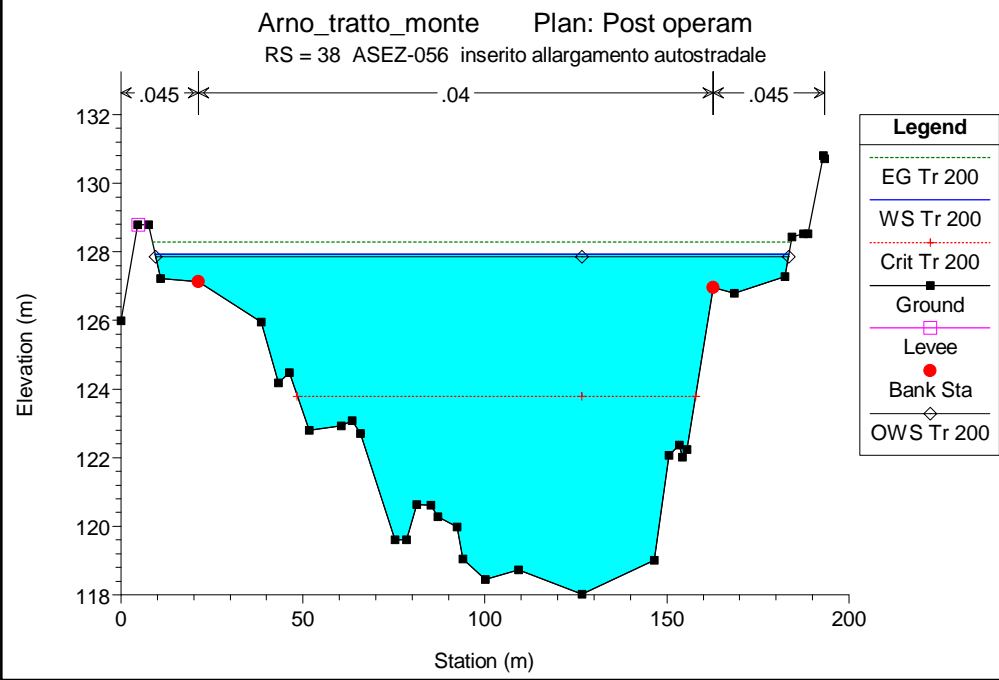
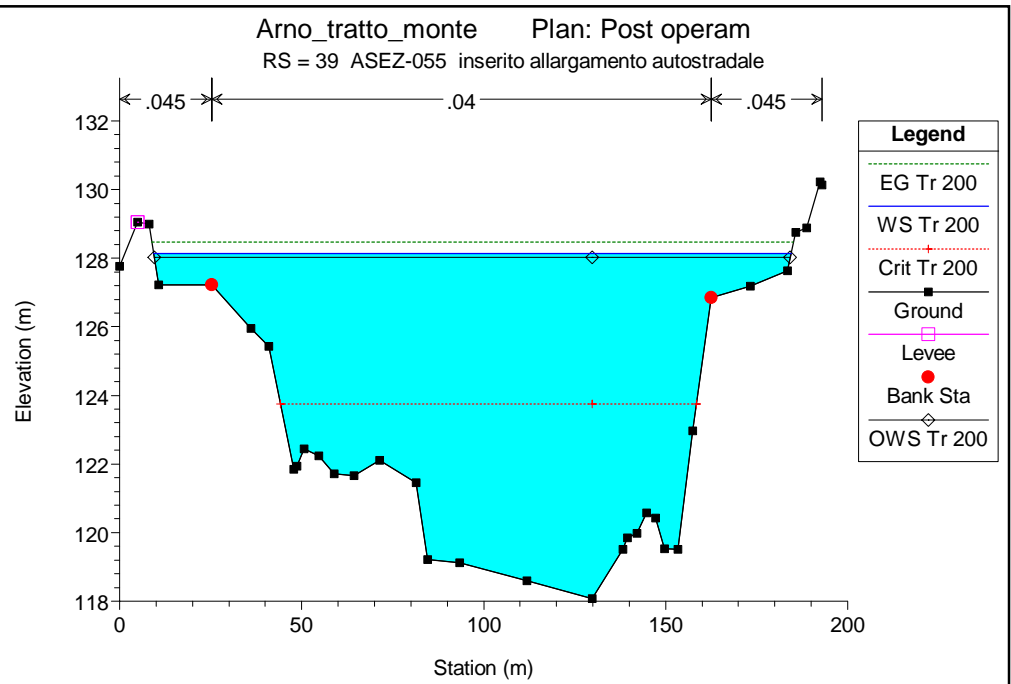
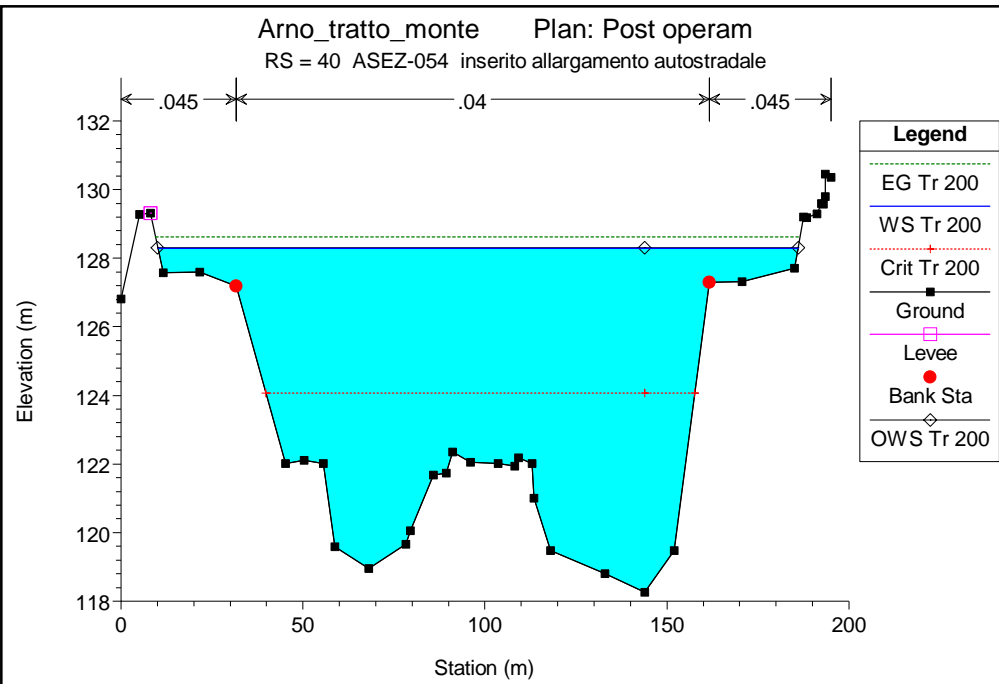


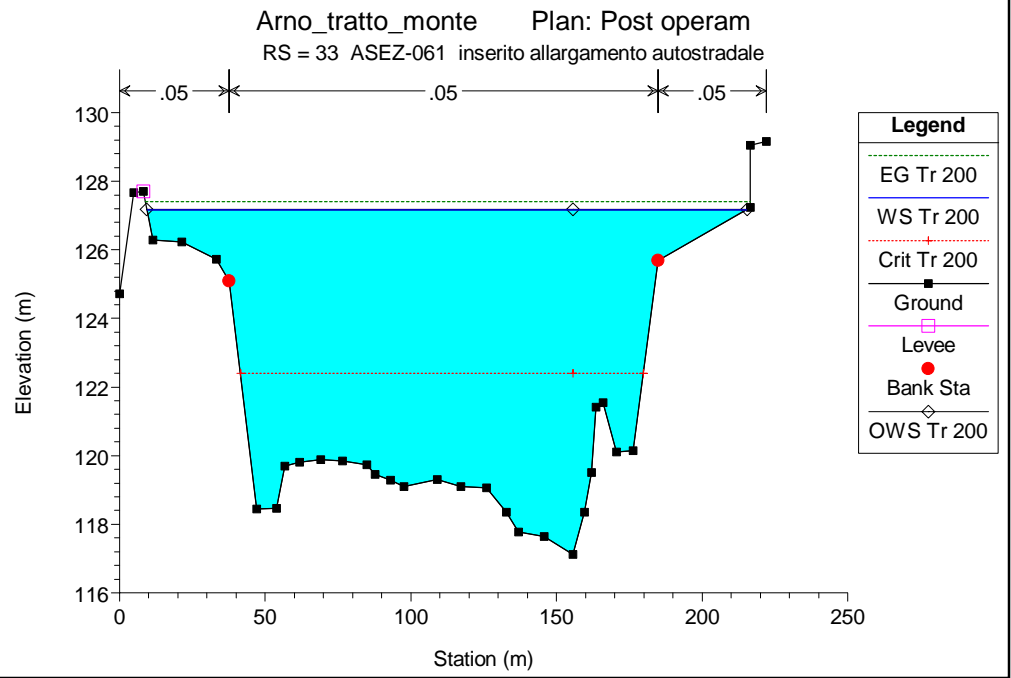
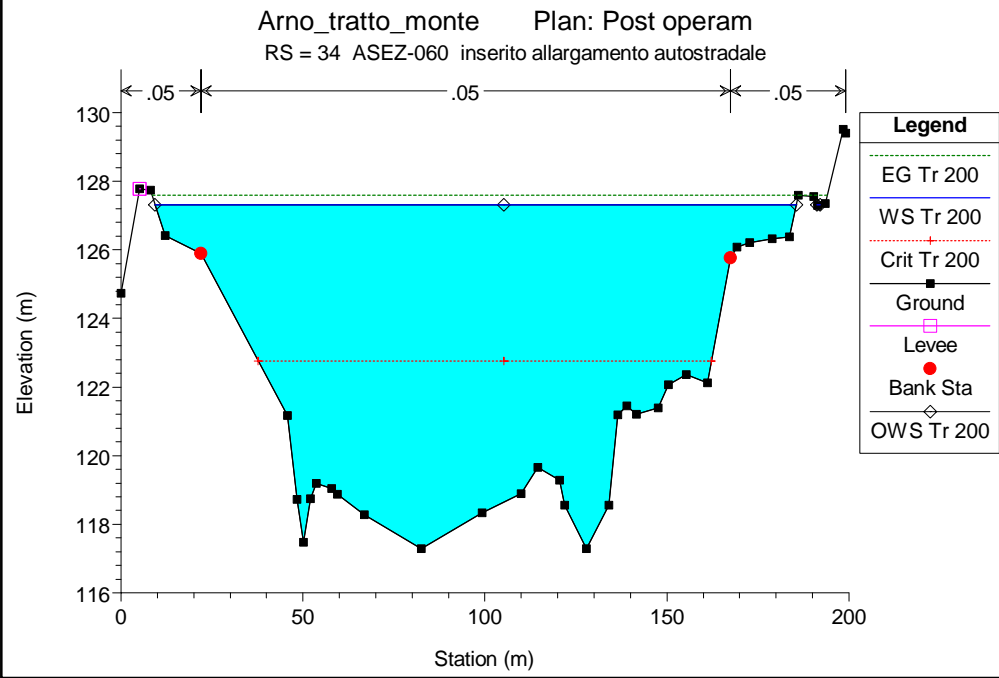
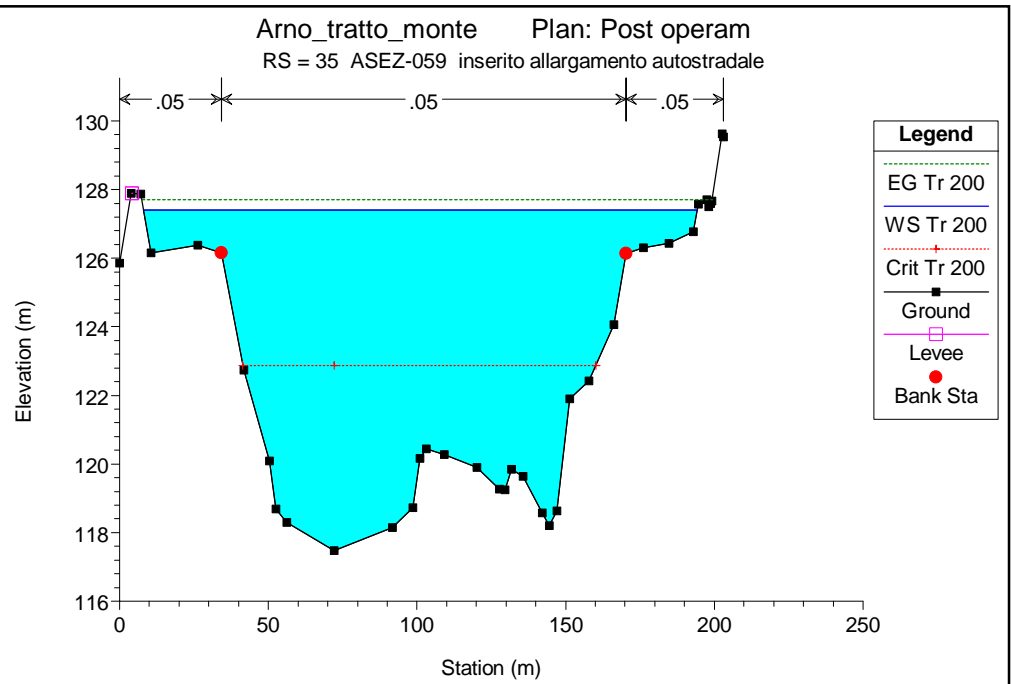
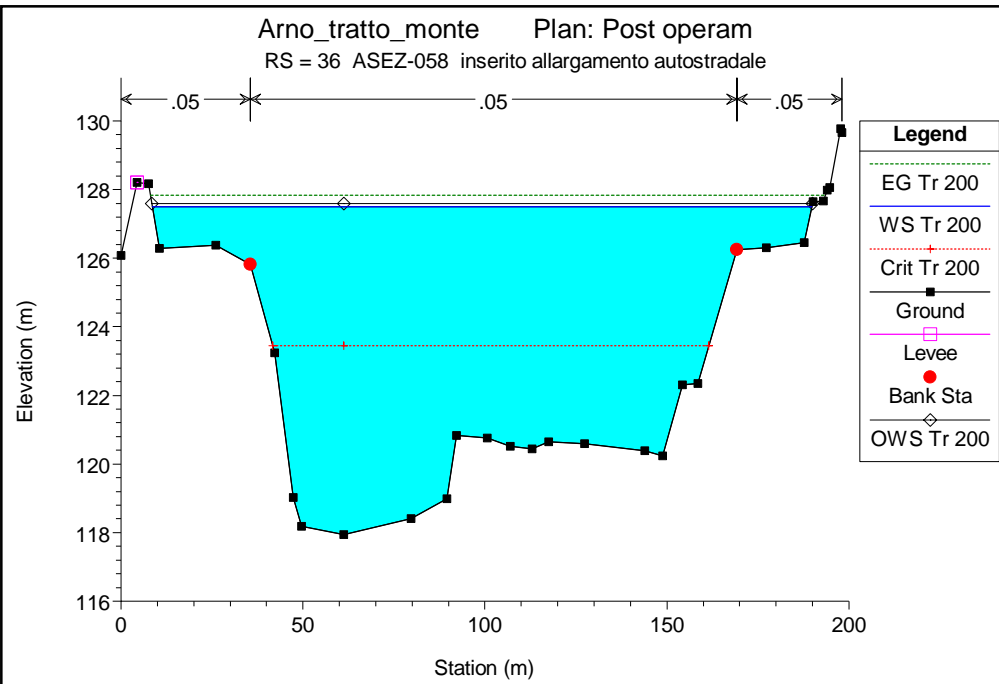
Arno_tratto_monte Plan: Post operam
RS = 49 ASEZ-045 inserito allargamento autostradale

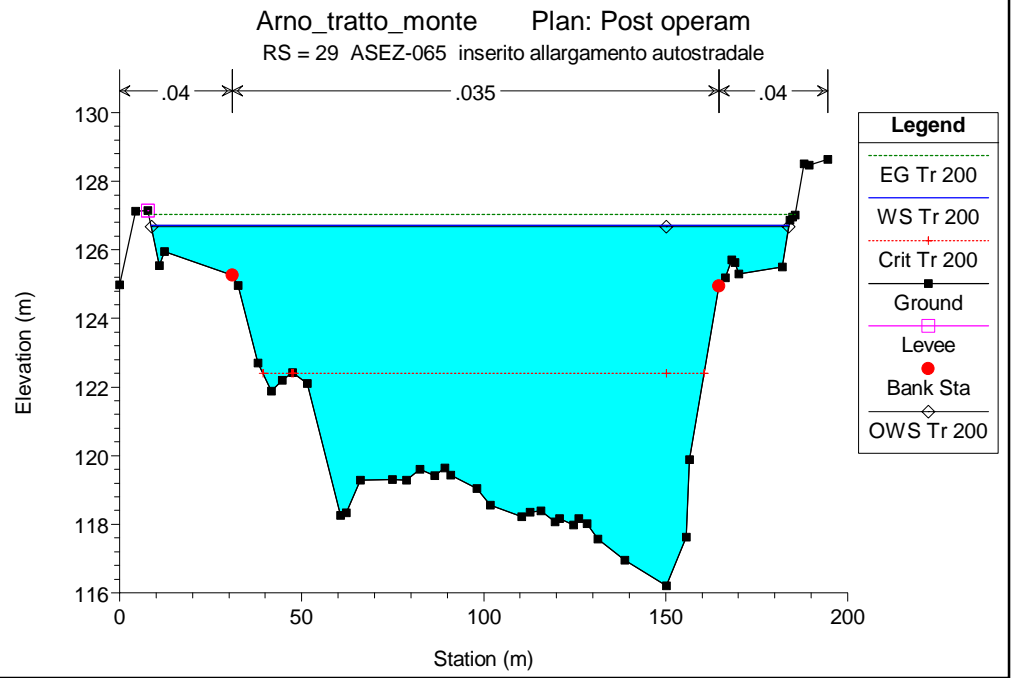
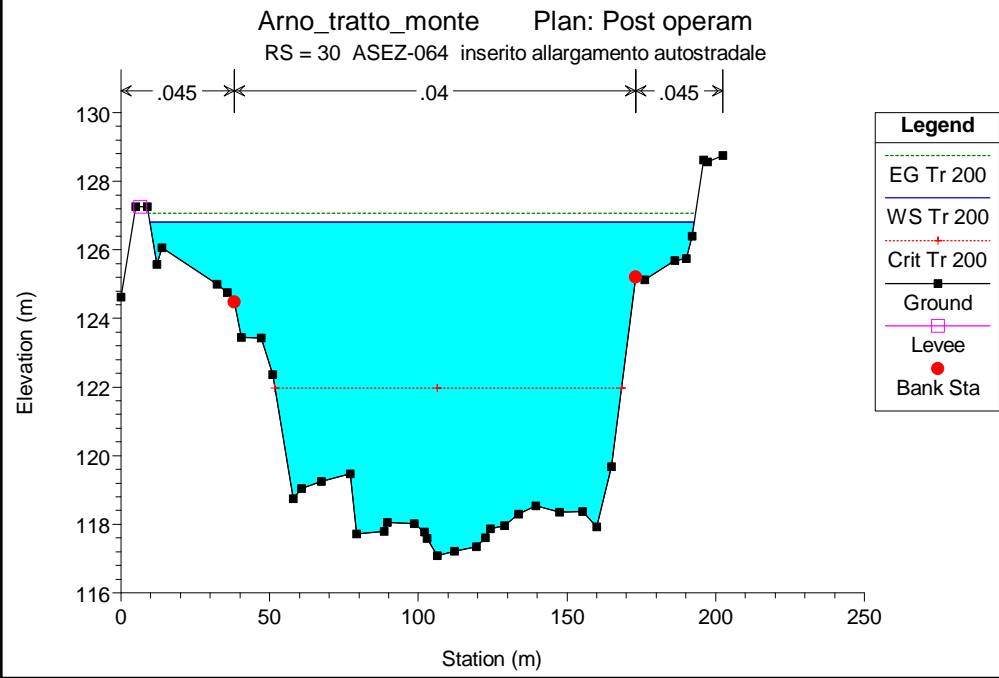
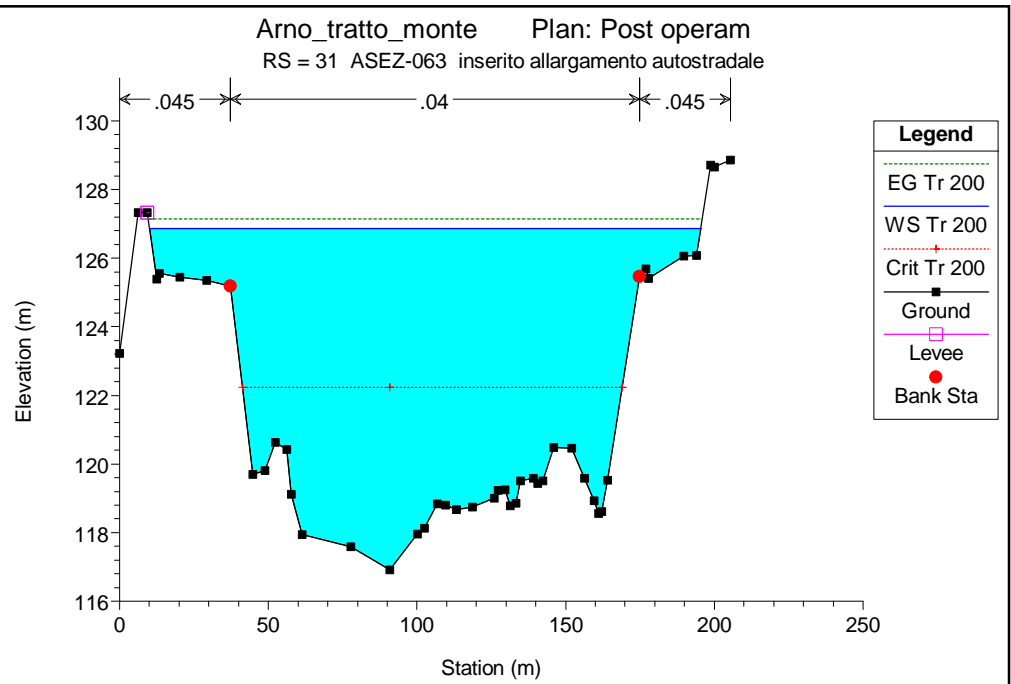
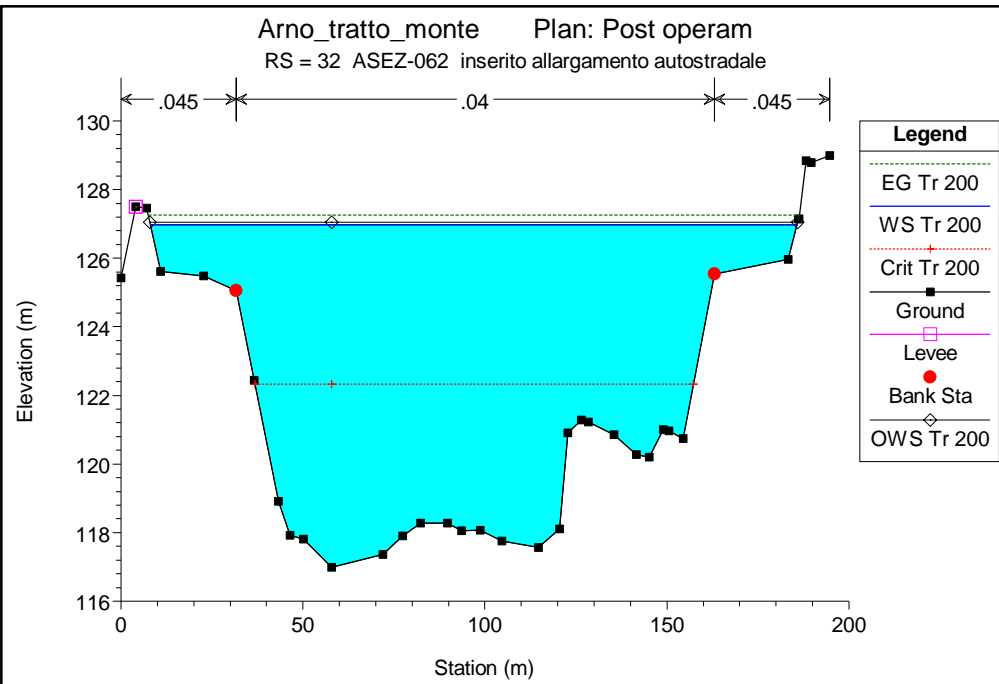


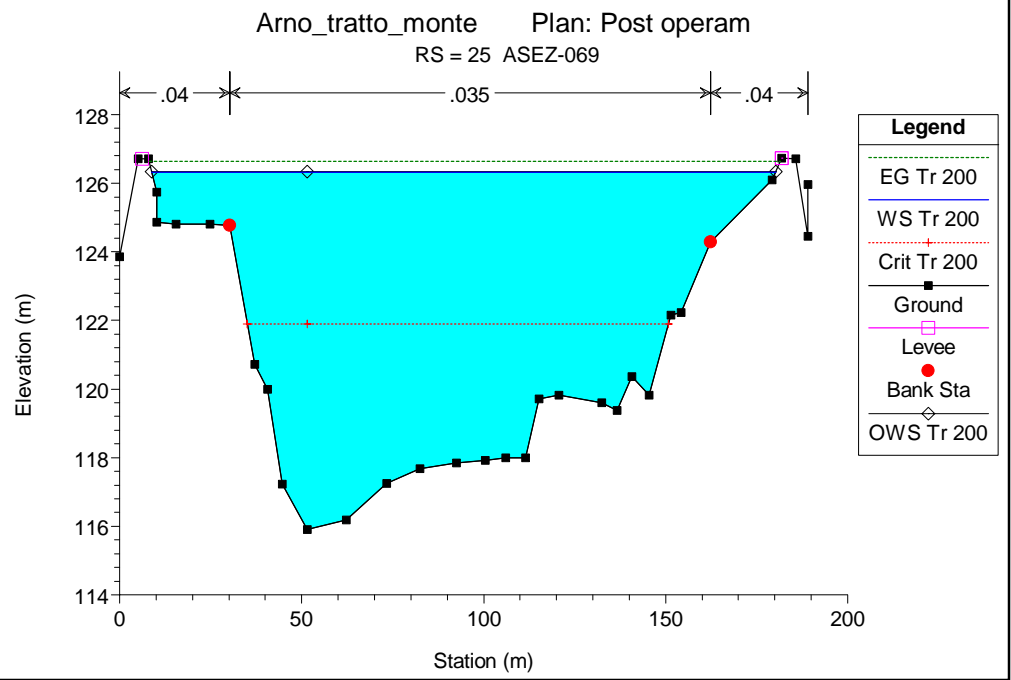
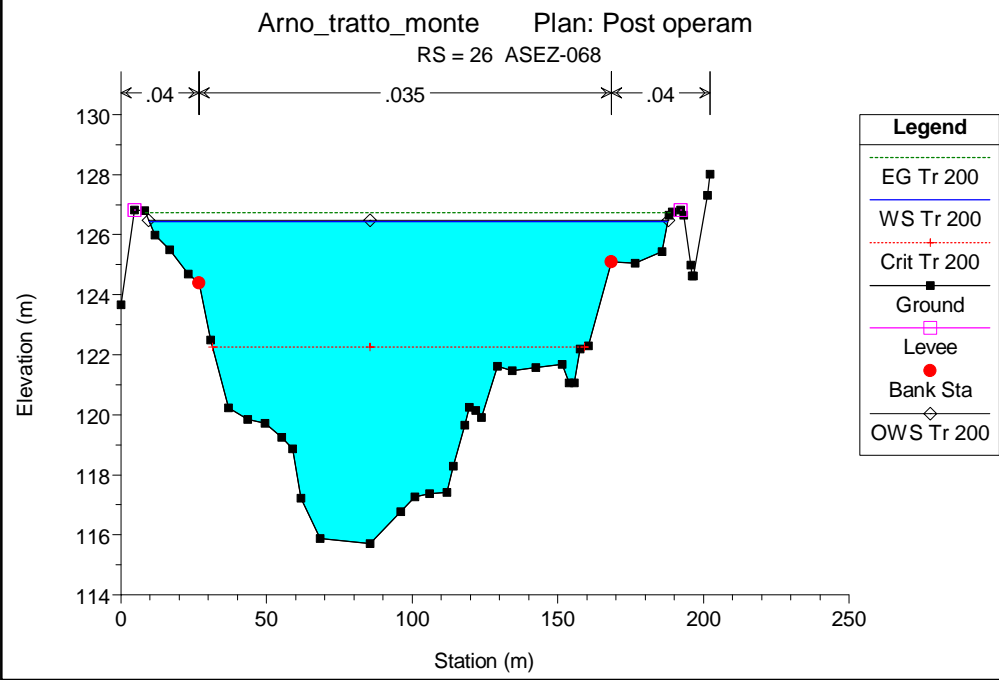
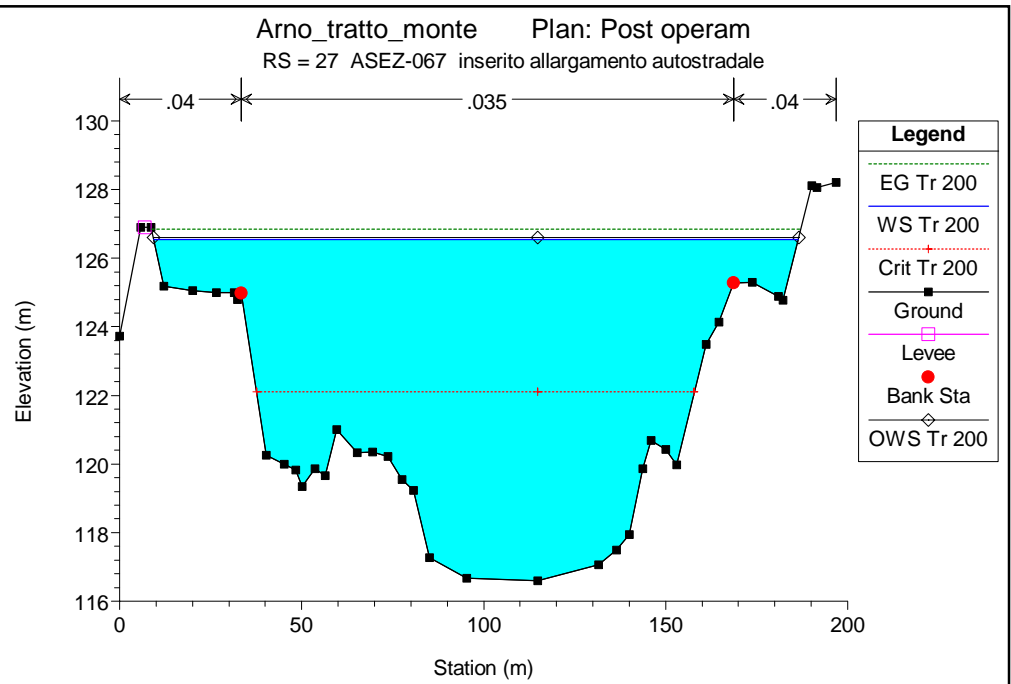
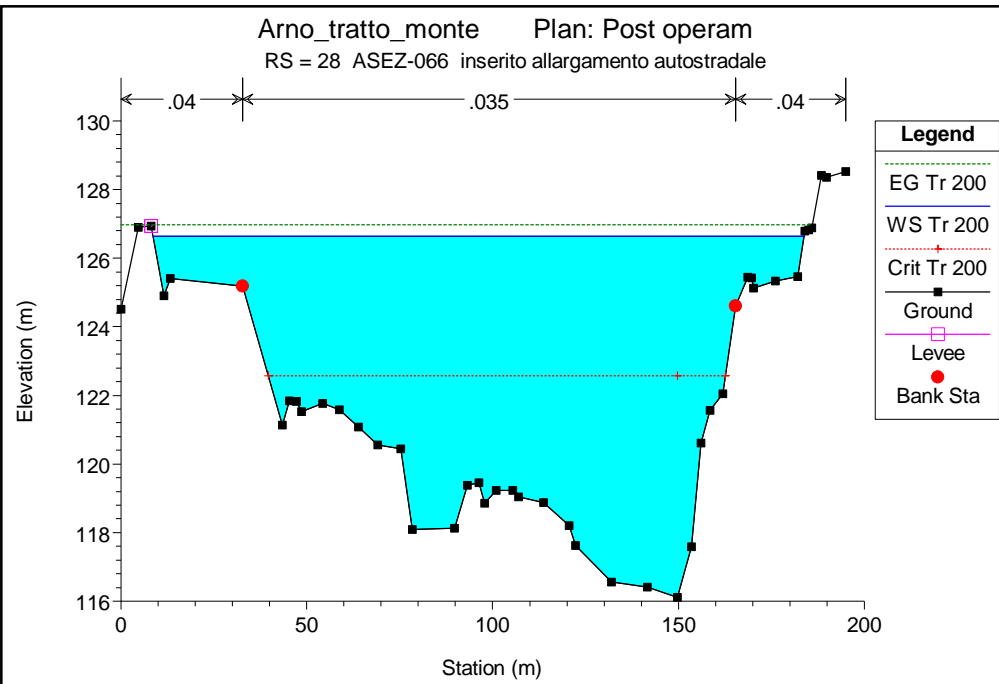


