

REGIONE AUTONOMA DELLA SARDEGNA



CONSORZIO DI BONIFICA DELL'ORISTANESE

SISTEMAZIONE RIO MULINO DE JOSSO - MILIS

CUP: 484H17000990002 - CAT: P1017

PROGETTO DEFINITIVO

il Committente
CONSORZIO DI BONIFICA DELL'ORISTANESE

il Responsabile del procedimento
ing. Roberto SANNA

Elab.

A.7.2

Studio di compatibilità idraulica - Report idraulico -

R.T.P. CUCCU-FRAU - v. dei Muratori n. 5, 09170 - ORISTANO

il capogruppo
ing. Simone CUCCU

data - 20/10/2018

revislone

Premessa

Il presente elaborato raccoglie i risultati delle analisi idrologica e idraulica ottenuti raggruppando i dati per bacino e all'interno di ogni bacino per tempo di ritorno ($T = 50, 100, .200, 500$).

In particolare, come riportato nella relazione, le verifiche idrauliche sono state condotte, nell'ipotesi di moto permanente, mediante l'ausilio del software River Analysis System realizzato dell'Hydrologic Engineering Center degli Stati Uniti (HEC-RAS v. 4.1).

Abbreviazioni

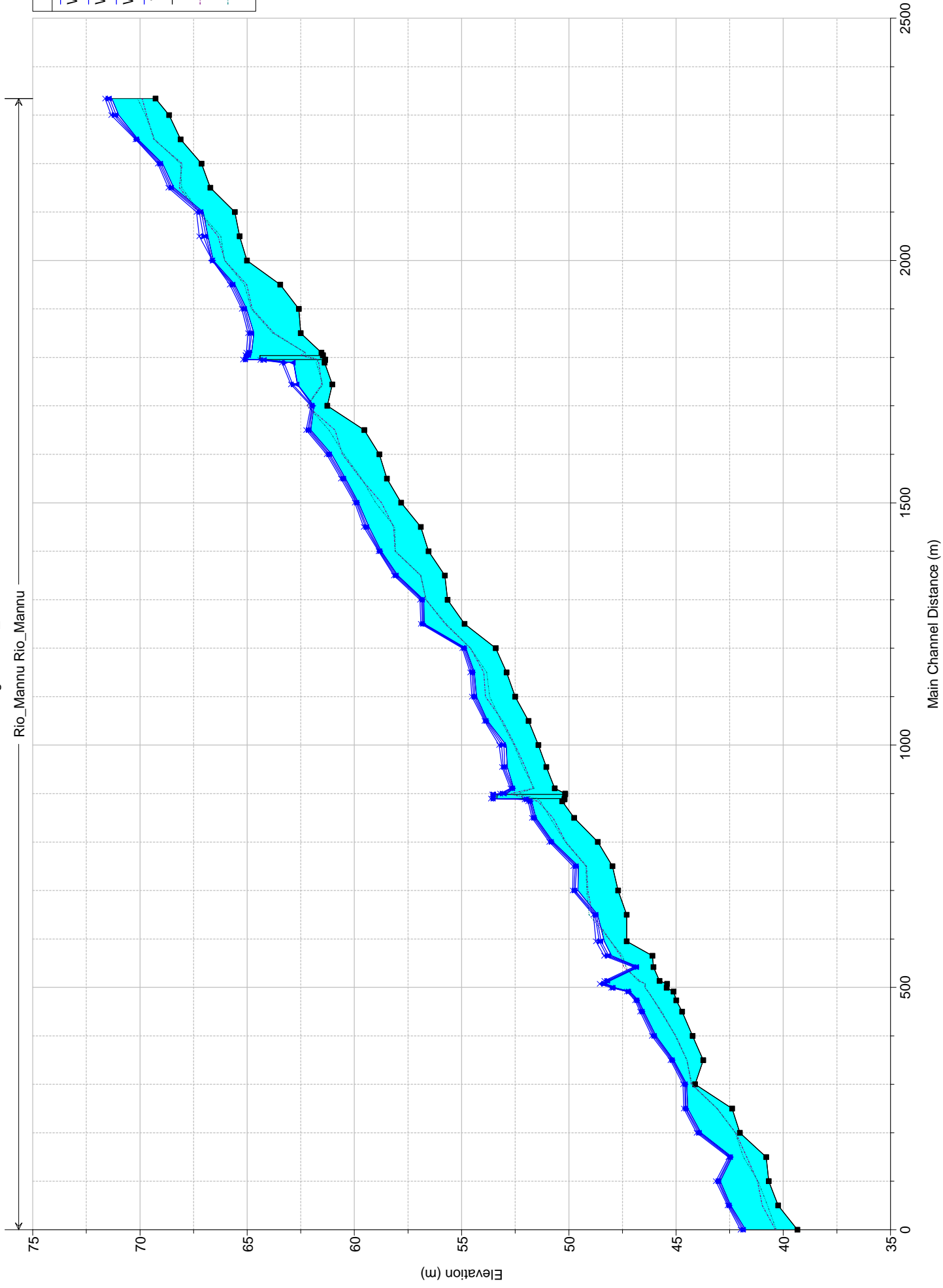
Tabelle

River Sta	Sezione fluviale
Profile	Tempo di ritorno dell'evento di piena
Q Total	Portata totale
Min Ch El	Minima quota dell'alveo
W.S. Elev.	Quota superficie pelo libero
Crit W.S.	Altezza critica
E.G. Elev	Altezza energia totale
E.G. Slope	Pendenza energia totale
Vel Chnl	Velocità media corrente idrica
Flow Area	Area interessata dal flusso idrico
Froude # Chl	Numero di Froude

Sezioni

RS	Sezione fluviale
WT T=50	Superficie pelo libero per eventi con tempo di ritorno di 50 anni
Ground	Terrano
Ineff	Area deflusso impedito
Bank sta	Limite alveo

STATO ATTUALE



Legend	
WS Tr 500 anni	
WS Tr 200 anni	
WS Tr 100 anni	
WS Tr 50 anni	
Ground	
LOB	
ROB	

HEC-RAS Plan: Sim_Att River: Rio Mannu Reach: Rio Mannu

Reach	River Sta	Profile	Length Chnl (m)	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Max Chl Dpth (m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Rio Mannu	4134	Tr 50 anni	33.90	190.68	69.27	71.31	2.04	8.05	48.60	82.22	1.96
Rio Mannu	4134	Tr 100 anni	33.90	225.55	69.27	71.41	2.14	8.37	57.24	83.81	1.97
Rio Mannu	4134	Tr 200 anni	33.90	260.59	69.27	71.51	2.24	8.65	65.22	84.97	1.99
Rio Mannu	4134	Tr 500 anni	33.90	307.00	69.27	71.62	2.35	8.99	75.37	90.02	2.01
Rio Mannu	4100	Tr 50 anni	50.00	190.68	68.64	70.99	2.35	7.65	53.32	83.04	1.74
Rio Mannu	4100	Tr 100 anni	50.00	225.55	68.64	71.10	2.46	7.94	62.87	86.41	1.76
Rio Mannu	4100	Tr 200 anni	50.00	260.59	68.64	71.21	2.57	8.20	72.80	96.28	1.77
Rio Mannu	4100	Tr 500 anni	50.00	307.00	68.64	71.34	2.70	8.51	85.89	106.83	1.79
Rio Mannu	4050	Tr 50 anni	50.00	190.68	68.10	70.09	1.99	8.34	70.39	218.36	2.18
Rio Mannu	4050	Tr 100 anni	50.00	225.55	68.10	70.13	2.03	8.83	79.96	224.98	2.28
Rio Mannu	4050	Tr 200 anni	50.00	260.59	68.10	70.17	2.07	9.28	88.17	230.14	2.37
Rio Mannu	4050	Tr 500 anni	50.00	307.00	68.10	70.21	2.11	9.83	99.07	237.84	2.47
Rio Mannu	4000	Tr 50 anni	50.00	190.68	67.13	68.94	1.81	8.13	64.01	145.77	2.27
Rio Mannu	4000	Tr 100 anni	50.00	225.55	67.13	69.02	1.89	8.34	75.85	158.56	2.26
Rio Mannu	4000	Tr 200 anni	50.00	260.59	67.13	69.10	1.97	8.52	89.29	184.62	2.25
Rio Mannu	4000	Tr 500 anni	50.00	307.00	67.13	69.17	2.04	8.78	103.60	204.78	2.26
Rio Mannu	3950	Tr 50 anni	50.00	190.68	66.72	68.43	1.71	5.29	74.72	158.17	1.56
Rio Mannu	3950	Tr 100 anni	50.00	225.55	66.72	68.51	1.79	5.47	88.90	173.67	1.56
Rio Mannu	3950	Tr 200 anni	50.00	260.59	66.72	68.58	1.86	5.64	102.07	201.46	1.56
Rio Mannu	3950	Tr 500 anni	50.00	307.00	66.72	68.68	1.96	5.78	123.14	218.00	1.54
Rio Mannu	3900	Tr 50 anni	50.00	190.68	65.58	67.05	1.47	6.20	51.95	78.58	2.23
Rio Mannu	3900	Tr 100 anni	50.00	225.55	65.58	67.14	1.56	6.33	59.40	81.59	2.20
Rio Mannu	3900	Tr 200 anni	50.00	260.59	65.58	67.24	1.66	6.40	67.42	85.52	2.14
Rio Mannu	3900	Tr 500 anni	50.00	307.00	65.58	67.36	1.78	6.58	78.35	90.16	2.07
Rio Mannu	3850	Tr 50 anni	50.00	190.68	65.35	66.84	1.80	4.22	85.83	135.49	1.30
Rio Mannu	3850	Tr 100 anni	50.00	225.55	65.35	66.92	1.88	4.53	97.33	146.54	1.34
Rio Mannu	3850	Tr 200 anni	50.00	260.59	65.35	67.04	2.00	4.62	118.26	185.65	1.30
Rio Mannu	3850	Tr 500 anni	50.00	307.00	65.35	67.23	2.19	4.57	160.47	255.83	1.20
Rio Mannu	3800	Tr 50 anni	50.00	190.68	65.01	66.58	1.57	3.49	151.52	369.44	1.02
Rio Mannu	3800	Tr 100 anni	50.00	225.55	65.01	66.64	1.63	3.68	172.32	389.52	1.05
Rio Mannu	3800	Tr 200 anni	50.00	260.59	65.01	66.63	1.62	4.36	168.26	385.52	1.25
Rio Mannu	3800	Tr 500 anni	50.00	307.00	65.01	66.62	1.61	5.19	166.36	384.01	1.49
Rio Mannu	3750	Tr 50 anni	50.00	190.68	63.46	65.58	2.12	5.43	89.99	202.19	1.42
Rio Mannu	3750	Tr 100 anni	50.00	225.55	63.46	65.65	2.19	5.59	104.28	216.89	1.43
Rio Mannu	3750	Tr 200 anni	50.00	260.59	63.46	65.72	2.26	5.58	121.47	229.02	1.39
Rio Mannu	3750	Tr 500 anni	50.00	307.00	63.46	65.81	2.35	5.67	142.38	267.73	1.38
Rio Mannu	3700	Tr 50 anni	50.00	190.68	62.59	65.03	2.44	5.47	85.15	184.85	1.45
Rio Mannu	3700	Tr 100 anni	50.00	225.55	62.59	65.11	2.52	5.58	100.87	208.73	1.44
Rio Mannu	3700	Tr 200 anni	50.00	260.59	62.59	65.18	2.59	5.70	114.88	220.21	1.44
Rio Mannu	3700	Tr 500 anni	50.00	307.00	62.59	65.26	2.67	5.85	133.37	237.79	1.44
Rio Mannu	3650	Tr 50 anni	40.18	190.68	62.50	64.69	2.37	4.27	103.85	216.66	1.11
Rio Mannu	3650	Tr 100 anni	40.18	225.55	62.50	64.79	2.47	4.35	127.10	246.98	1.09
Rio Mannu	3650	Tr 200 anni	40.18	260.59	62.50	64.87	2.55	4.42	147.15	248.97	1.09
Rio Mannu	3650	Tr 500 anni	40.18	307.00	62.50	64.96	2.64	4.50	171.92	252.25	1.07
Rio Mannu	3610	Tr 50 anni	5.02	190.68	61.54	64.79	3.25	3.42	181.79	272.15	0.64
Rio Mannu	3610	Tr 100 anni	5.02	225.55	61.54	64.89	3.35	3.55	207.69	275.81	0.66
Rio Mannu	3610	Tr 200 anni	5.02	260.59	61.54	64.93	3.39	3.89	218.91	277.09	0.71
Rio Mannu	3610	Tr 500 anni	5.02	307.00	61.54	65.04	3.50	4.00	251.28	288.94	0.72
Rio Mannu	3605	Tr 50 anni	1.00	190.68	61.47	64.86	3.39	3.30	194.26	293.11	0.60
Rio Mannu	3605	Tr 100 anni	1.00	225.55	61.47	64.91	3.44	3.61	210.42	297.90	0.65
Rio Mannu	3605	Tr 200 anni	1.00	260.59	61.47	64.99	3.52	3.77	233.42	307.71	0.67
Rio Mannu	3605	Tr 500 anni	1.00	307.00	61.47	65.08	3.61	4.01	261.68	326.57	0.71
Rio Mannu	3600		Bridge								
Rio Mannu	3595	Tr 50 anni	5.86	190.68	61.36	64.08	2.72	6.06	132.95	220.73	1.22
Rio Mannu	3595	Tr 100 anni	5.86	225.55	61.36	64.18	2.82	6.26	155.36	239.07	1.24
Rio Mannu	3595	Tr 200 anni	5.86	260.59	61.36	64.28	2.92	6.39	182.21	253.76	1.24
Rio Mannu	3595	Tr 500 anni	5.86	307.00	61.36	64.38	3.02	6.62	207.98	266.97	1.26
Rio Mannu	3589	Tr 50 anni	44.82	190.68	61.39	62.83	1.81	11.76	36.07	50.38	3.30

HEC-RAS Plan: Sim_Att River: Rio Mannu Reach: Rio Mannu (Continued)

Reach	River Sta	Profile	Length Chnl (m)	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Max Chl Dpth (m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Rio Mannu	3589	Tr 100 anni	44.82	225.55	61.39	62.84	1.82	13.85	36.29	50.91	3.88
Rio Mannu	3589	Tr 200 anni	44.82	260.59	61.39	63.28	2.26	9.81	74.83	102.35	2.37
Rio Mannu	3589	Tr 500 anni	44.82	307.00	61.39	63.38	2.36	10.03	85.24	105.19	2.36
Rio Mannu	3544	Tr 50 anni	44.19	190.68	61.03	62.65	2.25	7.22	67.44	132.62	1.95
Rio Mannu	3544	Tr 100 anni	44.19	225.55	61.03	62.66	2.26	8.41	68.53	134.27	2.27
Rio Mannu	3544	Tr 200 anni	44.19	260.59	61.03	62.87	2.47	6.91	99.15	150.94	1.74
Rio Mannu	3544	Tr 500 anni	44.19	307.00	61.03	62.96	2.56	7.15	113.59	156.94	1.75
Rio Mannu	3500	Tr 50 anni	50.00	190.68	61.26	61.89	0.72	4.62	65.25	149.77	2.39
Rio Mannu	3500	Tr 100 anni	50.00	225.55	61.26	61.94	0.77	4.82	73.20	154.56	2.40
Rio Mannu	3500	Tr 200 anni	50.00	260.59	61.26	61.97	0.80	5.32	77.00	155.76	2.60
Rio Mannu	3500	Tr 500 anni	50.00	307.00	61.26	62.02	0.85	5.58	85.04	156.54	2.63
Rio Mannu	3450	Tr 50 anni	50.00	190.68	59.54	62.03	2.49	3.53	146.55	226.96	0.79
Rio Mannu	3450	Tr 100 anni	50.00	225.55	59.54	62.11	2.57	3.72	165.55	265.67	0.82
Rio Mannu	3450	Tr 200 anni	50.00	260.59	59.54	62.18	2.64	3.88	184.76	281.45	0.84
Rio Mannu	3450	Tr 500 anni	50.00	307.00	59.54	62.25	2.71	4.13	205.66	298.50	0.88
Rio Mannu	3400	Tr 50 anni	50.00	190.68	58.83	61.06	2.23	5.48	84.36	182.92	1.36
Rio Mannu	3400	Tr 100 anni	50.00	225.55	58.83	61.14	2.31	5.68	101.10	218.28	1.37
Rio Mannu	3400	Tr 200 anni	50.00	260.59	58.83	61.21	2.38	5.86	116.52	239.37	1.39
Rio Mannu	3400	Tr 500 anni	50.00	307.00	58.83	61.29	2.46	6.08	137.23	266.24	1.41
Rio Mannu	3350	Tr 50 anni	50.00	190.68	58.48	60.42	1.94	5.72	85.95	194.23	1.50
Rio Mannu	3350	Tr 100 anni	50.00	225.55	58.48	60.48	2.00	5.94	99.04	200.82	1.53
Rio Mannu	3350	Tr 200 anni	50.00	260.59	58.48	60.55	2.07	6.12	112.69	205.53	1.54
Rio Mannu	3350	Tr 500 anni	50.00	307.00	58.48	60.63	2.15	6.33	128.99	223.55	1.56
Rio Mannu	3300	Tr 50 anni	50.00	190.68	57.82	59.81	1.99	6.13	94.94	216.46	1.54
Rio Mannu	3300	Tr 100 anni	50.00	225.55	57.82	59.87	2.05	6.36	107.63	223.14	1.57
Rio Mannu	3300	Tr 200 anni	50.00	260.59	57.82	59.92	2.10	6.58	119.73	232.74	1.60
Rio Mannu	3300	Tr 500 anni	50.00	307.00	57.82	59.99	2.17	6.83	134.70	234.44	1.63
Rio Mannu	3250	Tr 50 anni	50.00	190.68	56.90	59.32	2.42	5.52	102.11	229.10	1.26
Rio Mannu	3250	Tr 100 anni	50.00	225.55	56.90	59.41	2.51	5.64	122.56	251.37	1.26
Rio Mannu	3250	Tr 200 anni	50.00	260.59	56.90	59.47	2.57	5.78	139.81	270.57	1.27
Rio Mannu	3250	Tr 500 anni	50.00	307.00	56.90	59.56	2.66	5.90	166.99	326.11	1.27
Rio Mannu	3200	Tr 50 anni	50.00	190.68	56.54	58.74	2.20	6.07	105.84	344.47	1.64
Rio Mannu	3200	Tr 100 anni	50.00	225.55	56.54	58.79	2.25	6.29	123.89	357.64	1.67
Rio Mannu	3200	Tr 200 anni	50.00	260.59	56.54	58.83	2.29	6.50	137.52	361.17	1.70
Rio Mannu	3200	Tr 500 anni	50.00	307.00	56.54	58.88	2.34	6.77	153.37	364.46	1.75
Rio Mannu	3150	Tr 50 anni	50.00	190.68	55.78	57.97	2.19	5.82	99.21	269.72	1.39
Rio Mannu	3150	Tr 100 anni	50.00	225.55	55.78	58.04	2.26	5.99	116.69	292.13	1.40
Rio Mannu	3150	Tr 200 anni	50.00	260.59	55.78	58.10	2.32	6.12	136.00	316.00	1.41
Rio Mannu	3150	Tr 500 anni	50.00	307.00	55.78	58.17	2.39	6.30	156.95	326.31	1.43
Rio Mannu	3100	Tr 50 anni	50.00	190.68	55.65	56.76	1.36	8.31	52.52	156.62	3.38
Rio Mannu	3100	Tr 100 anni	50.00	225.55	55.65	56.82	1.41	8.34	60.80	158.51	3.26
Rio Mannu	3100	Tr 200 anni	50.00	260.59	55.65	56.87	1.47	8.39	68.85	160.49	3.16
Rio Mannu	3100	Tr 500 anni	50.00	307.00	55.65	56.94	1.54	8.42	80.58	169.01	3.03
Rio Mannu	3050	Tr 50 anni	50.00	190.68	54.86	56.75	1.89	3.66	176.80	386.58	0.95
Rio Mannu	3050	Tr 100 anni	50.00	225.55	54.86	56.81	1.95	3.76	199.58	392.06	0.96
Rio Mannu	3050	Tr 200 anni	50.00	260.59	54.86	56.84	1.98	4.06	211.23	393.70	1.03
Rio Mannu	3050	Tr 500 anni	50.00	307.00	54.86	56.90	2.04	4.21	234.75	396.59	1.05
Rio Mannu	3000	Tr 50 anni	50.00	190.68	53.41	54.80	1.39	7.36	60.34	175.80	2.52
Rio Mannu	3000	Tr 100 anni	50.00	225.55	53.41	54.85	1.44	7.60	69.46	182.51	2.53
Rio Mannu	3000	Tr 200 anni	50.00	260.59	53.41	54.91	1.50	7.70	80.03	190.42	2.49
Rio Mannu	3000	Tr 500 anni	50.00	307.00	53.41	54.97	1.56	7.91	91.36	203.49	2.48
Rio Mannu	2950	Tr 50 anni	50.00	190.68	52.90	54.41	1.51	4.84	98.43	204.49	1.50
Rio Mannu	2950	Tr 100 anni	50.00	225.55	52.90	54.47	1.57	5.00	110.85	204.84	1.51
Rio Mannu	2950	Tr 200 anni	50.00	260.59	52.90	54.53	1.63	5.12	123.15	205.18	1.51
Rio Mannu	2950	Tr 500 anni	50.00	307.00	52.90	54.60	1.70	5.26	138.65	205.67	1.50
Rio Mannu	2900	Tr 50 anni	50.00	190.68	52.50	54.31	1.81	3.84	122.78	199.47	1.10
Rio Mannu	2900	Tr 100 anni	50.00	225.55	52.50	54.38	1.88	4.04	137.07	227.22	1.13
Rio Mannu	2900	Tr 200 anni	50.00	260.59	52.50	54.44	1.94	4.19	152.05	240.45	1.14
Rio Mannu	2900	Tr 500 anni	50.00	307.00	52.50	54.52	2.02	4.36	171.55	252.83	1.16