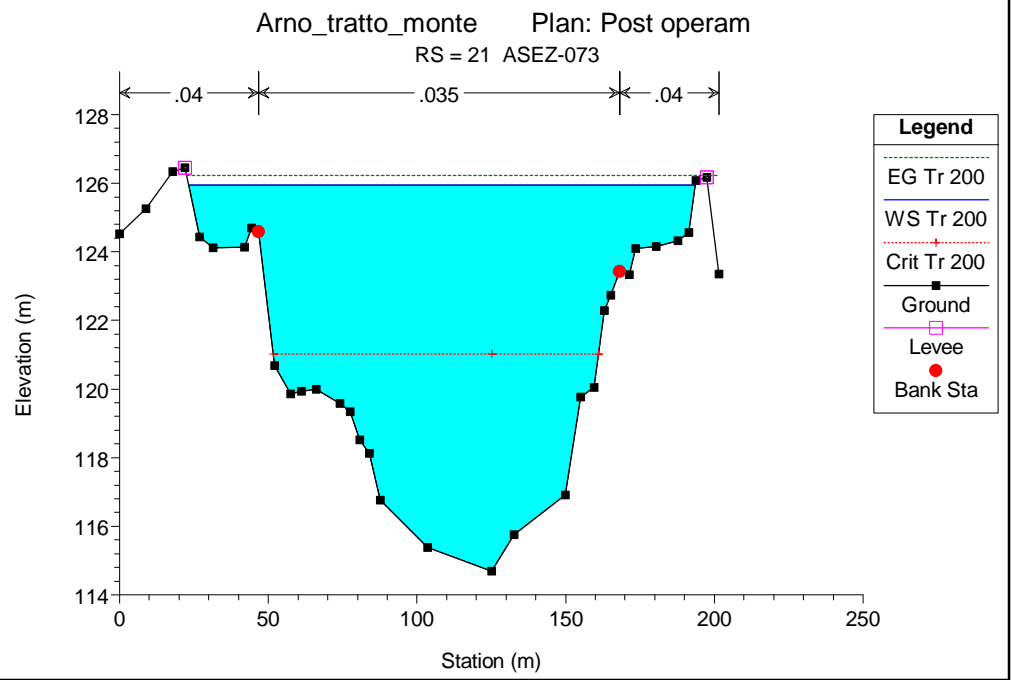
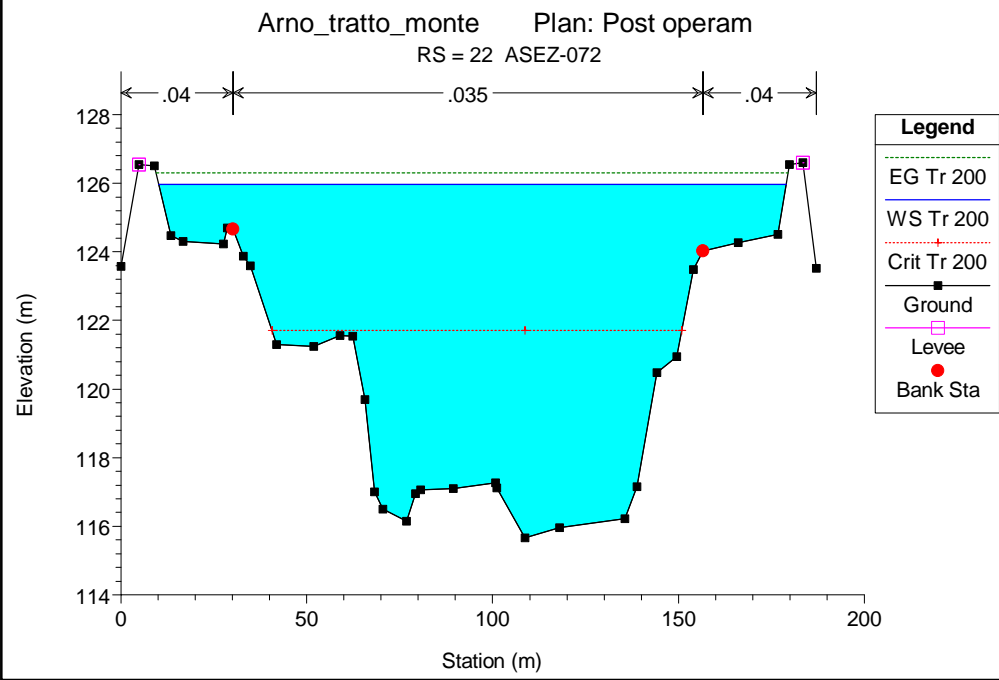
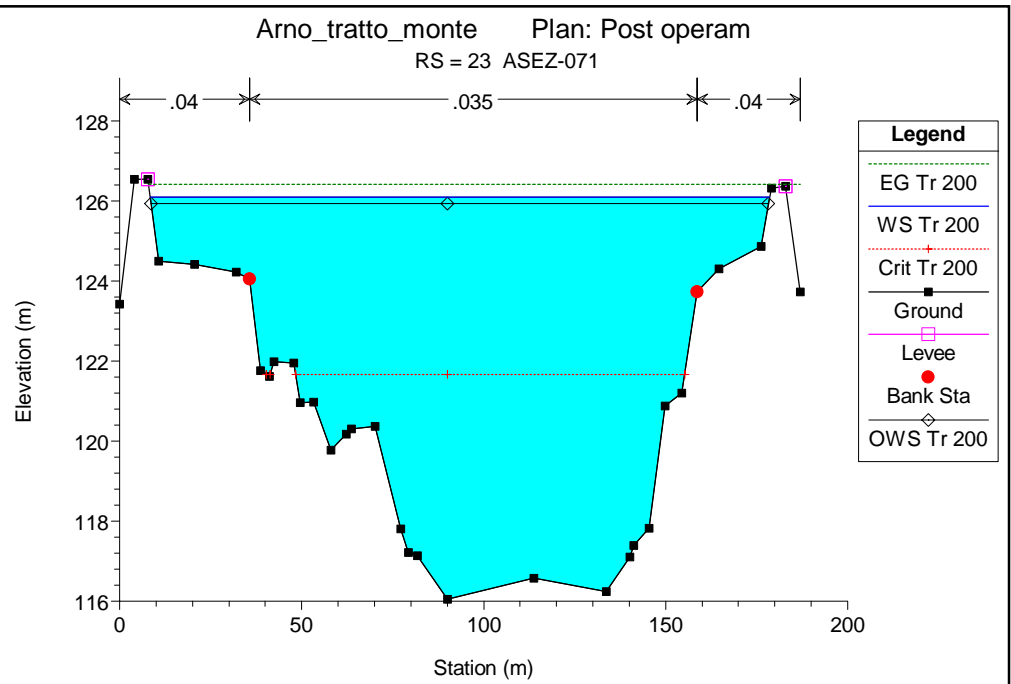
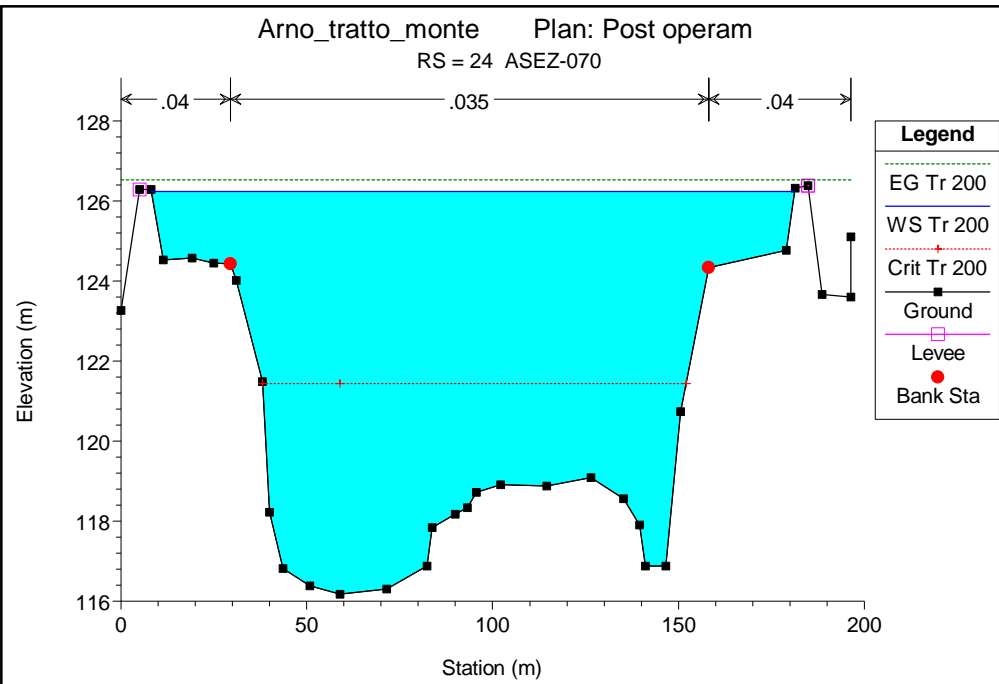


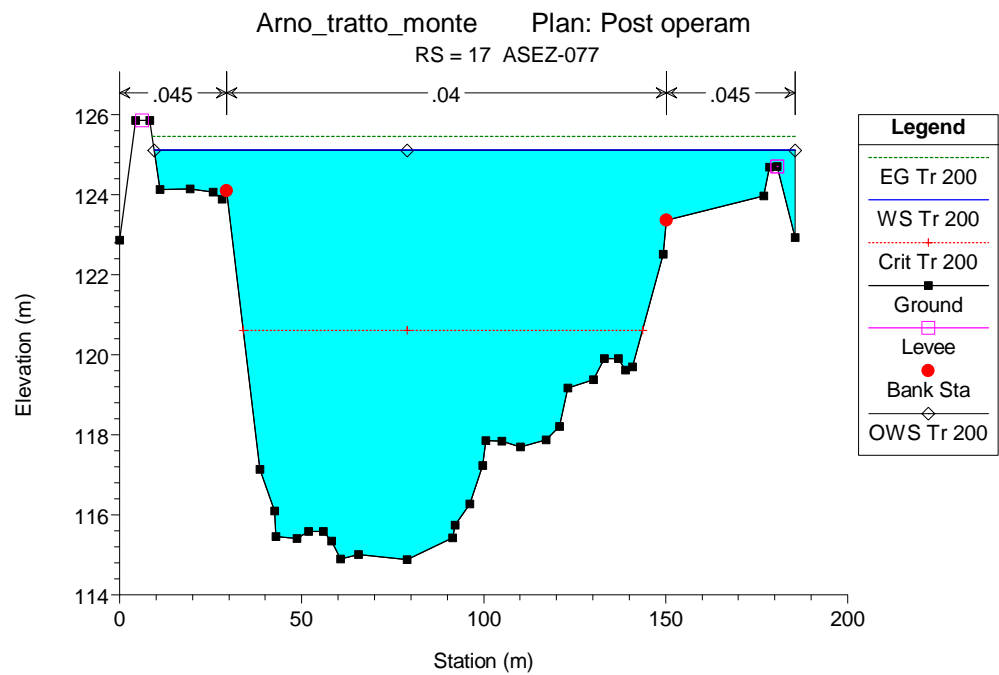
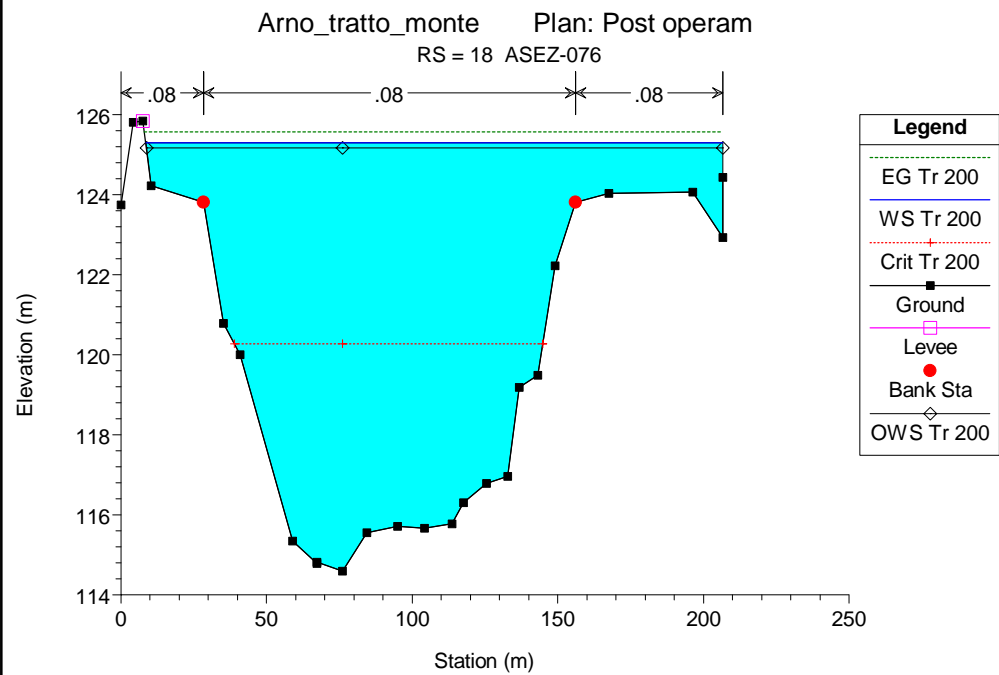
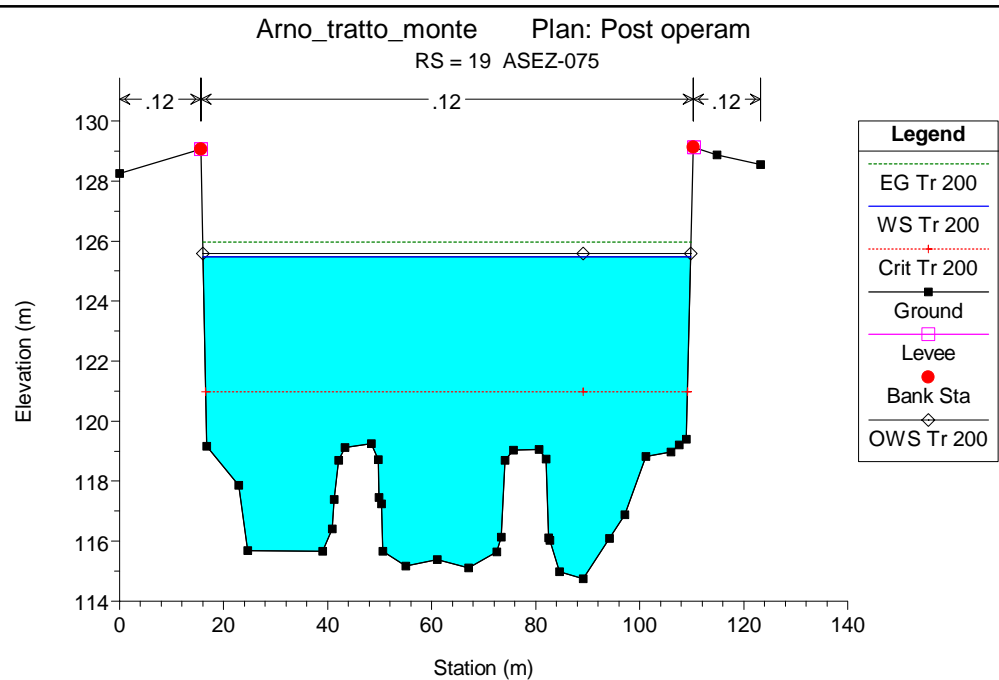
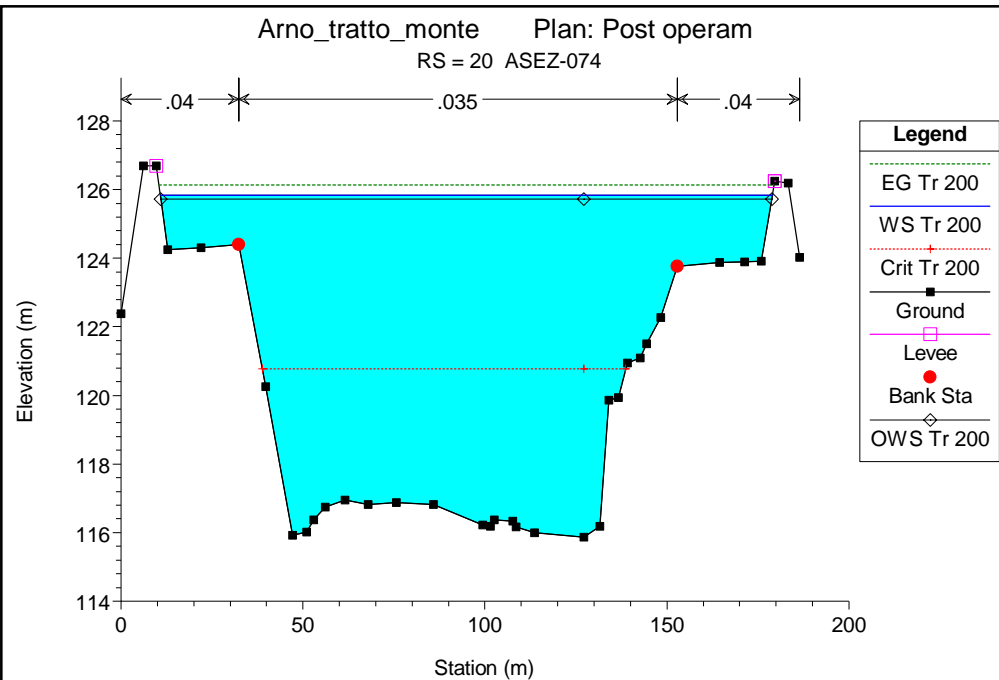


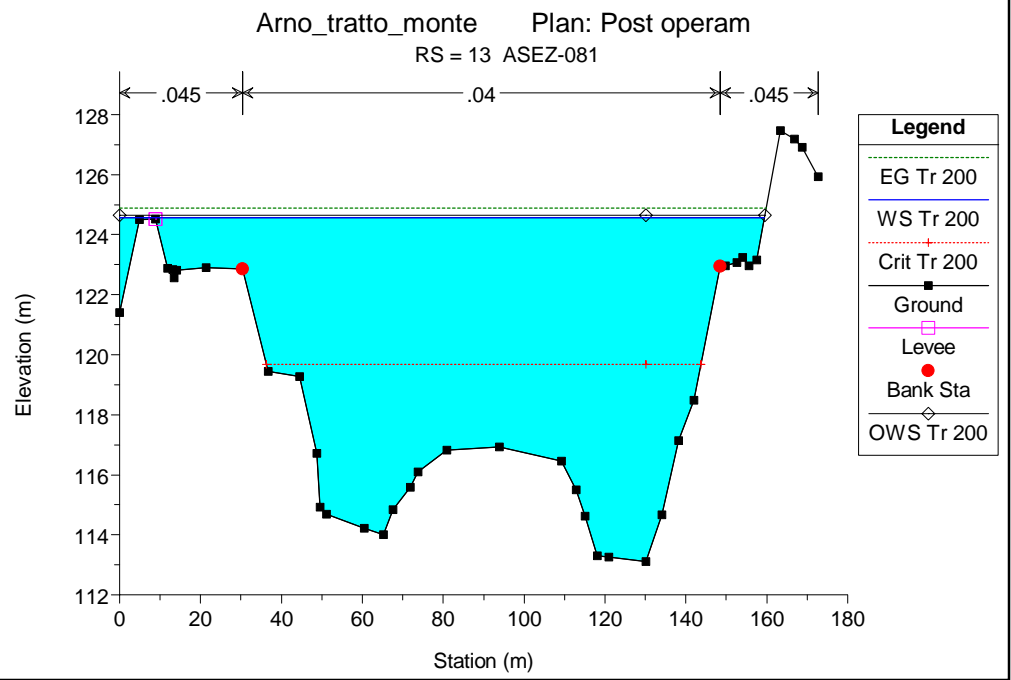
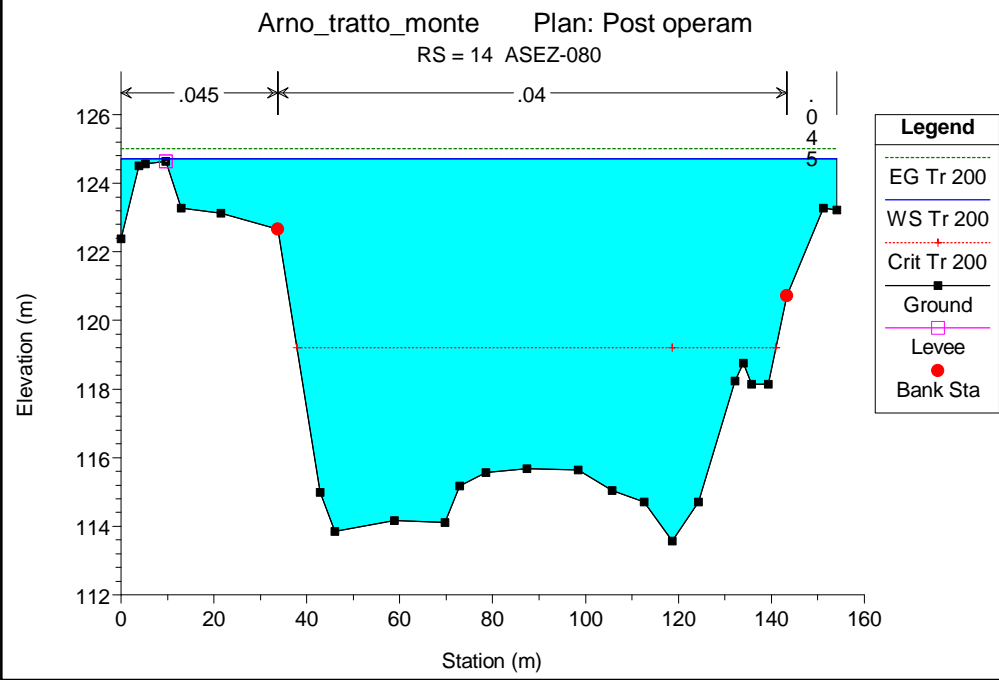
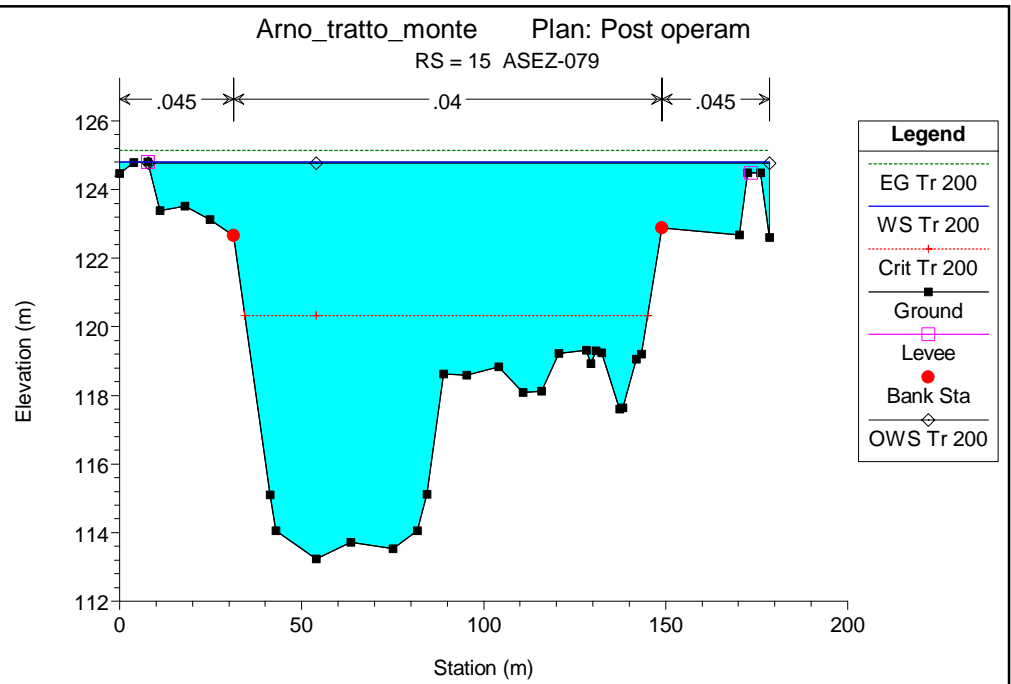
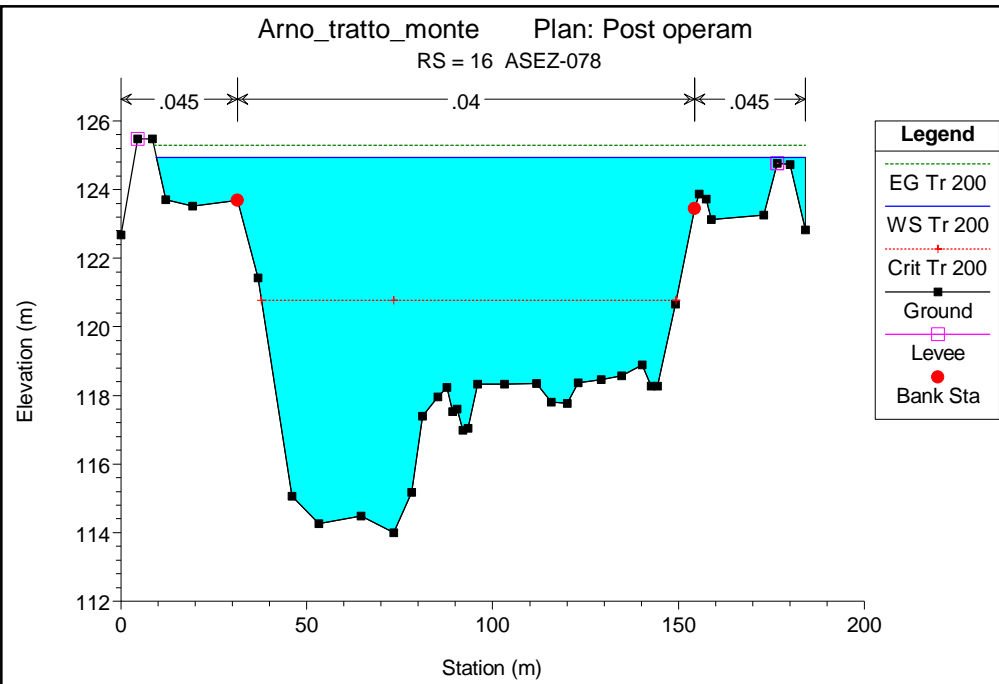


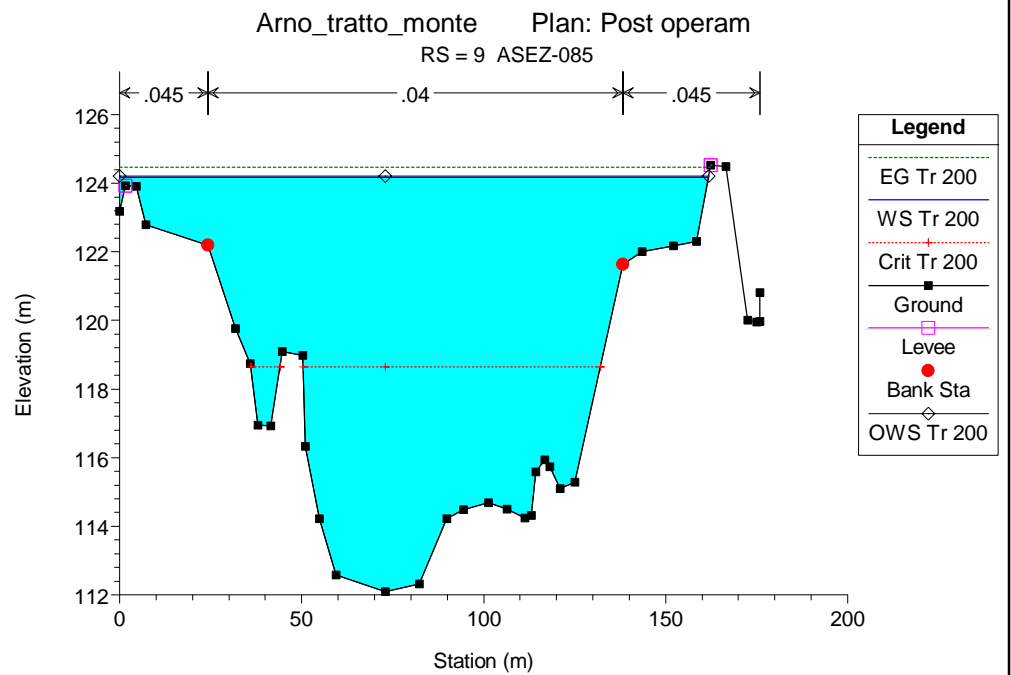
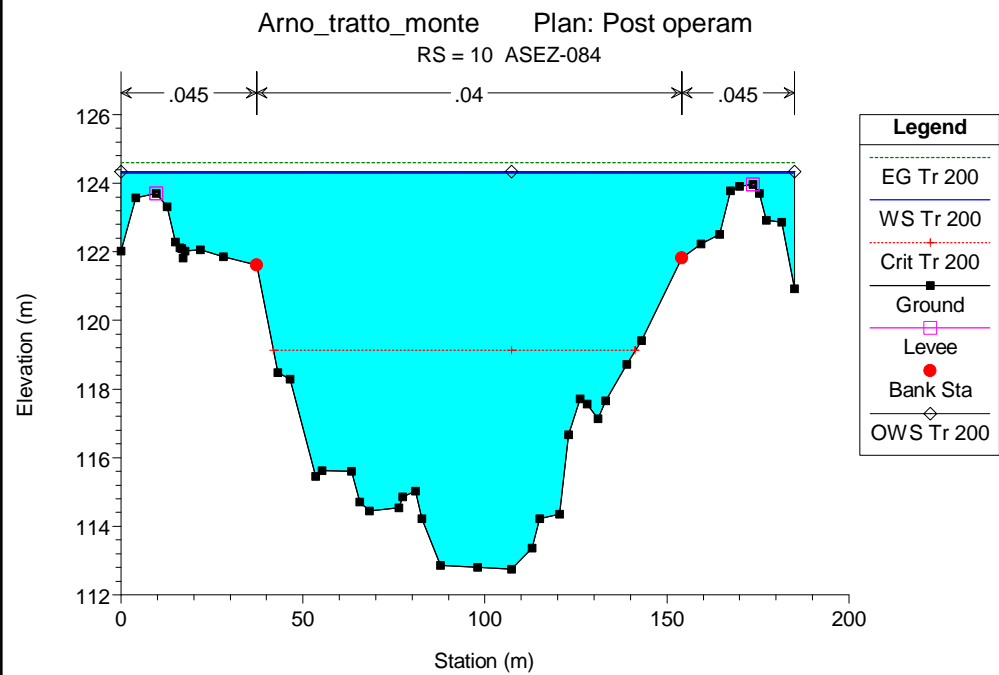
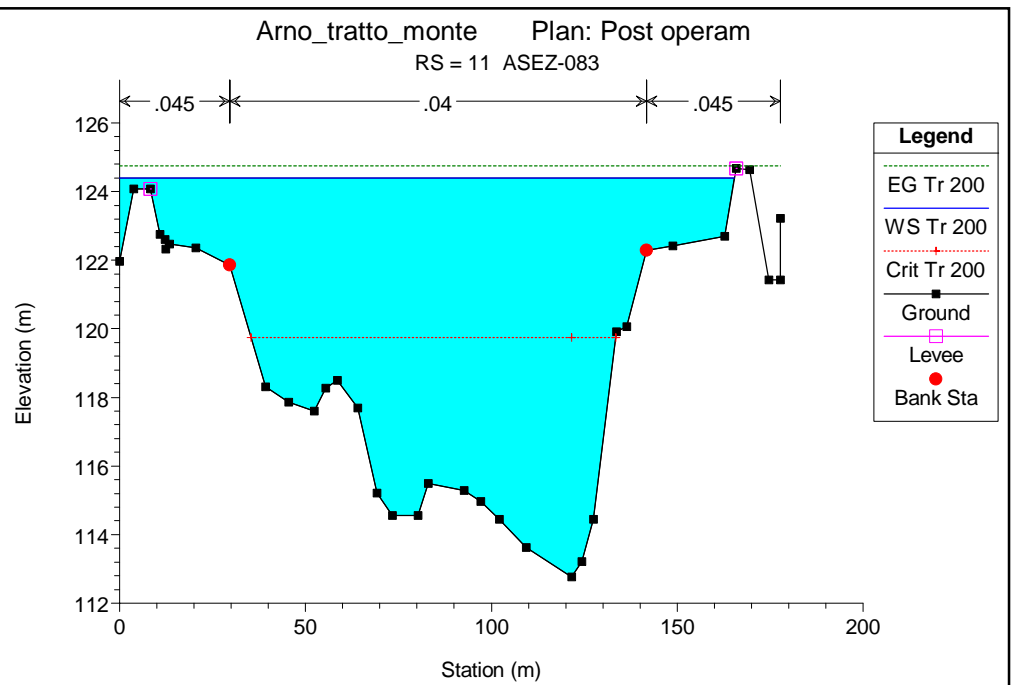
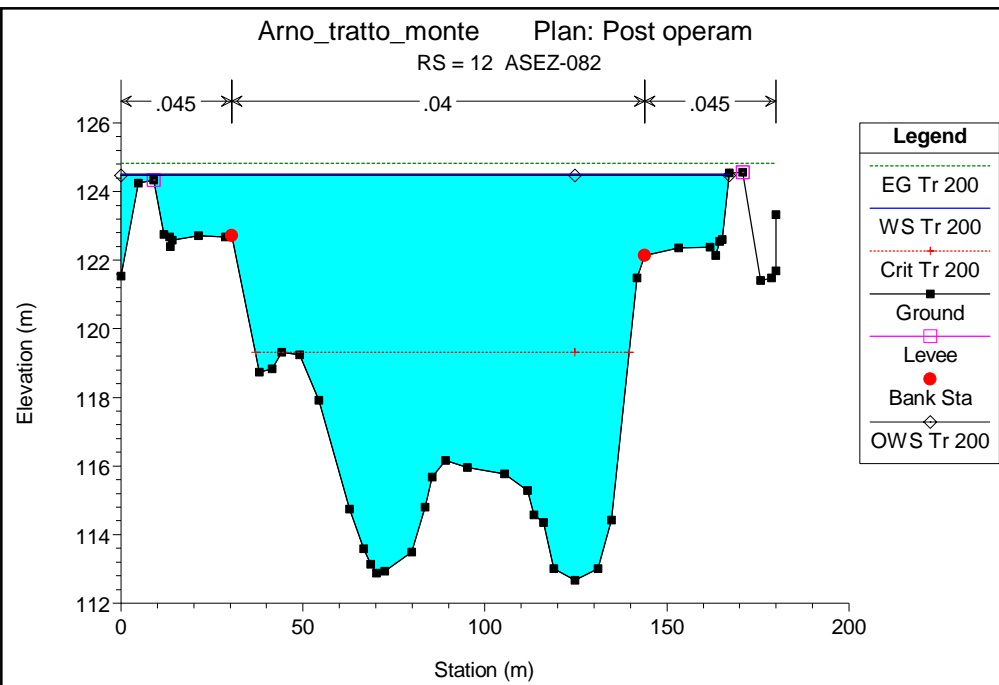


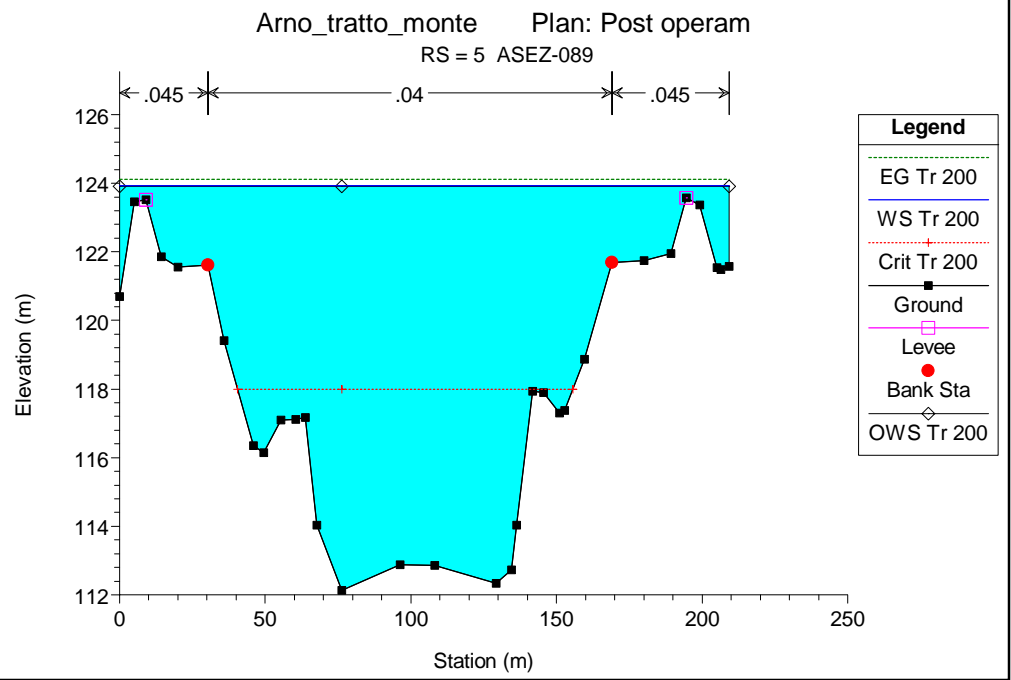
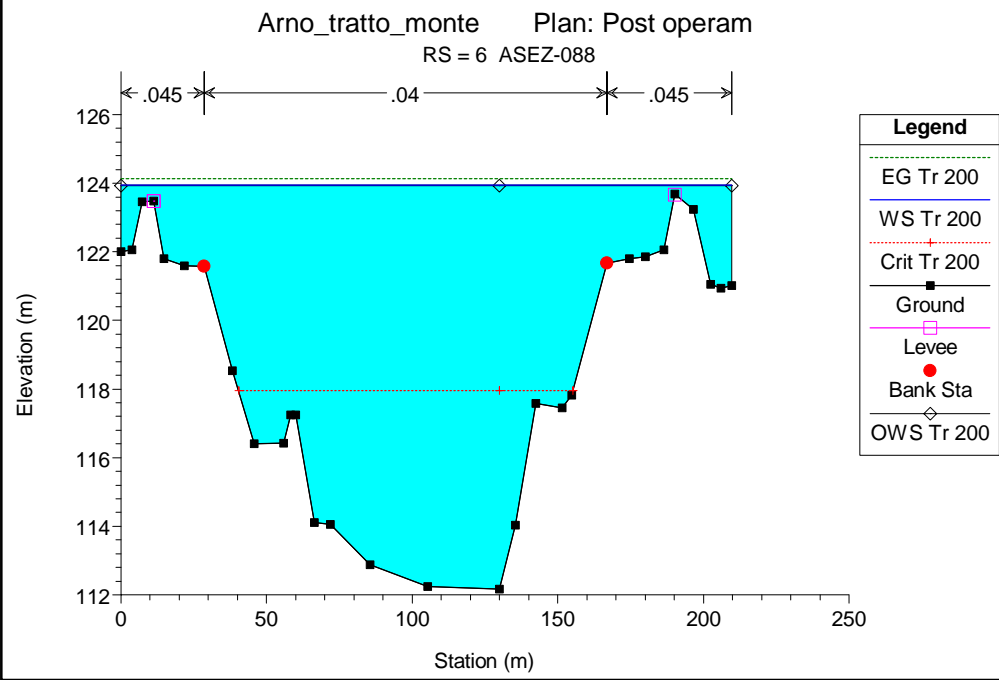
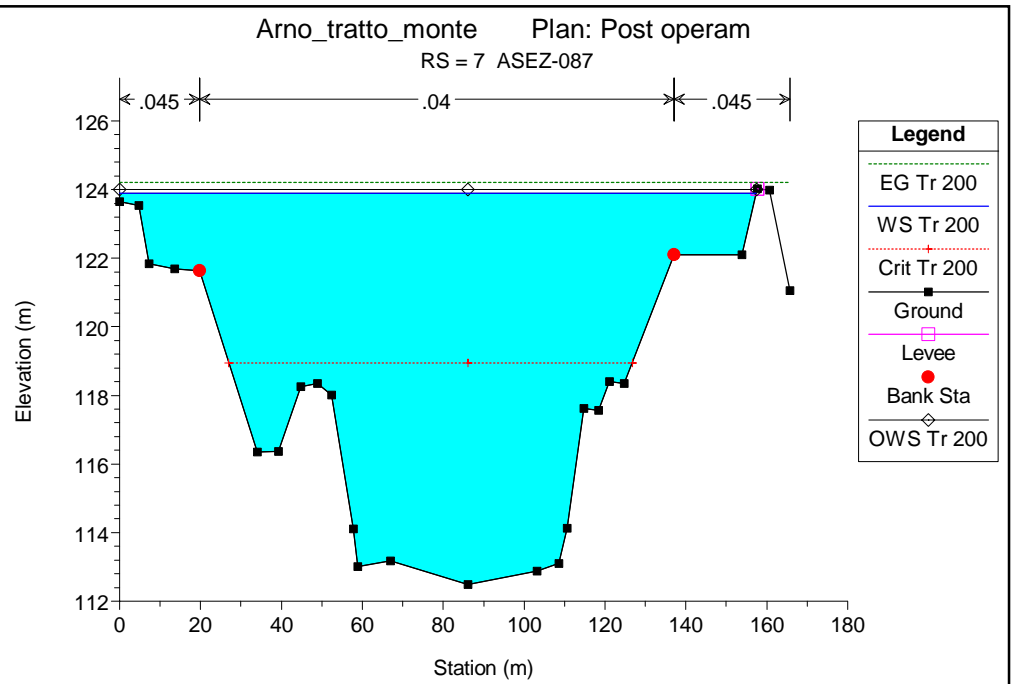
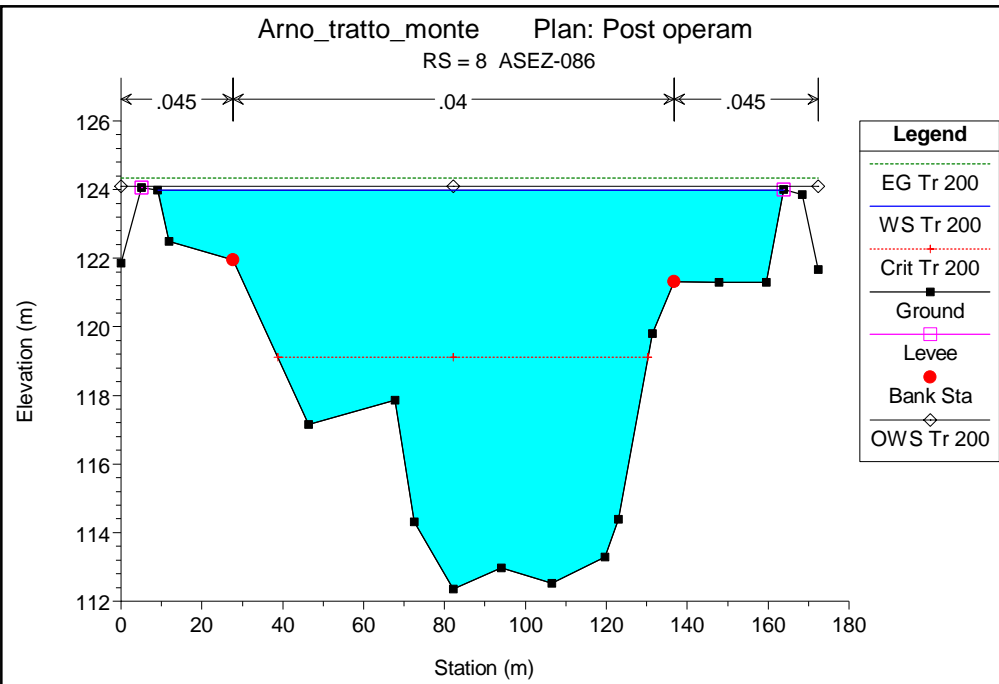