HEC-RAS Plan: Sim_Att River: Rio Mannu Reach: Rio Mannu (Continued)

Reach	River Sta	Profile	Length Chnl (m)	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Max Chl Dpth (m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Rio_Mannu	2850	Tr 50 anni	50.00	190.68	51.88	53.79	1.91	4.59	121.93	280.36	1.28
Rio_Mannu	2850	Tr 100 anni	50.00	225.55	51.88	53.84	1.96	4.84	136.28	285.30	1.33
Rio_Mannu	2850	Tr 200 anni	50.00	260.59	51.88	53.88	2.00	5.07	148.67	293.13	1.37
Rio_Mannu	2850	Tr 500 anni	50.00	307.00	51.88	53.94	2.06	5.35	164.27	305.19	1.42
Rio_Mannu	2800	Tr 50 anni	45.36	190.68	51.42	52.92	1.50	5.05	83.23	143.76	1.49
Rio_Mannu	2800	Tr 100 anni	45.36	225.55	51.42	53.03	1.61	5.08	99.81	165.83	1.44
Rio_Mannu	2800	Tr 200 anni	45.36	260.59	51.42	53.14	1.72	5.10	118.81	186.70	1.38
Rio_Mannu	2800	Tr 500 anni	45.36	307.00	51.42	53.25	1.83	5.15	140.04	200.01	1.35
Rio_Mannu	2755	Tr 50 anni	44.10	190.68	51.05	52.87	1.82	3.78	130.54	263.25	1.03
Rio_Mannu	2755	Tr 100 anni	44.10	225.55	51.05	52.98	1.93	3.89	162.03	299.10	1.02
Rio_Mannu	2755	Tr 200 anni	44.10	260.59	51.05	53.06	2.01	3.93	186.78	320.12	1.00
Rio_Mannu	2755	Tr 500 anni	44.10	307.00	51.05	53.12	2.07	4.20	204.44	345.22	1.05
Rio_Mannu	2711	Tr 50 anni	10.52	190.68	50.66	52.57	1.91	3.92	138.11	272.89	1.07
Rio_Mannu	2711	Tr 100 anni	10.52	225.55	50.66	52.60	1.94	4.34	147.06	278.43	1.17
Rio_Mannu	2711	Tr 200 anni	10.52	260.59	50.66	52.64	1.98	4.57	159.66	286.77	1.21
Rio_Mannu	2711	Tr 500 anni	10.52	307.00	50.66	52.73	2.07	4.62	184.98	321.55	1.19
Rio_Mannu	2700	Tr 50 anni	2.00	190.68	50.17	52.89	2.72	3.57	119.88	200.04	0.87
Rio_Mannu	2700	Tr 100 anni	2.00	225.55	50.17	53.00	2.83	3.67	142.96	232.57	0.86
Rio_Mannu	2700	Tr 200 anni	2.00	260.59	50.17	53.13	2.96	3.78	177.39	269.32	0.86
Rio_Mannu	2700	Tr 500 anni	2.00	307.00	50.17	53.21	3.04	3.98	198.78	277.80	0.89
Rio_Mannu	2693		Bridge								
Rio_Mannu	2688	Tr 50 anni	3.60	190.68	50.20	51.89	1.69	7.25	64.77	193.44	1.95
Rio_Mannu	2688	Tr 100 anni	3.60	225.55	50.20	51.96	1.76	7.55	77.50	210.74	1.99
Rio_Mannu	2688	Tr 200 anni	3.60	260.59	50.20	52.01	1.81	7.82	88.77	234.02	2.03
Rio_Mannu	2688	Tr 500 anni	3.60	307.00	50.20	52.06	1.86	8.15	102.58	249.52	2.08
Rio_Mannu	2684	Tr 50 anni	34.13	190.68	50.31	51.73	1.42	8.42	53.93	151.32	2.94
Rio_Mannu	2684	Tr 100 anni	34.13	225.55	50.31	51.79	1.48	8.69	62.36	157.49	2.94
Rio_Mannu	2684	Tr 200 anni	34.13	260.59	50.31	51.83	1.52	8.91	69.81	169.10	2.94
Rio_Mannu	2684	Tr 500 anni	34.13	307.00	50.31	51.90	1.59	9.16	81.35	189.28	2.92
Rio_Mannu	2650	Tr 50 anni	50.00	190.68	49.75	51.53	1.78	5.63	91.65	219.27	1.51
Rio_Mannu	2650	Tr 100 anni	50.00	225.55	49.75	51.60	1.85	5.83	105.49	223.76	1.53
Rio_Mannu	2650	Tr 200 anni	50.00	260.59	49.75	51.65	1.90	6.00	118.66	244.26	1.54
Rio_Mannu	2650	Tr 500 anni	50.00	307.00	49.75	51.72	1.97	6.22	136.87	296.37	1.57
Rio_Mannu	2600	Tr 50 anni	50.00	190.68	48.65	50.73	2.08	5.77	87.12	205.10	1.61
Rio_Mannu	2600	Tr 100 anni	50.00	225.55	48.65	50.79	2.14	5.97	99.22	207.78	1.63
Rio_Mannu	2600	Tr 200 anni	50.00	260.59	48.65	50.85	2.20	6.13	110.76	213.03	1.65
Rio_Mannu	2600	Tr 500 anni	50.00	307.00	48.65	50.92	2.27	6.31	126.76	256.58	1.65
Rio_Mannu	2550	Tr 50 anni	50.00	190.68	47.97	49.56	1.59	7.22	62.93	120.92	2.25
Rio_Mannu	2550	Tr 100 anni	50.00	225.55	47.97	49.63	1.66	7.33	71.72	122.19	2.21
Rio_Mannu	2550	Tr 200 anni	50.00	260.59	47.97	49.70	1.73	7.42	80.48	123.78	2.17
Rio_Mannu	2550	Tr 500 anni	50.00	307.00	47.97	49.80	1.83	7.53	91.96	126.88	2.12
Rio_Mannu	2500	Tr 50 anni	50.00	190.68	47.70	49.58	1.88	3.99	126.73	259.13	1.13
Rio_Mannu	2500	Tr 100 anni	50.00	225.55	47.70	49.70	2.00	3.84	160.93	285.06	1.04
Rio_Mannu	2500	Tr 200 anni	50.00	260.59	47.70	49.76	2.06	3.97	177.31	292.94	1.05
Rio_Mannu	2500	Tr 500 anni	50.00	307.00	47.70	49.82	2.12	4.18	196.01	300.05	1.08
Rio_Mannu	2450	Tr 50 anni	54.89	190.68	47.30	48.66	1.55	5.33	80.10	184.94	1.79
Rio_Mannu	2450	Tr 100 anni	54.89	225.55	47.30	48.71	1.60	5.73	90.34	209.17	1.90
Rio_Mannu	2450	Tr 200 anni	54.89	260.59	47.30	48.78	1.67	5.88	106.22	253.00	1.91
Rio_Mannu	2450	Tr 500 anni	54.89	307.00	47.30	48.86	1.75	5.98	126.52	282.76	1.90
Rio_Mannu	2395	Tr 50 anni	29.91	190.68	47.30	48.35	1.67	4.33	69.21	92.54	1.68
Rio_Mannu	2395	Tr 100 anni	29.91	225.55	47.30	48.49	1.81	4.57	83.98	108.97	1.61
Rio_Mannu	2395	Tr 200 anni	29.91	260.59	47.30	48.58	1.90	4.86	93.90	113.87	1.62
Rio_Mannu	2395	Tr 500 anni	29.91	307.00	47.30	48.74	2.06	5.03	114.59	166.19	1.55
Rio_Mannu	2365	Tr 50 anni	23.33	190.68	46.10	48.00	1.90	4.52	81.02	89.47	1.27
Rio_Mannu	2365	Tr 100 anni	23.33	225.55	46.10	48.13	2.03	4.69	92.85	93.55	1.26
Rio_Mannu	2365	Tr 200 anni	23.33	260.59	46.10	48.23	2.13	4.91	102.47	95.65	1.27
Rio_Mannu	2365	Tr 500 anni	23.33	307.00	46.10	48.36	2.26	5.17	116.47	128.42	1.28

HEC-RAS Plan: Sim_Att River: Rio Mannu Reach: Rio Mannu (Continued)

Reach	River Sta	Profile	Length Chnl (m)	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Max Chl Dpth (m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Rio_Mannu	2342	Tr 50 anni	28.65	190.68	46.05	46.76	1.09	6.68	41.82	77.36	3.24
Rio_Mannu	2342	Tr 100 anni	28.65	225.55	46.05	46.82	1.15	6.88	47.23	78.23	3.19
Rio_Mannu	2342	Tr 200 anni	28.65	260.59	46.05	46.90	1.23	6.99	52.90	79.14	3.12
Rio_Mannu	2342	Tr 500 anni	28.65	307.00	46.05	46.99	1.32	7.14	60.23	80.48	3.03
Rio_Mannu	2313	Tr 50 anni	5.79	190.68	45.77	48.09	2.32	3.55	154.48	232.31	0.80
Rio_Mannu	2313	Tr 100 anni	5.79	225.55	45.77	48.17	2.40	3.77	172.08	242.38	0.83
Rio_Mannu	2313	Tr 200 anni	5.79	260.59	45.77	48.25	2.48	3.92	191.28	255.09	0.85
Rio_Mannu	2313	Tr 500 anni	5.79	307.00	45.77	48.35	2.58	4.07	218.66	279.28	0.86
Rio_Mannu	2307	Tr 50 anni	8.30	190.68	45.42	48.26	2.84	3.71	174.24	271.48	0.76
Rio_Mannu	2307	Tr 100 anni	8.30	225.55	45.42	48.34	2.92	3.94	194.75	283.76	0.79
Rio_Mannu	2307	Tr 200 anni	8.30	260.59	45.42	48.40	2.98	4.18	212.10	299.26	0.83
Rio_Mannu	2307	Tr 500 anni	8.30	307.00	45.42	48.56	3.14	4.13	263.34	321.96	0.79
Rio_Mannu	2299	Tr 50 anni	7.94	190.68	45.44	47.83	2.39	5.62	115.64	219.13	1.28
Rio_Mannu	2299	Tr 100 anni	7.94	225.55	45.44	47.92	2.48	5.82	137.30	252.77	1.30
Rio_Mannu	2299	Tr 200 anni	7.94	260.59	45.44	47.97	2.53	6.11	150.95	264.35	1.34
Rio_Mannu	2299	Tr 500 anni	7.94	307.00	45.44	48.02	2.58	6.58	164.43	274.15	1.43
Rio_Mannu	2291	Tr 50 anni	18.16	190.68	45.12	47.16	2.04	7.64	80.37	206.51	1.99
Rio_Mannu	2291	Tr 100 anni	18.16	225.55	45.12	47.20	2.08	8.02	89.41	207.67	2.06
Rio_Mannu	2291	Tr 200 anni	18.16	260.59	45.12	47.24	2.12	8.36	97.90	209.01	2.12
Rio_Mannu	2291	Tr 500 anni	18.16	307.00	45.12	47.29	2.17	8.79	108.16	211.59	2.20
Rio_Mannu	2273	Tr 50 anni	23.06	190.68	44.99	46.75	1.76	6.74	81.60	212.35	1.83
Rio_Mannu	2273	Tr 100 anni	23.06	225.55	44.99	46.81	1.82	7.01	92.51	213.51	1.87
Rio_Mannu	2273	Tr 200 anni	23.06	260.59	44.99	46.85	1.86	7.24	102.82	214.10	1.90
Rio_Mannu	2273	Tr 500 anni	23.06	307.00	44.99	46.91	1.92	7.53	115.23	214.89	1.94
Rio_Mannu	2250	Tr 50 anni	50.00	190.68	44.72	46.51	1.79	6.48	87.70	209.23	1.78
Rio_Mannu	2250	Tr 100 anni	50.00	225.55	44.72	46.56	1.84	6.67	99.46	213.82	1.80
Rio_Mannu	2250	Tr 200 anni	50.00	260.59	44.72	46.61	1.89	6.84	110.60	214.84	1.81
Rio_Mannu	2250	Tr 500 anni	50.00	307.00	44.72	46.68	1.96	7.04	124.30	216.70	1.82
Rio_Mannu	2200	Tr 50 anni	50.24	190.68	44.23	45.94	1.71	5.34	100.87	226.96	1.51
Rio_Mannu	2200	Tr 100 anni	50.24	225.55	44.23	46.00	1.77	5.47	115.12	235.29	1.51
Rio_Mannu	2200	Tr 200 anni	50.24	260.59	44.23	46.06	1.83	5.59	128.84	239.00	1.51
Rio_Mannu	2200	Tr 500 anni	50.24	307.00	44.23	46.13	1.90	5.73	145.68	239.46	1.51
Rio_Mannu	2150	Tr 50 anni	49.80	190.68	43.73	45.11	1.38	5.87	90.83	237.95	1.82
Rio_Mannu	2150	Tr 100 anni	49.80	225.55	43.73	45.16	1.43	6.05	103.49	247.23	1.83
Rio_Mannu	2150	Tr 200 anni	49.80	260.59	43.73	45.21	1.48	6.21	115.51	249.62	1.84
Rio_Mannu	2150	Tr 500 anni	49.80	307.00	43.73	45.27	1.54	6.41	130.18	250.43	1.85
Rio_Mannu	2100	Tr 50 anni	50.00	190.68	44.11	44.50	1.06	2.98	91.00	205.16	1.67
Rio_Mannu	2100	Tr 100 anni	50.00	225.55	44.11	44.55	1.11	3.25	101.70	205.68	1.69
Rio_Mannu	2100	Tr 200 anni	50.00	260.59	44.11	44.60	1.16	3.49	111.80	213.60	1.71
Rio_Mannu	2100	Tr 500 anni	50.00	307.00	44.11	44.67	1.23	3.71	128.14	225.63	1.68
Rio_Mannu	2050	Tr 50 anni	50.00	190.68	42.39	44.46	2.07	3.66	157.20	247.03	0.90
Rio_Mannu	2050	Tr 100 anni	50.00	225.55	42.39	44.53	2.14	3.82	174.88	248.09	0.92
Rio_Mannu	2050	Tr 200 anni	50.00	260.59	42.39	44.57	2.18	4.08	186.72	249.02	0.97
Rio_Mannu	2050	Tr 500 anni	50.00	307.00	42.39	44.64	2.25	4.37	202.63	252.09	1.02
Rio_Mannu	2000	Tr 50 anni	50.00	190.68	42.02	43.84	1.82	5.15	118.77	238.74	1.26
Rio_Mannu	2000	Tr 100 anni	50.00	225.55	42.02	43.90	1.88	5.36	134.22	239.83	1.28
Rio_Mannu	2000	Tr 200 anni	50.00	260.59	42.02	43.97	1.95	5.52	149.63	241.40	1.30
Rio_Mannu	2000	Tr 500 anni	50.00	307.00	42.02	44.04	2.02	5.69	168.97	244.13	1.31
Rio_Mannu	1950	Tr 50 anni	50.00	190.68	40.80	42.39	1.59	7.84	64.82	150.72	2.32
Rio_Mannu	1950	Tr 100 anni	50.00	225.55	40.80	42.44	1.64	8.06	74.11	166.28	2.33
Rio_Mannu	1950	Tr 200 anni	50.00	260.59	40.80	42.50	1.70	8.27	83.07	173.05	2.34
Rio_Mannu	1950	Tr 500 anni	50.00	307.00	40.80	42.56	1.76	8.51	94.48	183.15	2.35
Rio_Mannu	1900	Tr 50 anni	50.00	190.68	40.68	42.94	2.26	4.11	153.98	205.52	0.93
Rio_Mannu	1900	Tr 100 anni	50.00	225.55	40.68	43.01	2.33	4.33	168.92	206.18	0.96
Rio_Mannu	1900	Tr 200 anni	50.00	260.59	40.68	43.05	2.37	4.70	177.55	206.57	1.03
Rio_Mannu	1900	Tr 500 anni	50.00	307.00	40.68	43.14	2.46	4.90	195.94	207.47	1.05
Rio_Mannu	1850	Tr 50 anni	50.00	190.68	40.24	42.45	2.21	5.68	133.82	274.78	1.29
Rio_Mannu	1850	Tr 100 anni	50.00	225.55	40.24	42.50	2.26	5.99	147.56	285.28	1.35
Rio_Mannu	1850	Tr 200 anni	50.00	260.59	40.24	42.55	2.31	6.18	162.94	299.46	1.37

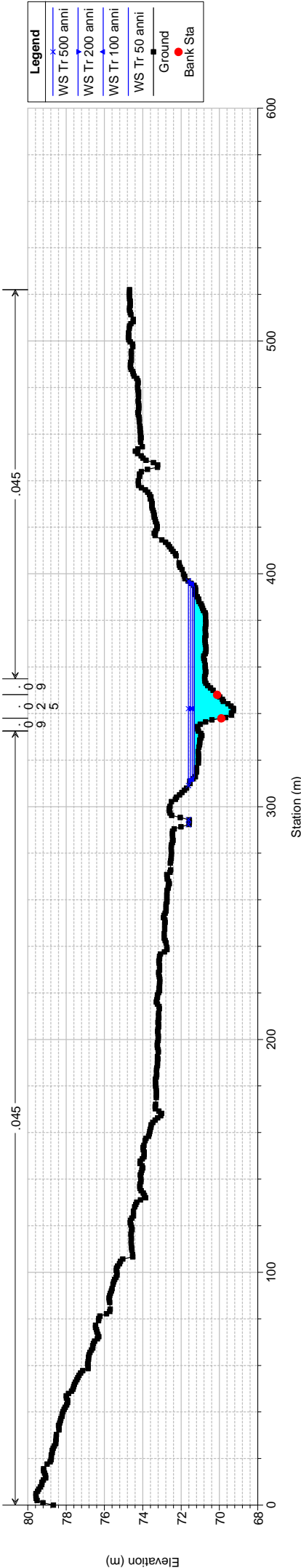
HEC-RAS Plan: Sim_Att River: Rio Mannu Reach: Rio Mannu (Continued)