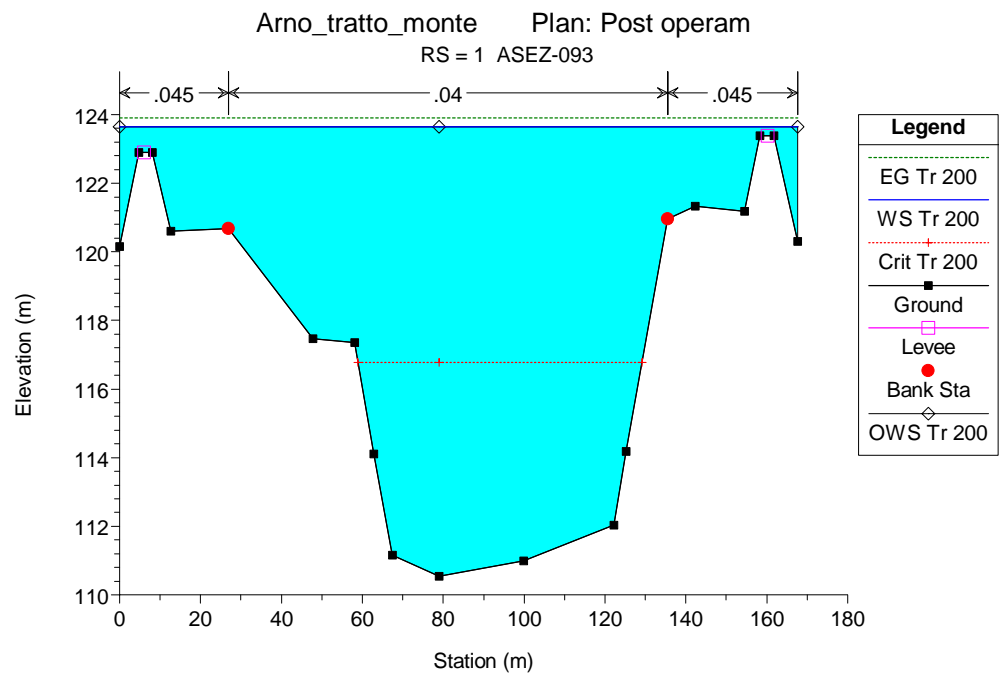
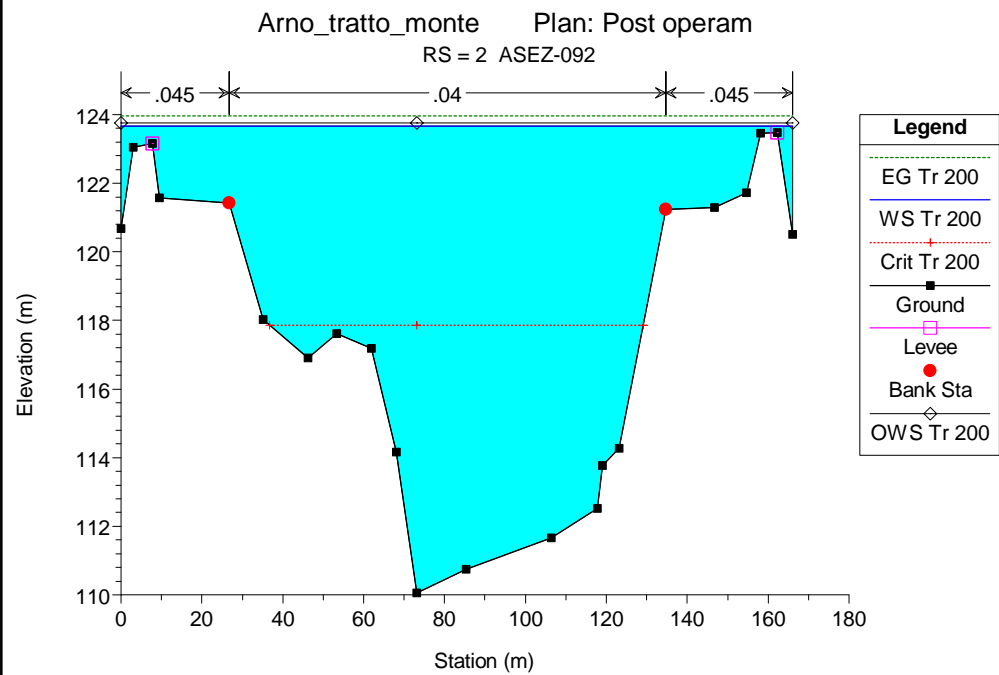
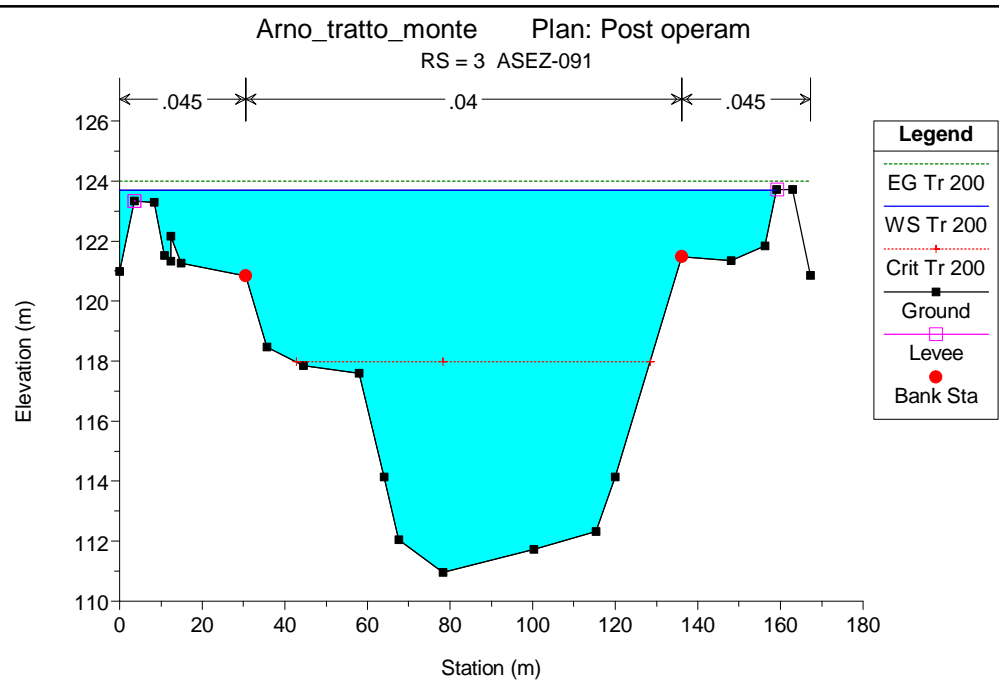
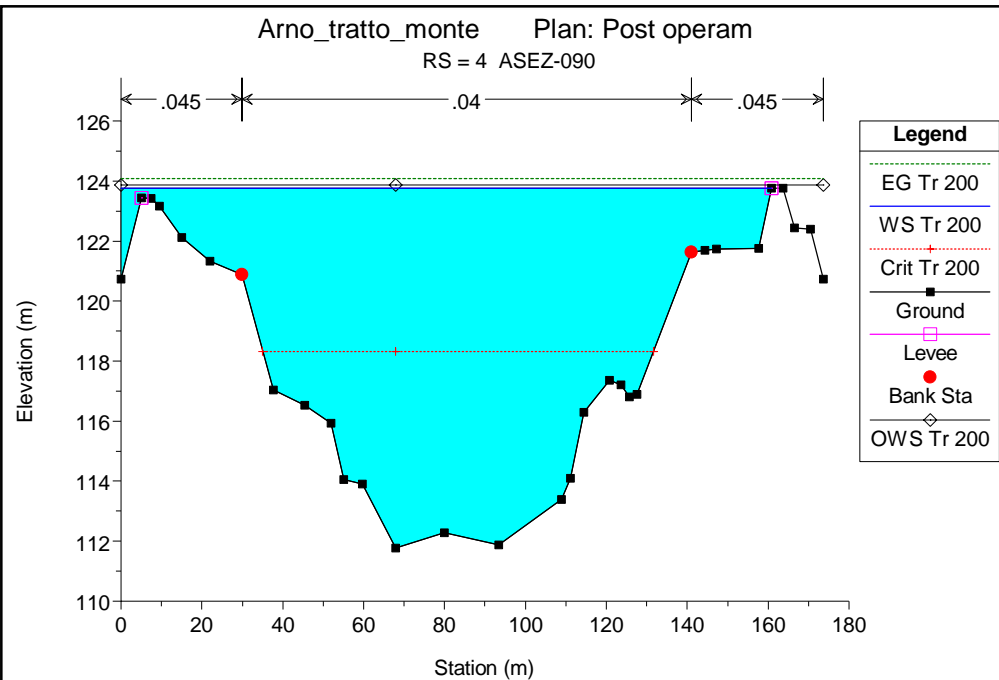












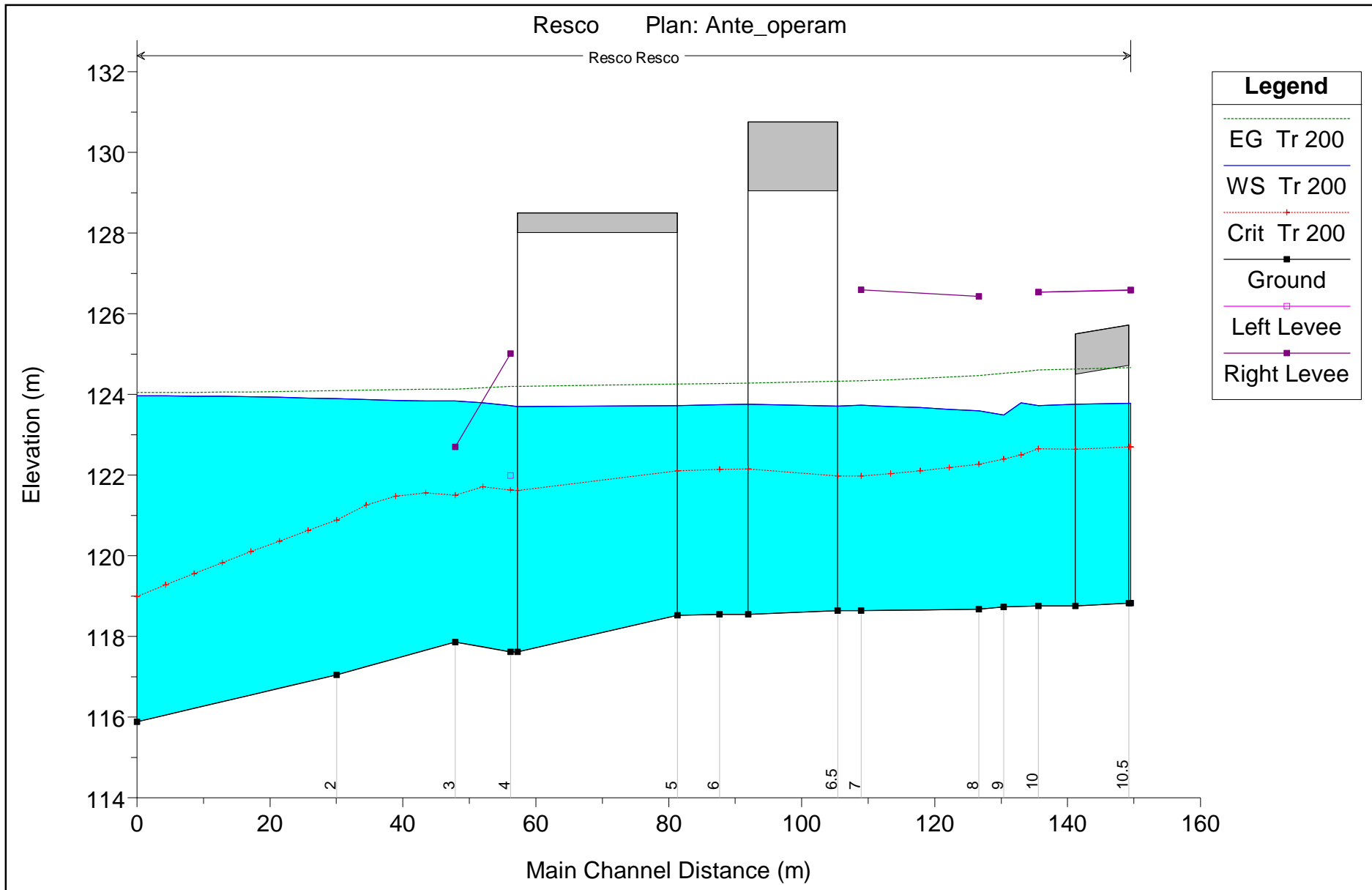
OPERA N. 2094

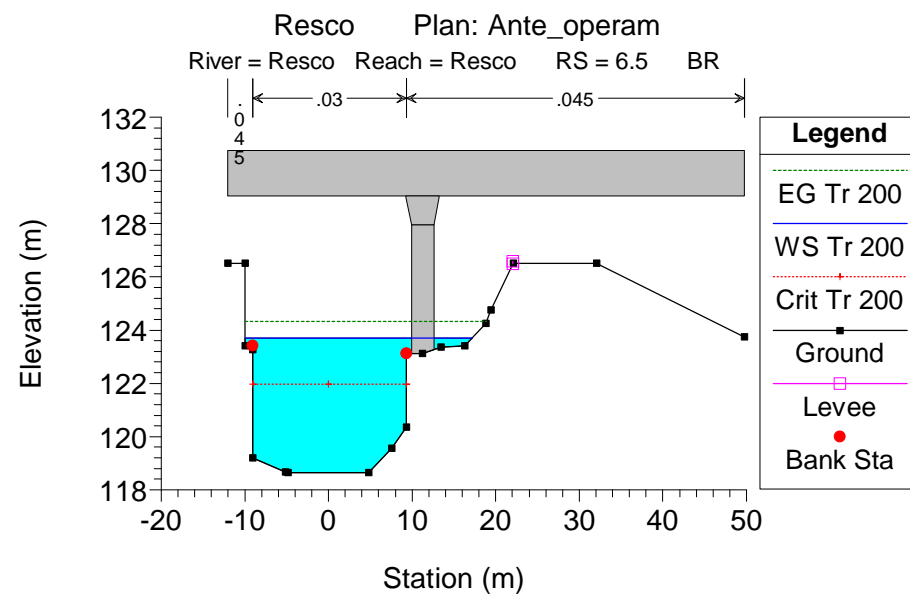
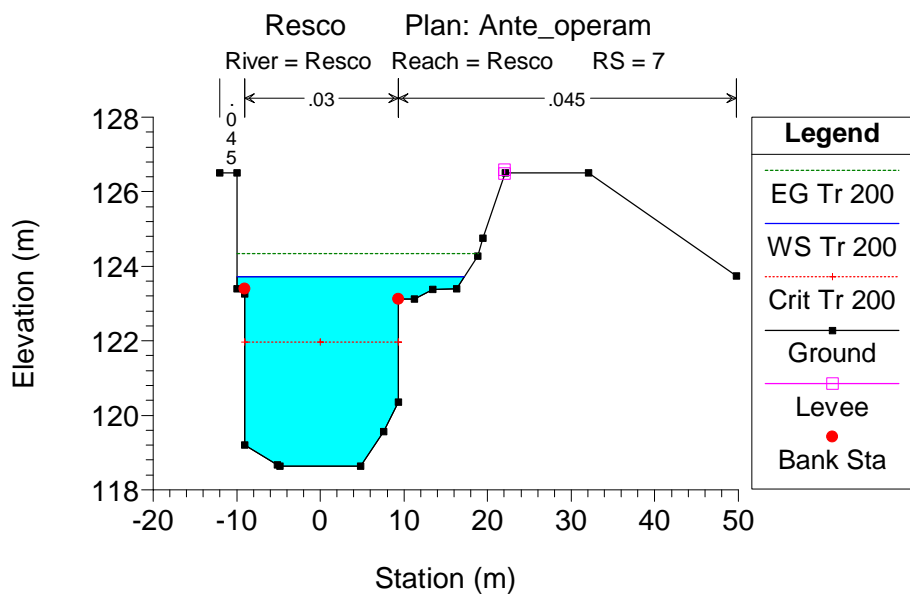
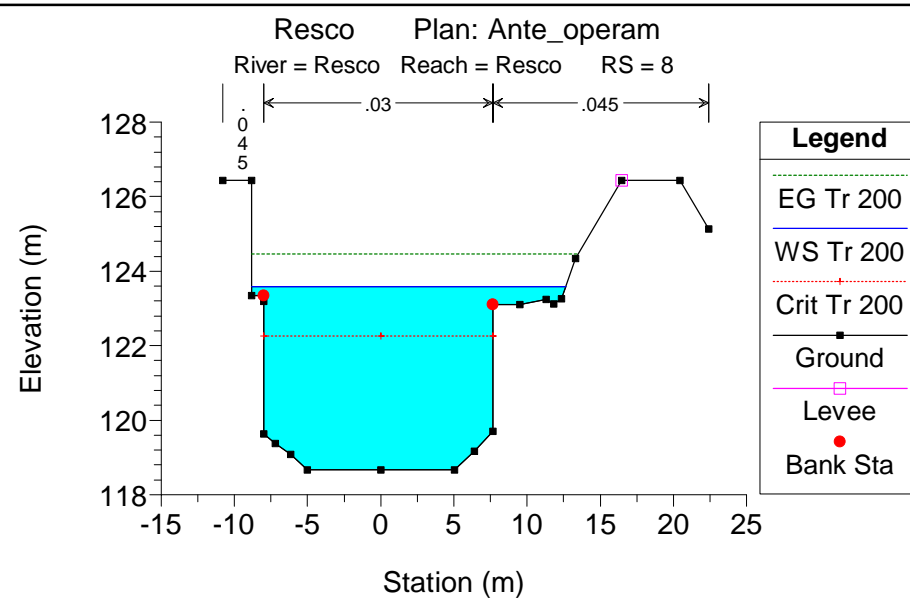
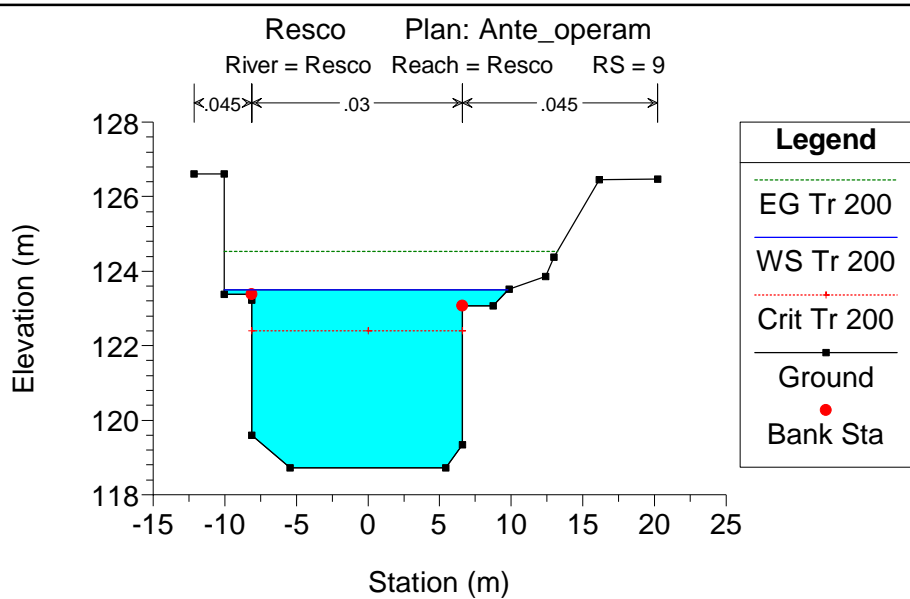
TORRENTE RESCO

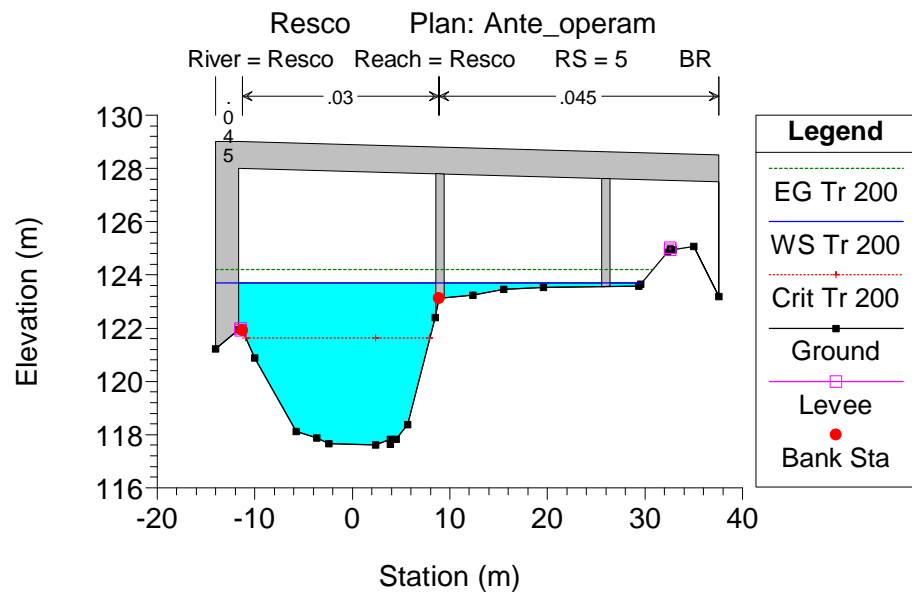
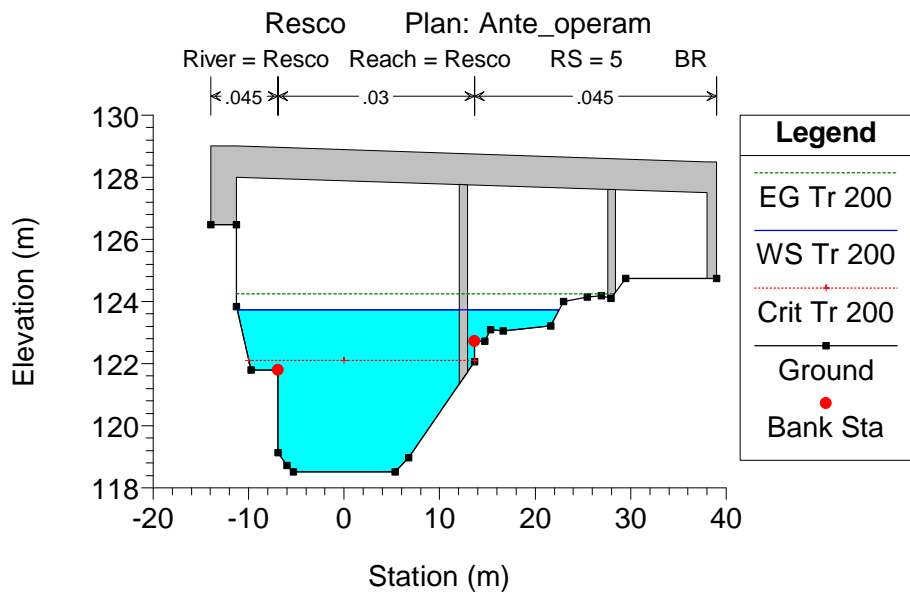
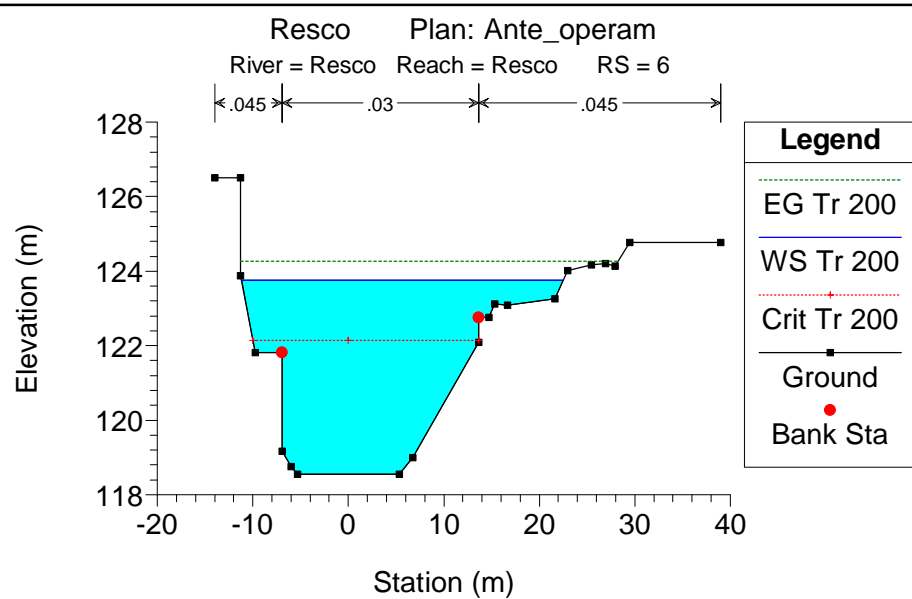
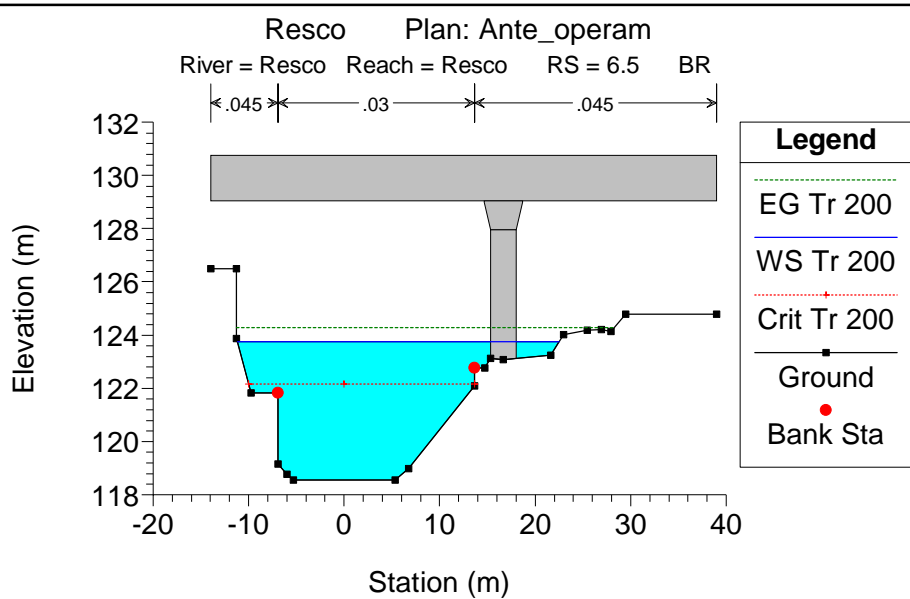
ANTE OPERAM

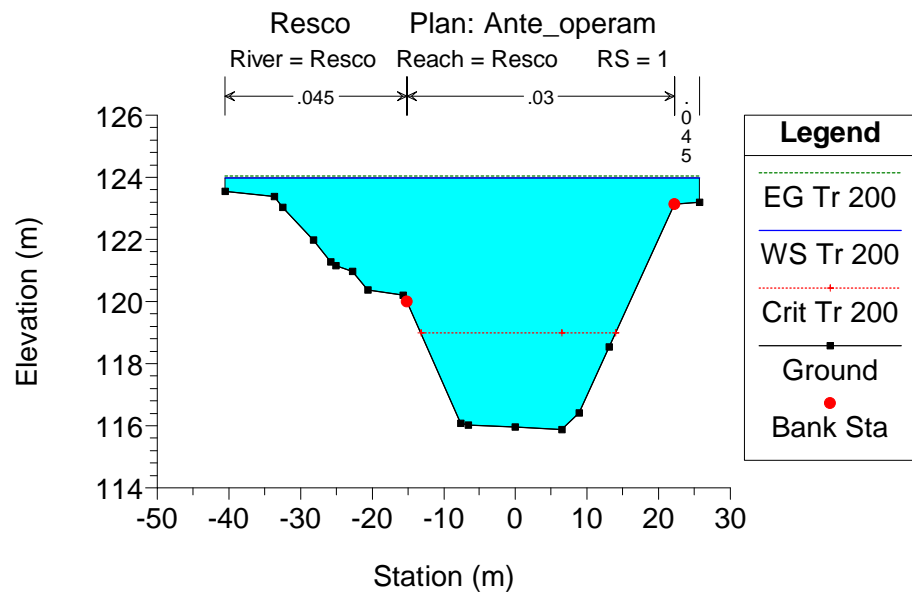
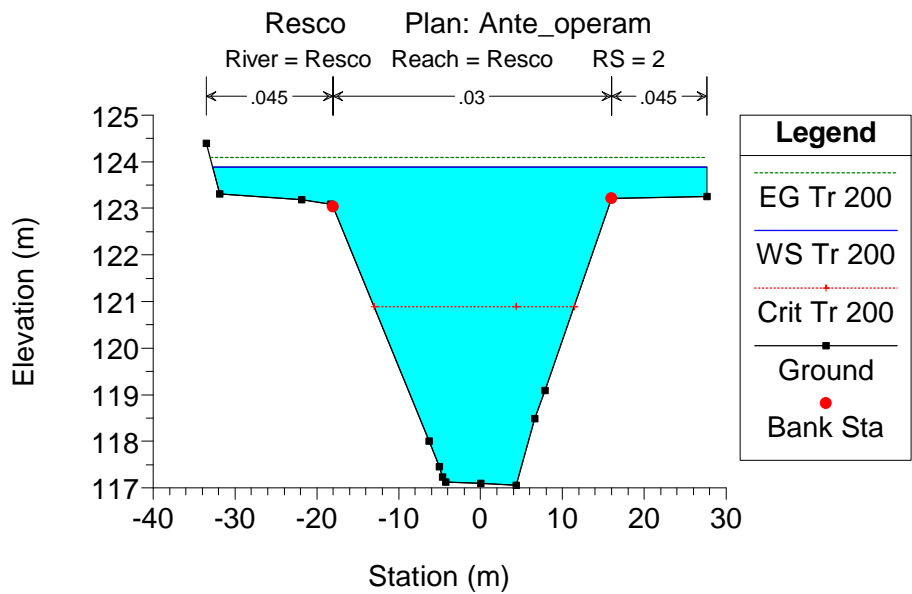
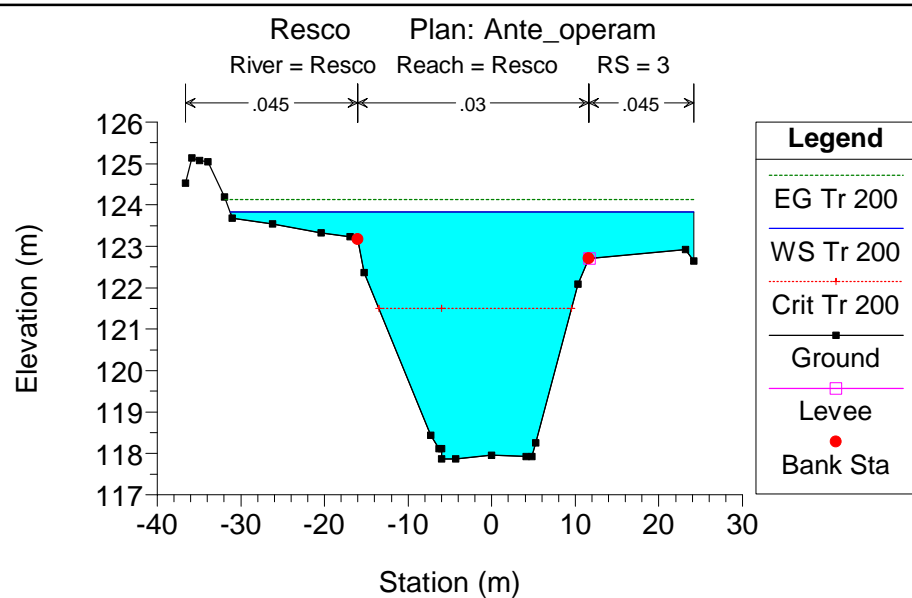
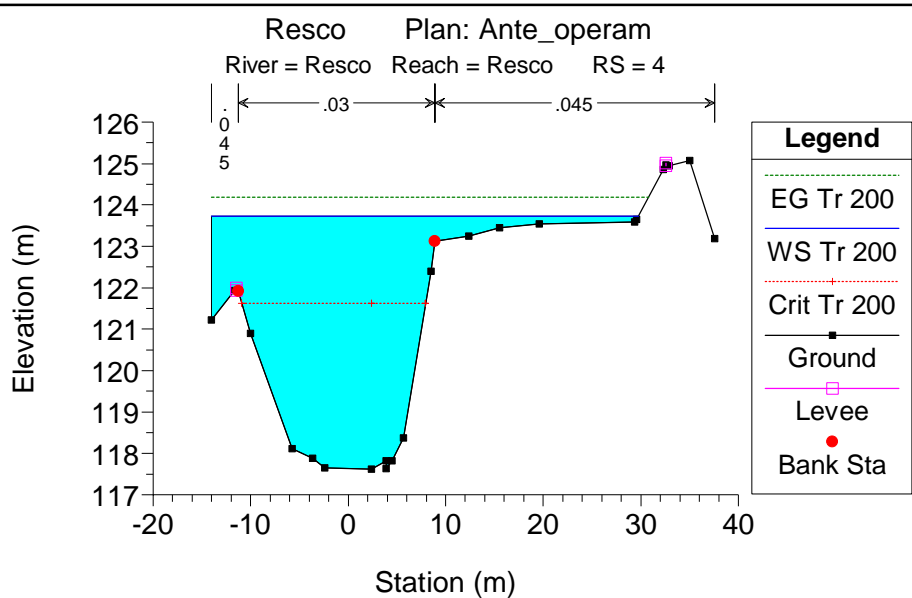
HEC-RAS Plan: AO River: Resco Reach: Resco Profile: Tr 200