Reach	River Sta	Profile	Length Chnl (m)	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Max Chl Dpth (m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Rio Mannu	1850	Tr 500 anni	50.00	307.00	40.24	42.60	2.36	6.56	177.60	307.22	1.44
Rio Mannu	1800	Tr 50 anni		190.68	39.34	41.76	2.42	5.26	115.69	217.77	1.17
Rio Mannu	1800	Tr 100 anni		225.55	39.34	41.84	2.50	5.41	132.70	222.79	1.18
Rio Mannu	1800	Tr 200 anni		260.59	39.34	41.91	2.57	5.53	148.75	225.01	1.19
Rio Mannu	1800	Tr 500 anni		307.00	39.34	42.00	2.66	5.67	169.14	231.28	1.19

Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

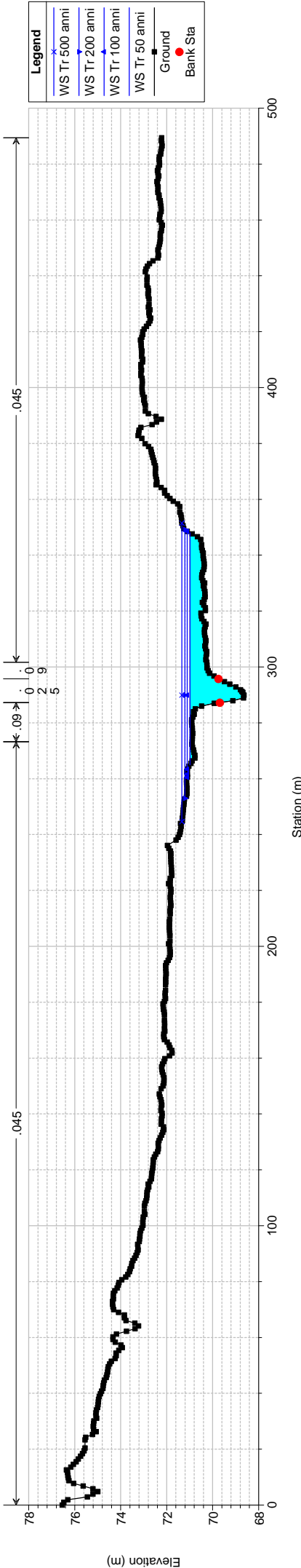
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Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

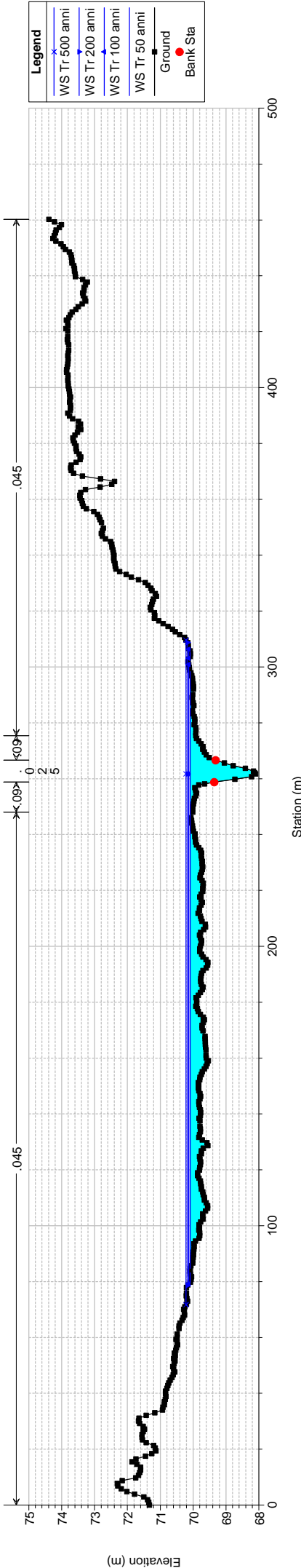
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Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

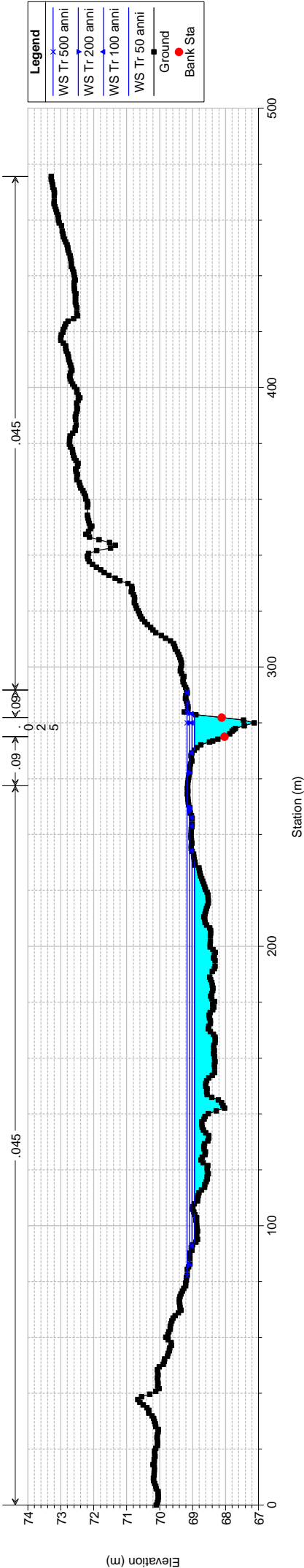
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Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

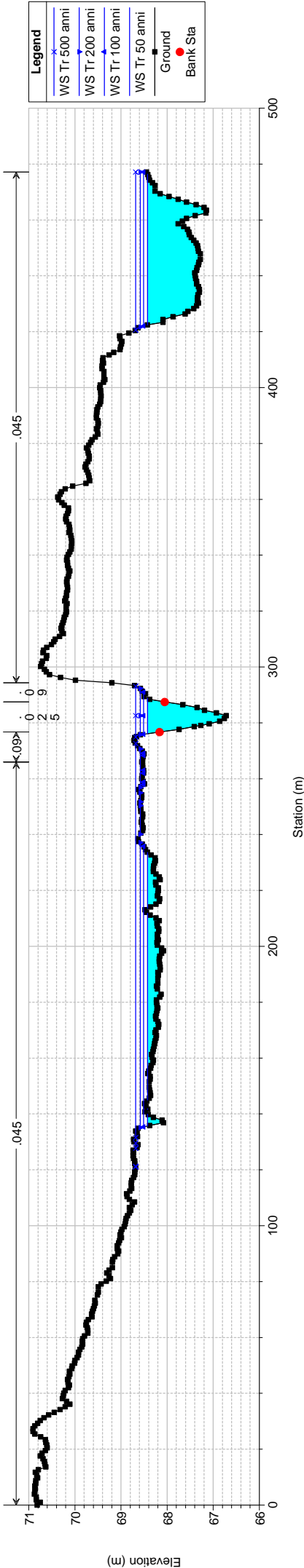
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Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

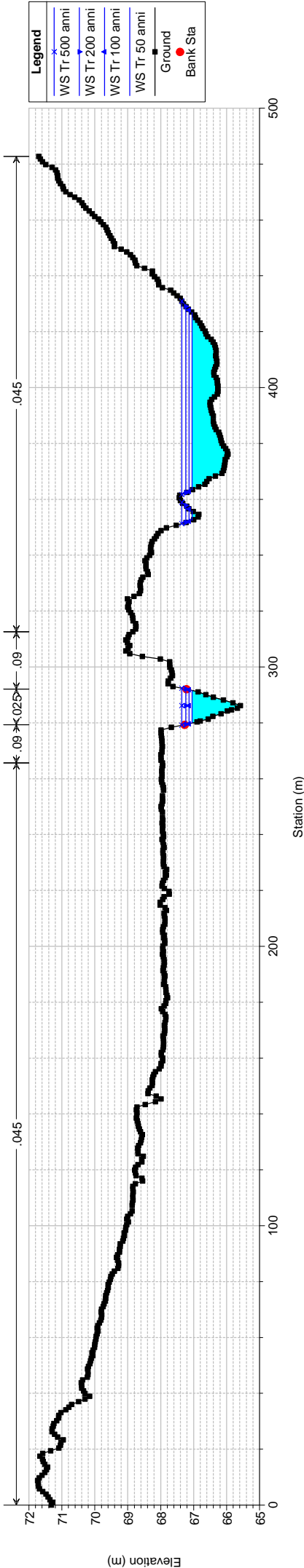
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Mulino_de_Josso Plan: Simulazione_Attuale

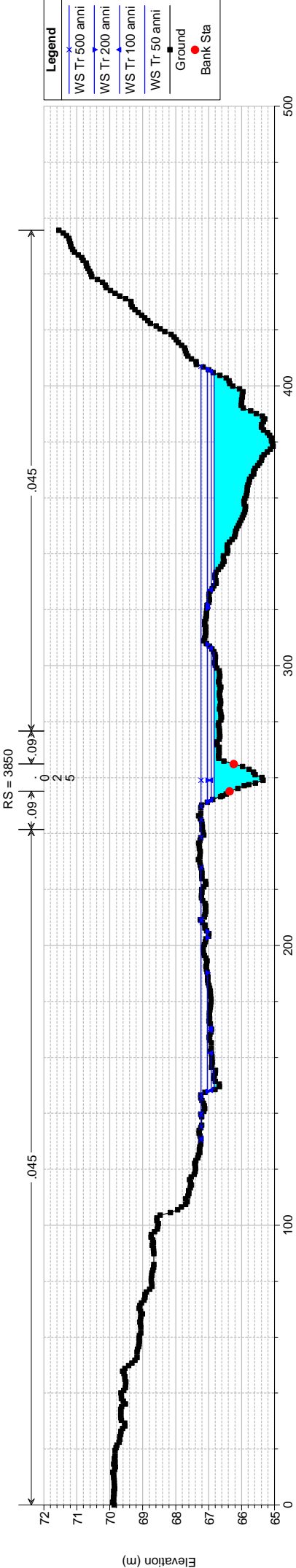
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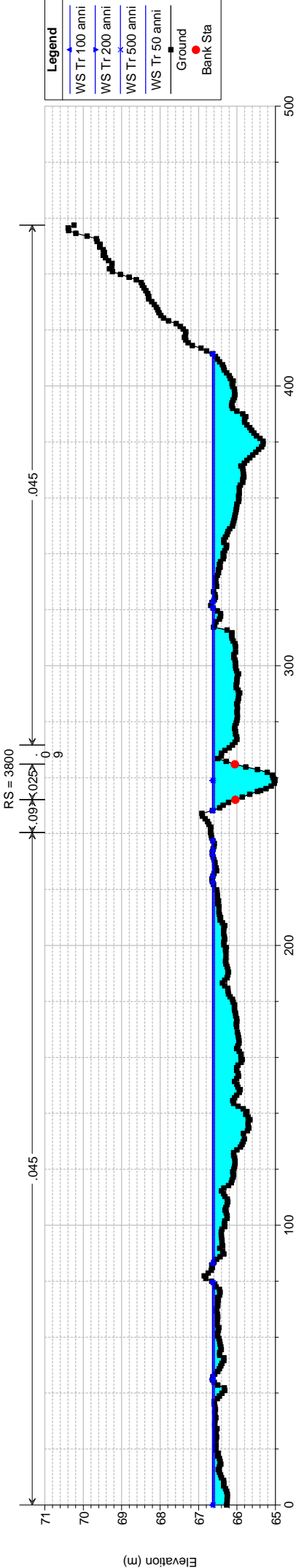
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



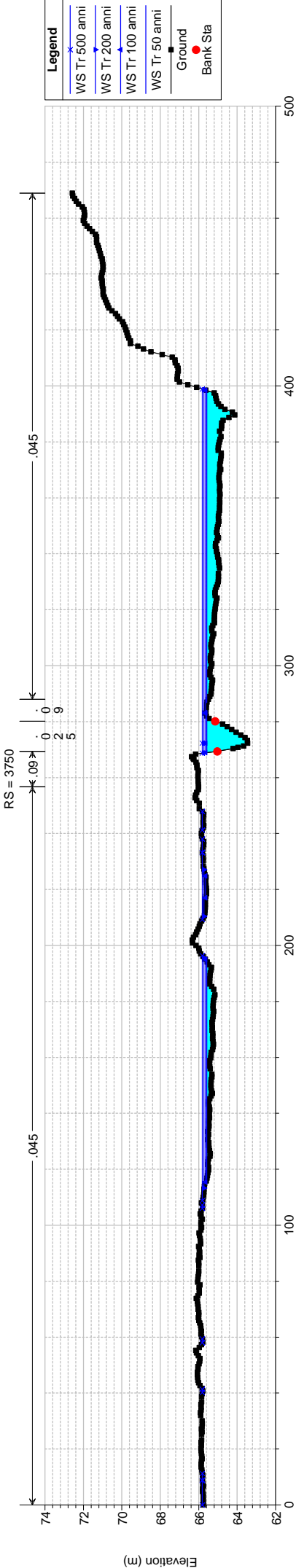
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



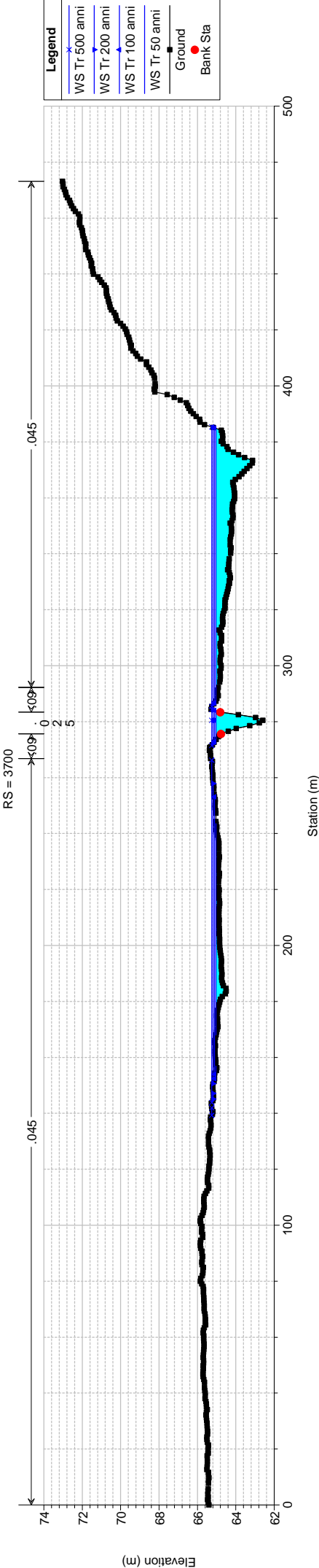
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



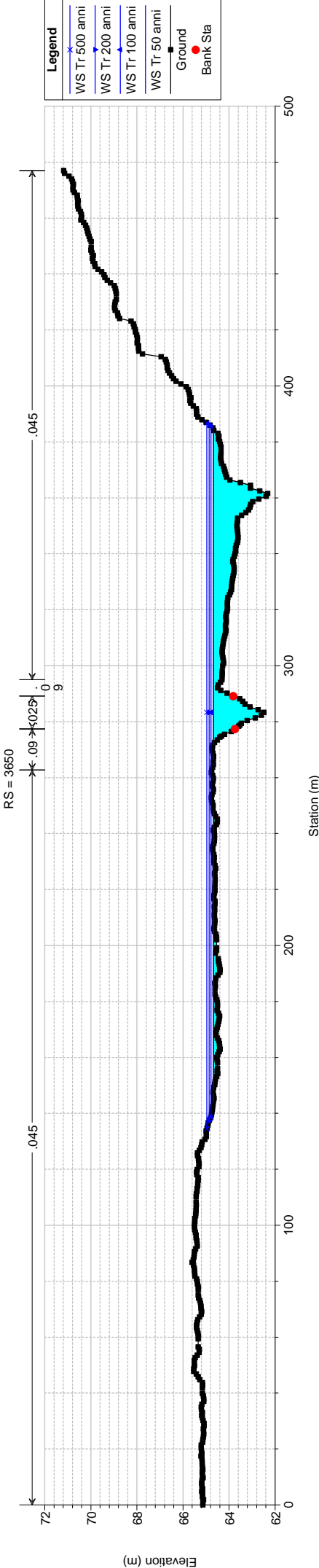
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



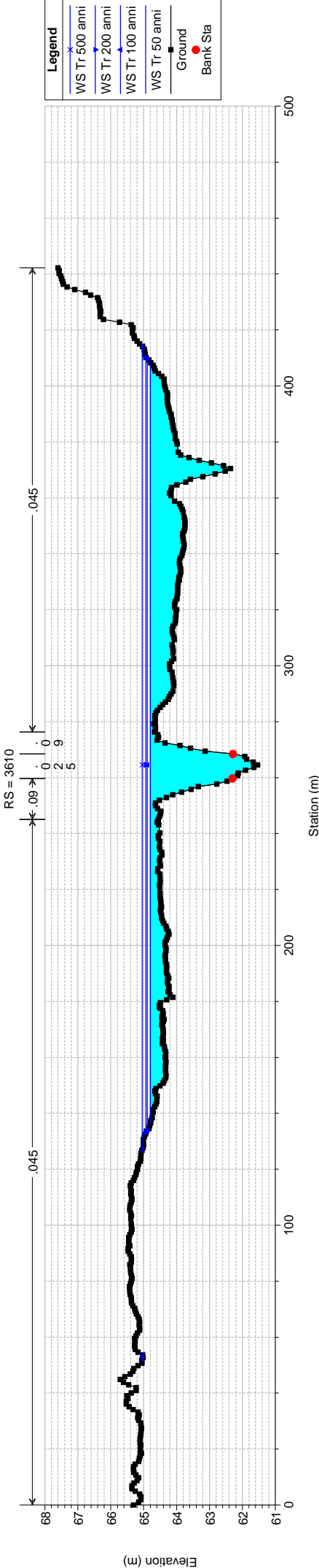
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



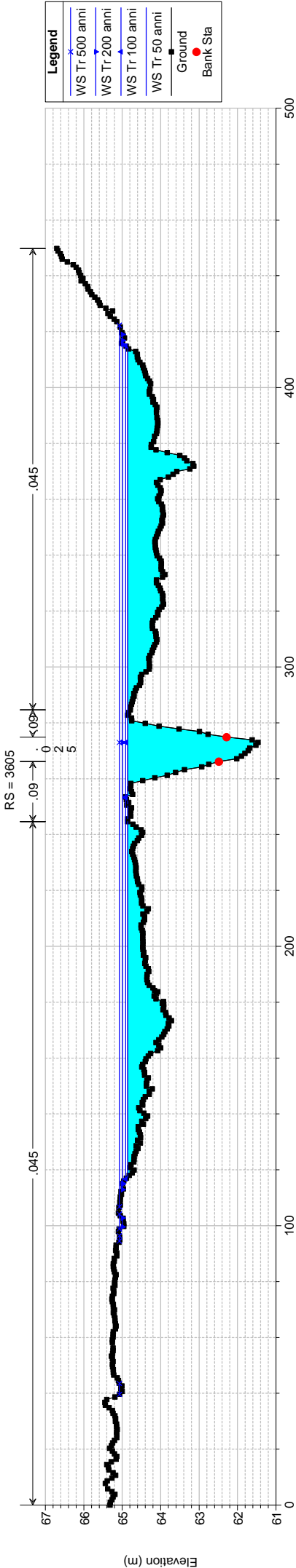
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



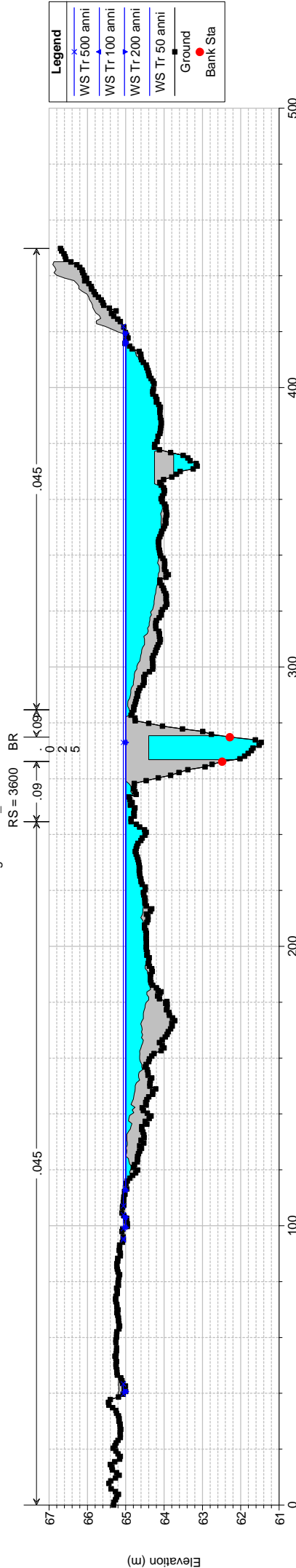
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



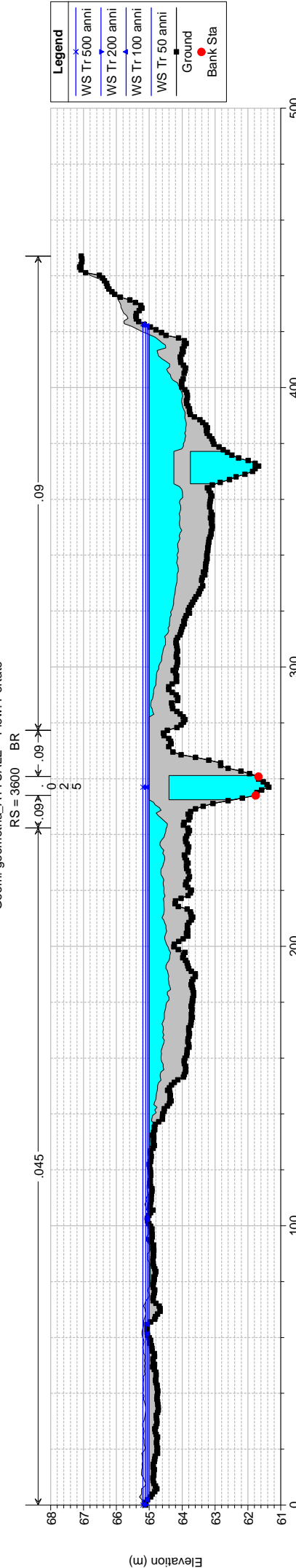
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



Mulino_de_Josso Plan: Simulazione_Attuale

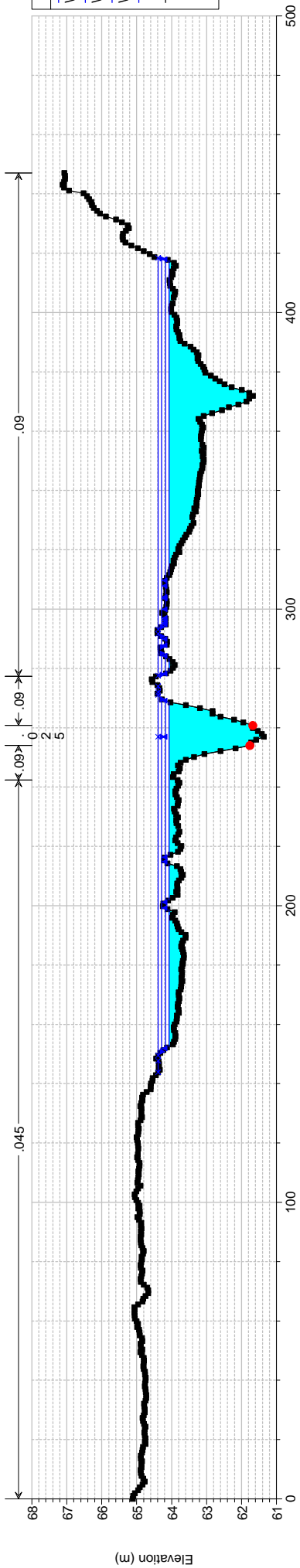
Geom: geometria_ATTUALE Flow: Portate



Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

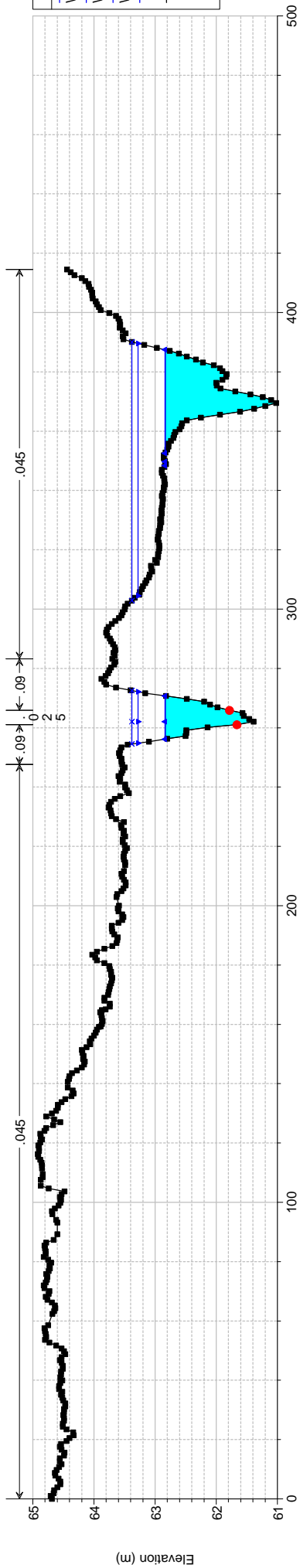
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Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

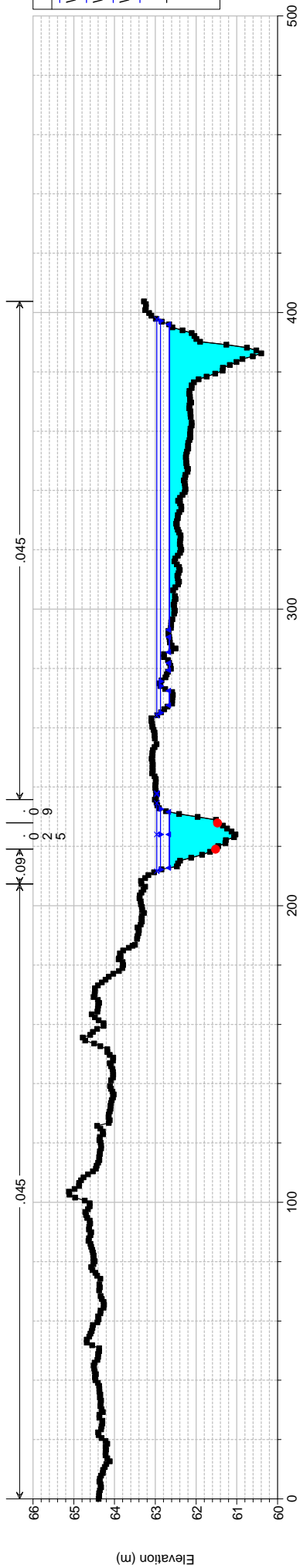
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Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

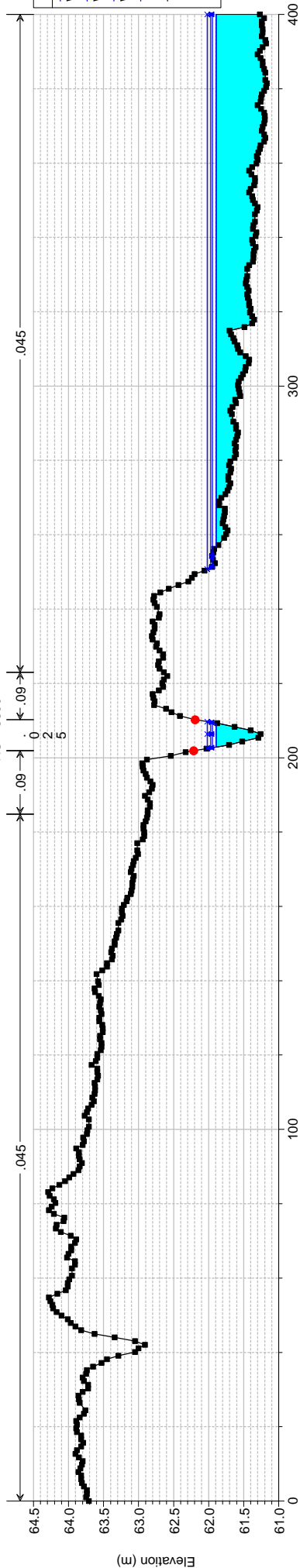
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Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

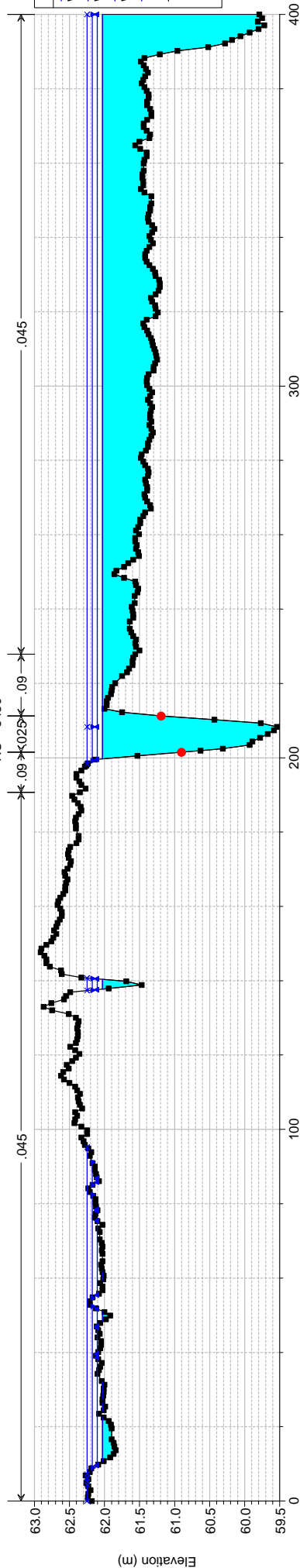
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Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

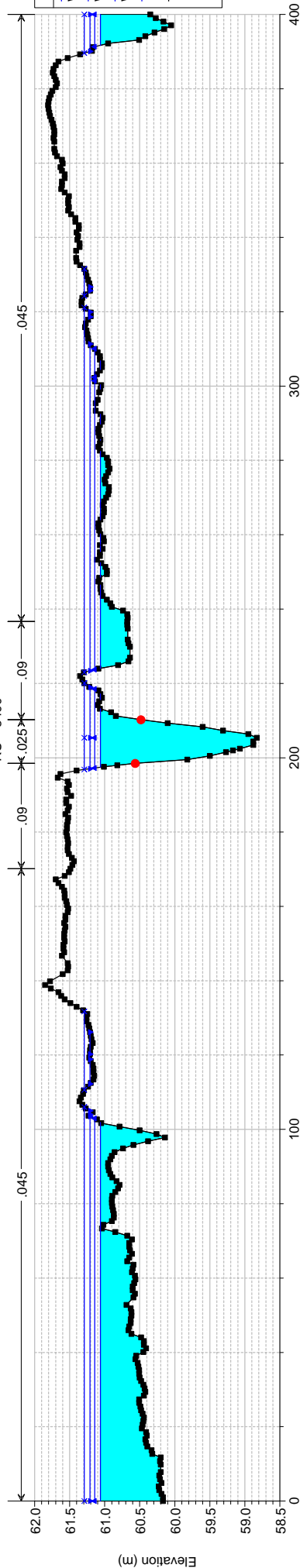
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Mulino_de_Josso Plan: Simulazione_Attuale

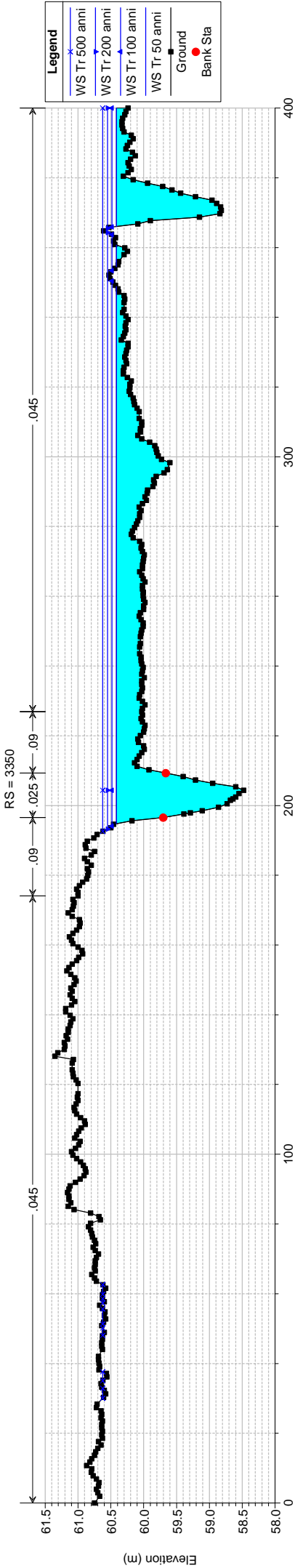
Geom: geometria_ATTUALE Flow: Portate

RS = 3400



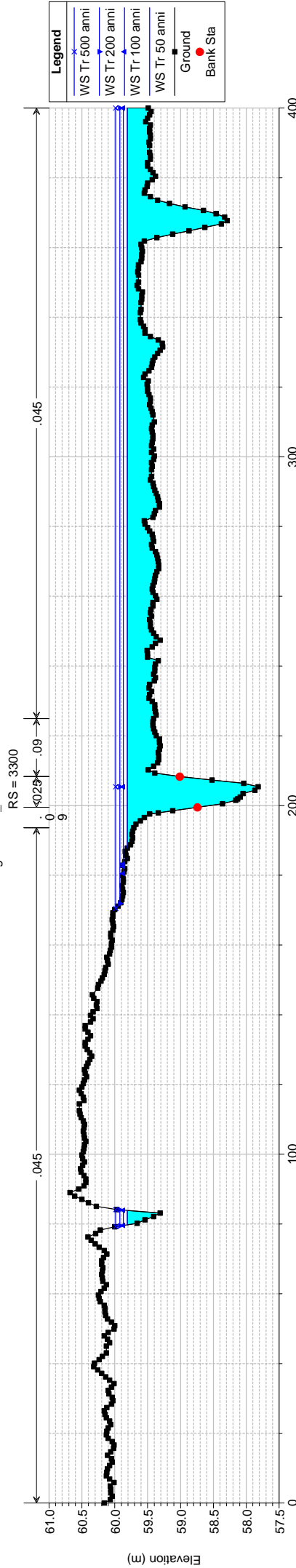
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



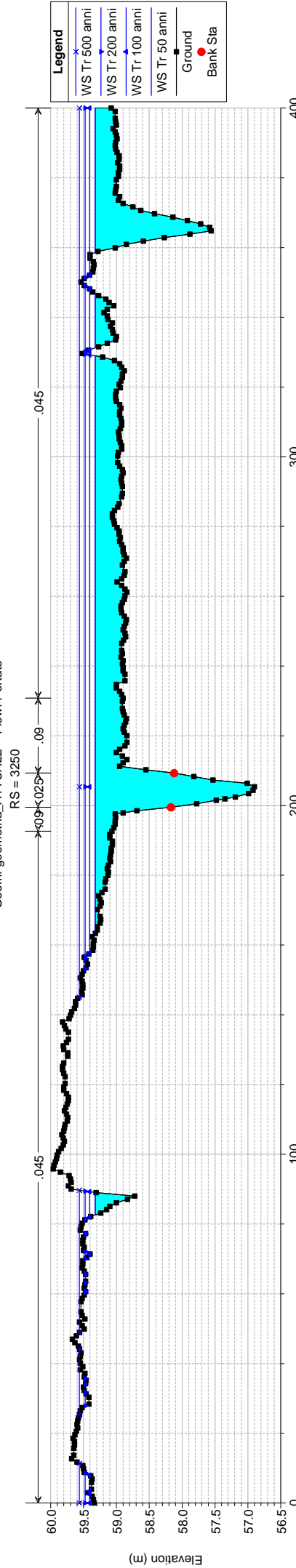
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



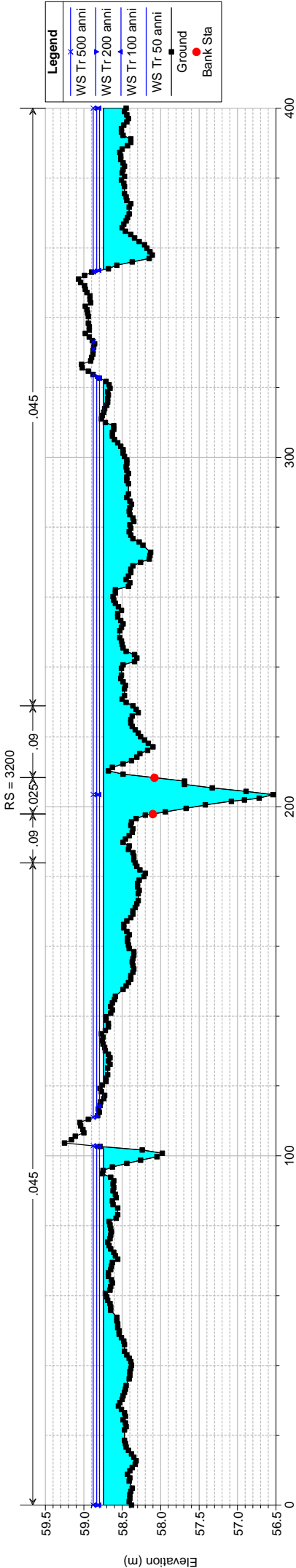
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



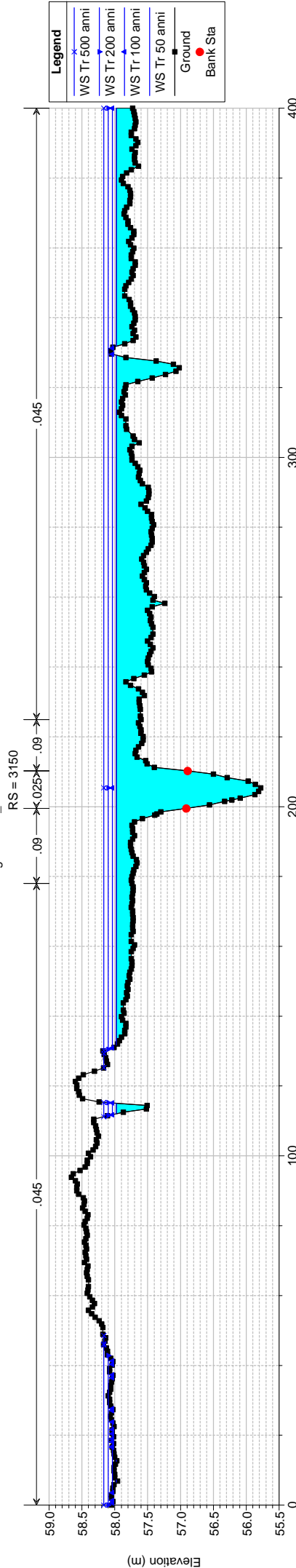
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



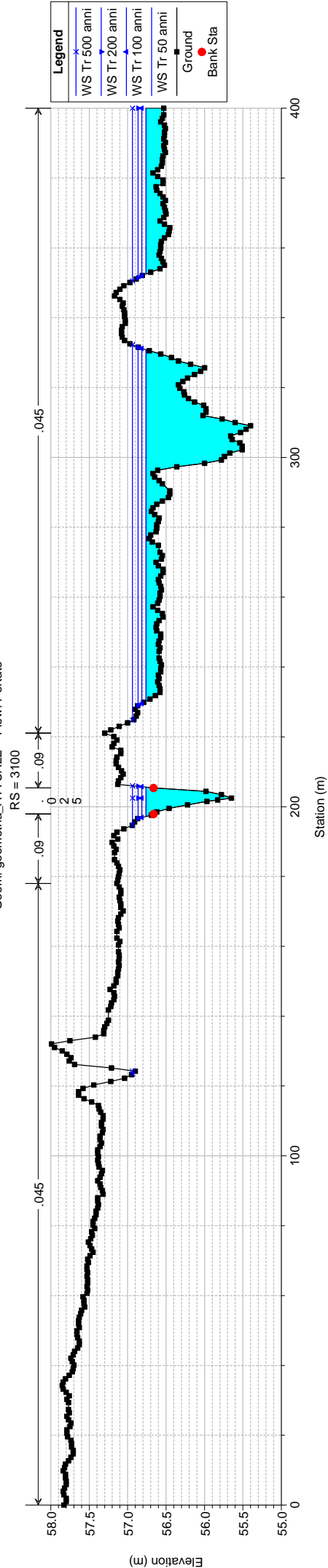
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