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
Resco	11	Tr 200	310.40	118.83	123.78	122.70	124.66	0.003568	4.17	74.47	19.48	0.68
Resco	10.5	Bridge										
Resco	10	Tr 200	310.40	118.76	123.72	122.65	124.61	0.003581	4.17	74.36	19.46	0.68
Resco	9	Tr 200	310.40	118.73	123.49	122.40	124.53	0.004159	4.52	69.88	19.80	0.67
Resco	8	Tr 200	310.40	118.67	123.59	122.27	124.47	0.003285	4.16	76.59	21.48	0.61
Resco	7	Tr 200	310.40	118.64	123.73	121.97	124.34	0.002078	3.47	92.46	27.25	0.50
Resco	6.5	Bridge										
Resco	6	Tr 200	310.40	118.55	123.75	122.14	124.27	0.001624	3.24	104.93	33.67	0.49
Resco	5	Bridge										
Resco	4	Tr 200	310.40	117.61	123.72	121.62	124.19	0.001319	3.08	109.85	43.76	0.44
Resco	3	Tr 200	310.40	117.87	123.83	121.50	124.13	0.000859	2.45	141.19	55.50	0.37
Resco	2	Tr 200	310.40	117.05	123.89	120.88	124.09	0.000522	1.98	171.03	60.37	0.30
Resco	1	Tr 200	310.40	115.89	123.97	118.99	124.04	0.000133	1.24	287.49	66.26	0.16









OPERA N. 2094

TORRENTE RESCO

POST OPERAM

HEC-RAS Plan: PO River: Resco Reach: Resco Profile: Tr 200

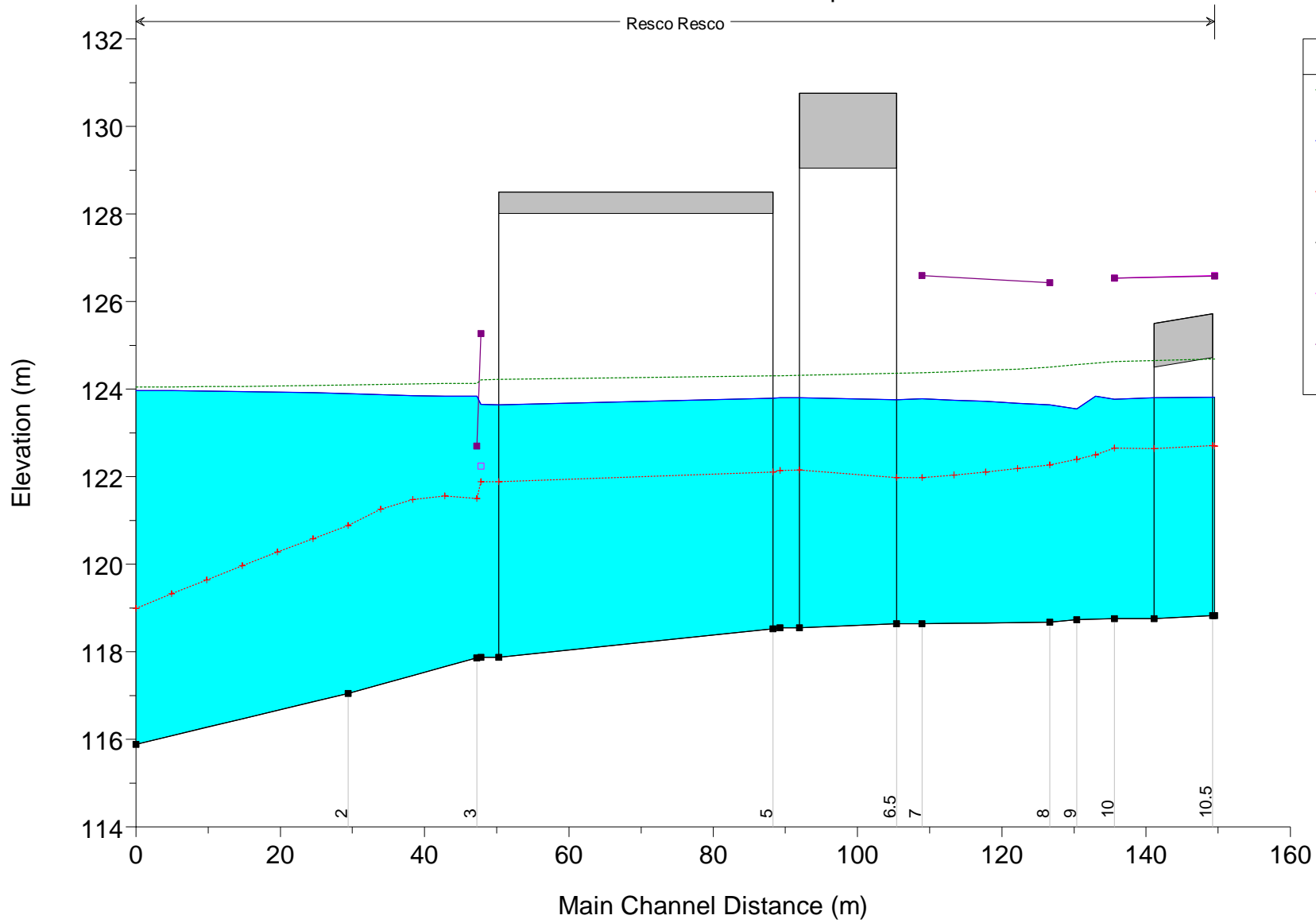
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Resco	11	Tr 200	310.40	118.83	123.82	122.70	124.68	0.003473	4.12	75.26	19.59	0.67
Resco	10.5	Bridge										
Resco	10	Tr 200	310.40	118.76	123.76	122.65	124.63	0.003479	4.13	75.20	19.57	0.67
Resco	9	Tr 200	310.40	118.73	123.54	122.40	124.55	0.004006	4.46	70.90	20.03	0.66
Resco	8	Tr 200	310.40	118.67	123.64	122.27	124.49	0.003170	4.11	77.64	21.53	0.60
Resco	7	Tr 200	310.40	118.64	123.77	121.97	124.37	0.002011	3.44	93.70	27.38	0.50
Resco	6.5	Bridge										
Resco	6	Tr 200	310.40	118.55	123.80	122.14	124.30	0.001561	3.19	106.59	33.80	0.48
Resco	5	Bridge										
Resco	4	Tr 200	310.40	117.87	123.65	121.88	124.21	0.001683	3.32	97.74	28.67	0.50
Resco	3	Tr 200	310.40	117.87	123.83	121.50	124.13	0.000860	2.45	141.18	55.50	0.37
Resco	2	Tr 200	310.40	117.05	123.89	120.89	124.09	0.000523	1.98	171.02	60.37	0.30
Resco	1	Tr 200	310.40	115.89	123.97	118.99	124.04	0.000133	1.24	287.49	66.26	0.16

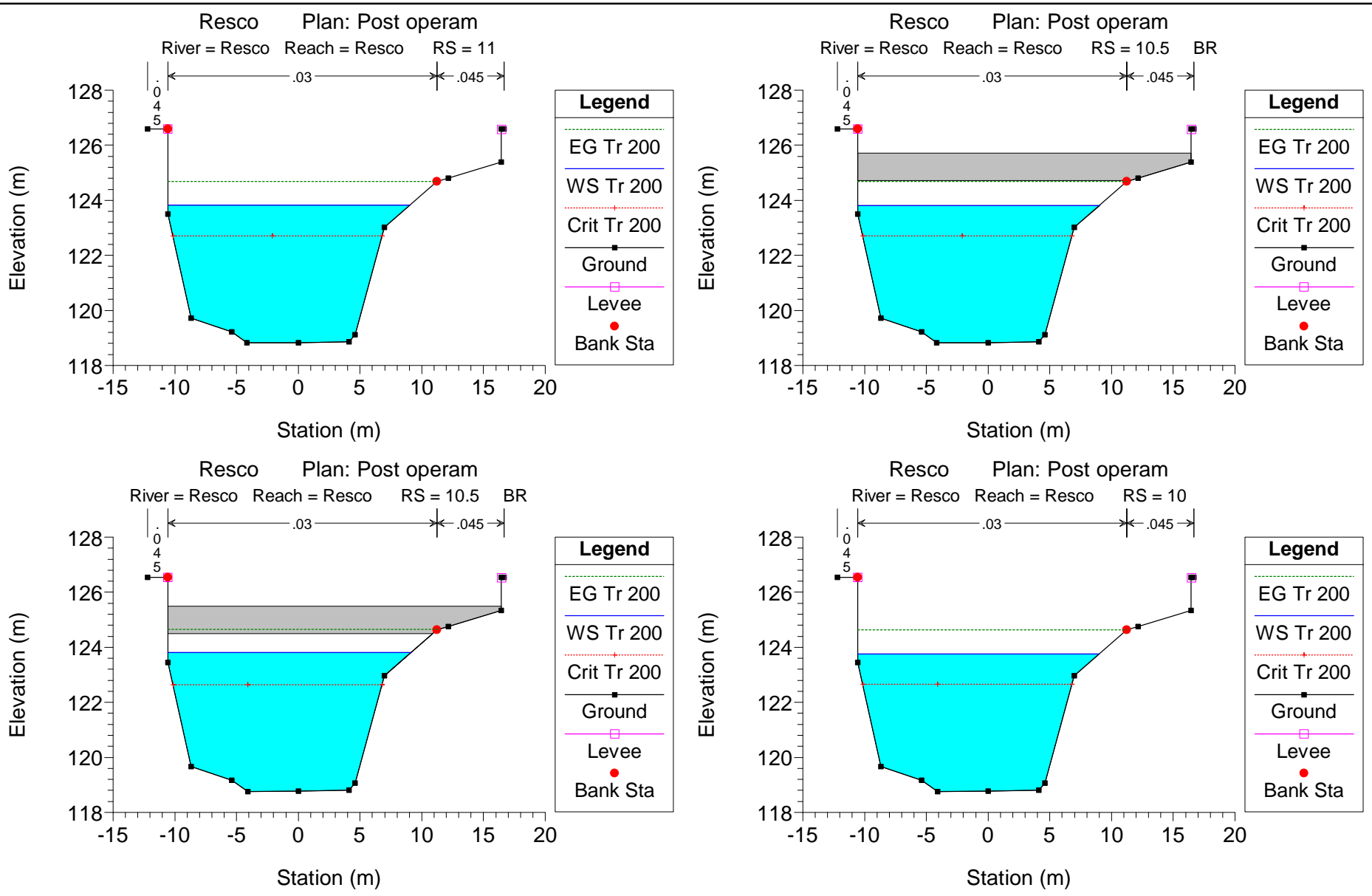
Resco Plan: Post operam

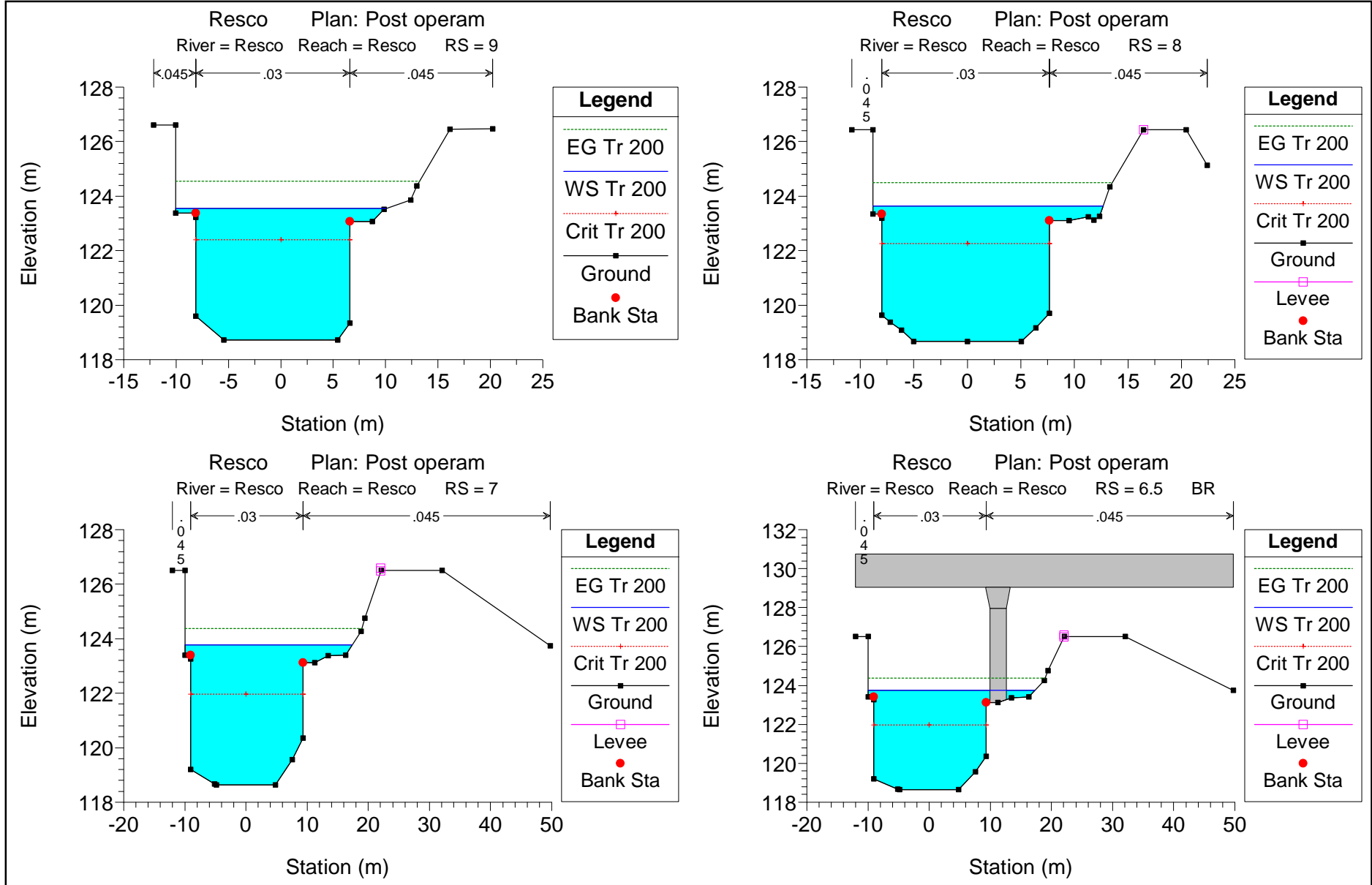
Resco Resco

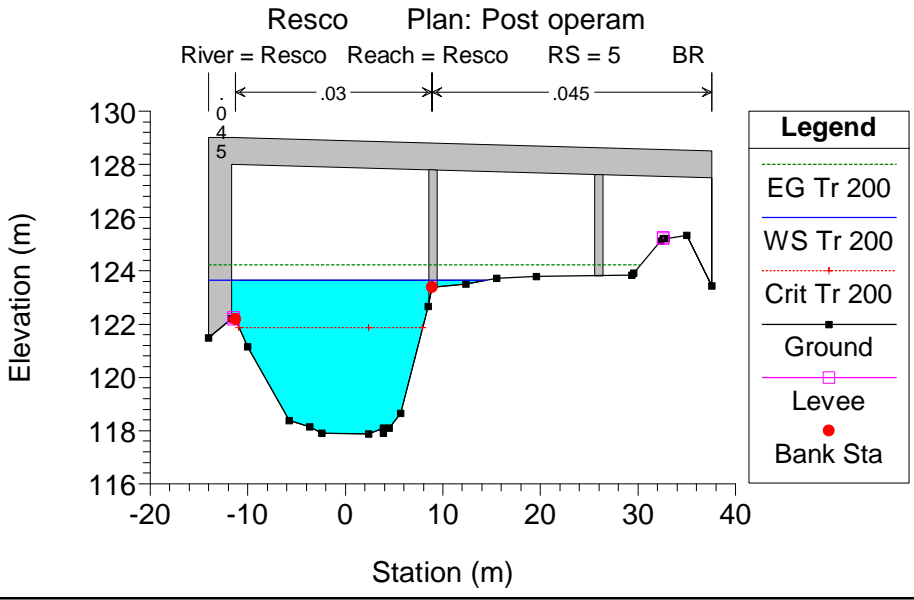
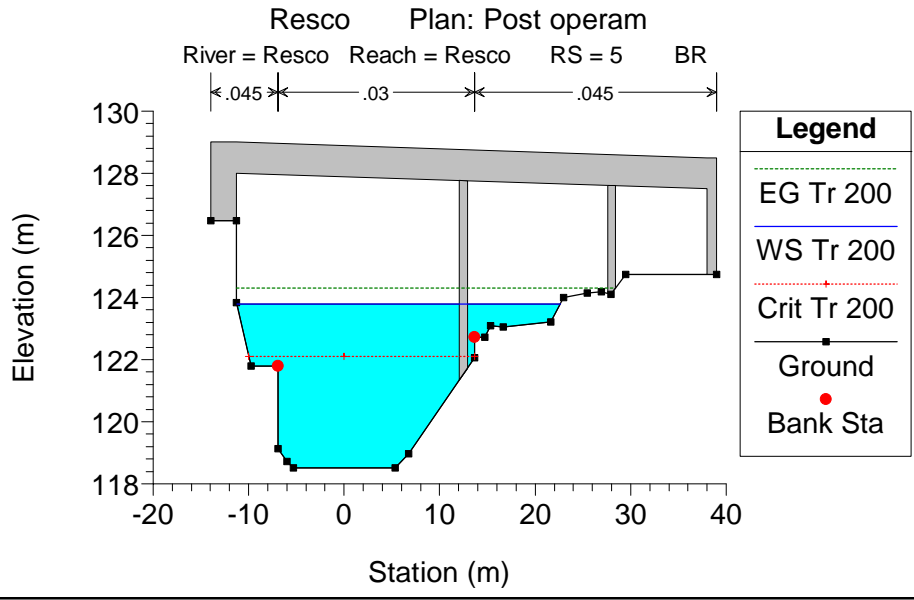
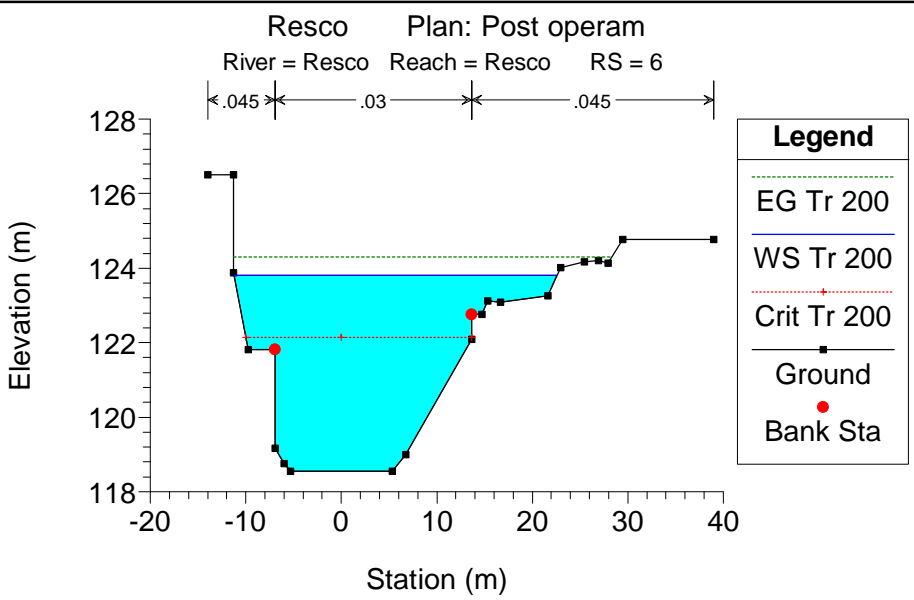
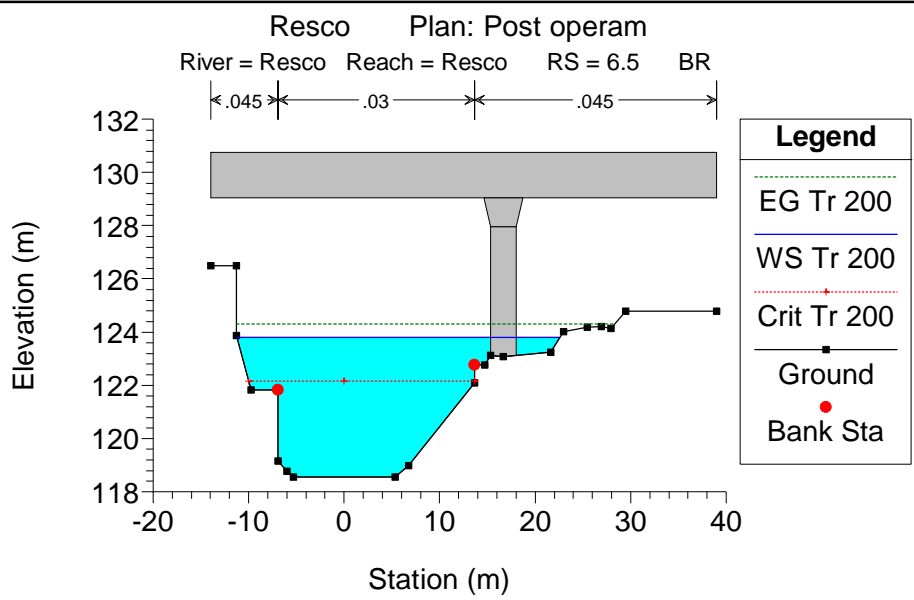
Legend

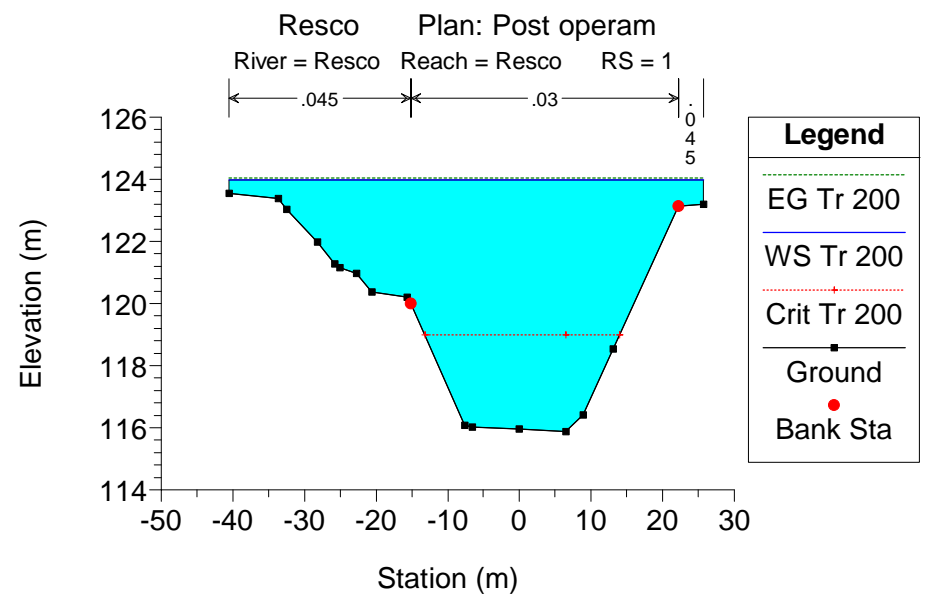
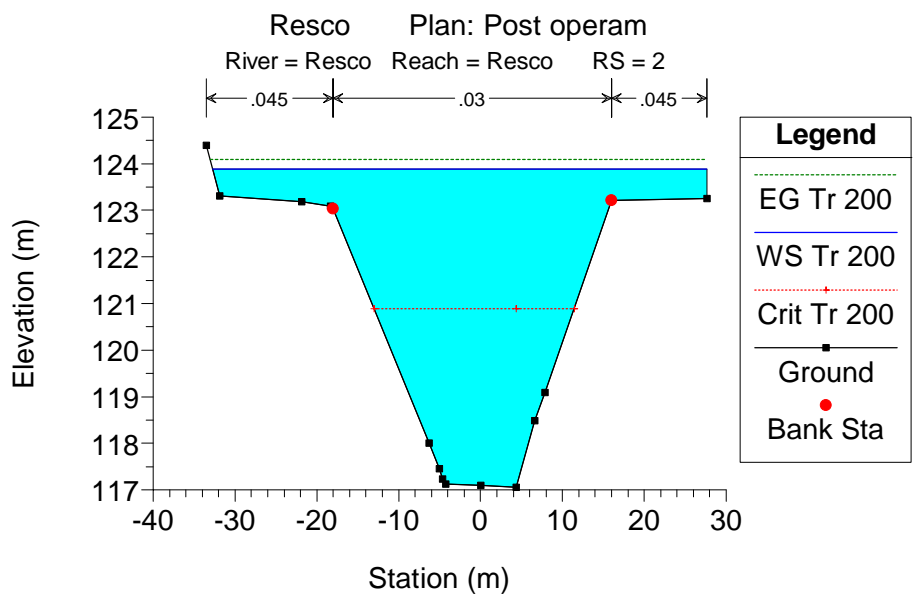
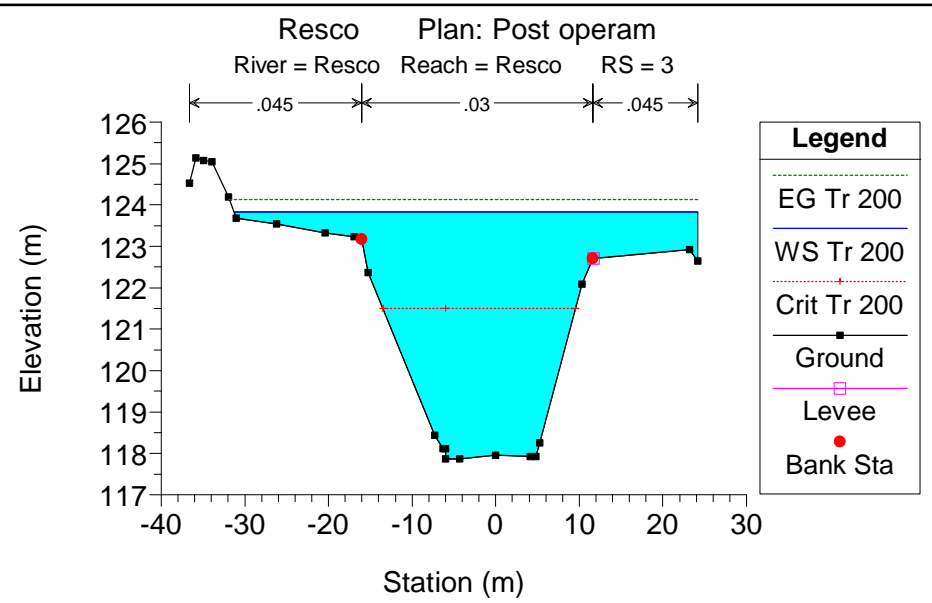
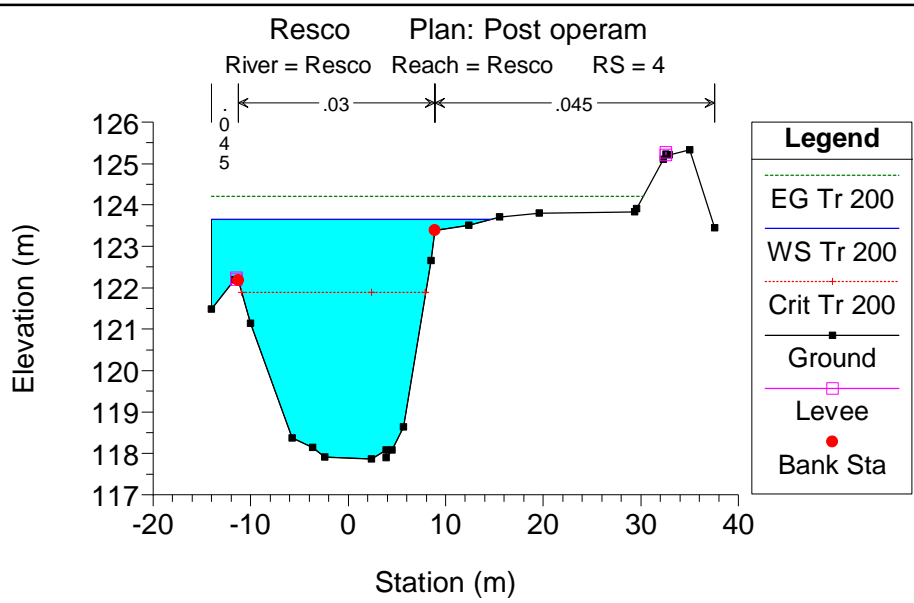
- EG Tr 200
- WS Tr 200
- Crit Tr 200
- Ground
- Left Levee
- Right Levee







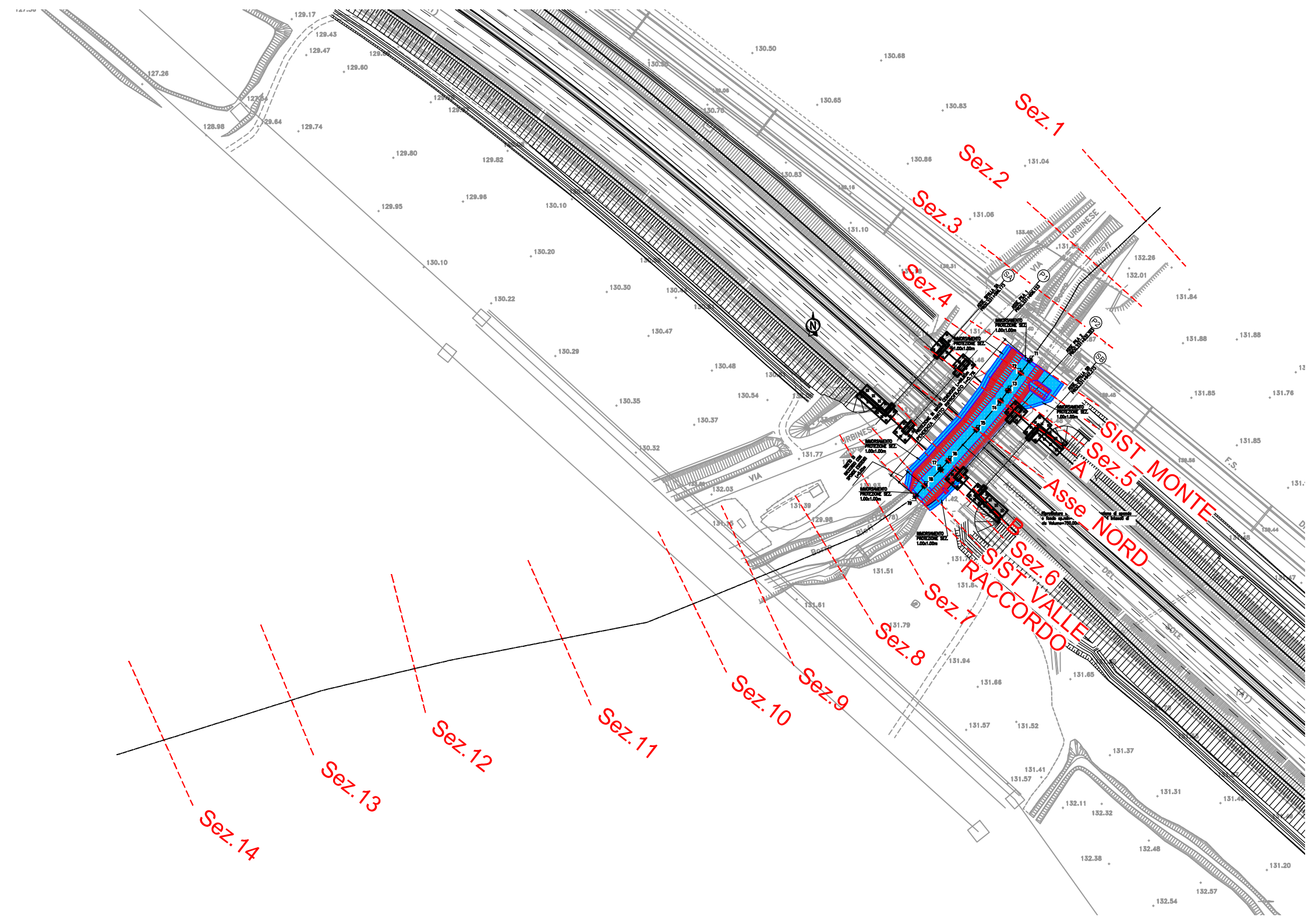




OPERA N. 2123

BORRO DI RIOFI DELLE CAVE

ANTE OPERAM



HEC-RAS Plan: ante River: riofi Reach: riofi Profile: Tr 200

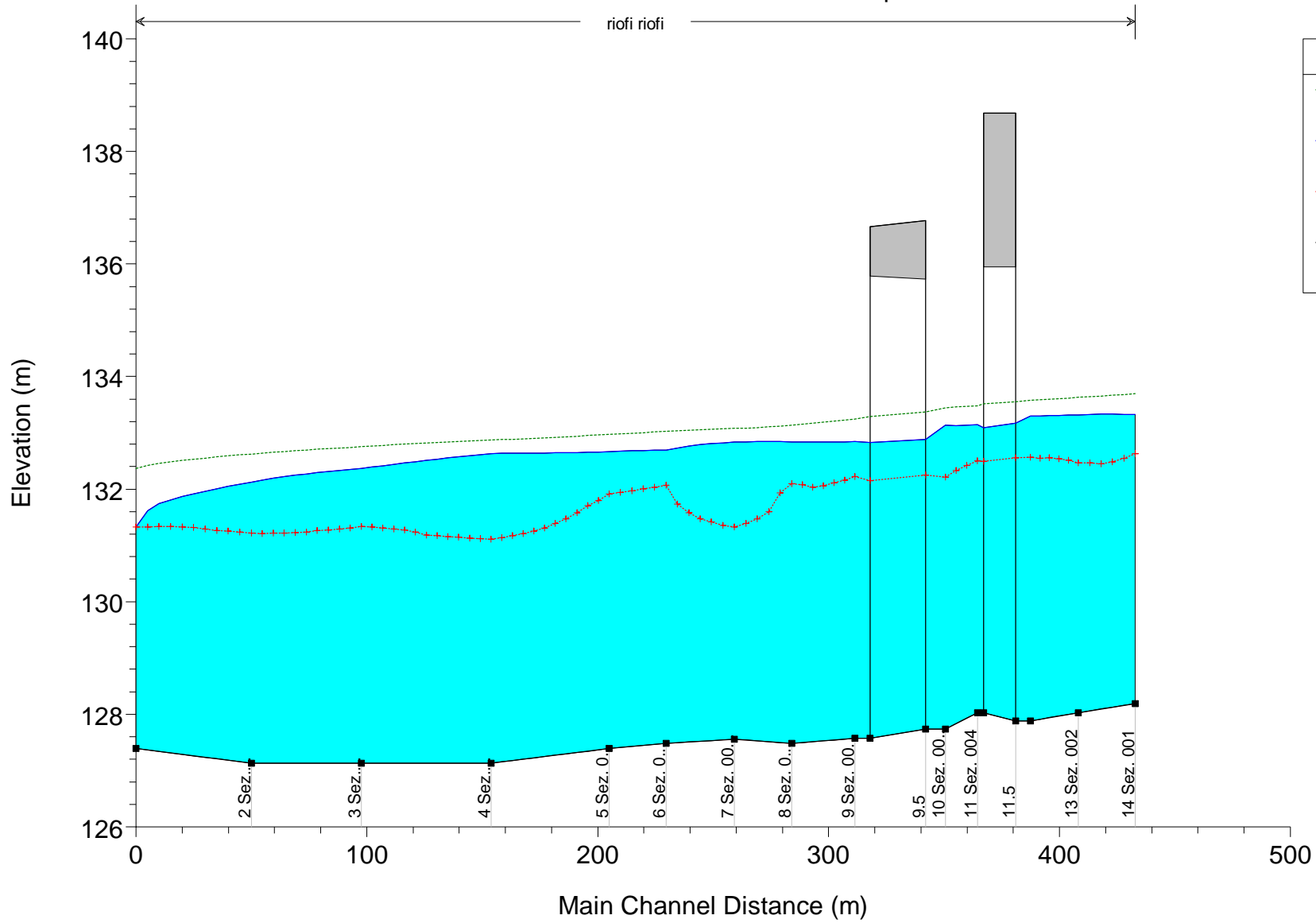
Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
rioifi	14	Sez. 001	Tr 200	260.00	128.19	133.32	132.63	133.70	0.002424	3.13	116.37	58.31	0.51
rioifi	13	Sez. 002	Tr 200	260.00	128.03	133.32	132.47	133.63	0.002116	2.79	122.57	57.89	0.48
rioifi	12	Sez. 003	Tr 200	260.00	127.88	133.30	132.56	133.58	0.002002	2.74	130.57	62.58	0.46
rioifi	11.5			Bridge									
rioifi	11	Sez. 004	Tr 200	260.00	128.03	133.15	132.50	133.48	0.002006	2.94	122.80	57.66	0.48
rioifi	10	Sez. 005	Tr 200	260.00	127.74	133.13	132.22	133.44	0.001790	2.88	121.50	57.86	0.45
rioifi	9.5			Bridge									
rioifi	9	Sez. 006	Tr 200	260.00	127.57	132.84	132.22	133.25	0.002472	3.21	109.01	62.53	0.50
rioifi	8	Sez. 007	Tr 200	260.00	127.48	132.84	132.09	133.13	0.001983	2.60	125.65	64.11	0.46
rioifi	7	Sez. 008	Tr 200	260.00	127.56	132.84	131.33	133.08	0.001260	2.30	133.73	56.03	0.39
rioifi	6	Sez. 009	Tr 200	260.00	127.48	132.69	132.07	133.03	0.001976	2.89	124.78	65.68	0.48
rioifi	5	Sez. 010	Tr 200	260.00	127.39	132.67	131.92	132.97	0.001926	2.72	123.69	58.42	0.47
rioifi	4	Sez. 011	Tr 200	260.00	127.13	132.63	131.11	132.87	0.001362	2.22	130.73	59.03	0.39
rioifi	3	Sez. 012	Tr 200	260.00	127.13	132.36	131.33	132.75	0.002439	2.87	102.64	47.64	0.52
rioifi	2	Sez. 013	Tr 200	260.00	127.13	132.12	131.22	132.62	0.002886	3.29	94.32	47.43	0.56
rioifi	1	Sez. 014	Tr 200	260.00	127.39	131.33	131.33	132.37	0.007994	4.73	62.94	33.63	0.90