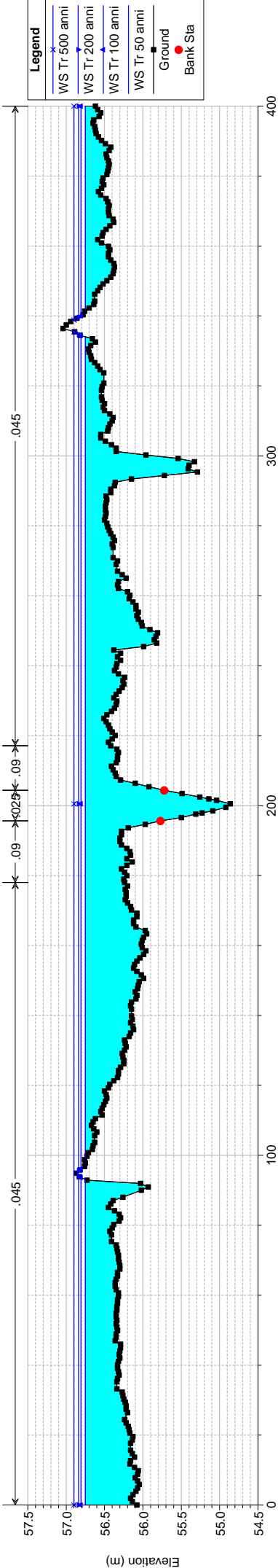
Mulino_de_Josso

Plan: Simulazione_Attuale

Geom: geometria_ATTUALE

Flow: Portate

RS = 3050



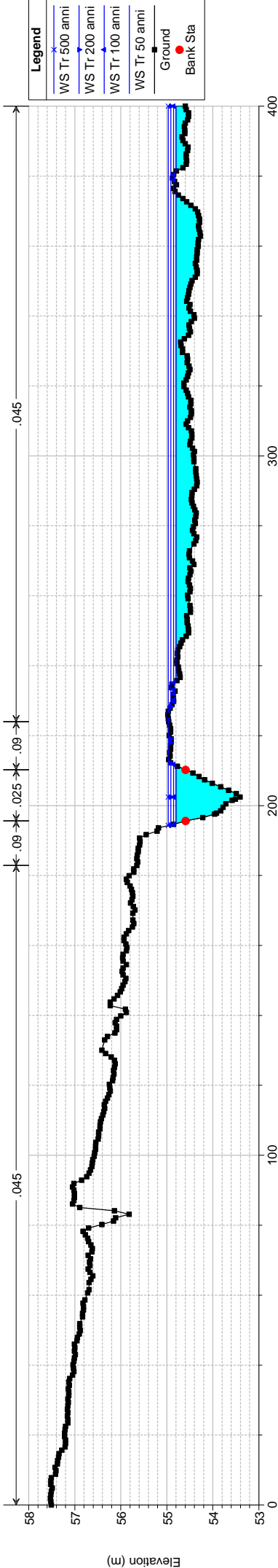
Mulino_de_Josso

Plan: Simulazione_Attuale

Geom: geometria_ATTUALE

Flow: Portate

RS = 3000



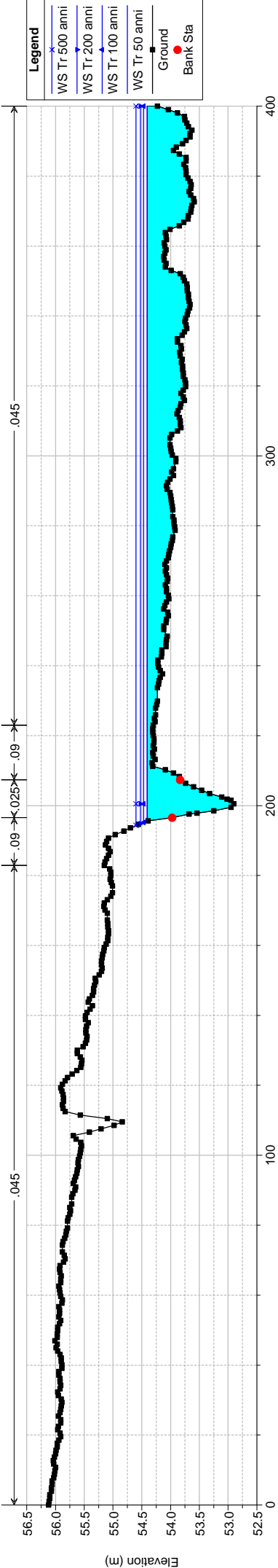
Mulino_de_Josso

Plan: Simulazione_Attuale

Geom: geometria_ATTUALE

Flow: Portate

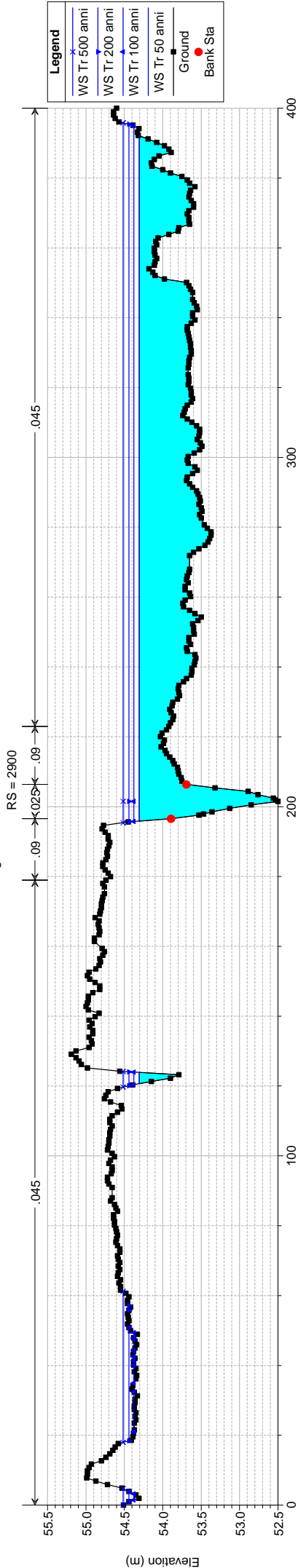
RS = 2950



Mulino_de_Josso

Plan: Simulazione_Attuale

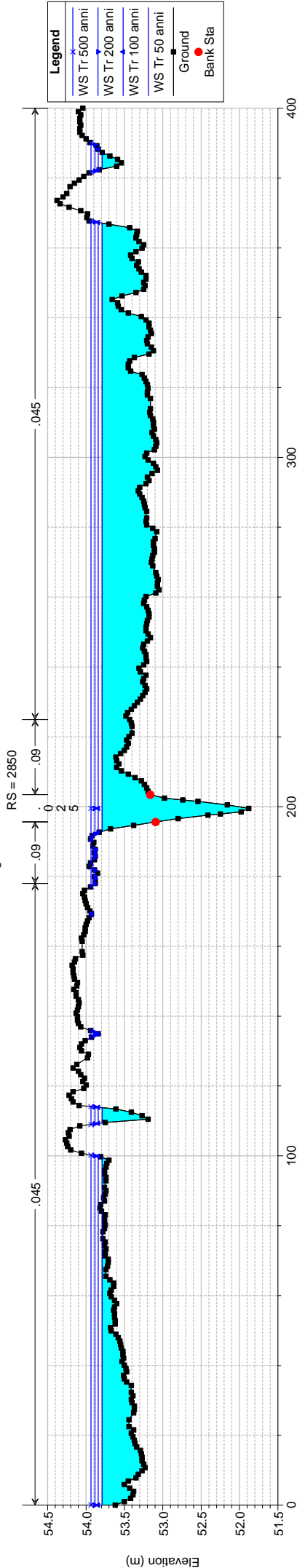
Geom: geometria_ATTUALE Flow: Portate



Mulino_de_Josso

Plan: Simulazione_Attuale

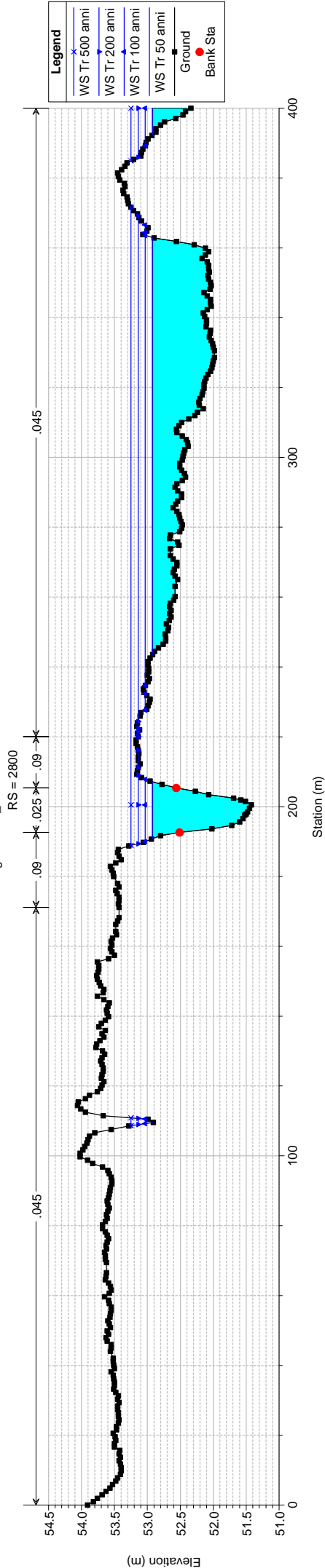
Geom: geometria_ATTUALE Flow: Portate



Mulino_de_Josso

Plan: Simulazione_Attuale

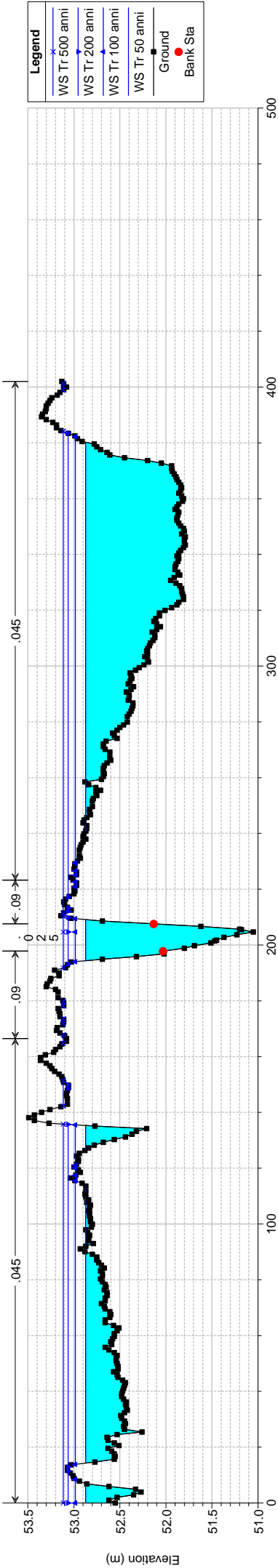
Geom: geometria_ATTUALE Flow: Portate



Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

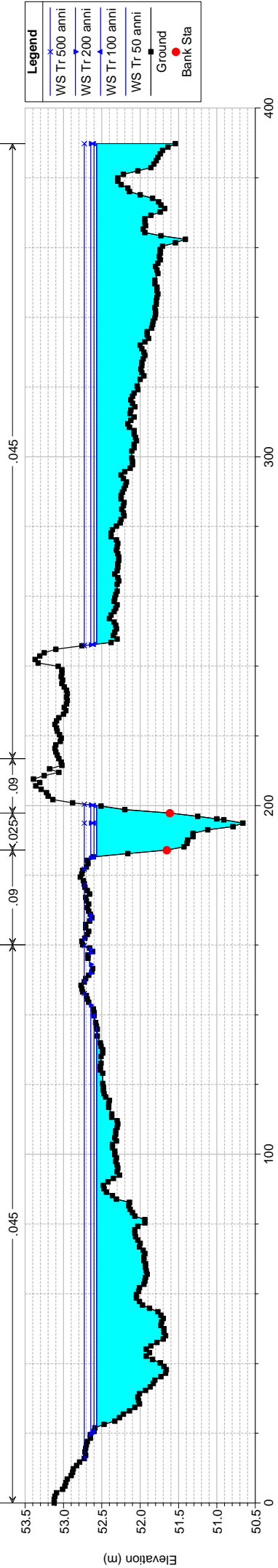
RS = 2755



Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

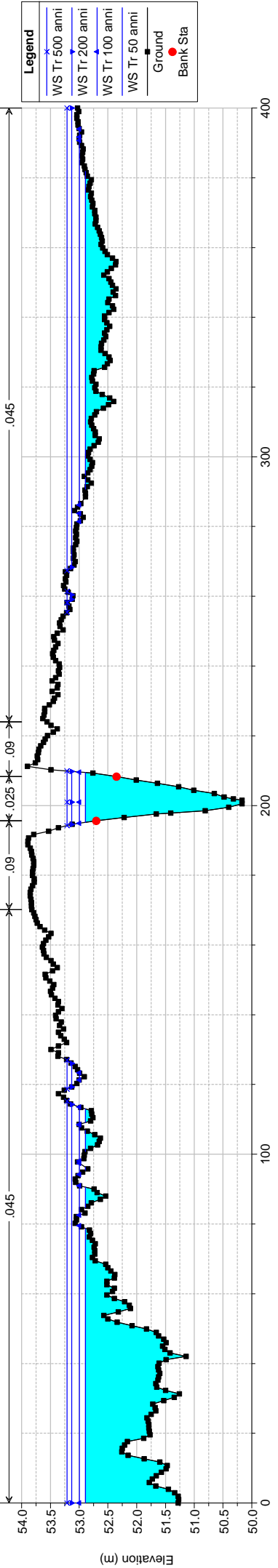
RS = 2711



Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

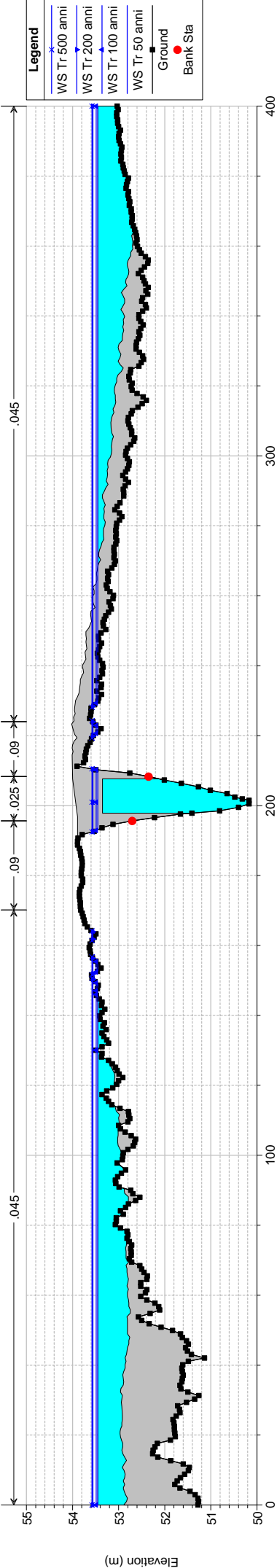
RS = 2700



Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

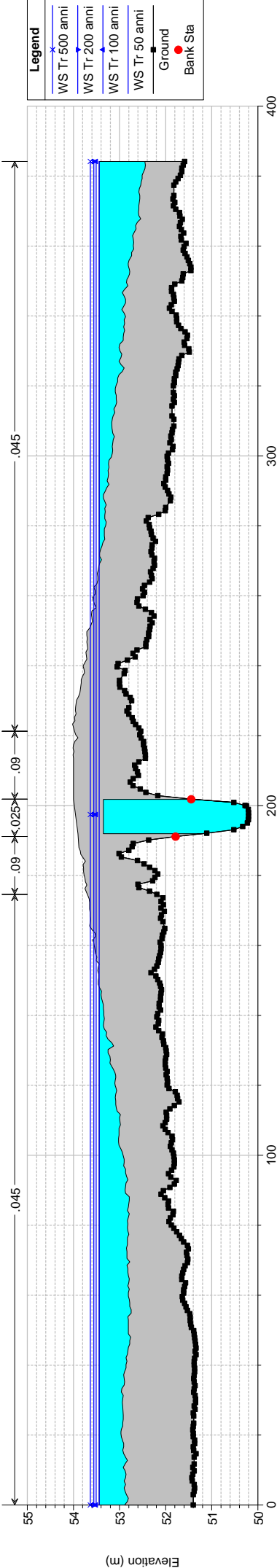
RS = 2693 BR



Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

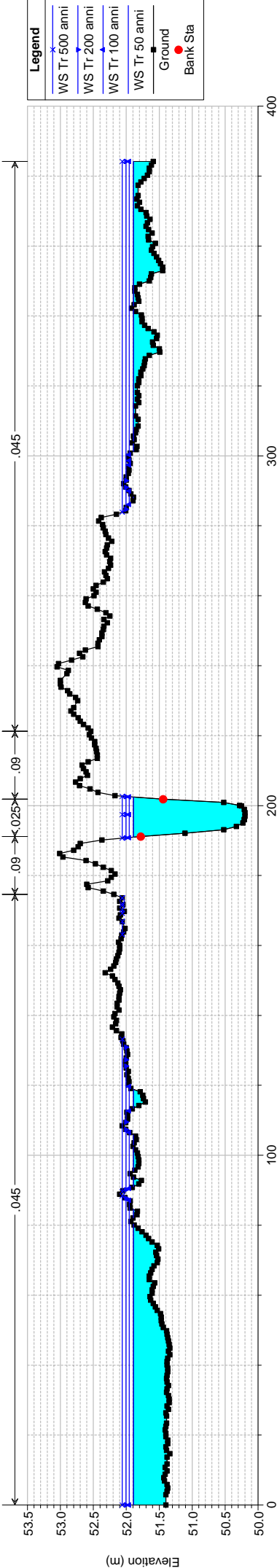
RS = 2693 BR



Mulino_de_Josso Plan: Simulazione_Attuale

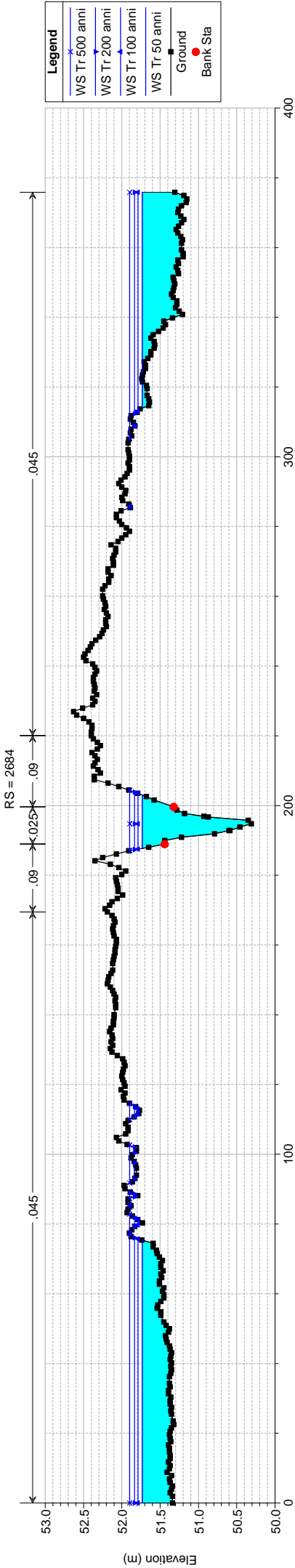
Geom: geometria_ATTUALE Flow: Portate

RS = 2688



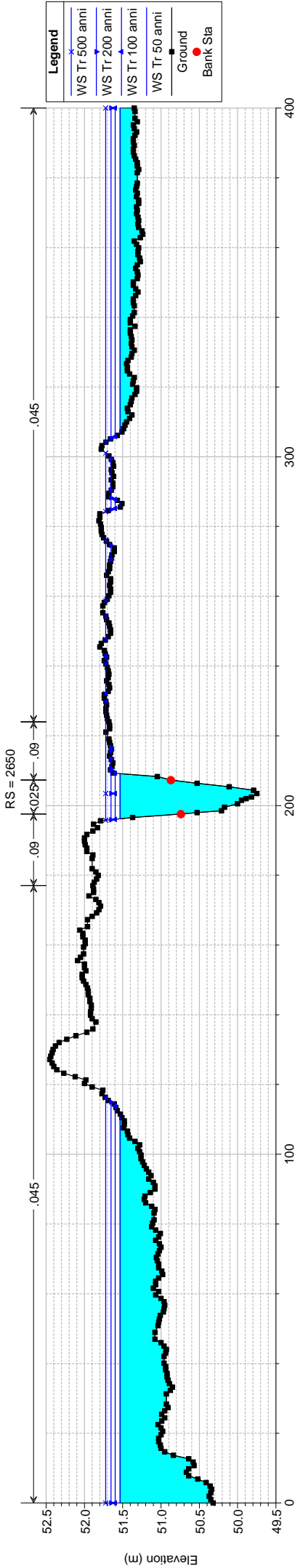
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