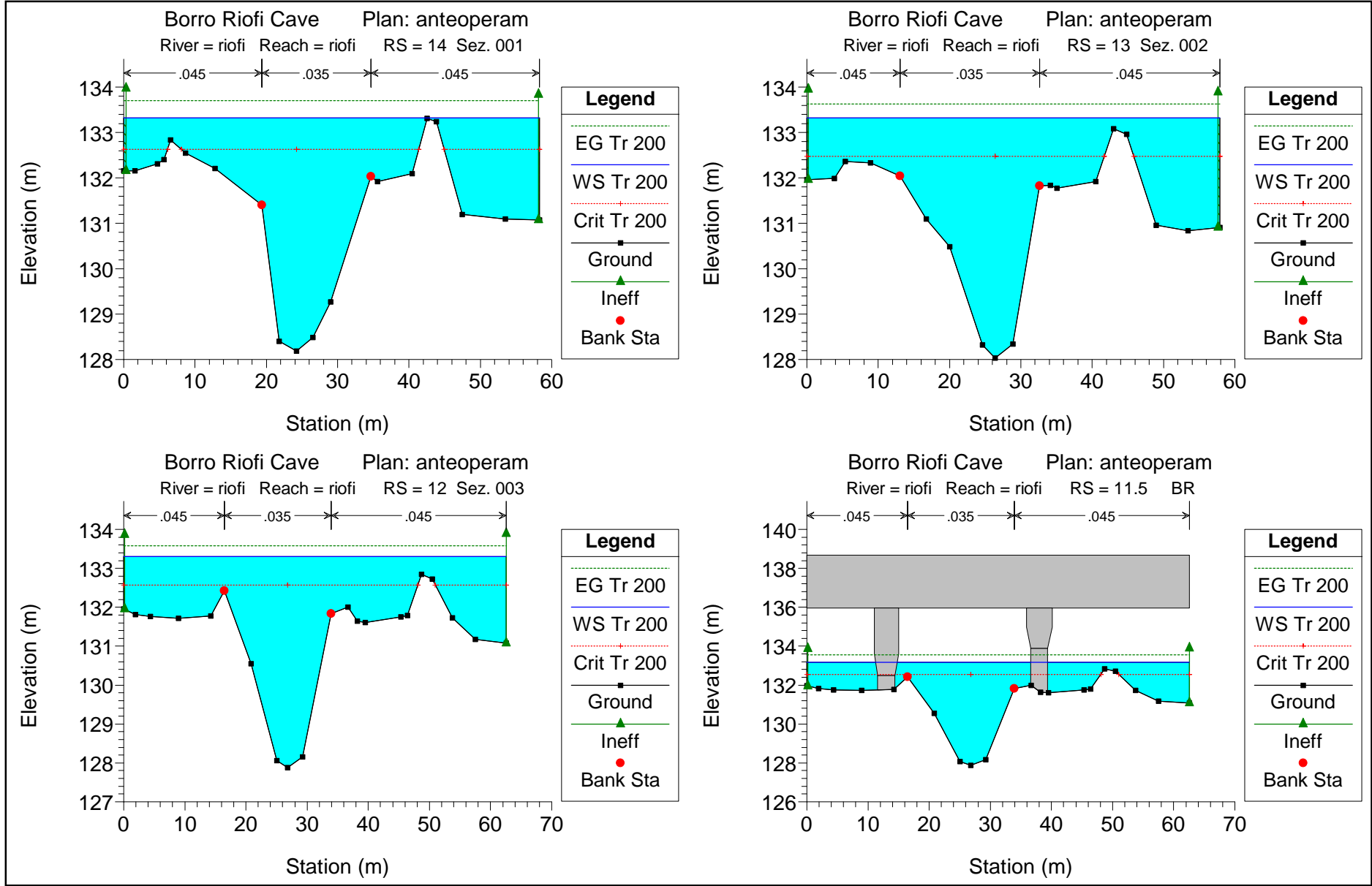
Borro Riofi Cave Plan: anteperam

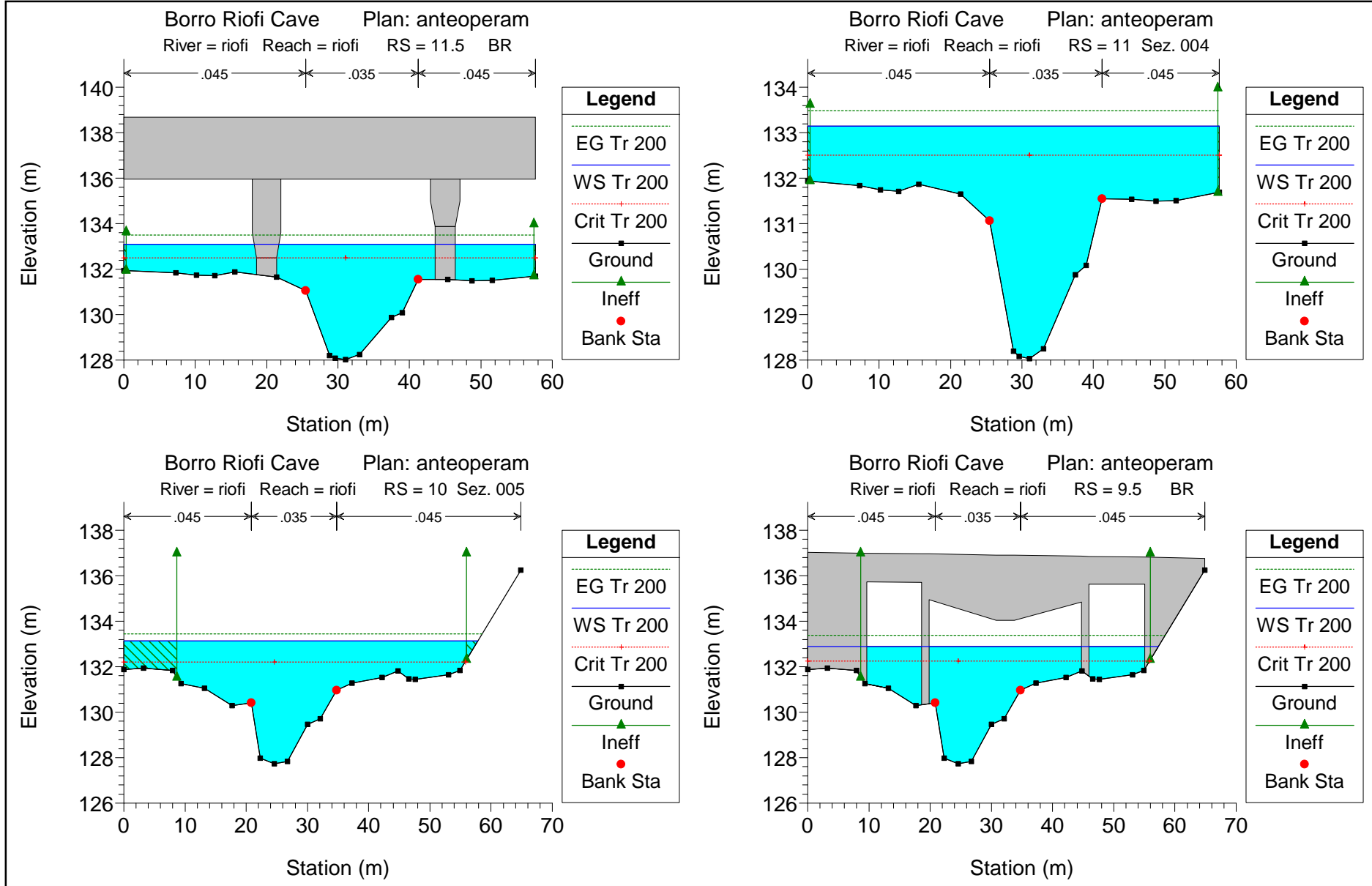
rio fi rio fi

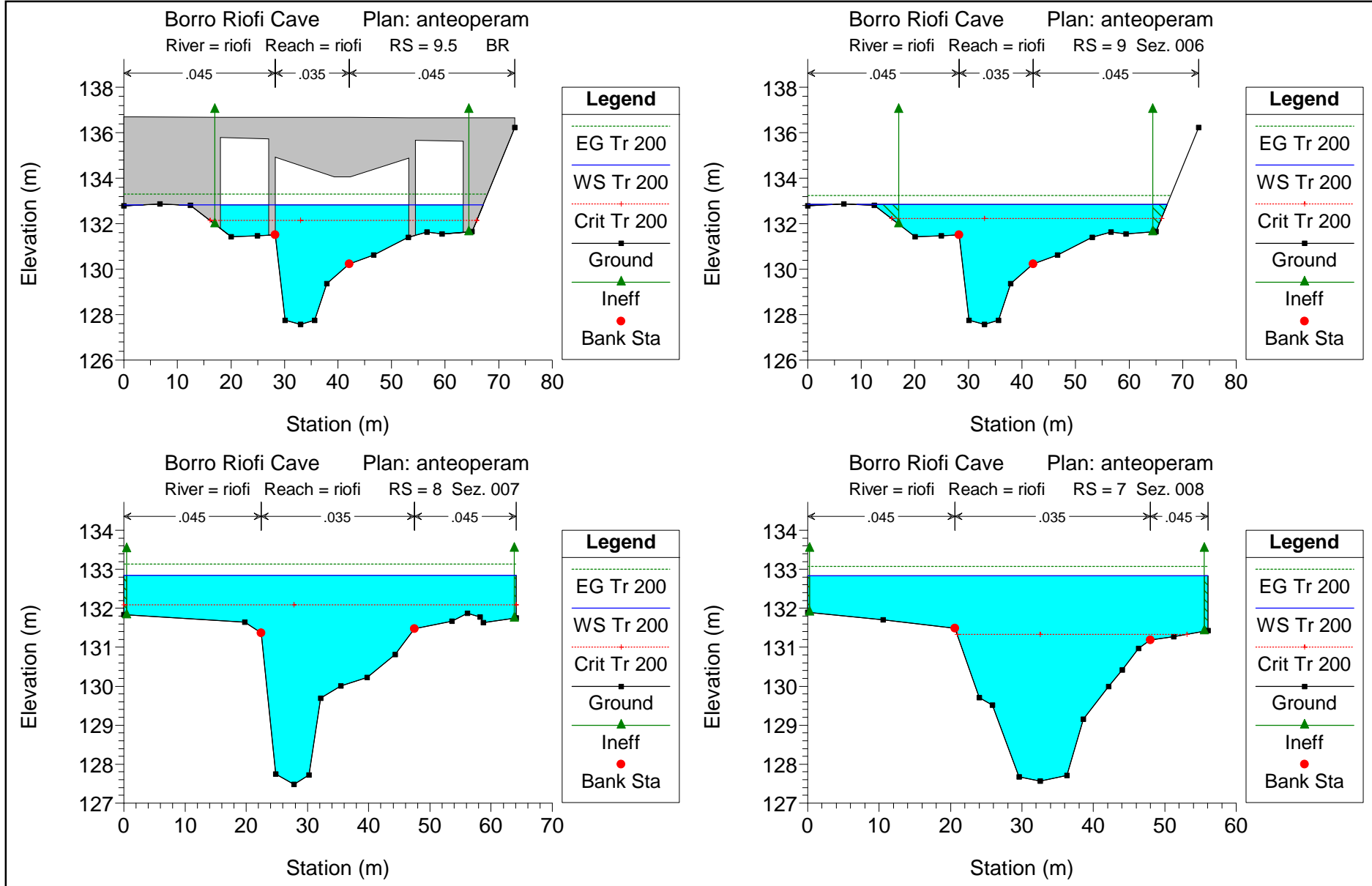
Legend

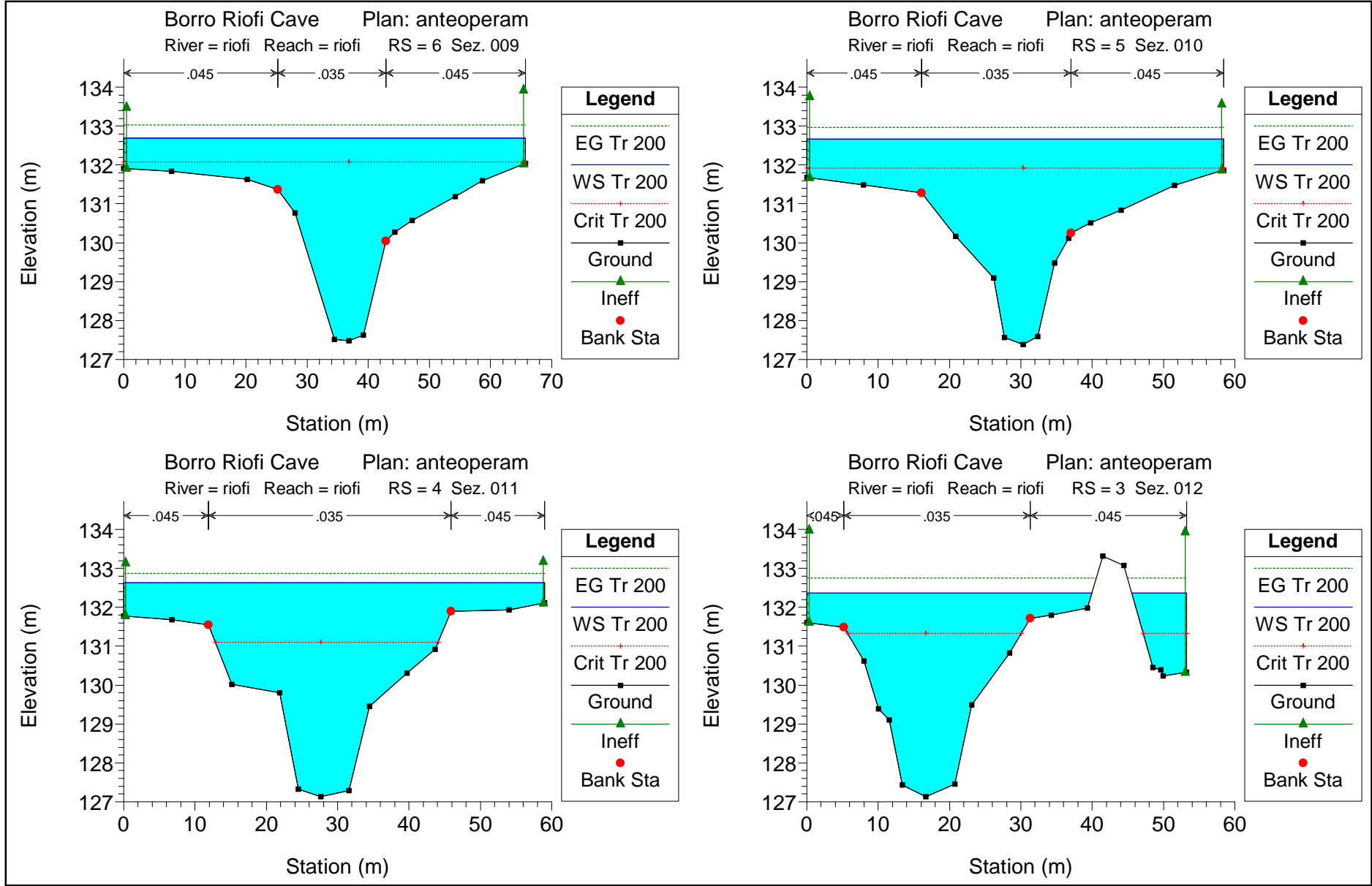
- EG Tr 200
- WS Tr 200
- Crit Tr 200
- Ground

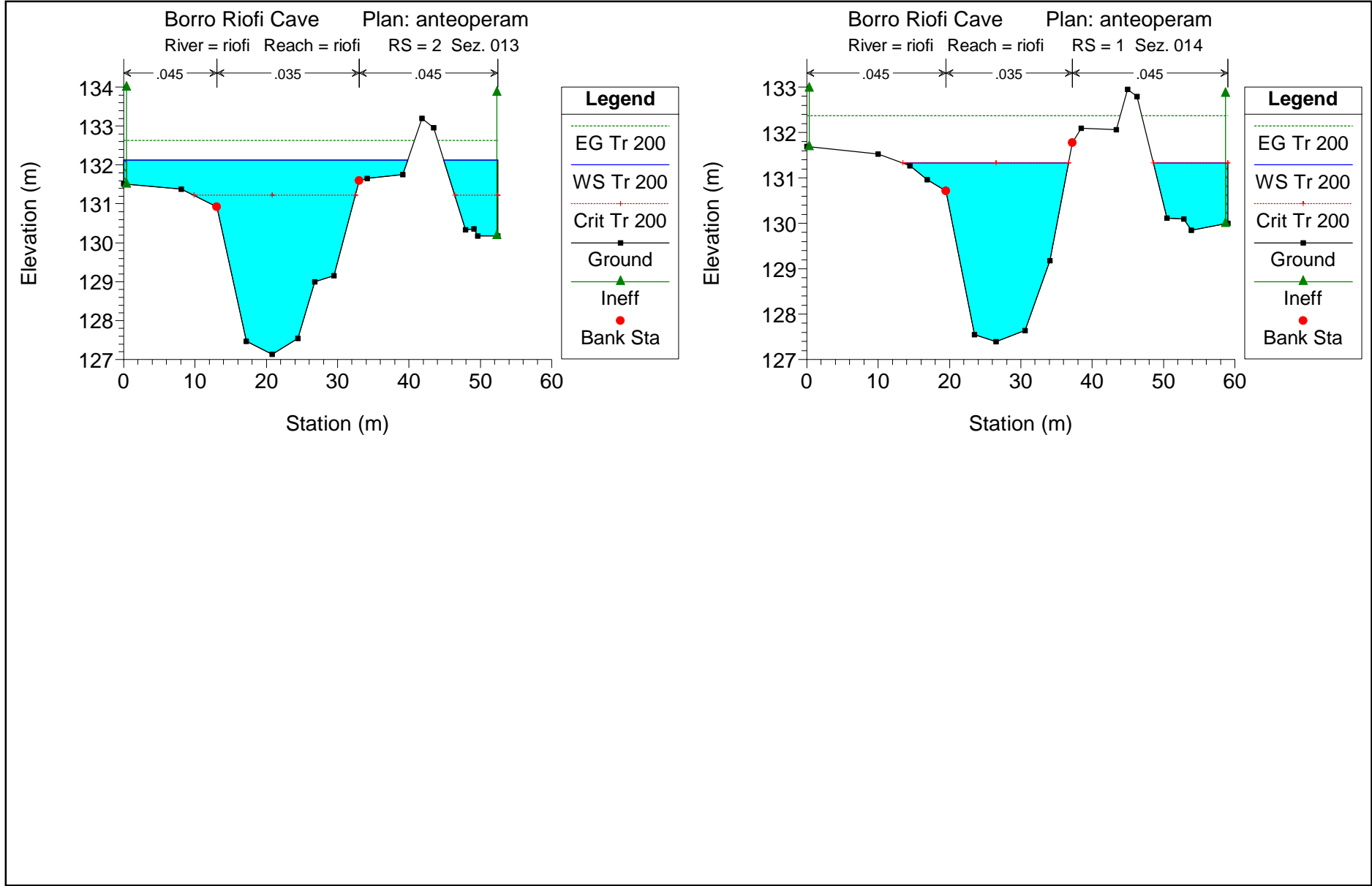












OPERA N. 2123

BORRO RIOFI

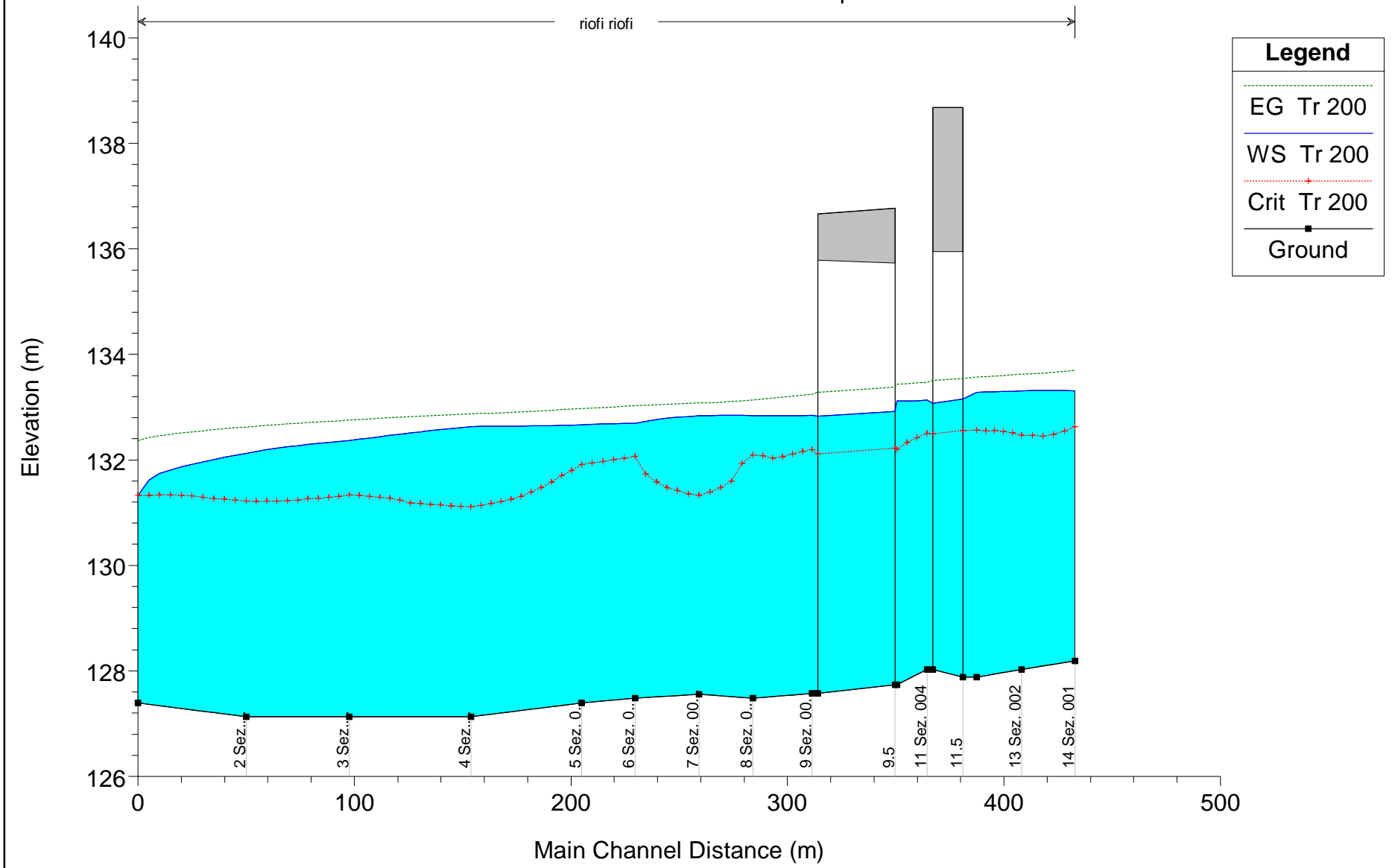
POST OPERAM

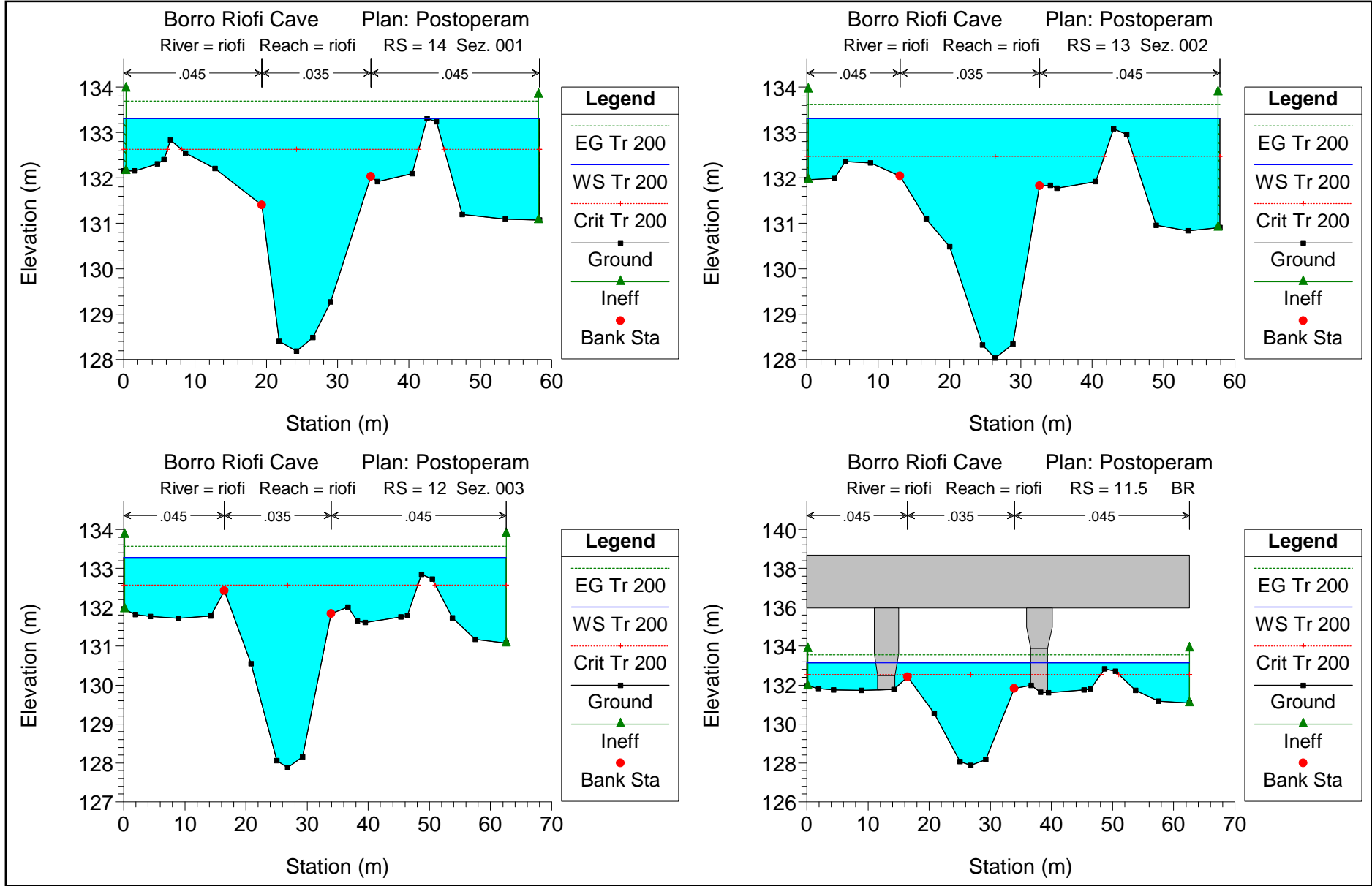
HEC-RAS Plan: PO-1710 River: riofi Reach: riofi Profile: Tr 200

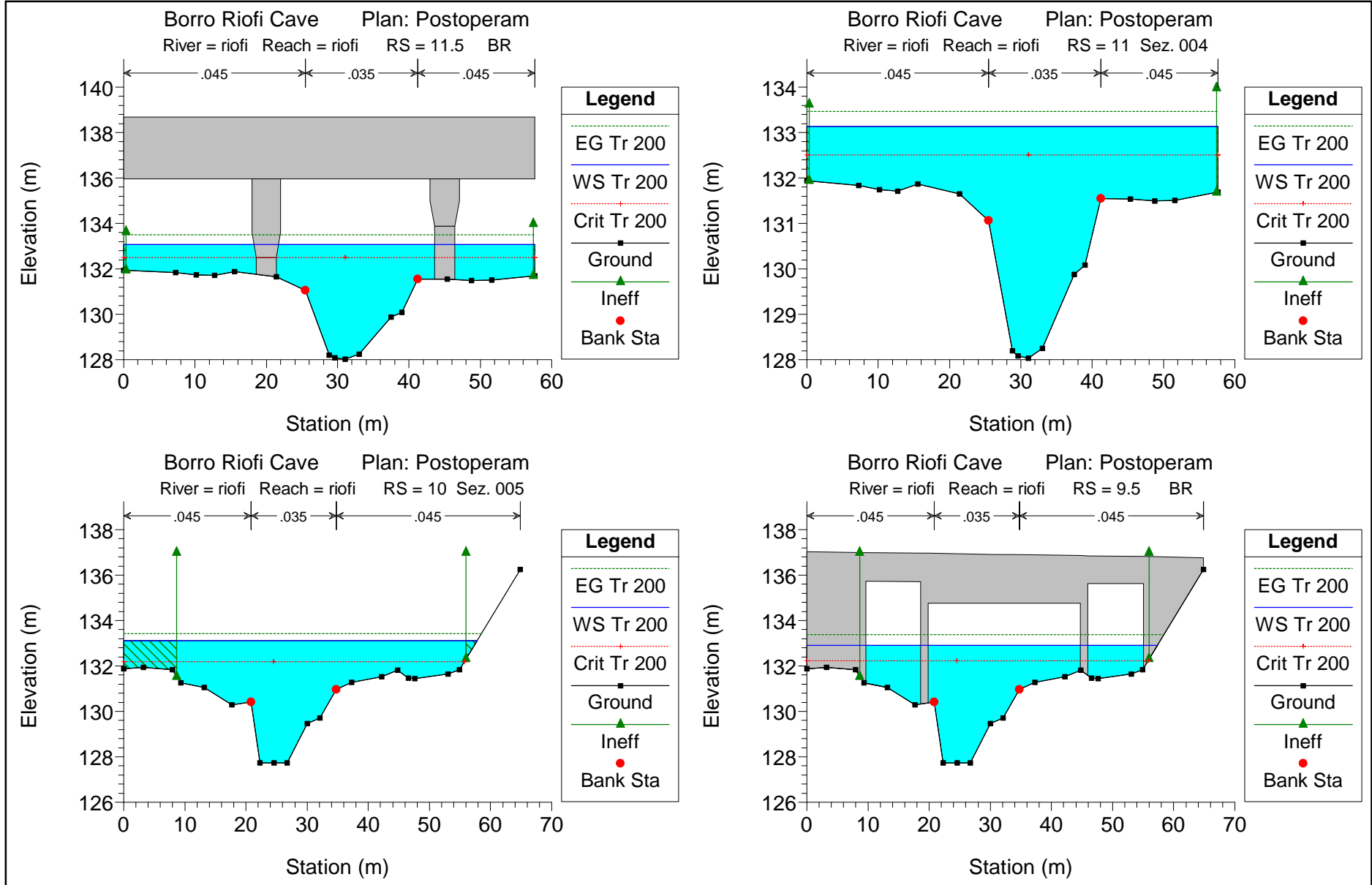
Reach	River Sta	Profile	Q Total (m ³ /s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m ²)	Top Width (m)	Froude # Chl
rioifi	14 Sez. 001	Tr 200	260.00	128.19	133.31	132.63	133.69	0.002464	3.15	115.65	58.31	0.52
rioifi	13 Sez. 002	Tr 200	260.00	128.03	133.31	132.47	133.62	0.002152	2.80	121.86	57.89	0.49
rioifi	12 Sez. 003	Tr 200	260.00	127.88	133.28	132.56	133.57	0.002038	2.76	129.75	62.58	0.47
rioifi	11.5	Bridge										
rioifi	11 Sez. 004	Tr 200	260.00	128.03	133.13	132.50	133.47	0.002051	2.96	121.82	57.66	0.48
rioifi	10 Sez. 005	Tr 200	260.00	127.74	133.12	132.20	133.43	0.001790	2.87	121.63	57.83	0.44
rioifi	9.5	Bridge										
rioifi	9 Sez. 006	Tr 200	260.00	127.57	132.85	132.19	133.24	0.002405	3.16	110.14	63.44	0.49
rioifi	8 Sez. 007	Tr 200	260.00	127.48	132.84	132.09	133.13	0.001983	2.60	125.65	64.11	0.46
rioifi	7 Sez. 008	Tr 200	260.00	127.56	132.84	131.33	133.08	0.001260	2.30	133.73	56.03	0.39
rioifi	6 Sez. 009	Tr 200	260.00	127.48	132.69	132.07	133.03	0.001976	2.89	124.78	65.68	0.48
rioifi	5 Sez. 010	Tr 200	260.00	127.39	132.67	131.92	132.97	0.001926	2.72	123.69	58.42	0.47
rioifi	4 Sez. 011	Tr 200	260.00	127.13	132.63	131.11	132.87	0.001362	2.22	130.73	59.03	0.39
rioifi	3 Sez. 012	Tr 200	260.00	127.13	132.36	131.33	132.75	0.002439	2.87	102.65	47.64	0.52
rioifi	2 Sez. 013	Tr 200	260.00	127.13	132.12	131.22	132.62	0.002886	3.29	94.33	47.43	0.56
rioifi	1 Sez. 014	Tr 200	260.00	127.39	131.33	131.33	132.37	0.007994	4.73	62.94	33.63	0.90

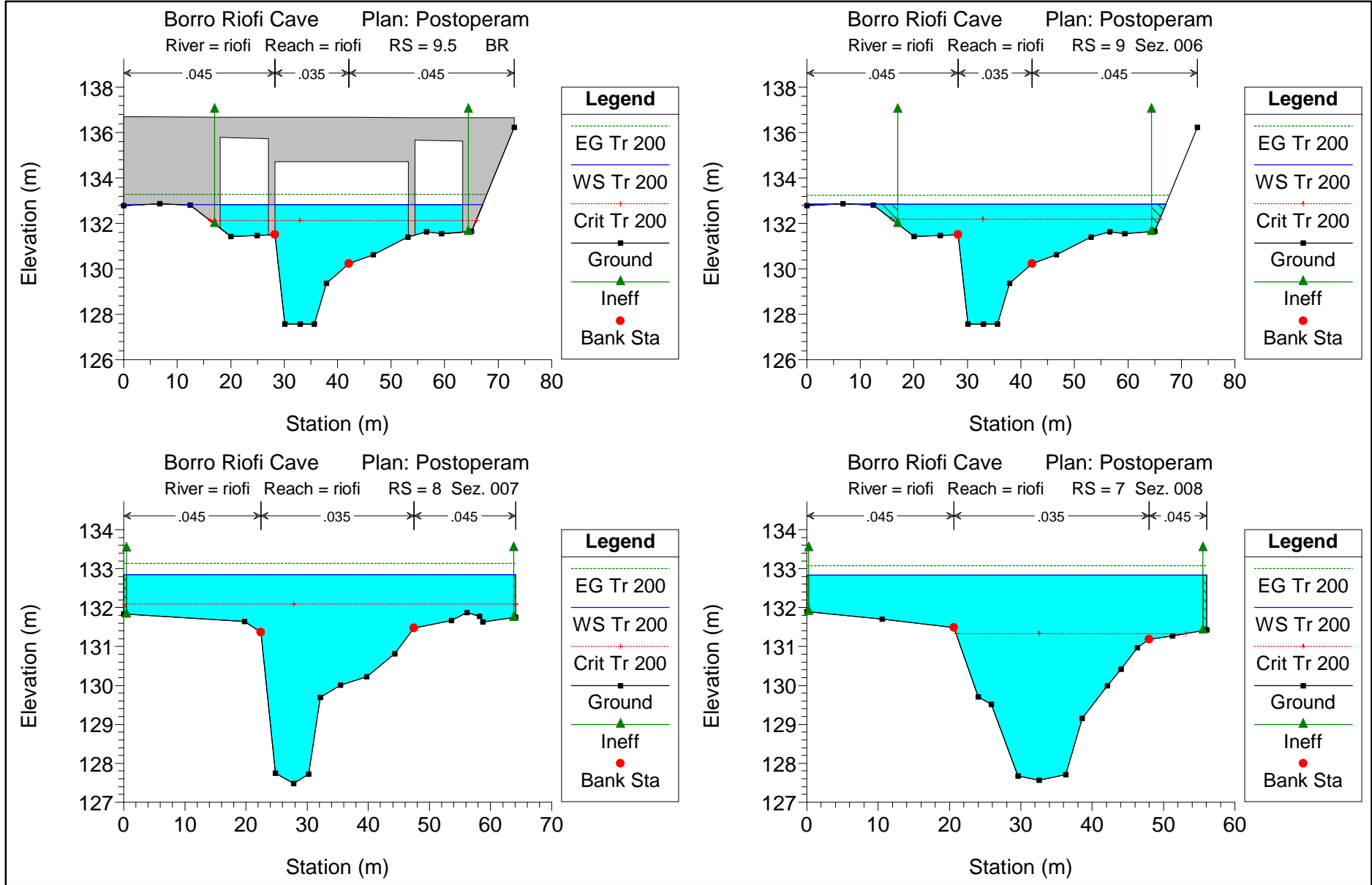
Borro Riofi Cave Plan: Postoperam

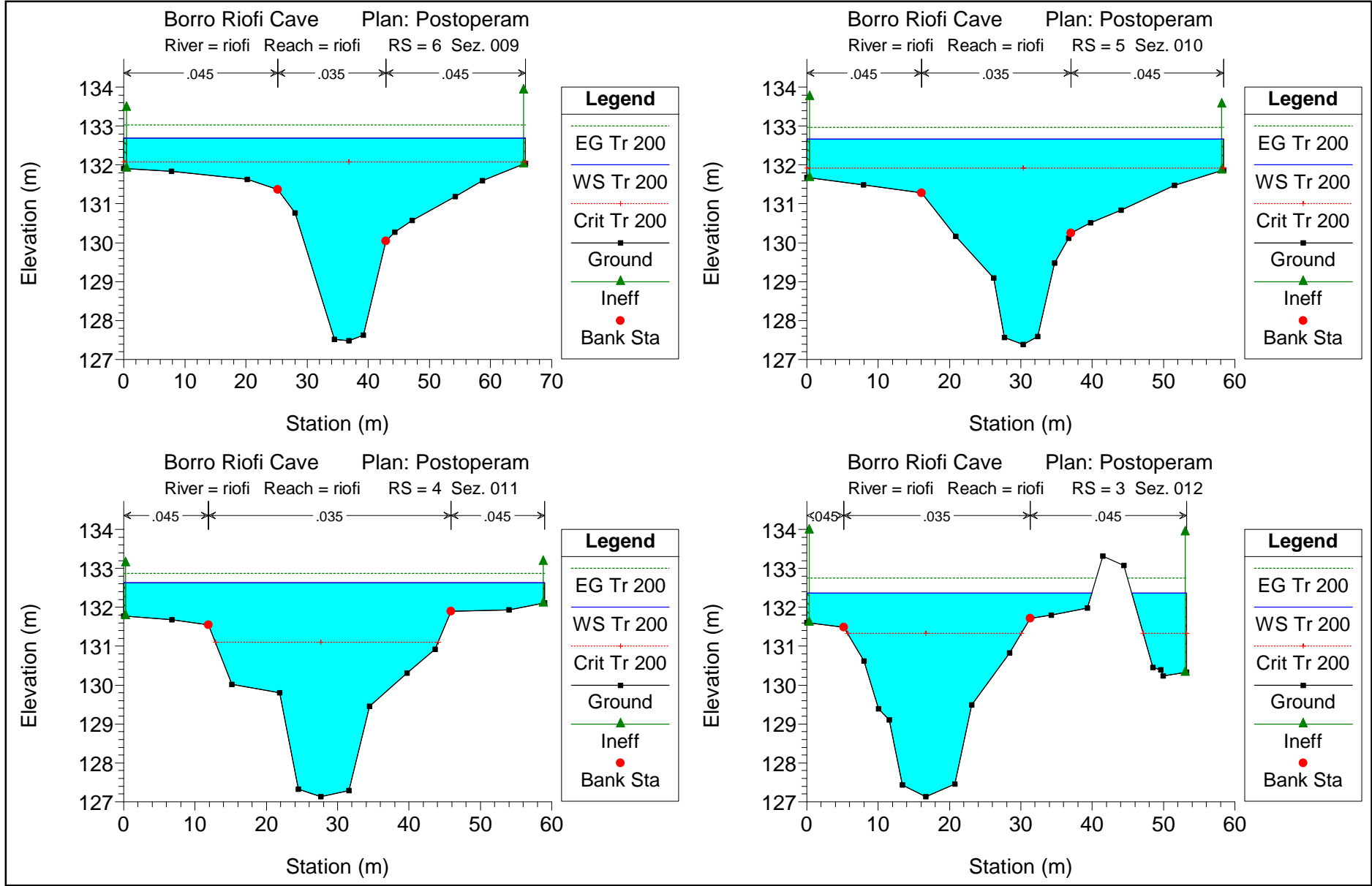
rio fi rio fi

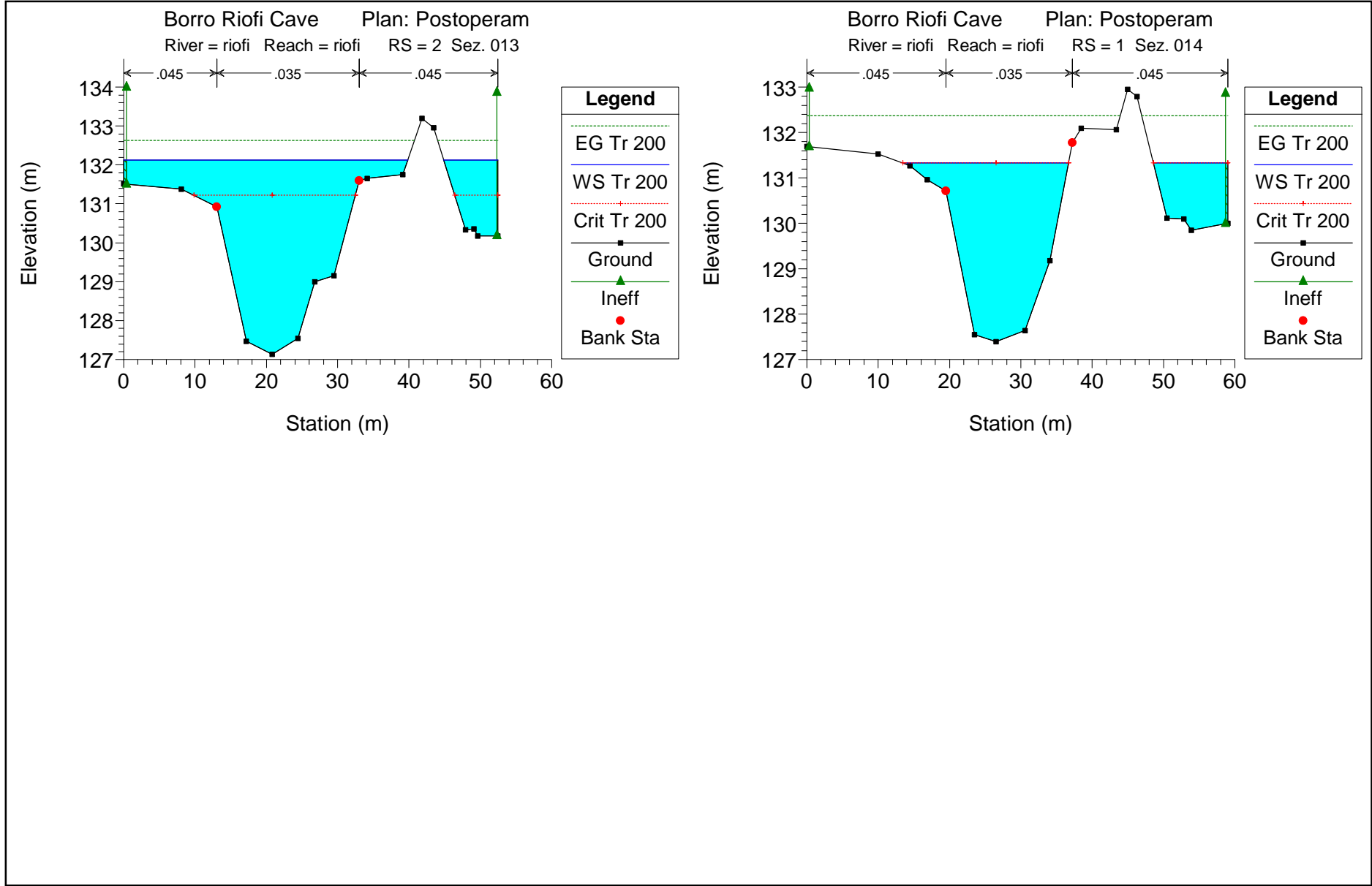












OPERA N. 2130

BORRO DELLE VILLE

ANTE OPERAM

HEC-RAS Plan: AO River: delle Ville Reach: Delle Ville Profile: Tr 200

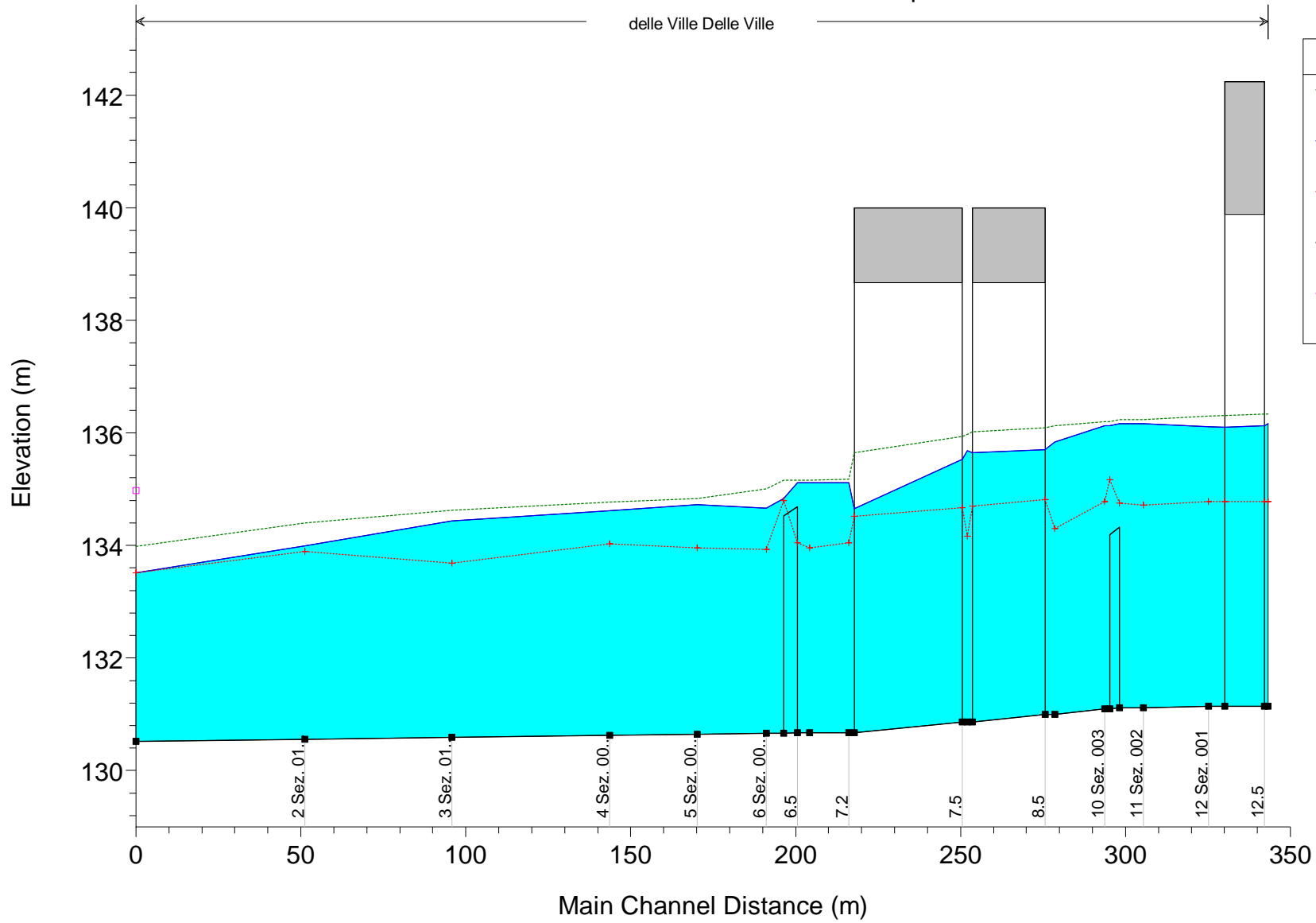
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W. S. Elev (m)	Crit W. S. (m)	E. G. Elev (m)	E. G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Delle Ville	12.6	Tr 200	89.50	131.14	136.16	134.78	136.34	0.001553	2.08	57.09	33.64	0.36
Delle Ville	12.5	Bridge										
Delle Ville	12 Sez. 001	Tr 200	89.50	131.14	136.10	134.78	136.30	0.001695	2.15	55.19	33.64	0.38
Delle Ville	11 Sez. 002	Tr 200	89.50	131.12	136.17	134.71	136.24	0.000855	1.42	81.67	38.31	0.24
Delle Ville	10.5	Bridge										
Delle Ville	10 Sez. 003	Tr 200	89.50	131.10	136.13	134.78	136.20	0.000805	1.45	82.32	39.58	0.24
Delle Ville	9 Sez. 004	Tr 200	89.50	131.00	135.83	134.30	136.13	0.000692	2.57	46.97	29.20	0.40
Delle Ville	8.5	Bridge										
Delle Ville	8	Tr 200	89.50	130.86	135.68	134.16	135.98	0.000699	2.58	46.78	29.13	0.40
Delle Ville	7.5	Bridge										
Delle Ville	7.2	Tr 200	89.50	130.67	135.11	134.05	135.18	0.000585	1.63	101.22	61.55	0.26
Delle Ville	7 Sez. 006	Tr 200	89.50	130.67	135.12	133.95	135.16	0.000838	1.12	101.32	61.55	0.18
Delle Ville	6.5	Bridge										
Delle Ville	6 Sez. 007	Tr 200	89.50	130.66	134.66	133.93	135.00	0.003546	2.74	42.66	45.42	0.54
Delle Ville	5 Sez. 008	Tr 200	89.50	130.65	134.73	133.95	134.84	0.001834	1.83	71.97	59.49	0.38
Delle Ville	4 Sez. 009	Tr 200	89.50	130.63	134.62	134.03	134.77	0.002702	2.15	59.91	51.41	0.45
Delle Ville	3 Sez. 010	Tr 200	89.50	130.59	134.43	133.88	134.63	0.003277	2.37	55.38	49.66	0.46
Delle Ville	2 Sez. 011	Tr 200	89.50	130.56	133.99	133.89	134.40	0.006918	3.24	36.94	32.73	0.66
Delle Ville	1 Sez. 012	Tr 200	89.50	130.52	133.51	133.51	133.98	0.009524	3.49	33.44	29.99	0.82

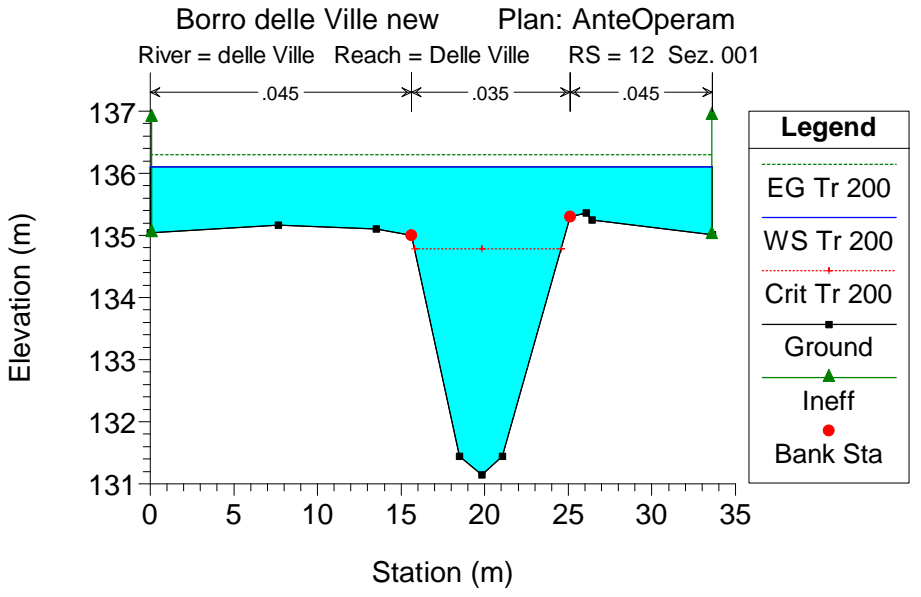
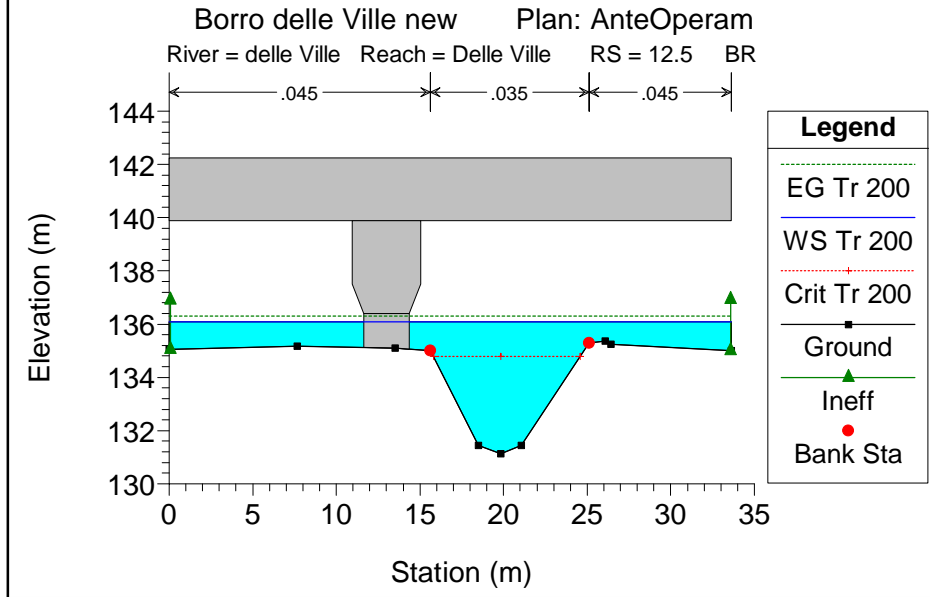
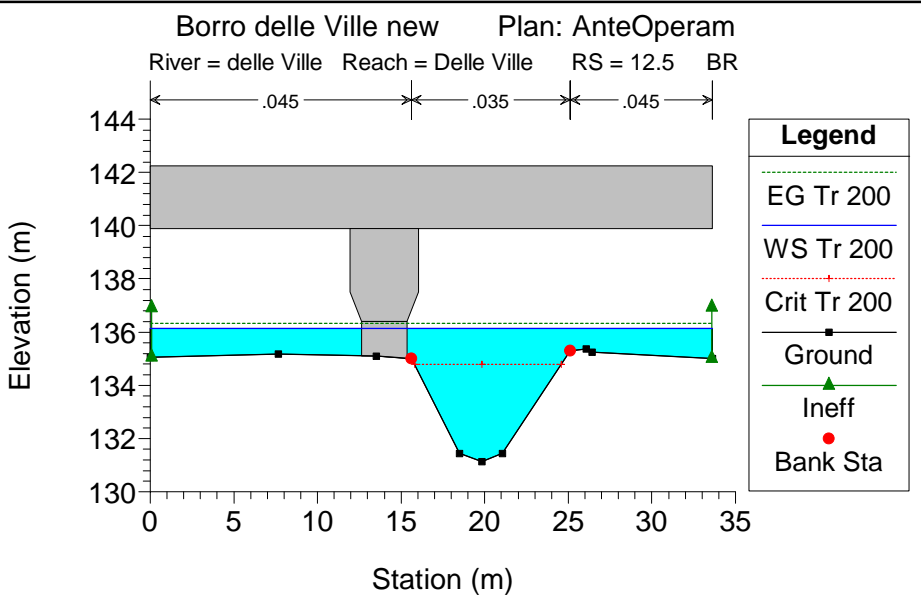
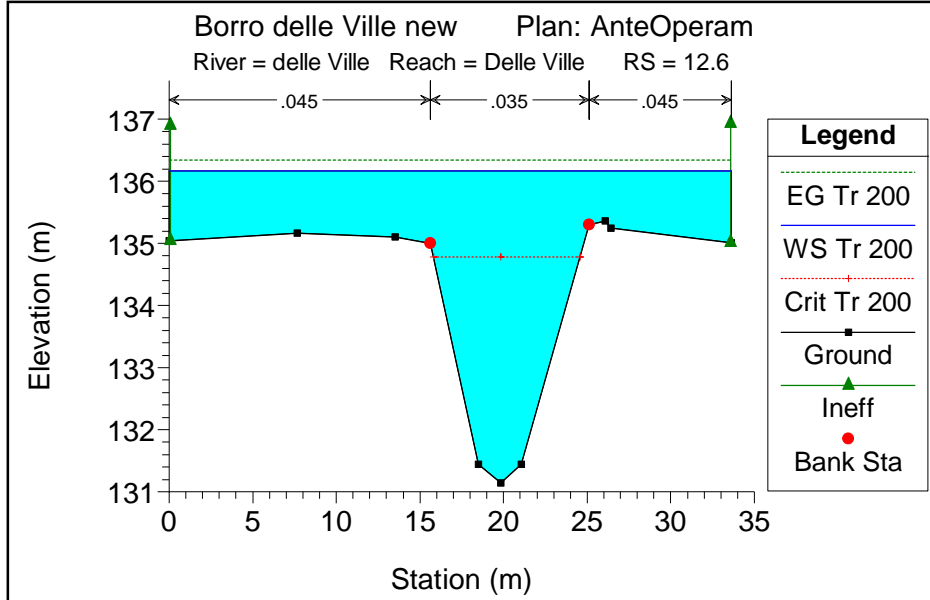
Borro delle Ville new Plan: AnteOperam

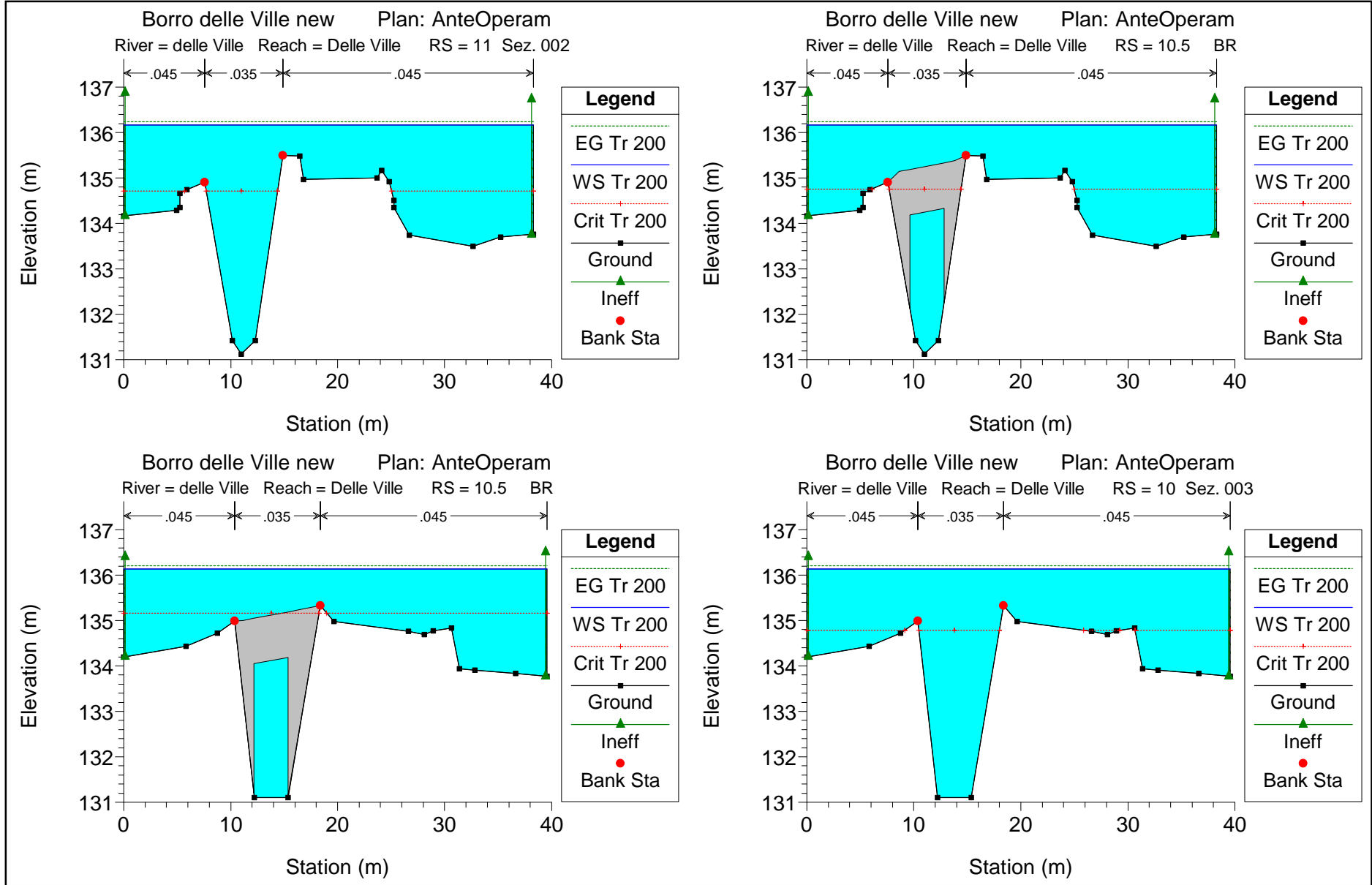
delle Ville Delle Ville

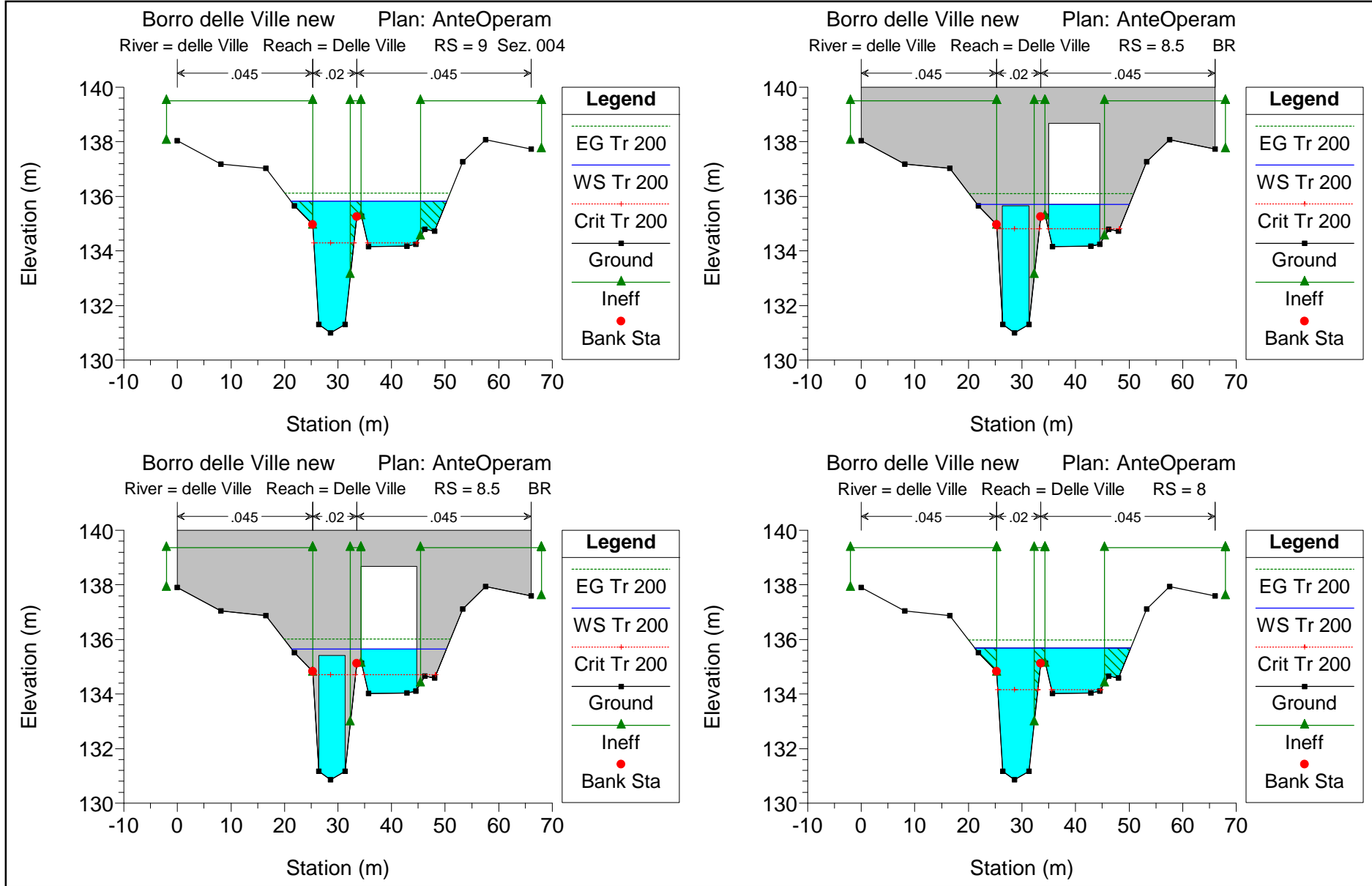
Legend

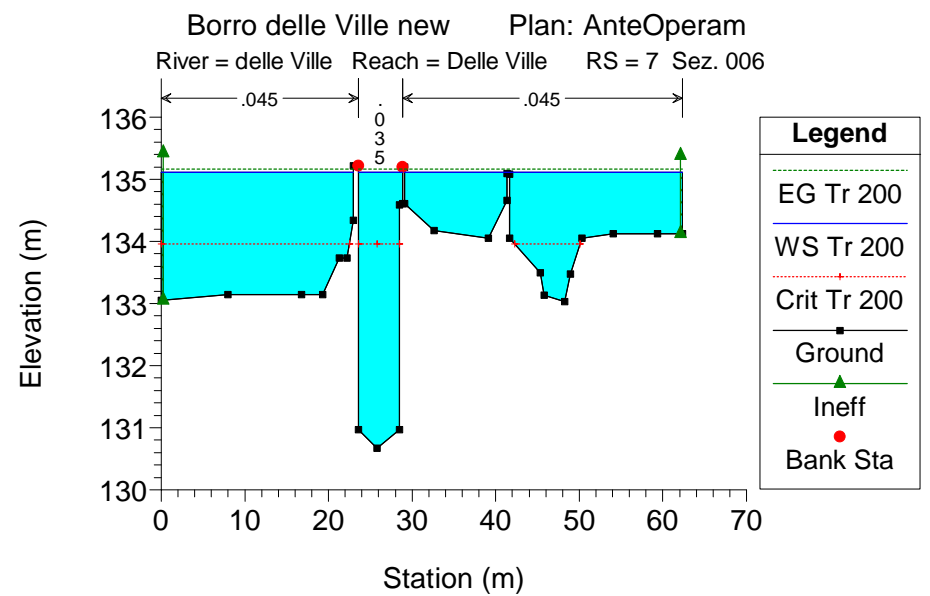
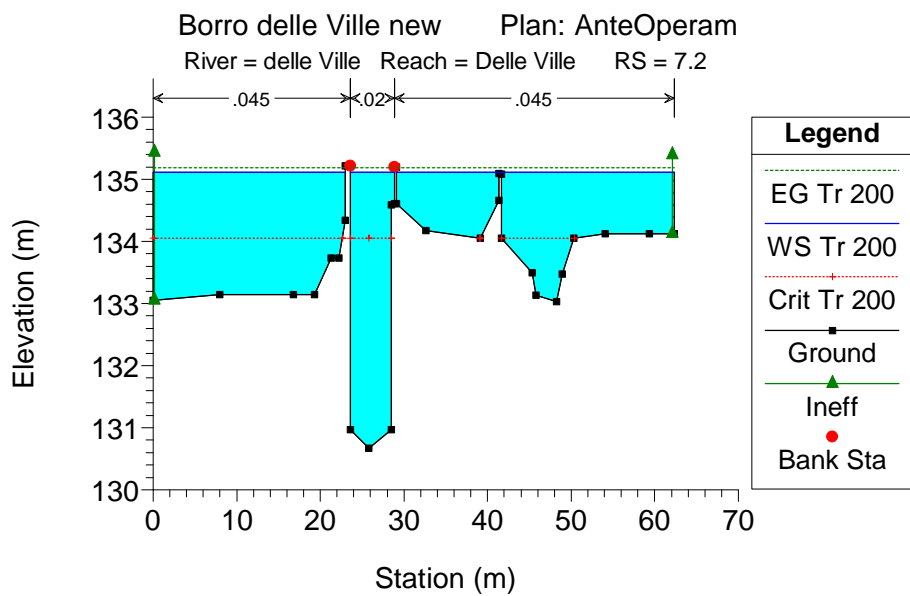
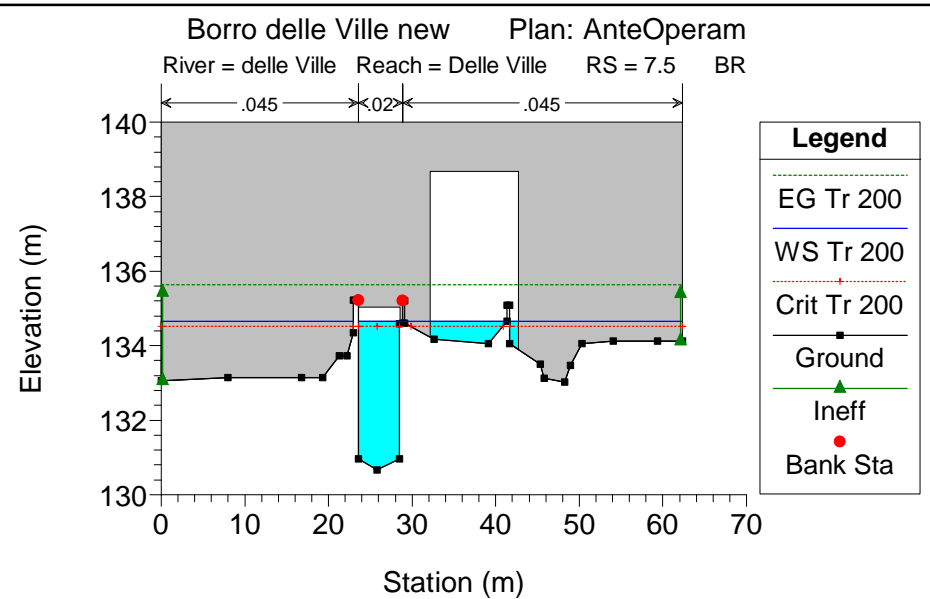
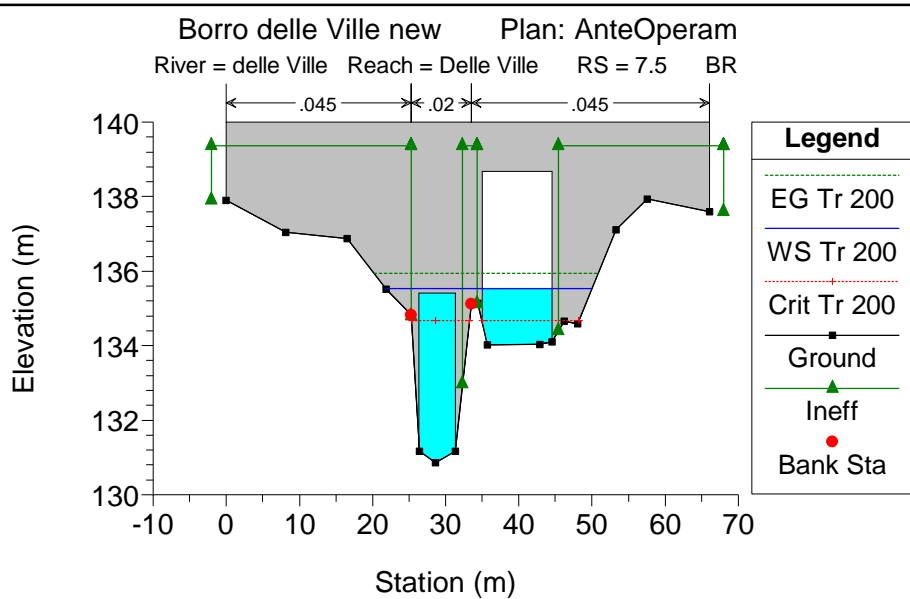
- EG Tr 200
- WS Tr 200
- Crit Tr 200
- Ground
- Left Levee