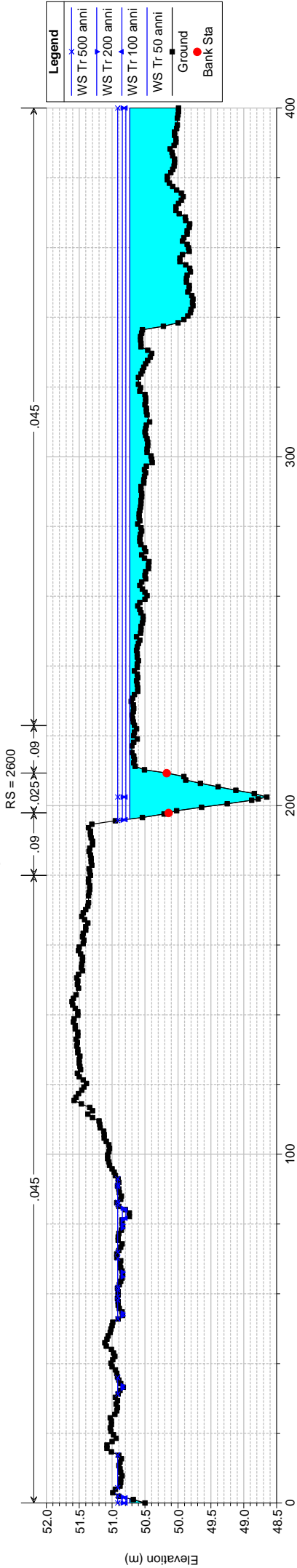
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



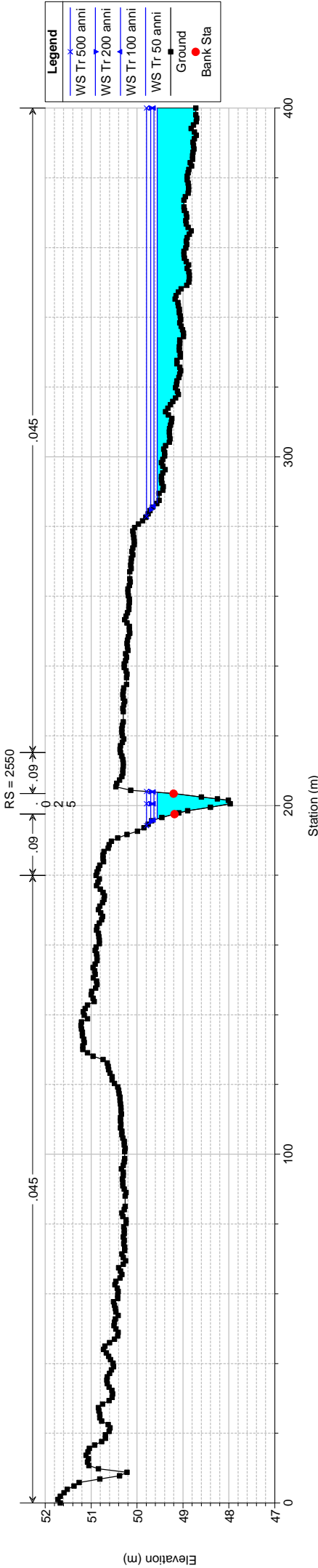
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



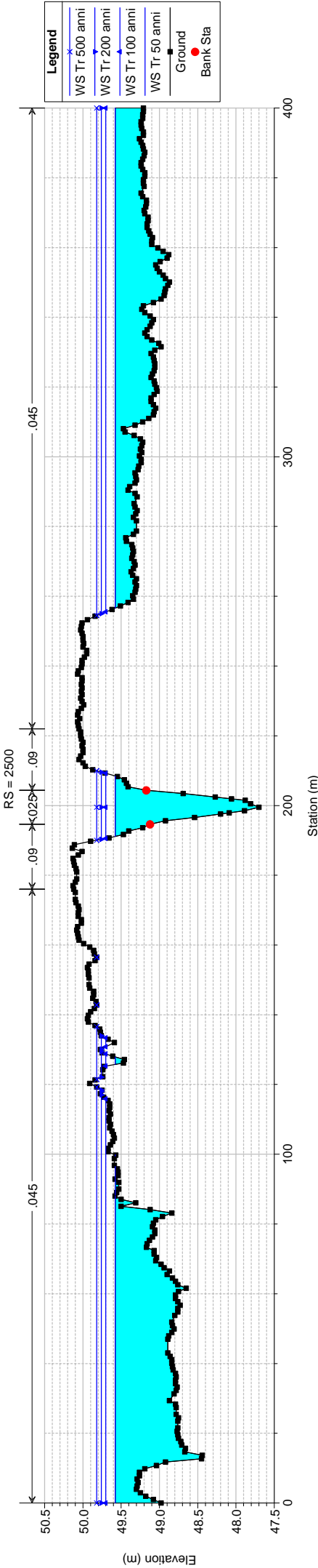
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



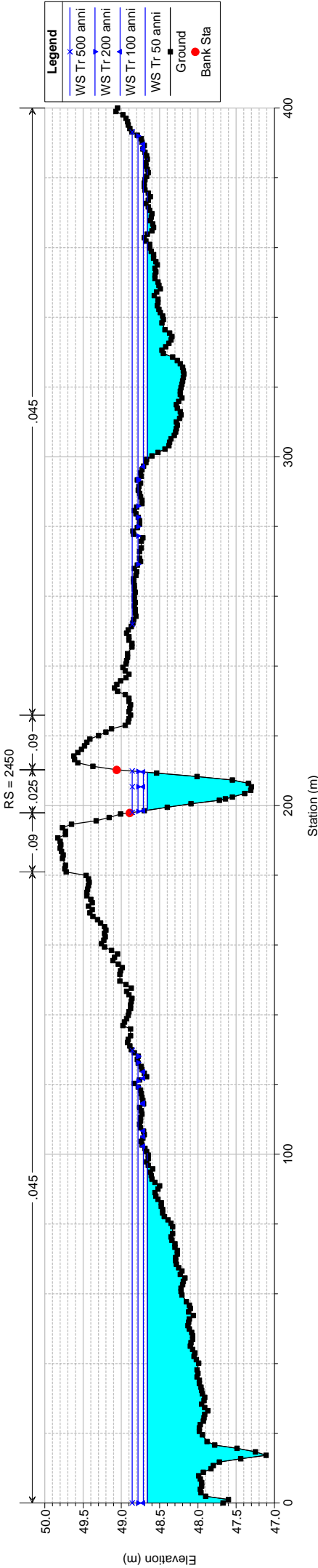
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



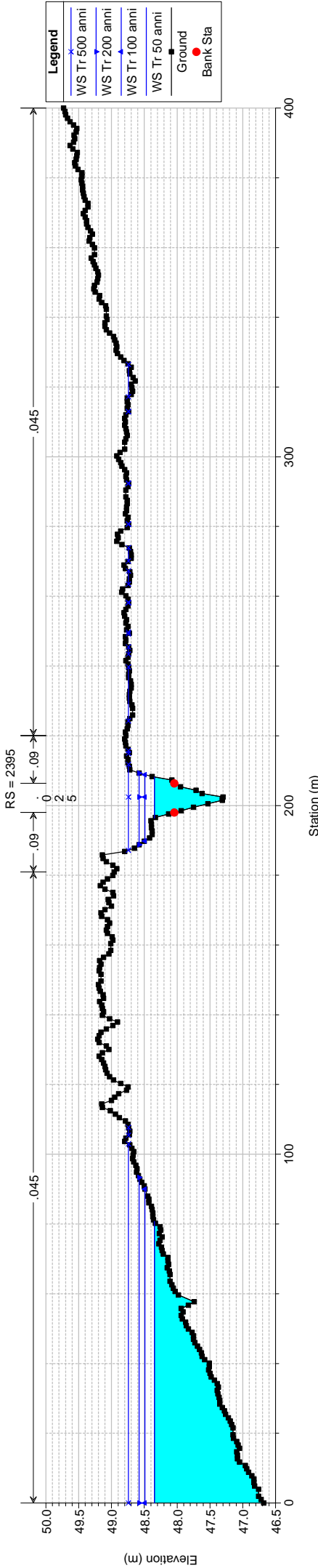
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



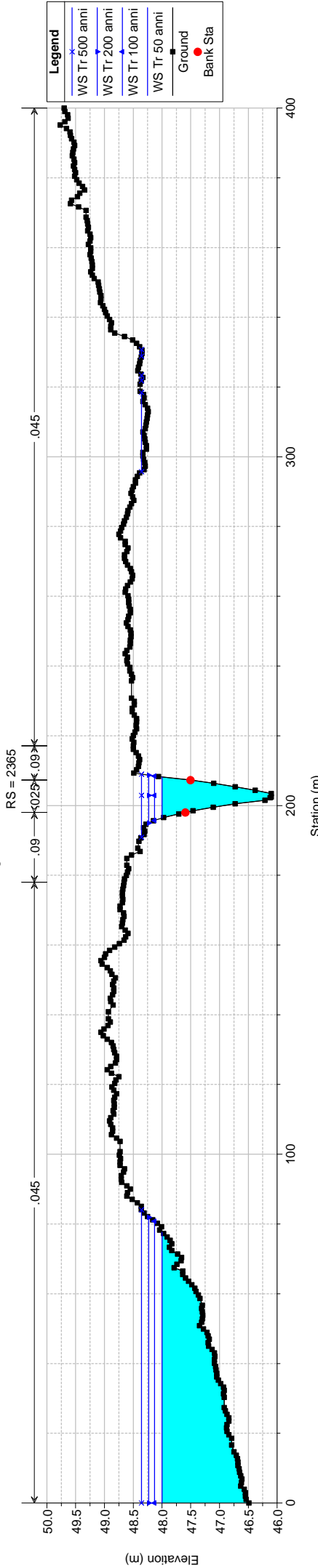
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



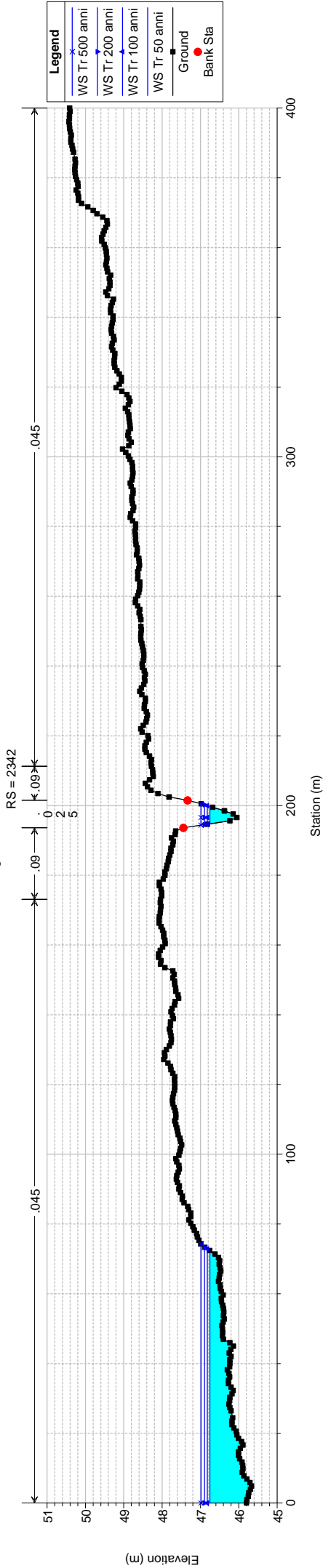
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate

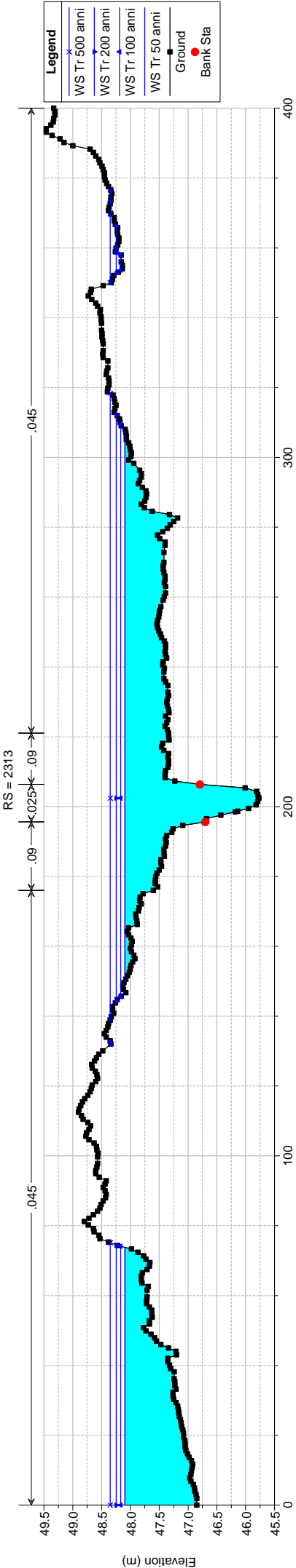


Mulino_de_Josso

Plan: Simulazione_Attuale

Geom: geometria_ATTUALE

Flow: Portate

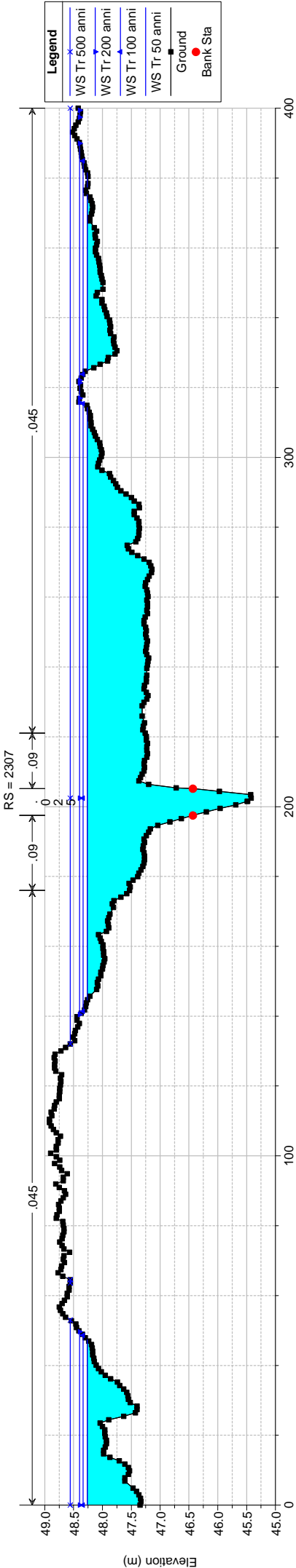


Mulino_de_Josso

Plan: Simulazione_Attuale

Geom: geometria_ATTUALE

Flow: Portate

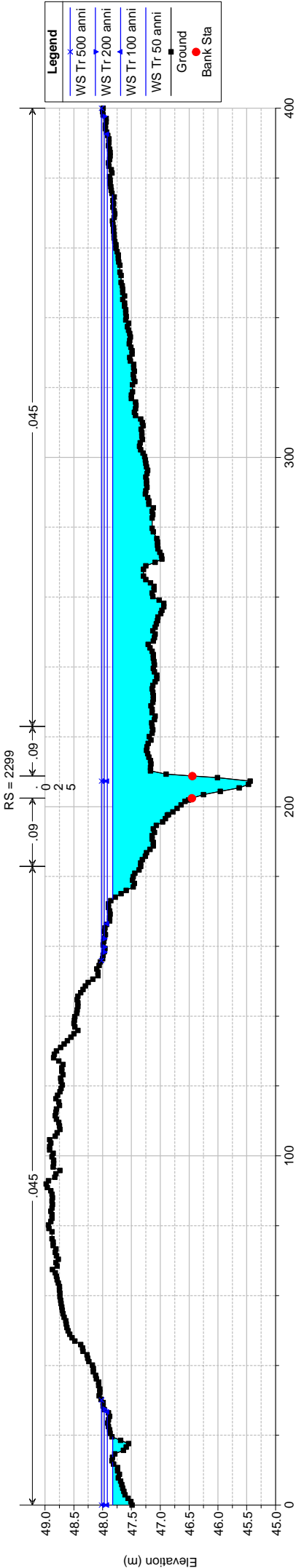


Mulino_de_Josso

Plan: Simulazione_Attuale

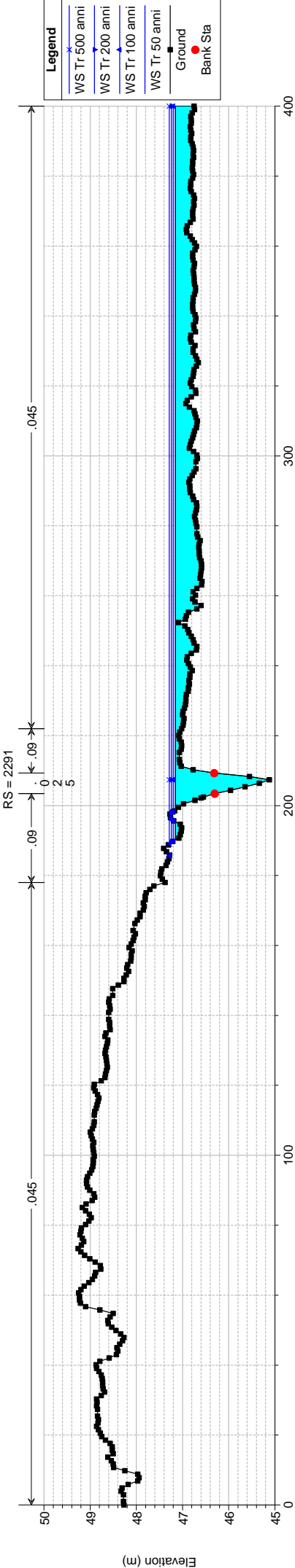
Geom: geometria_ATTUALE

Flow: Portate



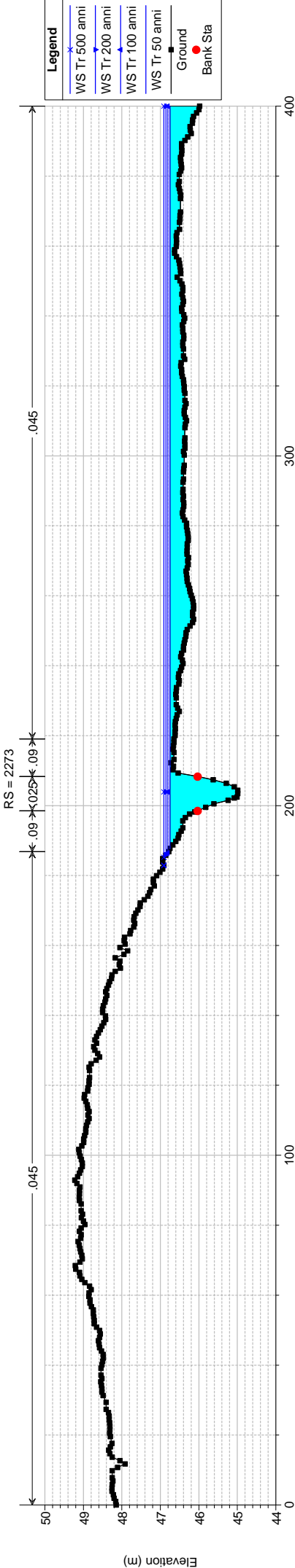
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