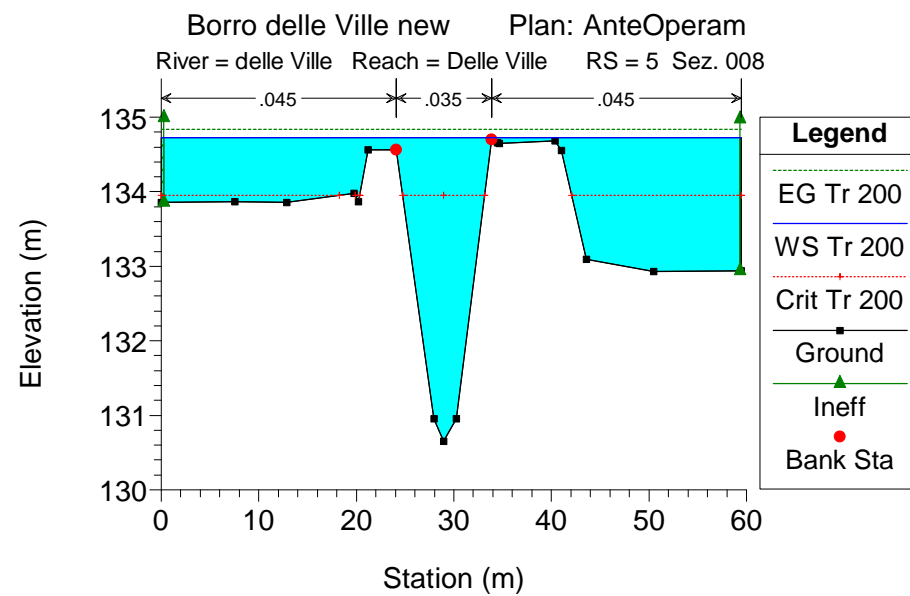
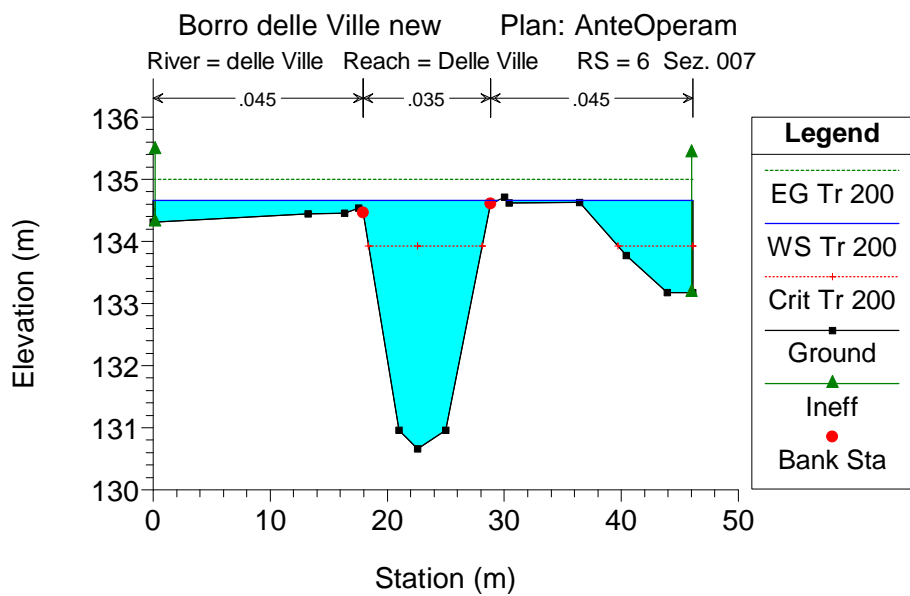
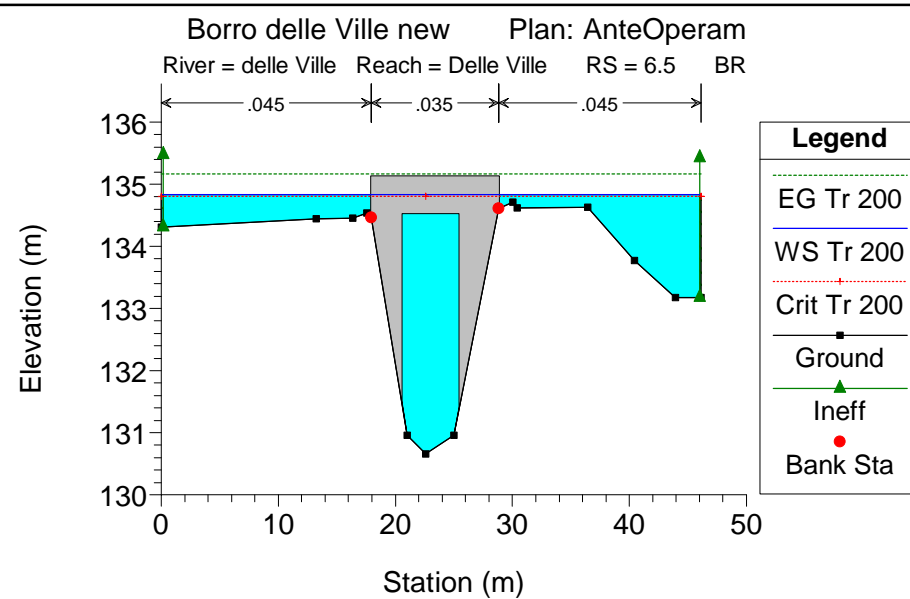
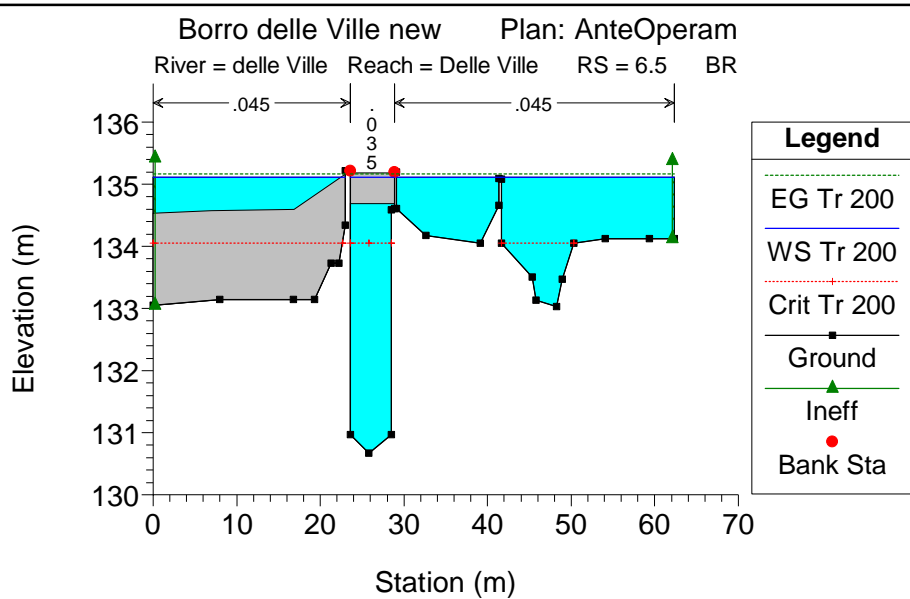


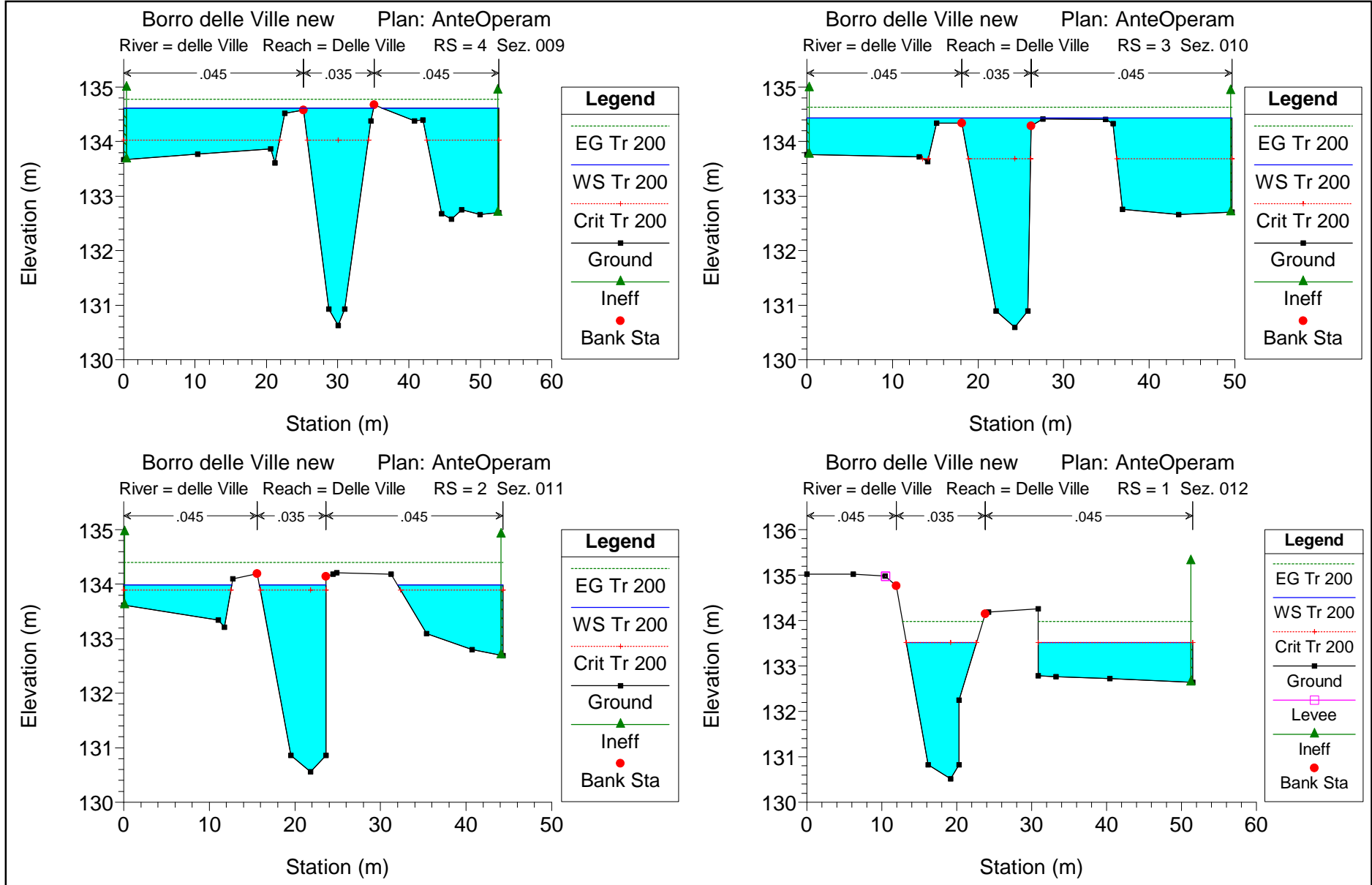












OPERA N. 2130

BORRO DELLE VILLE

POST OPERAM

HEC-RAS Plan: POnew River: delle Ville Reach: Delle Ville Profile: Tr 200

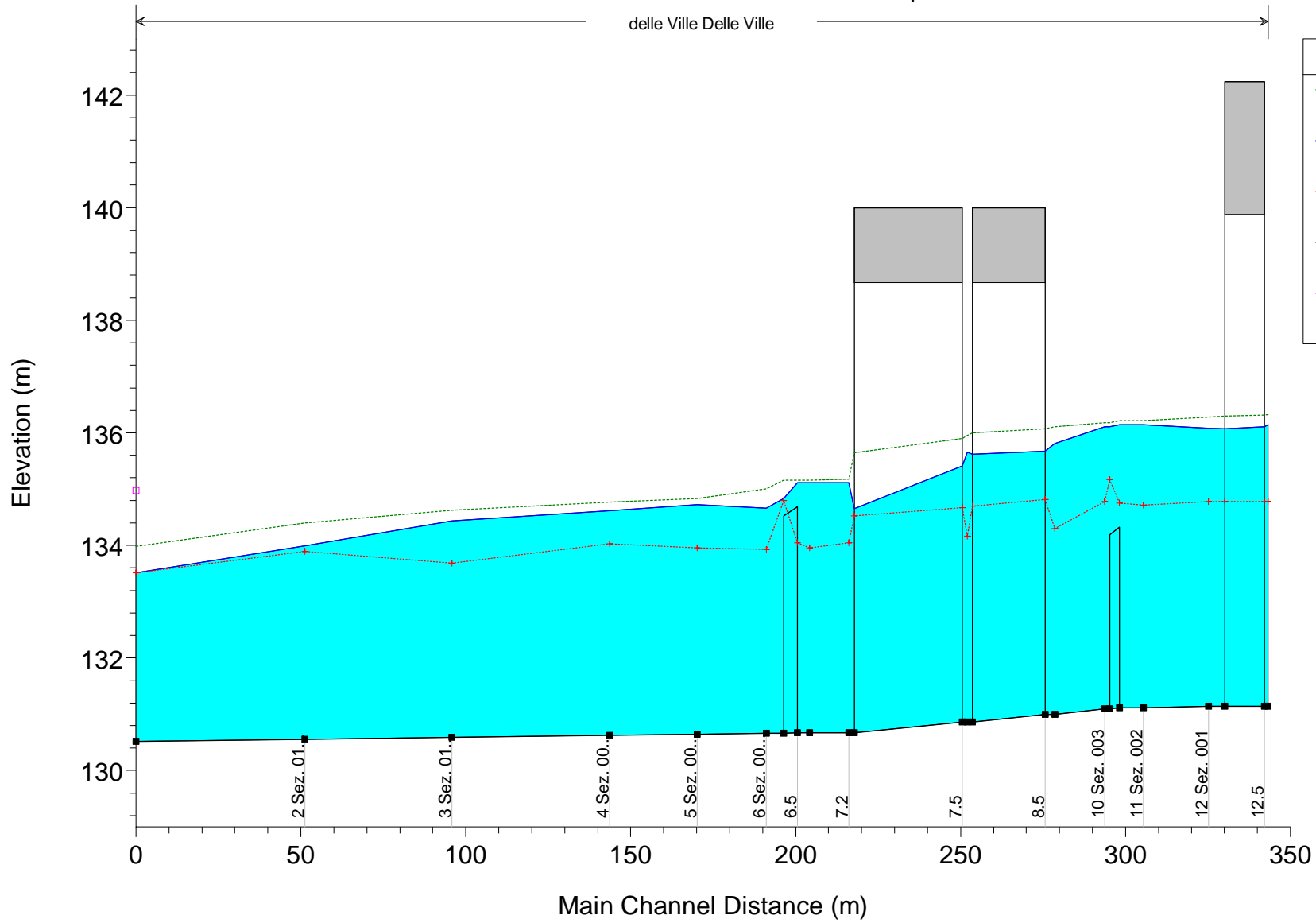
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W. S. Elev (m)	Crit W. S. (m)	E. G. Elev (m)	E. G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Delle Ville	12.6	Tr 200	89.50	131.14	136.14	134.78	136.32	0.001598	2.11	56.46	33.64	0.37
Delle Ville	12.5	Bridge										
Delle Ville	12 Sez. 001	Tr 200	89.50	131.14	136.08	134.78	136.28	0.001752	2.18	54.49	33.64	0.38
Delle Ville	11 Sez. 002	Tr 200	89.50	131.12	136.15	134.71	136.22	0.000879	1.43	80.95	38.31	0.25
Delle Ville	10.5	Bridge										
Delle Ville	10 Sez. 003	Tr 200	89.50	131.10	136.11	134.78	136.18	0.000828	1.47	81.55	39.58	0.24
Delle Ville	9 Sez. 004	Tr 200	89.50	131.00	135.81	134.30	136.11	0.000710	2.59	46.52	29.05	0.40
Delle Ville	8.5	Bridge										
Delle Ville	8	Tr 200	89.50	130.86	135.66	134.16	135.96	0.000718	2.61	46.29	28.97	0.41
Delle Ville	7.5	Bridge										
Delle Ville	7.2	Tr 200	89.50	130.67	135.11	134.05	135.18	0.000585	1.63	101.22	61.55	0.26
Delle Ville	7 Sez. 006	Tr 200	89.50	130.67	135.12	133.95	135.16	0.000838	1.12	101.32	61.55	0.18
Delle Ville	6.5	Bridge										
Delle Ville	6 Sez. 007	Tr 200	89.50	130.66	134.66	133.93	135.00	0.003546	2.74	42.66	45.42	0.54
Delle Ville	5 Sez. 008	Tr 200	89.50	130.65	134.73	133.95	134.84	0.001834	1.83	71.97	59.49	0.38
Delle Ville	4 Sez. 009	Tr 200	89.50	130.63	134.62	134.03	134.77	0.002702	2.15	59.91	51.41	0.45
Delle Ville	3 Sez. 010	Tr 200	89.50	130.59	134.43	133.88	134.63	0.003277	2.37	55.38	49.66	0.46
Delle Ville	2 Sez. 011	Tr 200	89.50	130.56	133.99	133.89	134.40	0.006918	3.24	36.94	32.73	0.66
Delle Ville	1 Sez. 012	Tr 200	89.50	130.52	133.51	133.51	133.98	0.009524	3.49	33.44	29.99	0.82

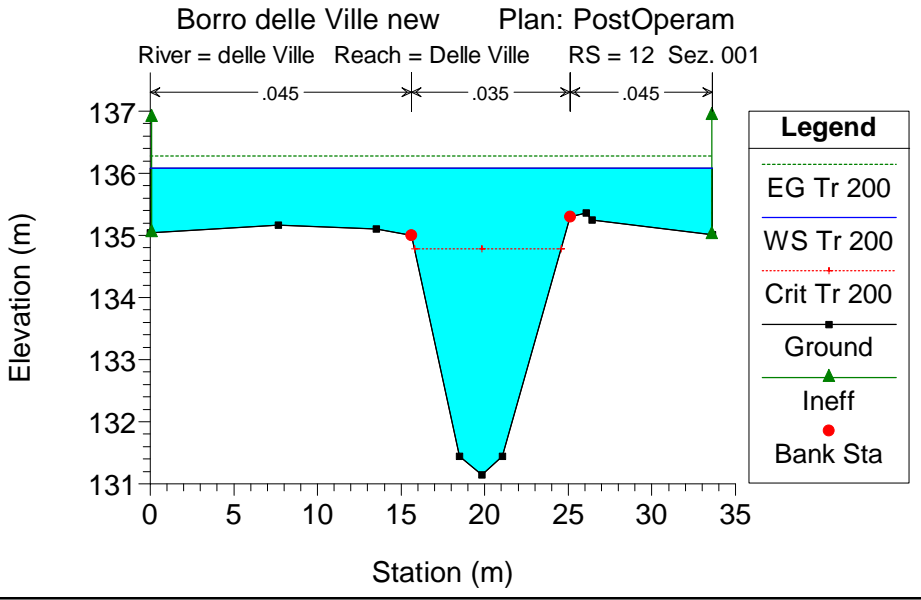
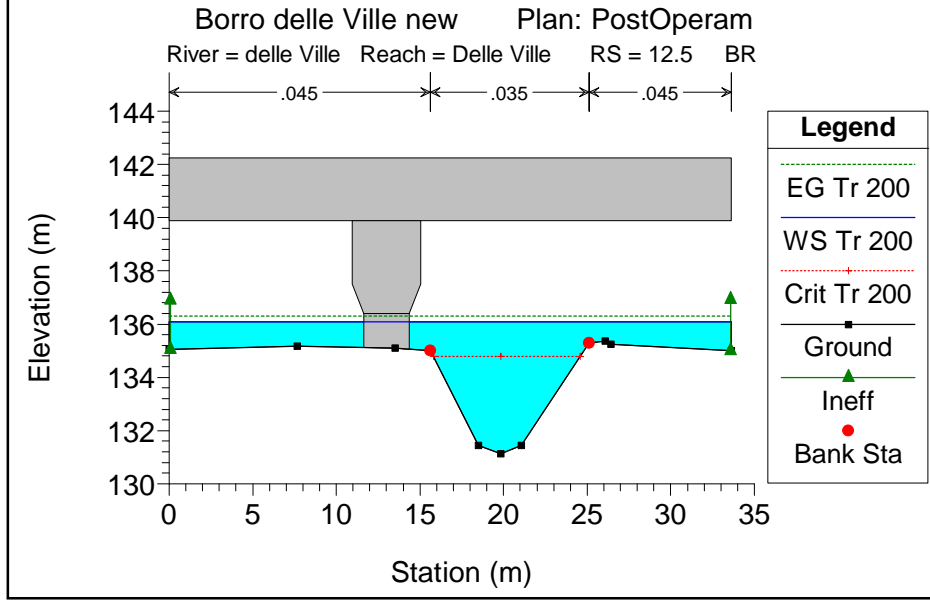
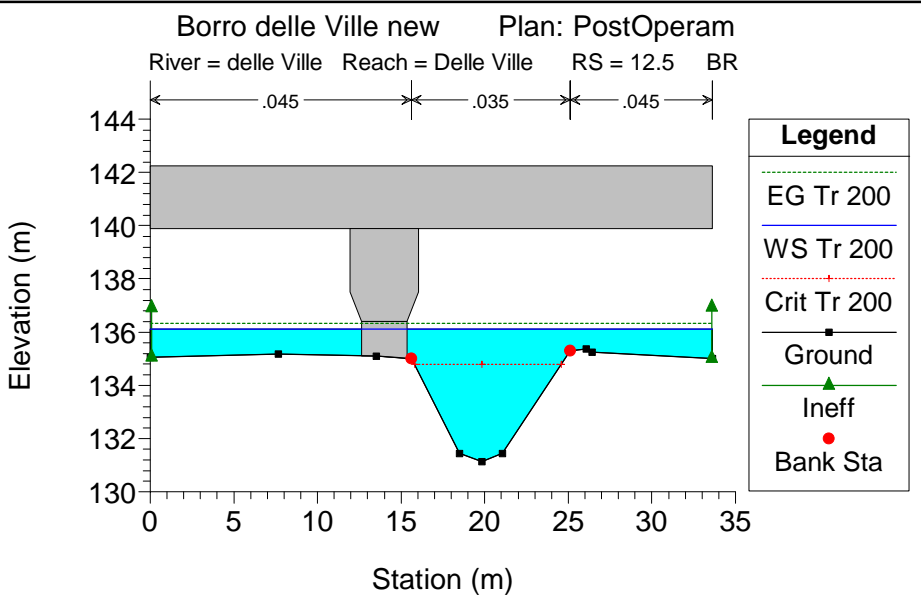
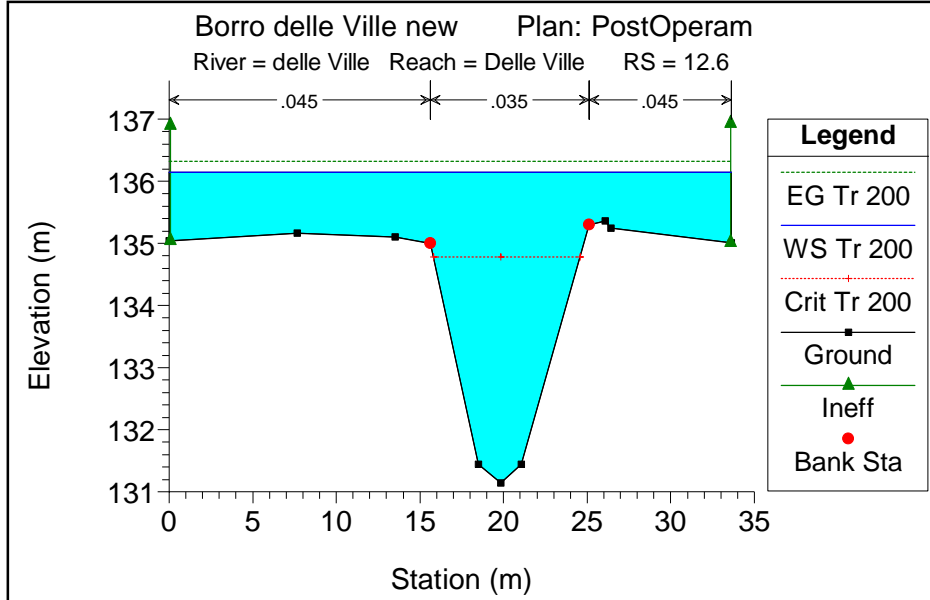
Borro delle Ville new Plan: PostOperam

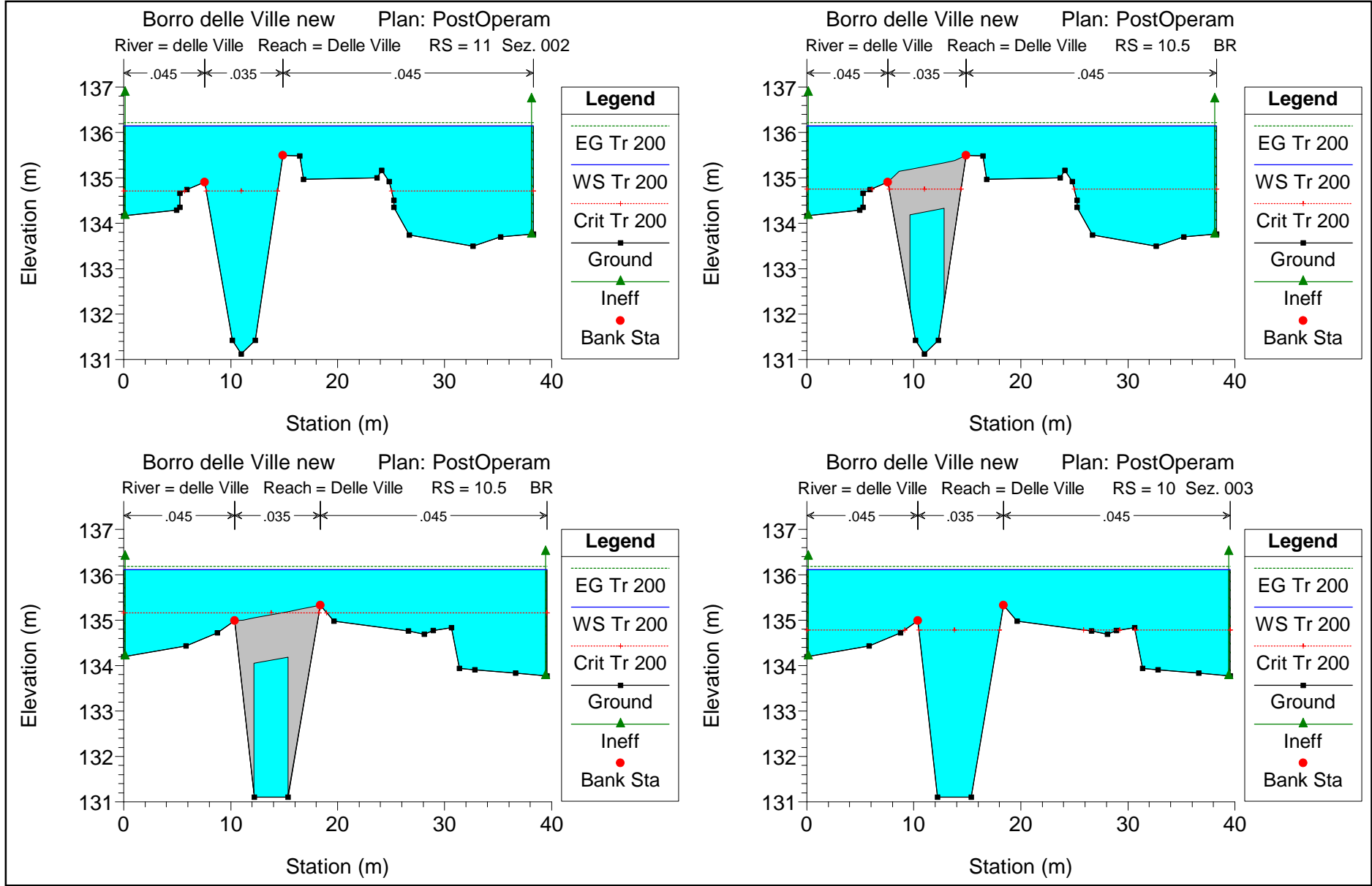
delle Ville Delle Ville

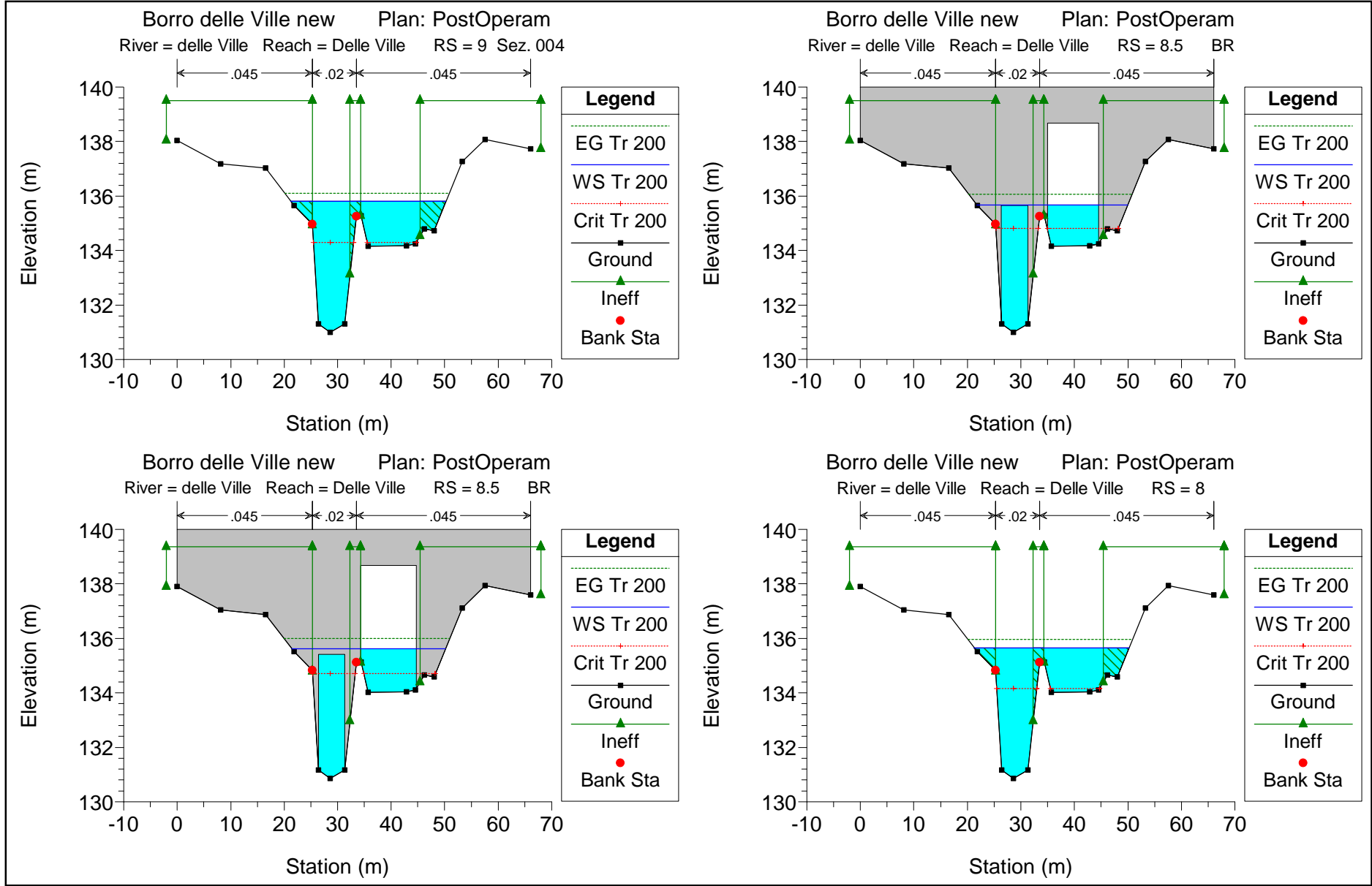
Legend

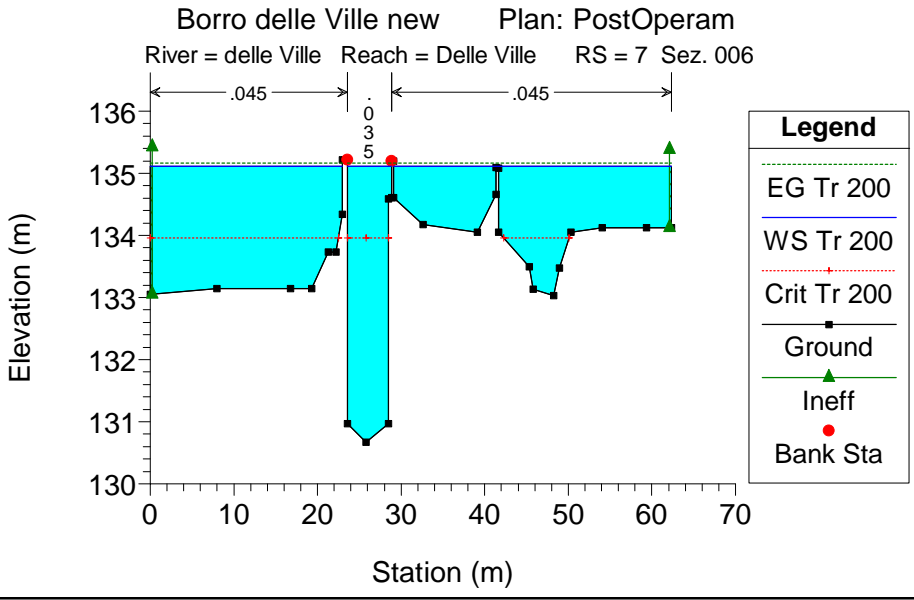
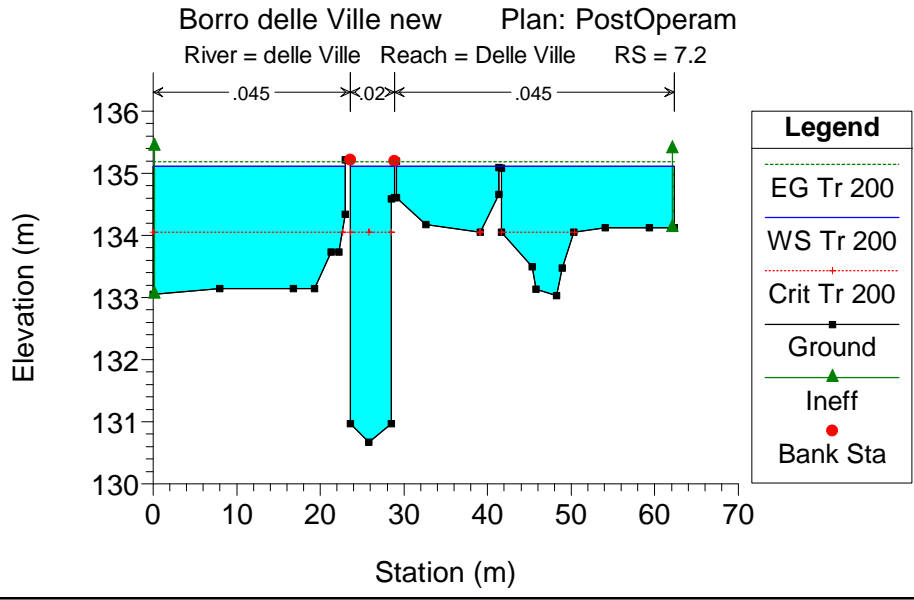
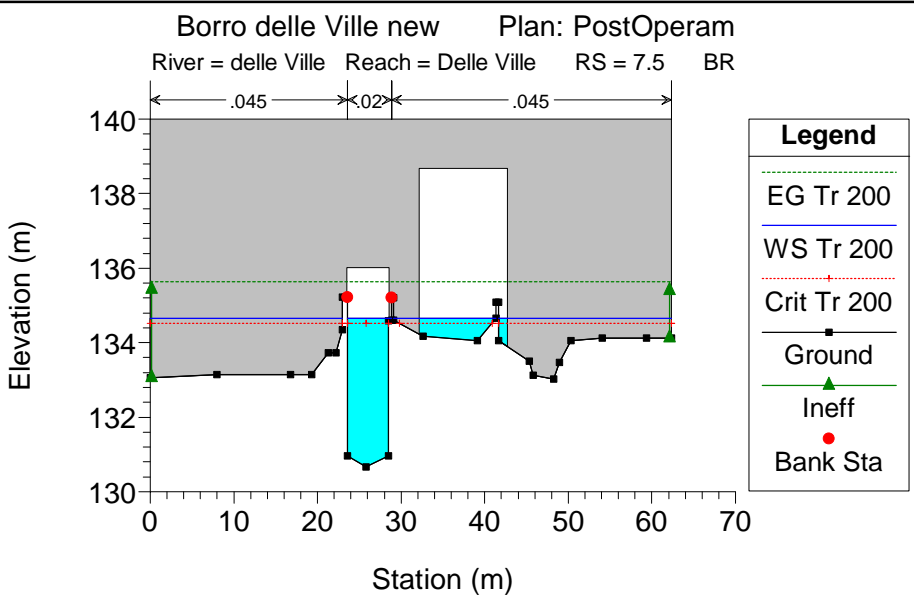
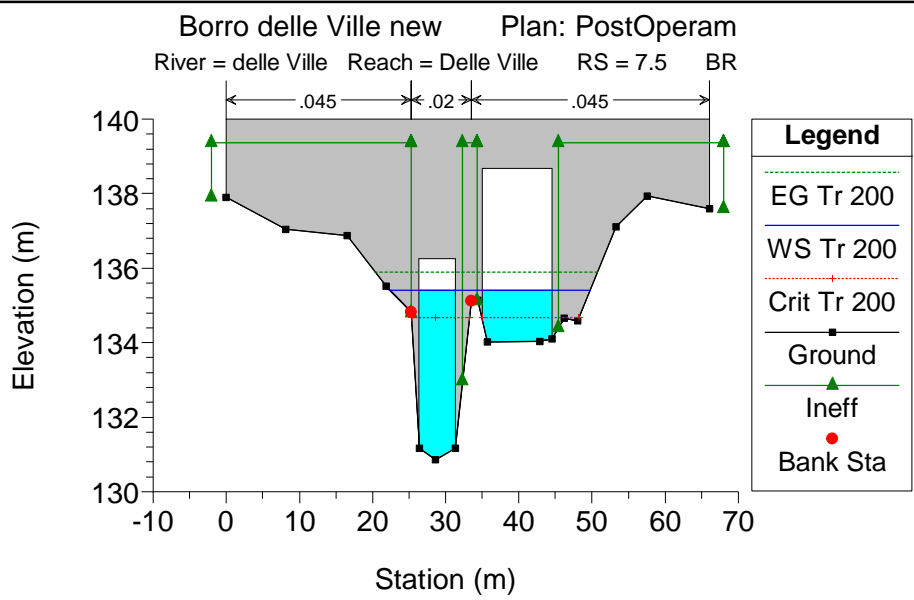
- EG Tr 200
- WS Tr 200
- Crit Tr 200
- Ground
- Left Levee