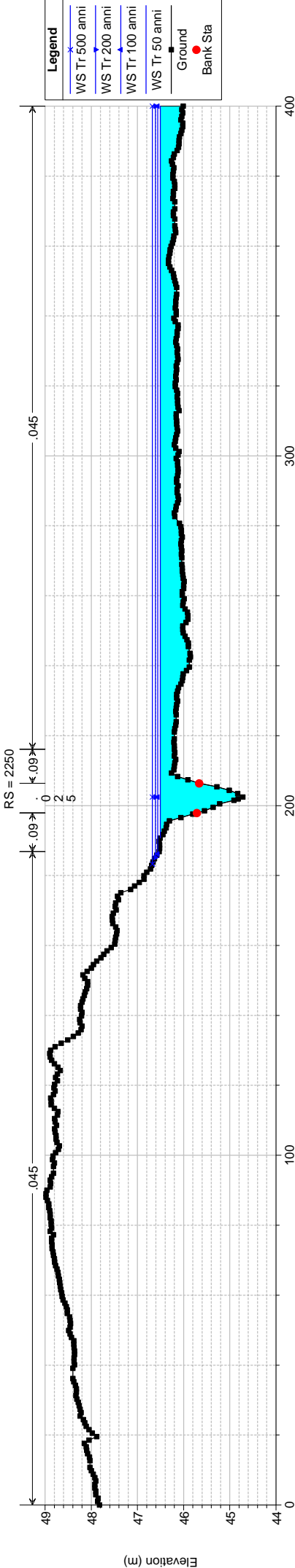
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



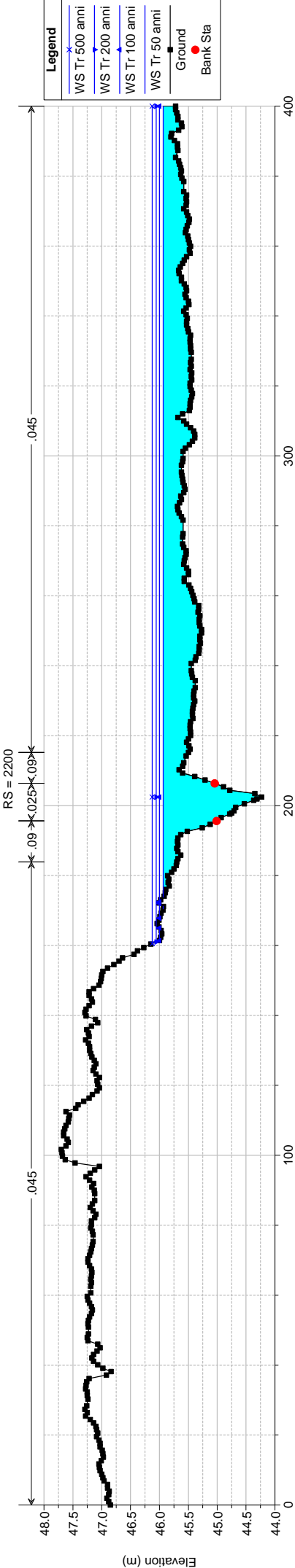
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



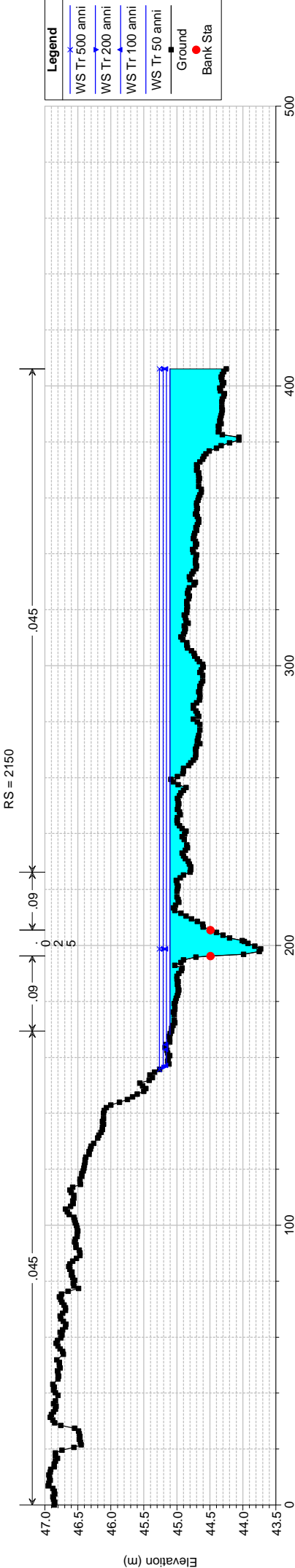
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



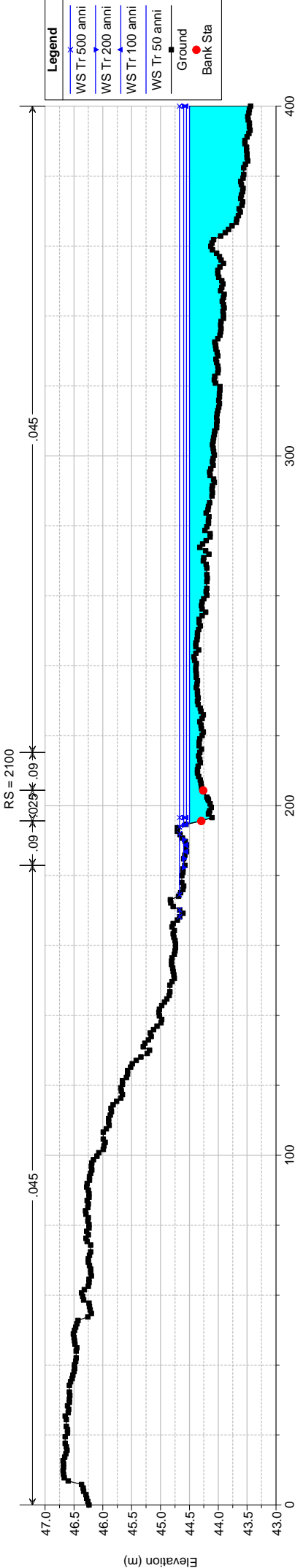
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



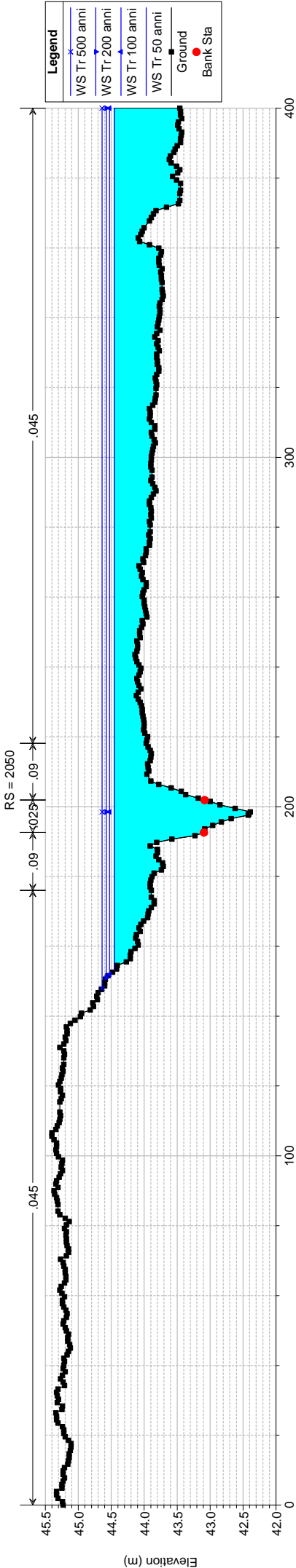
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



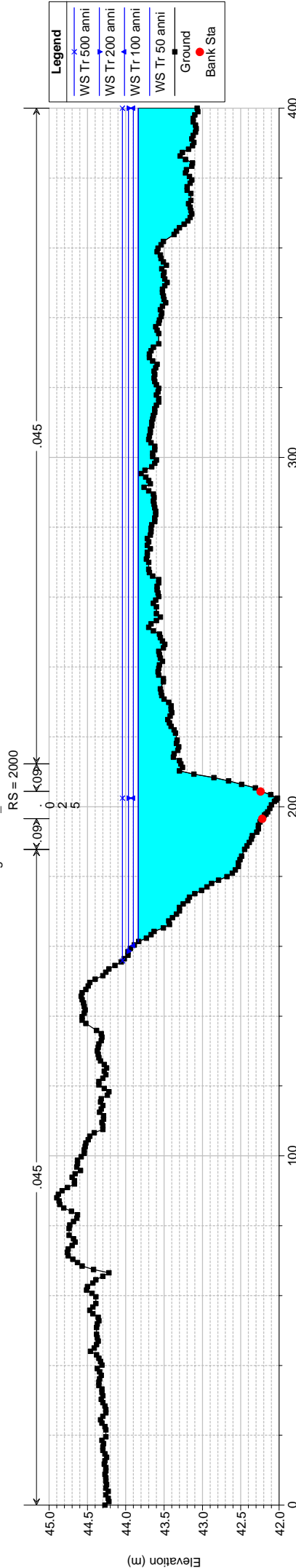
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



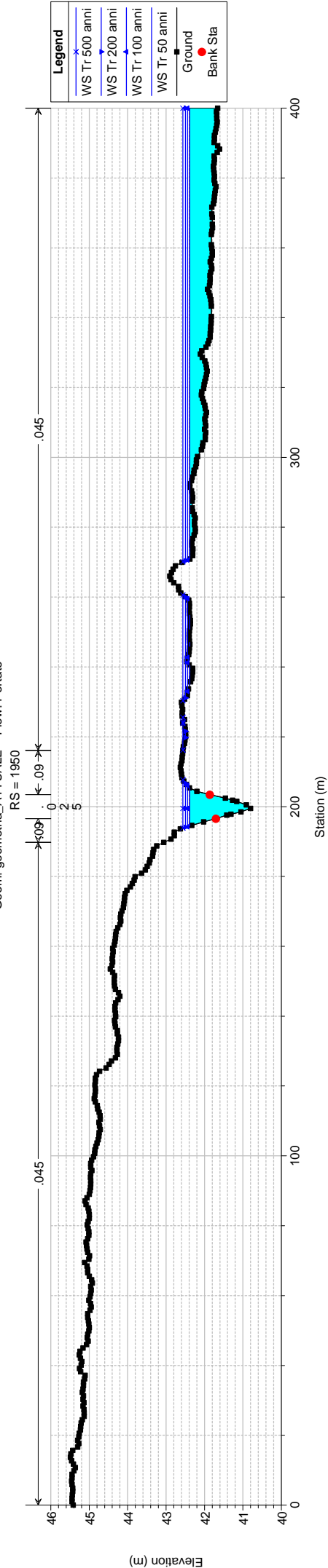
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



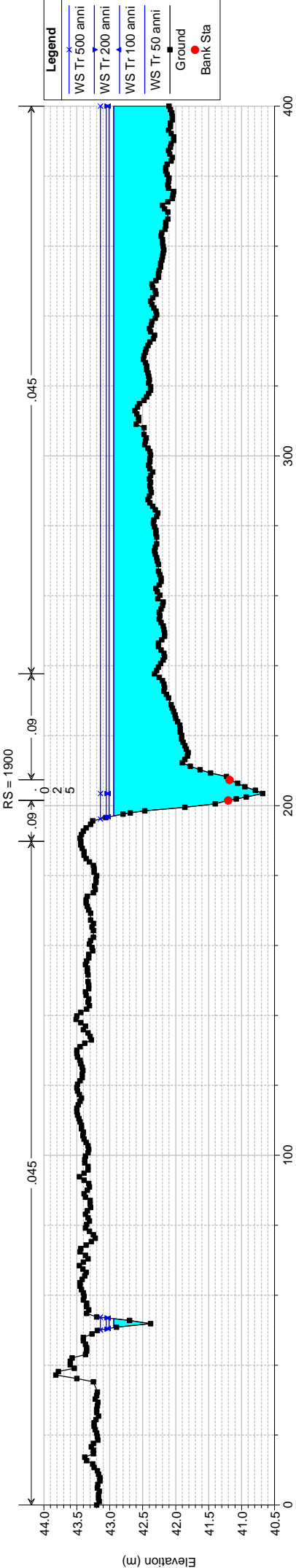
Mulino_de_Josso Plan: Simulazione_Attuale