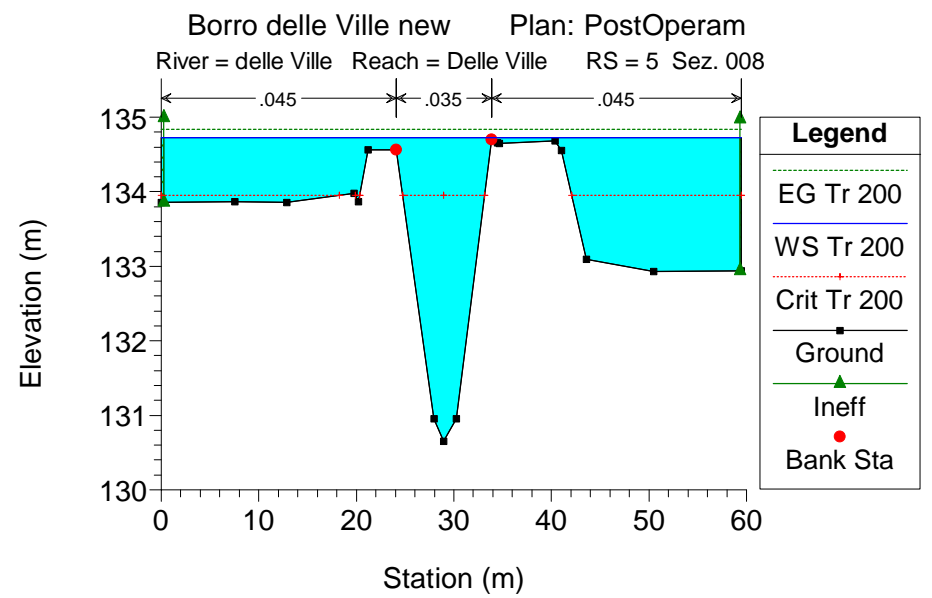
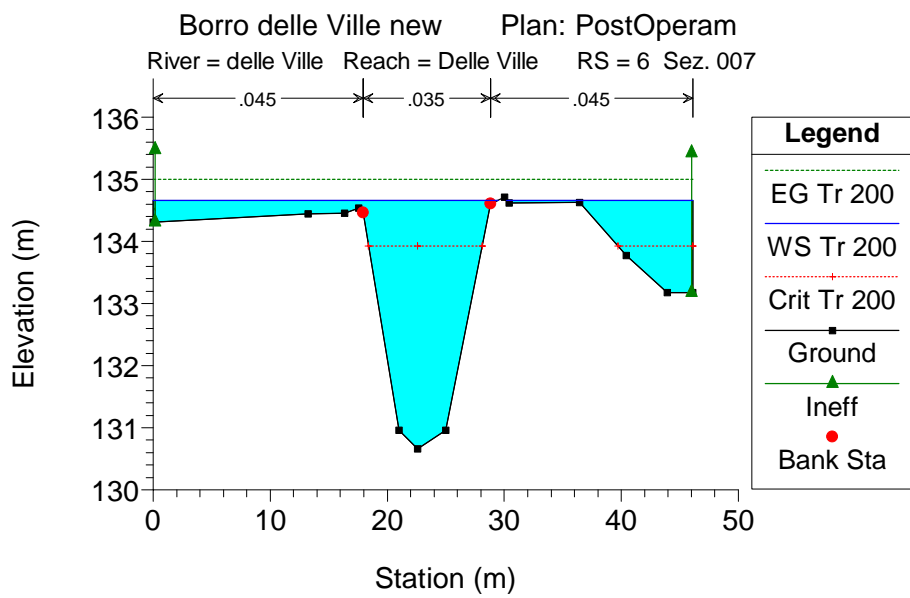
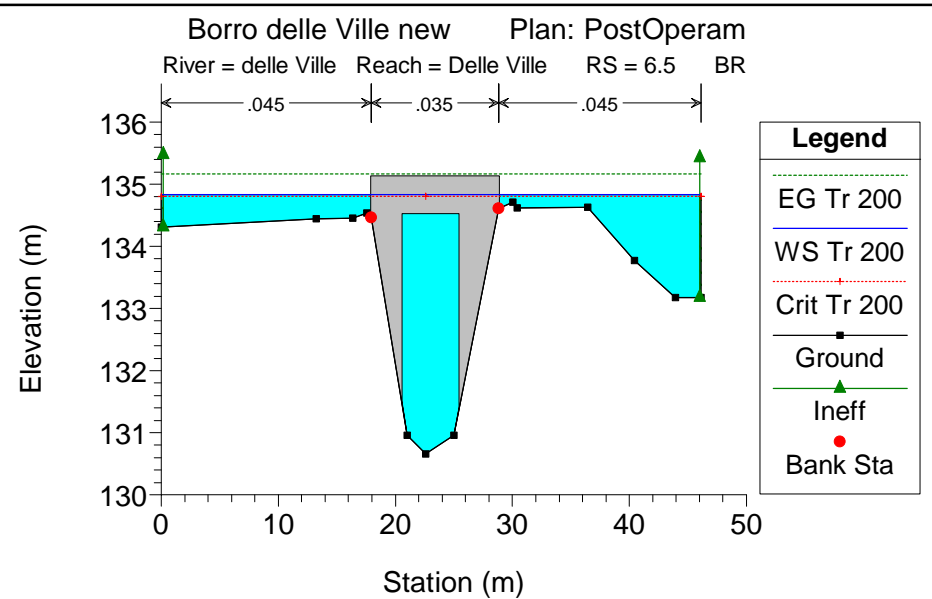
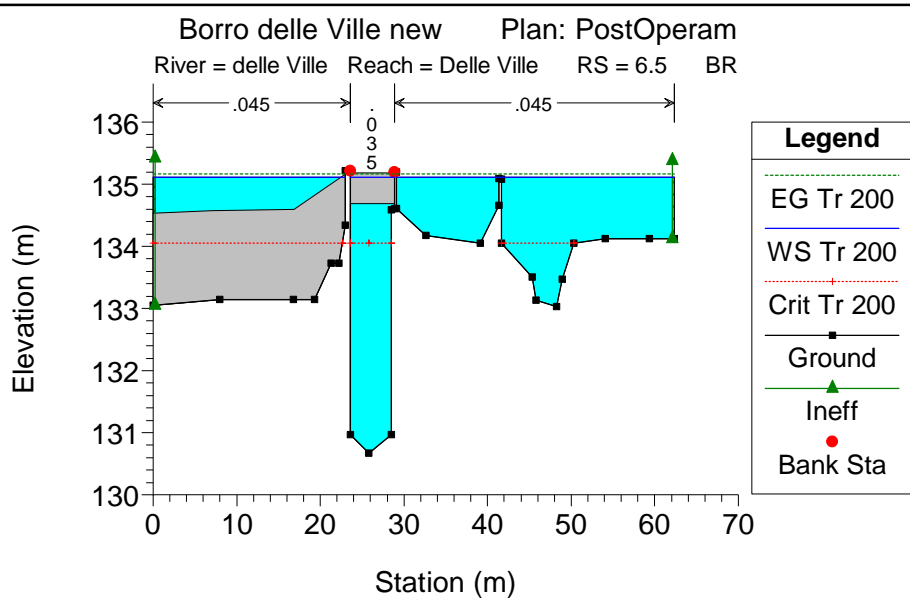


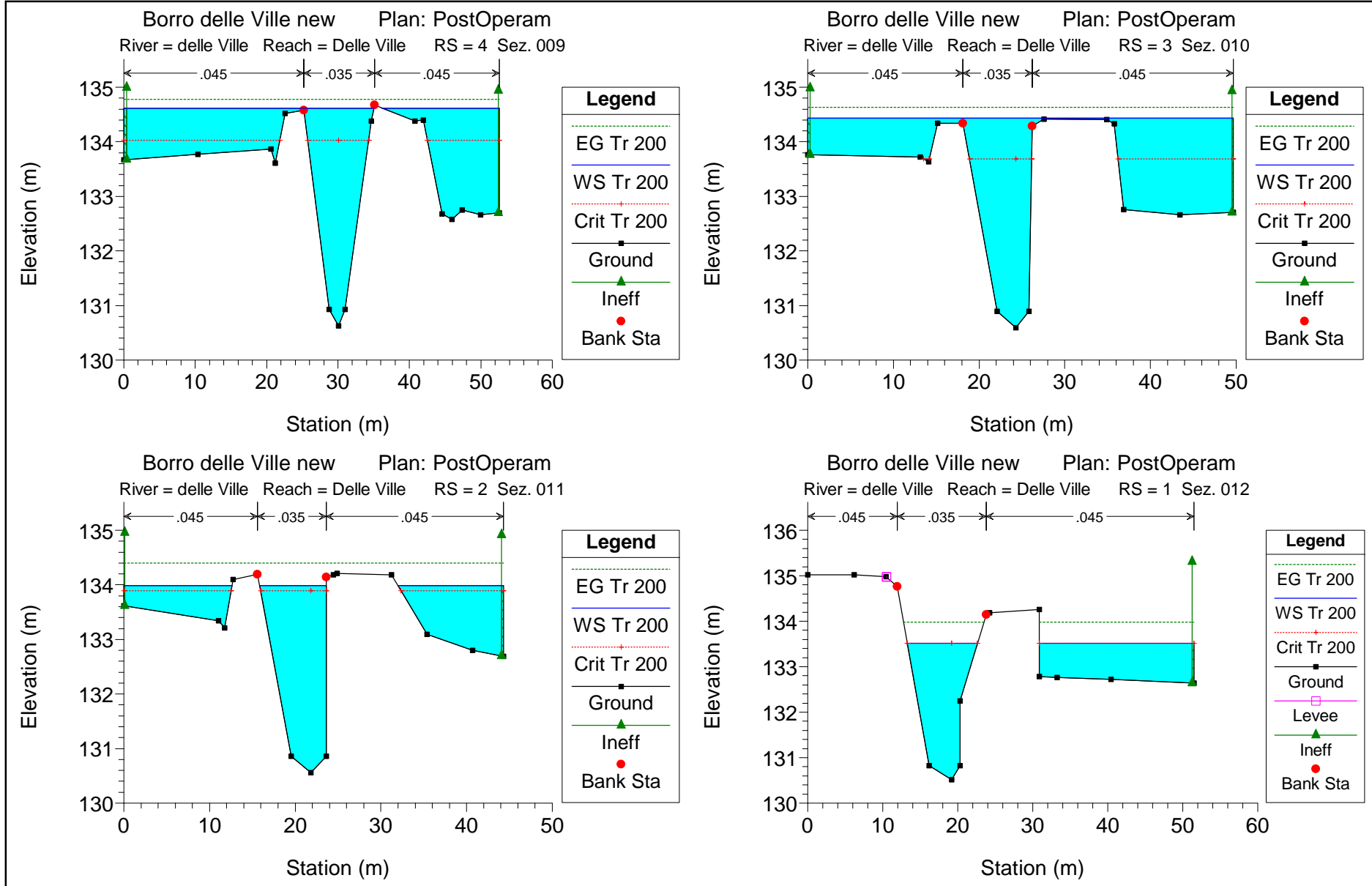








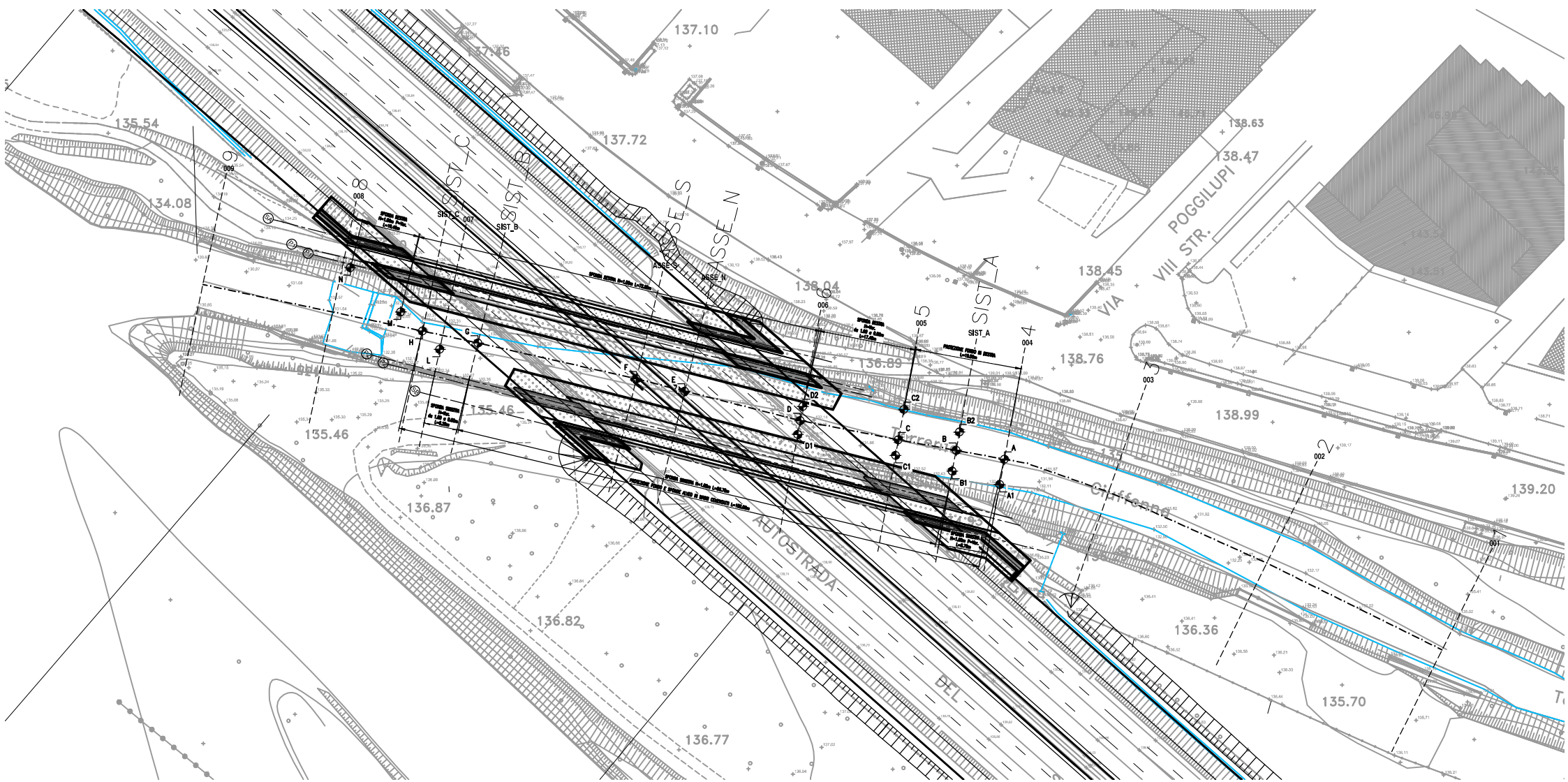




OPERA N. 2141

TORRENTE CIUFFENNA

ANTE OPERAM



HEC-RAS Plan: AO River: ciuffenna Reach: ciuffenna Profile: Tr 200 new

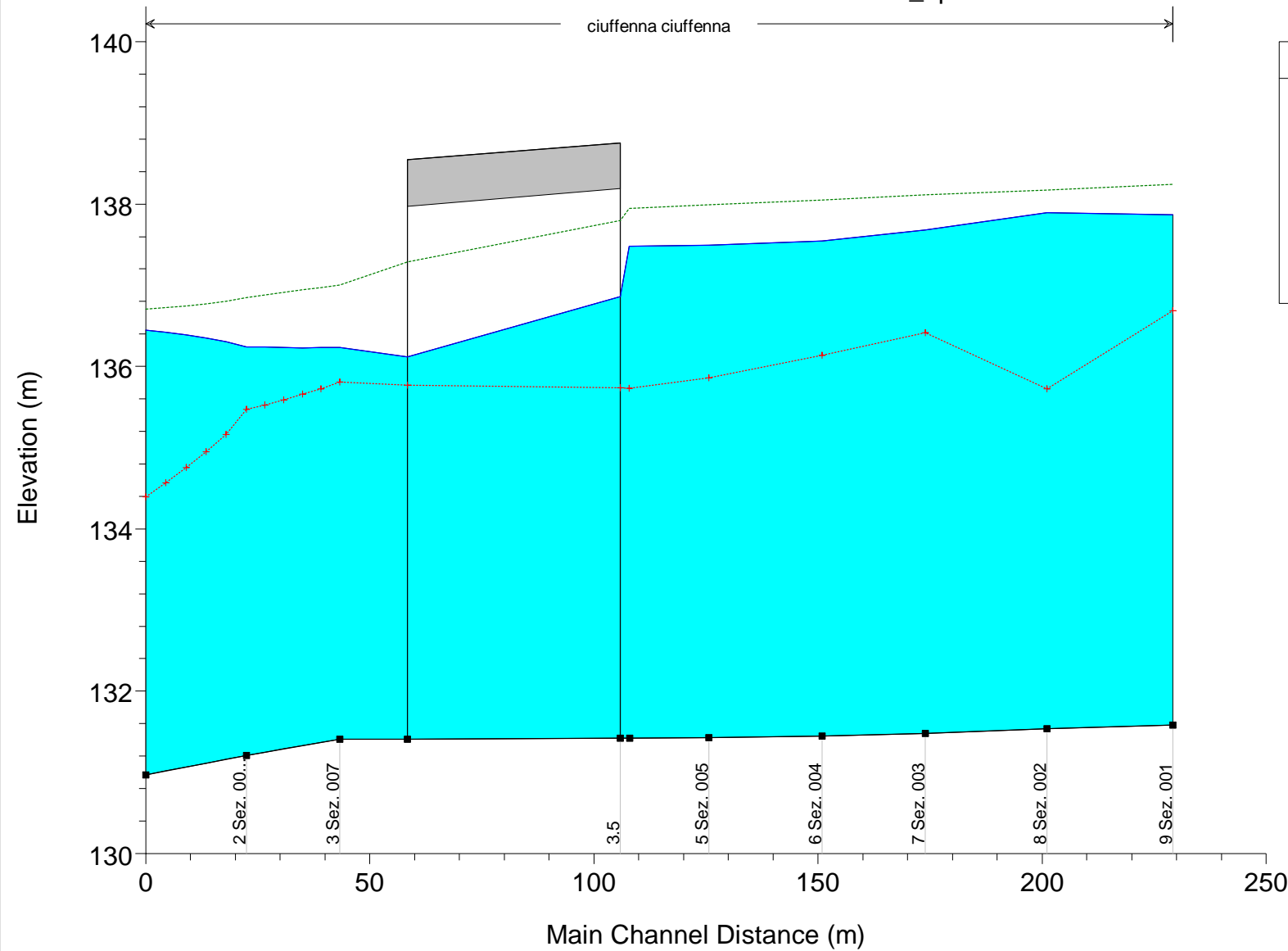
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
ciuffenna	9 Sez. 001	Tr 200 new	291.86	131.58	137.87	136.69	138.24	0.001704	3.01	124.40	42.73	0.44
ciuffenna	8 Sez. 002	Tr 200 new	291.86	131.54	137.90	135.72	138.17	0.001204	2.40	134.07	40.82	0.38
ciuffenna	7 Sez. 003	Tr 200 new	291.86	131.48	137.68	136.42	138.11	0.002177	3.03	107.92	36.00	0.49
ciuffenna	6 Sez. 004	Tr 200 new	291.86	131.45	137.54	136.14	138.05	0.002404	3.25	98.03	29.94	0.52
ciuffenna	5 Sez. 005	Tr 200 new	291.86	131.43	137.50	135.86	137.99	0.002123	3.24	99.75	28.54	0.49
ciuffenna	4 Sez. 006	Tr 200 new	291.86	131.42	137.48	135.73	137.95	0.001814	3.15	104.76	31.26	0.46
ciuffenna	3.5	Bridge										
ciuffenna	3 Sez. 007	Tr 200 new	291.86	131.41	136.23	135.80	137.00	0.004112	4.08	85.52	37.78	0.67
ciuffenna	2 Sez. 008	Tr 200 new	291.86	131.21	136.24	135.47	136.85	0.003032	3.63	95.09	38.17	0.59
ciuffenna	1 Sez. 009	Tr 200 new	291.86	130.97	136.45	134.39	136.70	0.000976	2.35	145.83	44.19	0.35

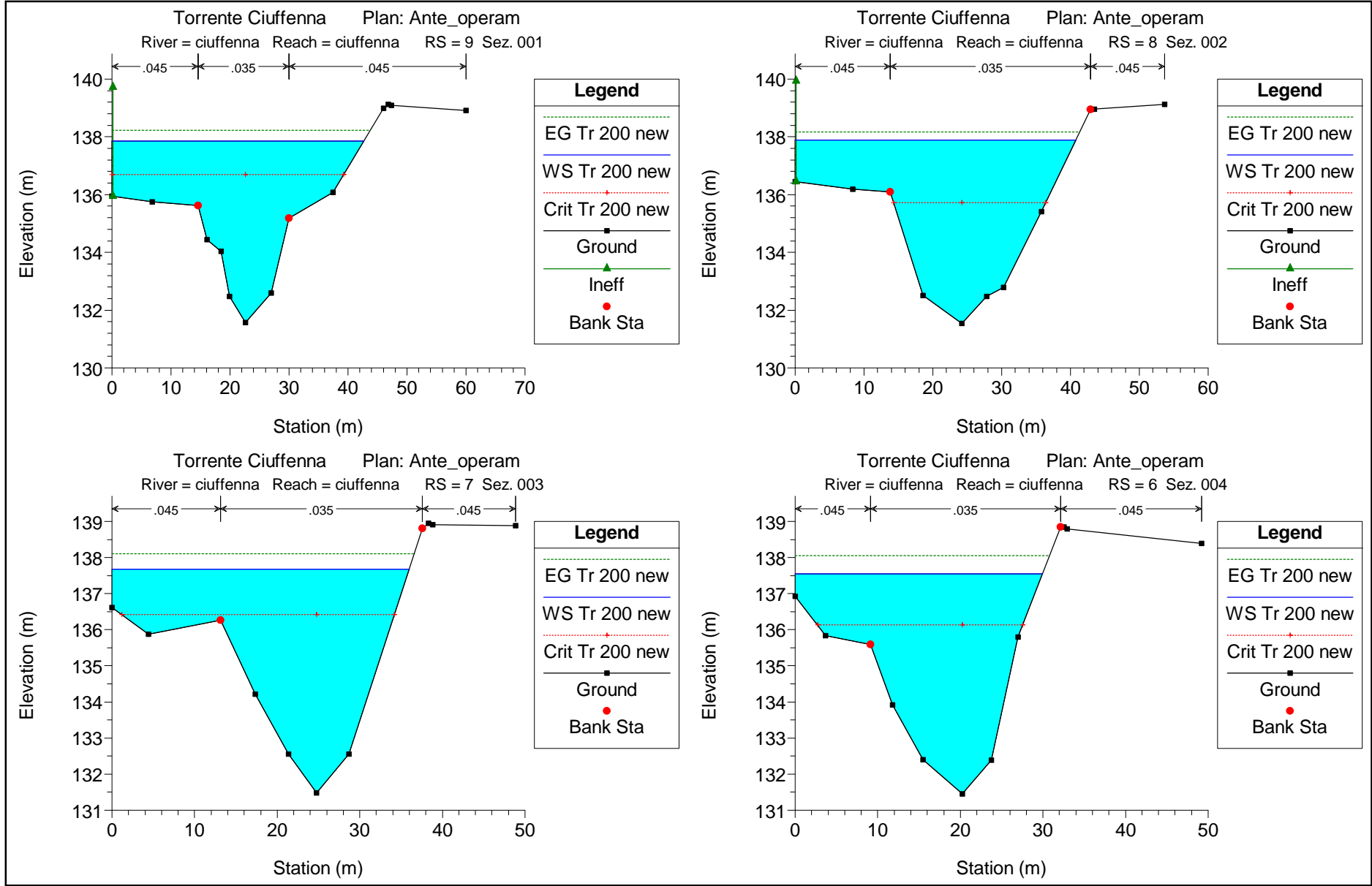
Torrente Ciuffenna Plan: Ante_operam

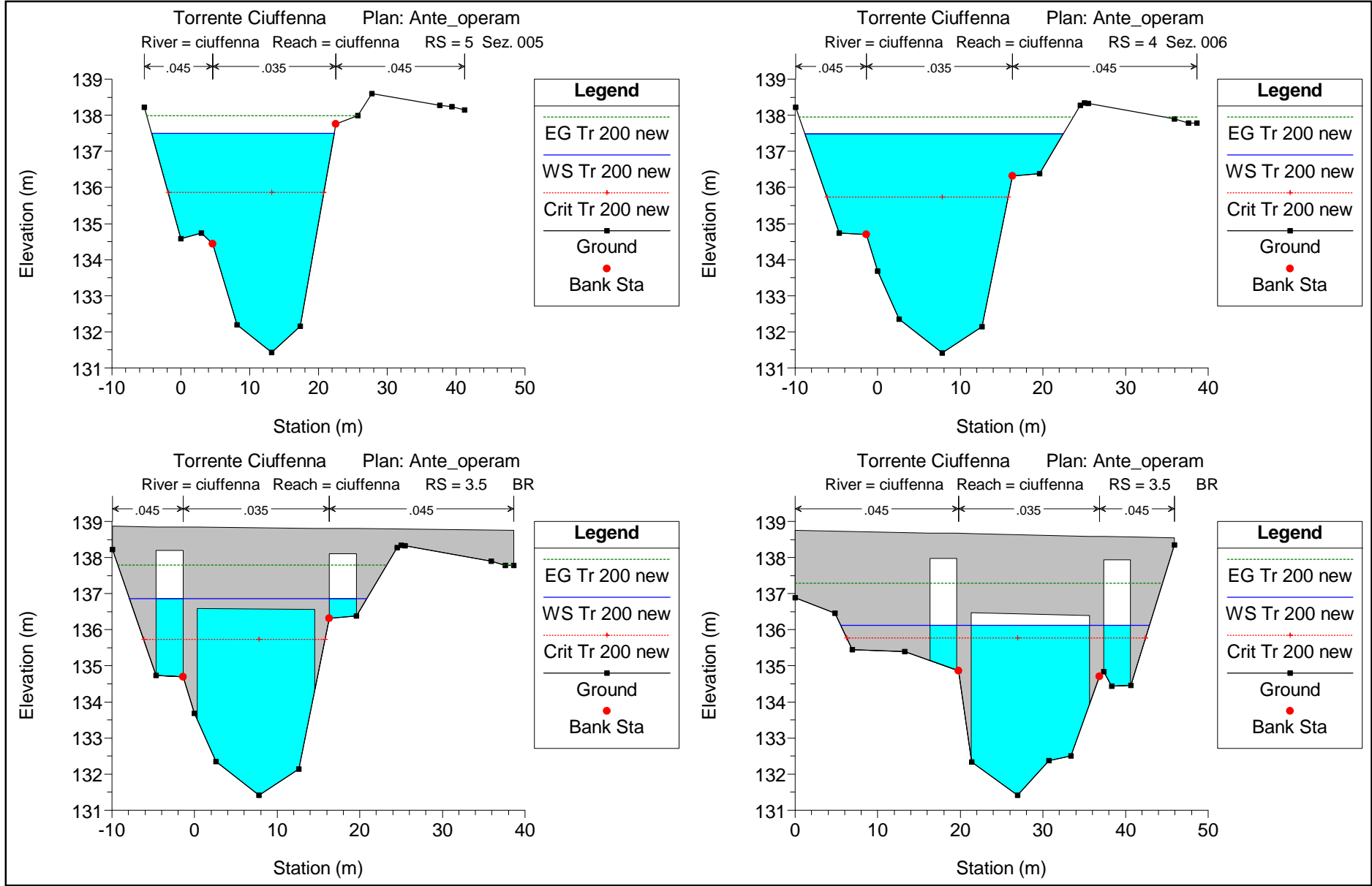
ciuffenna ciuffenna

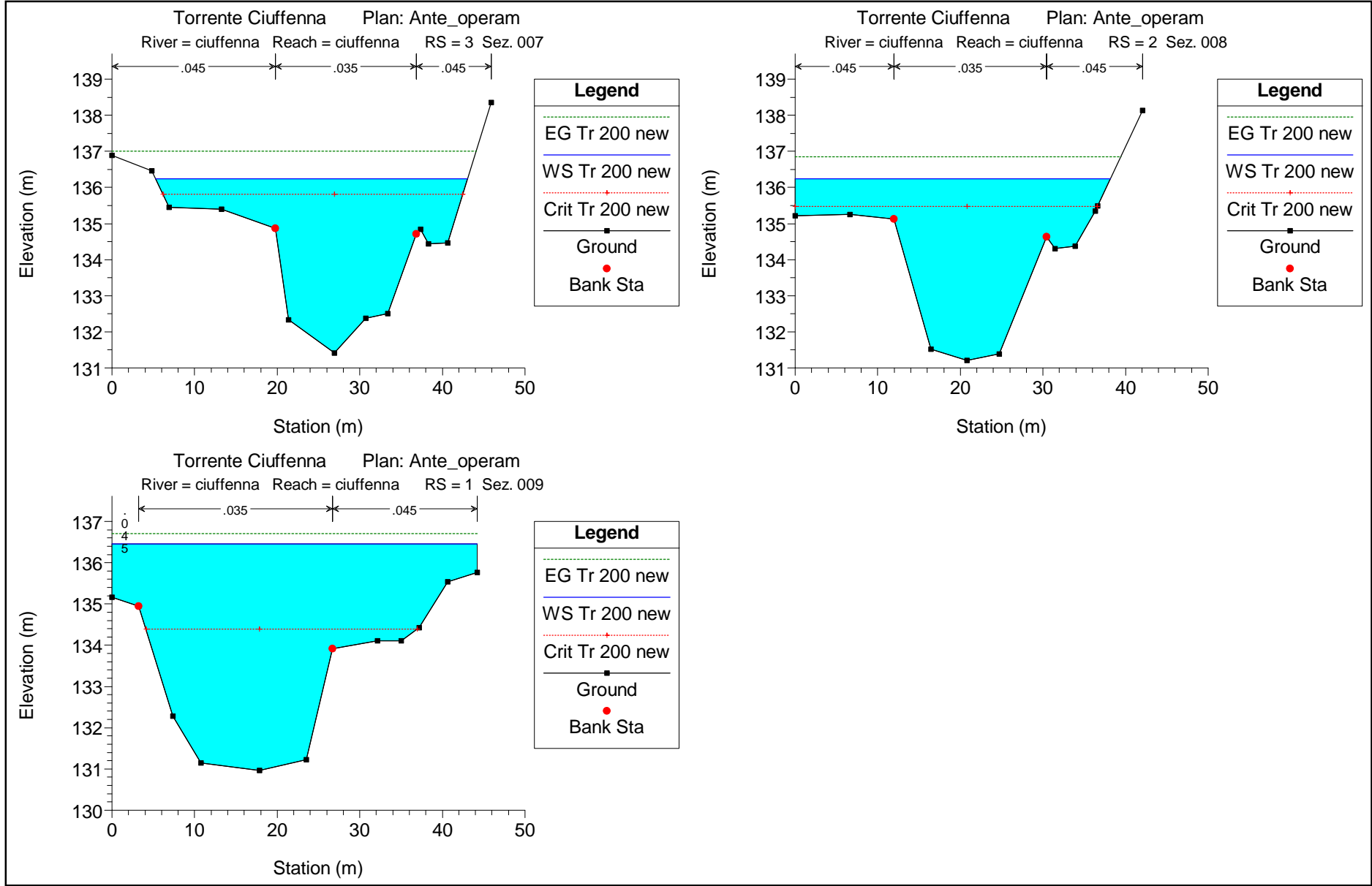
Legend

- EG Tr 200 new
- WS Tr 200 new
- Crit Tr 200 new
- Ground









OPERA N. 2141

TORRENTE CIUFFENNA

POST OPERAM

HEC-RAS Plan: PO 1710 River: ciuffenna Reach: ciuffenna Profile: Tr 200 new

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
ciuffenna	9 Sez. 001	Tr 200 new	291.86	131.58	137.77	136.69	138.17	0.001864	3.11	120.36	42.45	0.46
ciuffenna	8 Sez. 002	Tr 200 new	291.86	131.54	137.80	135.72	138.09	0.001299	2.47	130.31	40.63	0.39
ciuffenna	7 Sez. 003	Tr 200 new	291.86	131.48	137.56	136.42	138.03	0.002426	3.15	103.64	35.83	0.52
ciuffenna	6 Sez. 004	Tr 200 new	291.86	131.45	137.41	136.14	137.96	0.002678	3.38	94.08	29.71	0.54
ciuffenna	5 Sez. 005	Tr 200 new	291.86	131.43	137.36	135.86	137.89	0.002340	3.36	96.20	26.22	0.51
ciuffenna	4 Sez. 006	Tr 200 new	291.86	131.42	137.39	135.60	137.87	0.001342	3.16	104.14	30.90	0.46
ciuffenna	3.5	Bridge										
ciuffenna	3 Sez. 007	Tr 200 new	291.86	131.41	136.23	135.69	136.96	0.002791	3.97	87.67	37.76	0.64
ciuffenna	2 Sez. 008	Tr 200 new	291.86	131.21	136.24	135.47	136.85	0.003032	3.63	95.09	38.17	0.59
ciuffenna	1 Sez. 009	Tr 200 new	291.86	130.97	136.45	134.39	136.70	0.000976	2.35	145.83	44.19	0.35

Torrente Ciuffenna Plan: Post operam 1710

ciuffenna ciuffenna