Geom: geometria_ATTUALE Flow: Portate



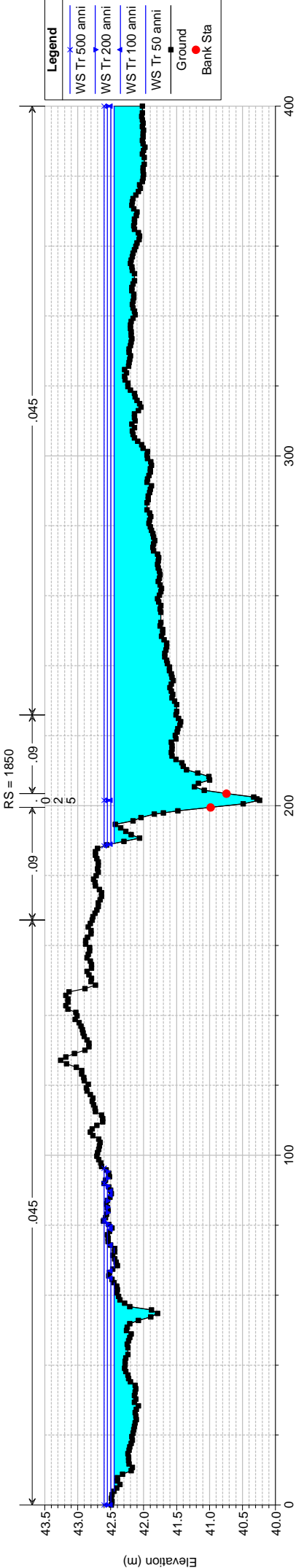
Mulino_de_Josso

Plan: Simulazione_Attuale
Geom: geometria_ATTUALE Flow: Portate



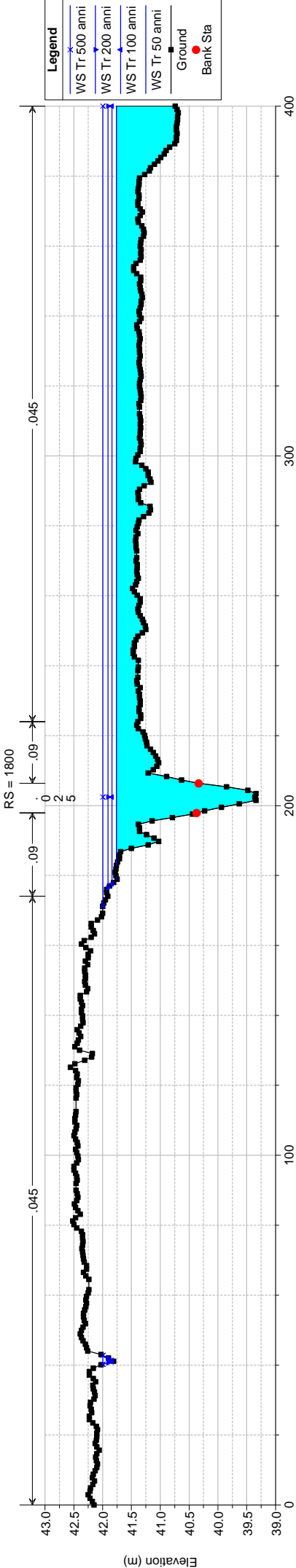
Mulino_de_Josso

Plan: Simulazione_Attuale
Geom: geometria_ATTUALE Flow: Portate

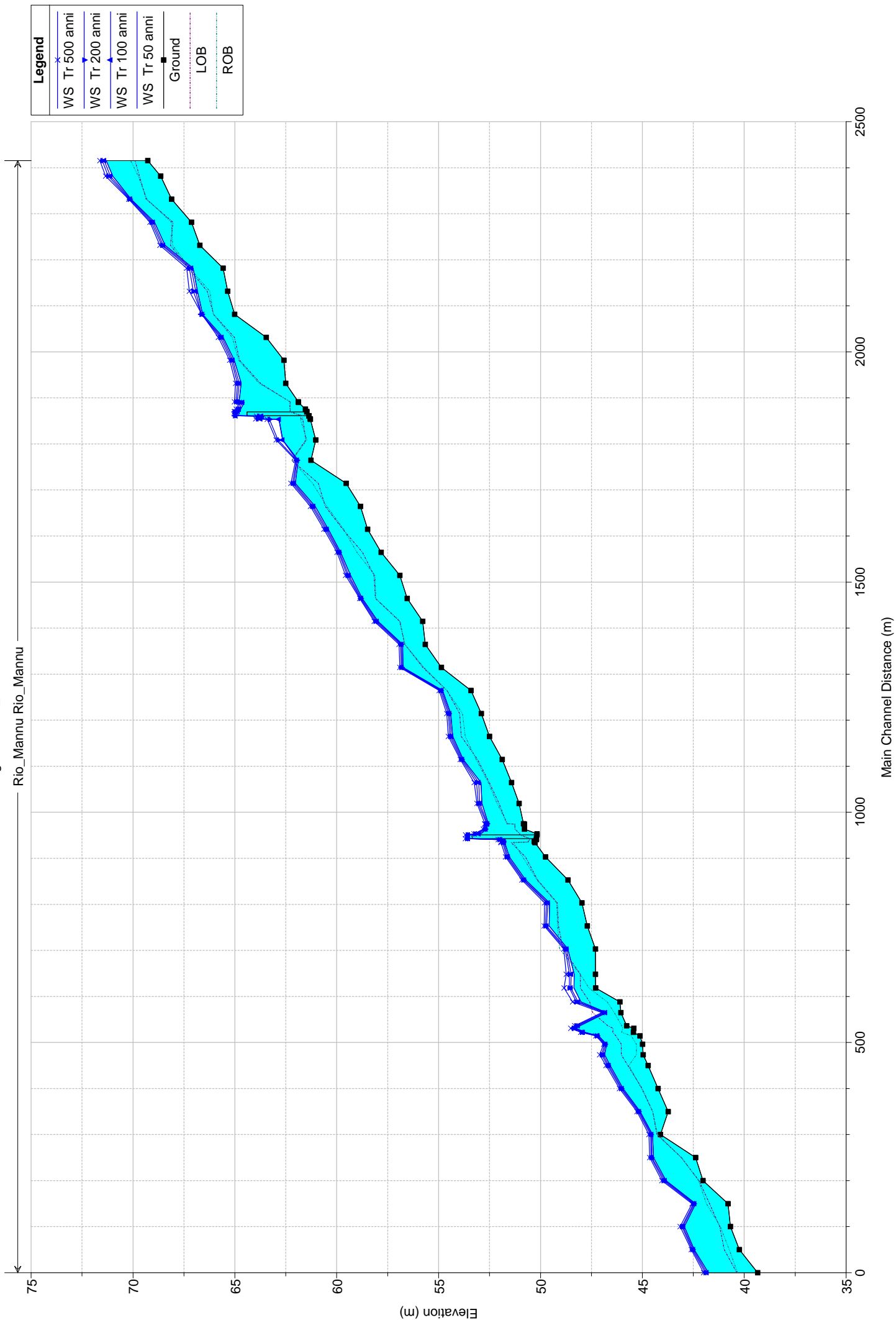


Mulino_de_Josso

Plan: Simulazione_Attuale
Geom: geometria_ATTUALE Flow: Portate



STATO DI PROGETTO



HEC-RAS Plan: Sim_Prog River: Rio_Mannu Reach: Rio_Mannu

Reach	River Sta	Profile	Length Chnl (m)	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Max Chl Dpth (m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Rio_Mannu	4134	Tr 50 anni	33.90	190.68	69.27	71.31	2.04	8.05	48.60	82.22	1.96
Rio_Mannu	4134	Tr 100 anni	33.90	225.55	69.27	71.41	2.14	8.37	57.24	83.81	1.97
Rio_Mannu	4134	Tr 200 anni	33.90	260.59	69.27	71.51	2.24	8.65	65.22	84.97	1.99
Rio_Mannu	4134	Tr 500 anni	33.90	307.00	69.27	71.62	2.35	8.99	75.37	90.02	2.01
Rio_Mannu	4100	Tr 50 anni	50.00	190.68	68.64	70.99	2.35	7.65	53.32	83.04	1.74
Rio_Mannu	4100	Tr 100 anni	50.00	225.55	68.64	71.10	2.46	7.94	62.87	86.41	1.76
Rio_Mannu	4100	Tr 200 anni	50.00	260.59	68.64	71.21	2.57	8.20	72.80	96.28	1.77
Rio_Mannu	4100	Tr 500 anni	50.00	307.00	68.64	71.34	2.70	8.51	85.89	106.83	1.79
Rio_Mannu	4050	Tr 50 anni	50.00	190.68	68.10	70.09	1.99	8.34	70.39	218.36	2.18
Rio_Mannu	4050	Tr 100 anni	50.00	225.55	68.10	70.13	2.03	8.83	79.96	224.98	2.28
Rio_Mannu	4050	Tr 200 anni	50.00	260.59	68.10	70.17	2.07	9.28	88.17	230.14	2.37
Rio_Mannu	4050	Tr 500 anni	50.00	307.00	68.10	70.21	2.11	9.83	99.07	237.84	2.47
Rio_Mannu	4000	Tr 50 anni	50.00	190.68	67.13	68.94	1.81	8.13	64.01	145.77	2.27
Rio_Mannu	4000	Tr 100 anni	50.00	225.55	67.13	69.02	1.89	8.34	75.85	158.56	2.26
Rio_Mannu	4000	Tr 200 anni	50.00	260.59	67.13	69.10	1.97	8.52	89.29	184.62	2.25
Rio_Mannu	4000	Tr 500 anni	50.00	307.00	67.13	69.17	2.04	8.78	103.60	204.78	2.26
Rio_Mannu	3950	Tr 50 anni	50.00	190.68	66.72	68.43	1.71	5.29	74.72	158.17	1.56
Rio_Mannu	3950	Tr 100 anni	50.00	225.55	66.72	68.51	1.79	5.47	88.90	173.67	1.56
Rio_Mannu	3950	Tr 200 anni	50.00	260.59	66.72	68.58	1.86	5.64	102.07	201.46	1.56
Rio_Mannu	3950	Tr 500 anni	50.00	307.00	66.72	68.68	1.96	5.78	123.14	218.00	1.54
Rio_Mannu	3900	Tr 50 anni	50.00	190.68	65.58	67.05	1.47	6.20	51.95	78.58	2.23
Rio_Mannu	3900	Tr 100 anni	50.00	225.55	65.58	67.14	1.56	6.33	59.40	81.59	2.20
Rio_Mannu	3900	Tr 200 anni	50.00	260.59	65.58	67.24	1.66	6.40	67.42	85.52	2.14
Rio_Mannu	3900	Tr 500 anni	50.00	307.00	65.58	67.36	1.78	6.58	78.35	90.16	2.07
Rio_Mannu	3850	Tr 50 anni	50.00	190.68	65.35	66.84	1.80	4.22	85.83	135.49	1.30
Rio_Mannu	3850	Tr 100 anni	50.00	225.55	65.35	66.92	1.88	4.53	97.33	146.54	1.34
Rio_Mannu	3850	Tr 200 anni	50.00	260.59	65.35	67.04	2.00	4.62	118.26	185.65	1.30
Rio_Mannu	3850	Tr 500 anni	50.00	307.00	65.35	67.23	2.19	4.57	160.47	255.83	1.20
Rio_Mannu	3800	Tr 50 anni	50.00	190.68	65.01	66.58	1.57	3.49	151.52	369.44	1.02
Rio_Mannu	3800	Tr 100 anni	50.00	225.55	65.01	66.64	1.63	3.68	172.32	389.52	1.05
Rio_Mannu	3800	Tr 200 anni	50.00	260.59	65.01	66.63	1.62	4.36	168.26	385.52	1.25
Rio_Mannu	3800	Tr 500 anni	50.00	307.00	65.01	66.62	1.61	5.19	166.36	384.01	1.49
Rio_Mannu	3750	Tr 50 anni	50.00	190.68	63.46	65.58	2.12	5.43	89.99	202.19	1.42
Rio_Mannu	3750	Tr 100 anni	50.00	225.55	63.46	65.65	2.19	5.59	104.28	216.89	1.43
Rio_Mannu	3750	Tr 200 anni	50.00	260.59	63.46	65.72	2.26	5.58	121.47	229.02	1.39
Rio_Mannu	3750	Tr 500 anni	50.00	307.00	63.46	65.81	2.35	5.67	142.38	267.73	1.38
Rio_Mannu	3700	Tr 50 anni	50.00	190.68	62.59	65.03	2.44	5.47	85.15	184.85	1.45
Rio_Mannu	3700	Tr 100 anni	50.00	225.55	62.59	65.11	2.52	5.58	100.87	208.73	1.44
Rio_Mannu	3700	Tr 200 anni	50.00	260.59	62.59	65.18	2.59	5.70	114.88	220.21	1.44
Rio_Mannu	3700	Tr 500 anni	50.00	307.00	62.59	65.26	2.67	5.85	133.37	237.79	1.44
Rio_Mannu	3650	Tr 50 anni	40.18	190.68	62.50	64.69	2.37	4.27	103.85	216.66	1.11
Rio_Mannu	3650	Tr 100 anni	40.18	225.55	62.50	64.79	2.47	4.35	127.10	246.98	1.09
Rio_Mannu	3650	Tr 200 anni	40.18	260.59	62.50	64.87	2.55	4.42	147.15	248.97	1.09
Rio_Mannu	3650	Tr 500 anni	40.18	307.00	62.50	64.96	2.64	4.50	171.92	252.25	1.07
Rio_Mannu	3626	Tr 50 anni	1.00	190.68	61.89	64.79	2.90	3.45	180.50	272.09	0.66
Rio_Mannu	3626	Tr 100 anni	1.00	225.55	61.89	64.89	3.00	3.58	205.88	275.74	0.67
Rio_Mannu	3626	Tr 200 anni	1.00	260.59	61.89	64.94	3.05	3.86	220.10	277.81	0.72
Rio_Mannu	3626	Tr 500 anni	1.00	307.00	61.89	65.02	3.13	4.11	244.26	286.67	0.76
Rio_Mannu	3625	Tr 50 anni	15.02	190.68	61.88	64.54	2.66	4.35	116.70	233.85	0.87
Rio_Mannu	3625	Tr 100 anni	15.02	225.55	61.88	64.63	2.75	4.52	138.97	251.36	0.89
Rio_Mannu	3625	Tr 200 anni	15.02	260.59	61.88	64.72	2.84	4.68	161.36	266.42	0.91
Rio_Mannu	3625	Tr 500 anni	15.02	307.00	61.88	64.79	2.91	4.98	181.04	271.75	0.95
Rio_Mannu	3610	Tr 50 anni	5.02	190.68	61.54	64.72	3.18	3.36	164.45	267.26	0.64
Rio_Mannu	3610	Tr 100 anni	5.02	225.55	61.54	64.80	3.26	3.59	184.85	272.27	0.67
Rio_Mannu	3610	Tr 200 anni	5.02	260.59	61.54	64.86	3.32	3.82	201.76	275.12	0.71
Rio_Mannu	3610	Tr 500 anni	5.02	307.00	61.54	64.93	3.39	4.12	220.60	276.94	0.76
Rio_Mannu	3605	Tr 50 anni	1.00	190.68	61.47	64.75	3.28	3.43	164.64	272.77	0.64
Rio_Mannu	3605	Tr 100 anni	1.00	225.55	61.47	64.85	3.38	3.52	194.25	292.18	0.64
Rio_Mannu	3605	Tr 200 anni	1.00	260.59	61.47	64.93	3.46	3.66	217.22	298.58	0.66

HEC-RAS Plan: Sim_Prog River: Rio_Mannu Reach: Rio_Mannu (Continued)

Reach	River Sta	Profile	Length Chnl (m)	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Max Chl Dpth (m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Rio_Mannu	3605	Tr 500 anni	1.00	307.00	61.47	65.01	3.54	3.88	242.40	310.93	0.69
Rio_Mannu	3600	Bridge									
Rio_Mannu	3595	Tr 50 anni	5.86	190.68	61.36	63.57	2.21	7.06	59.35	82.25	1.59
Rio_Mannu	3595	Tr 100 anni	5.86	225.55	61.36	63.70	2.34	7.17	70.79	98.31	1.57
Rio_Mannu	3595	Tr 200 anni	5.86	260.59	61.36	63.82	2.46	7.30	85.12	141.70	1.55
Rio_Mannu	3595	Tr 500 anni	5.86	307.00	61.36	63.94	2.58	7.56	104.79	192.16	1.57
Rio_Mannu	3590	Tr 50 anni	1.00	190.68	61.30	63.61	2.31	6.73	62.64	84.75	1.50
Rio_Mannu	3590	Tr 100 anni	1.00	225.55	61.30	63.74	2.44	6.85	75.10	111.39	1.48
Rio_Mannu	3590	Tr 200 anni	1.00	260.59	61.30	63.86	2.56	6.97	91.17	162.22	1.47
Rio_Mannu	3590	Tr 500 anni	1.00	307.00	61.30	63.98	2.68	7.20	112.58	203.97	1.48
Rio_Mannu	3589	Tr 50 anni	44.82	190.68	61.29	62.83	1.81	11.72	36.20	50.44	3.26
Rio_Mannu	3589	Tr 100 anni	44.82	225.55	61.29	62.84	1.82	13.80	36.41	50.97	3.84
Rio_Mannu	3589	Tr 200 anni	44.82	260.59	61.29	63.31	2.29	9.40	77.74	103.06	2.24
Rio_Mannu	3589	Tr 500 anni	44.82	307.00	61.29	63.41	2.39	9.65	88.25	105.96	2.24
Rio_Mannu	3544	Tr 50 anni	44.19	190.68	61.03	62.65	2.25	7.23	67.28	132.38	1.96
Rio_Mannu	3544	Tr 100 anni	44.19	225.55	61.03	62.66	2.26	8.43	68.38	134.04	2.27
Rio_Mannu	3544	Tr 200 anni	44.19	260.59	61.03	62.88	2.48	6.78	100.99	151.79	1.70
Rio_Mannu	3544	Tr 500 anni	44.19	307.00	61.03	62.97	2.57	7.05	115.20	158.70	1.72
Rio_Mannu	3500	Tr 50 anni	50.00	190.68	61.26	61.89	0.72	4.62	65.27	149.77	2.39
Rio_Mannu	3500	Tr 100 anni	50.00	225.55	61.26	61.94	0.77	4.82	73.19	154.53	2.40
Rio_Mannu	3500	Tr 200 anni	50.00	260.59	61.26	61.96	0.79	5.38	76.26	155.69	2.63
Rio_Mannu	3500	Tr 500 anni	50.00	307.00	61.26	62.02	0.85	5.64	84.34	156.47	2.66
Rio_Mannu	3450	Tr 50 anni	50.00	190.68	59.54	62.03	2.49	3.53	146.55	226.96	0.79
Rio_Mannu	3450	Tr 100 anni	50.00	225.55	59.54	62.11	2.57	3.72	165.55	265.67	0.82
Rio_Mannu	3450	Tr 200 anni	50.00	260.59	59.54	62.18	2.64	3.88	184.76	281.45	0.84
Rio_Mannu	3450	Tr 500 anni	50.00	307.00	59.54	62.25	2.71	4.13	205.66	298.50	0.88
Rio_Mannu	3400	Tr 50 anni	50.00	190.68	58.83	61.06	2.23	5.48	84.36	182.92	1.36
Rio_Mannu	3400	Tr 100 anni	50.00	225.55	58.83	61.14	2.31	5.68	101.10	218.28	1.37
Rio_Mannu	3400	Tr 200 anni	50.00	260.59	58.83	61.21	2.38	5.86	116.52	239.37	1.39
Rio_Mannu	3400	Tr 500 anni	50.00	307.00	58.83	61.29	2.46	6.08	137.23	266.24	1.41
Rio_Mannu	3350	Tr 50 anni	50.00	190.68	58.48	60.42	1.94	5.72	85.95	194.23	1.50
Rio_Mannu	3350	Tr 100 anni	50.00	225.55	58.48	60.48	2.00	5.94	99.04	200.82	1.53
Rio_Mannu	3350	Tr 200 anni	50.00	260.59	58.48	60.55	2.07	6.12	112.69	205.53	1.54
Rio_Mannu	3350	Tr 500 anni	50.00	307.00	58.48	60.63	2.15	6.33	128.99	223.55	1.56
Rio_Mannu	3300	Tr 50 anni	50.00	190.68	57.82	59.81	1.99	6.13	94.94	216.46	1.54
Rio_Mannu	3300	Tr 100 anni	50.00	225.55	57.82	59.87	2.05	6.36	107.63	223.14	1.57
Rio_Mannu	3300	Tr 200 anni	50.00	260.59	57.82	59.92	2.10	6.58	119.73	232.74	1.60
Rio_Mannu	3300	Tr 500 anni	50.00	307.00	57.82	59.99	2.17	6.83	134.70	234.44	1.63
Rio_Mannu	3250	Tr 50 anni	50.00	190.68	56.90	59.32	2.42	5.52	102.11	229.10	1.26
Rio_Mannu	3250	Tr 100 anni	50.00	225.55	56.90	59.41	2.51	5.64	122.56	251.37	1.26
Rio_Mannu	3250	Tr 200 anni	50.00	260.59	56.90	59.47	2.57	5.78	139.81	270.57	1.27
Rio_Mannu	3250	Tr 500 anni	50.00	307.00	56.90	59.56	2.66	5.90	166.99	326.11	1.27
Rio_Mannu	3200	Tr 50 anni	50.00	190.68	56.54	58.74	2.20	6.07	105.84	344.47	1.64
Rio_Mannu	3200	Tr 100 anni	50.00	225.55	56.54	58.79	2.25	6.29	123.89	357.64	1.67
Rio_Mannu	3200	Tr 200 anni	50.00	260.59	56.54	58.83	2.29	6.50	137.52	361.17	1.70
Rio_Mannu	3200	Tr 500 anni	50.00	307.00	56.54	58.88	2.34	6.77	153.37	364.46	1.75
Rio_Mannu	3150	Tr 50 anni	50.00	190.68	55.78	57.97	2.19	5.82	99.21	269.72	1.39
Rio_Mannu	3150	Tr 100 anni	50.00	225.55	55.78	58.04	2.26	5.99	116.69	292.13	1.40
Rio_Mannu	3150	Tr 200 anni	50.00	260.59	55.78	58.10	2.32	6.12	136.00	316.00	1.41
Rio_Mannu	3150	Tr 500 anni	50.00	307.00	55.78	58.17	2.39	6.30	156.95	326.31	1.43
Rio_Mannu	3100	Tr 50 anni	50.00	190.68	55.65	56.76	1.36	8.31	52.52	156.62	3.38
Rio_Mannu	3100	Tr 100 anni	50.00	225.55	55.65	56.82	1.41	8.34	60.80	158.51	3.26
Rio_Mannu	3100	Tr 200 anni	50.00	260.59	55.65	56.87	1.47	8.39	68.85	160.49	3.16
Rio_Mannu	3100	Tr 500 anni	50.00	307.00	55.65	56.94	1.54	8.42	80.58	169.01	3.03
Rio_Mannu	3050	Tr 50 anni	50.00	190.68	54.86	56.75	1.89	3.66	176.80	386.58	0.95
Rio_Mannu	3050	Tr 100 anni	50.00	225.55	54.86	56.81	1.95	3.76	199.58	392.06	0.96
Rio_Mannu	3050	Tr 200 anni	50.00	260.59	54.86	56.84	1.98	4.06	211.23	393.70	1.03
Rio_Mannu	3050	Tr 500 anni	50.00	307.00	54.86	56.90	2.04	4.21	234.75	396.59	1.05

HEC-RAS Plan: Sim_Prog River: Rio Mannu Reach: Rio Mannu (Continued)

Reach	River Sta	Profile	Length Chnl (m)	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Max Chl Dpth (m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Rio_Mannu	3000	Tr 50 anni	50.00	190.68	53.41	54.80	1.39	7.36	60.34	175.80	2.52
Rio_Mannu	3000	Tr 100 anni	50.00	225.55	53.41	54.85	1.44	7.60	69.46	182.51	2.53
Rio_Mannu	3000	Tr 200 anni	50.00	260.59	53.41	54.91	1.50	7.70	80.03	190.42	2.49
Rio_Mannu	3000	Tr 500 anni	50.00	307.00	53.41	54.97	1.56	7.91	91.36	203.49	2.48
Rio_Mannu	2950	Tr 50 anni	50.00	190.68	52.90	54.41	1.51	4.84	98.43	204.49	1.50
Rio_Mannu	2950	Tr 100 anni	50.00	225.55	52.90	54.47	1.57	5.00	110.85	204.84	1.51
Rio_Mannu	2950	Tr 200 anni	50.00	260.59	52.90	54.53	1.63	5.12	123.15	205.18	1.51
Rio_Mannu	2950	Tr 500 anni	50.00	307.00	52.90	54.60	1.70	5.26	138.65	205.67	1.50
Rio_Mannu	2900	Tr 50 anni	50.00	190.68	52.50	54.31	1.81	3.84	122.78	199.47	1.10
Rio_Mannu	2900	Tr 100 anni	50.00	225.55	52.50	54.38	1.88	4.04	137.07	227.22	1.13
Rio_Mannu	2900	Tr 200 anni	50.00	260.59	52.50	54.44	1.94	4.19	152.05	240.45	1.14
Rio_Mannu	2900	Tr 500 anni	50.00	307.00	52.50	54.52	2.02	4.36	171.55	252.83	1.16
Rio_Mannu	2850	Tr 50 anni	50.00	190.68	51.88	53.79	1.91	4.59	121.93	280.36	1.28
Rio_Mannu	2850	Tr 100 anni	50.00	225.55	51.88	53.84	1.96	4.84	136.28	285.30	1.33
Rio_Mannu	2850	Tr 200 anni	50.00	260.59	51.88	53.88	2.00	5.07	148.67	293.13	1.37
Rio_Mannu	2850	Tr 500 anni	50.00	307.00	51.88	53.94	2.06	5.35	164.27	305.19	1.42
Rio_Mannu	2800	Tr 50 anni	45.36	190.68	51.42	52.92	1.50	5.05	83.23	143.76	1.49
Rio_Mannu	2800	Tr 100 anni	45.36	225.55	51.42	53.03	1.61	5.08	99.81	165.83	1.44
Rio_Mannu	2800	Tr 200 anni	45.36	260.59	51.42	53.14	1.72	5.10	118.81	186.70	1.38
Rio_Mannu	2800	Tr 500 anni	45.36	307.00	51.42	53.25	1.83	5.15	140.04	200.01	1.35
Rio_Mannu	2755	Tr 50 anni	44.10	190.68	51.05	52.87	1.82	3.78	130.54	263.25	1.03
Rio_Mannu	2755	Tr 100 anni	44.10	225.55	51.05	52.98	1.93	3.89	162.03	299.10	1.02
Rio_Mannu	2755	Tr 200 anni	44.10	260.59	51.05	53.06	2.01	3.93	186.78	320.12	1.00
Rio_Mannu	2755	Tr 500 anni	44.10	307.00	51.05	53.12	2.07	4.20	204.44	345.22	1.05
Rio_Mannu	2722	Tr 50 anni	1.00	190.68	50.83	52.57	1.74	3.94	137.24	272.63	1.08
Rio_Mannu	2722	Tr 100 anni	1.00	225.55	50.83	52.60	1.77	4.34	146.35	277.11	1.18
Rio_Mannu	2722	Tr 200 anni	1.00	260.59	50.83	52.64	1.81	4.59	158.52	285.94	1.23
Rio_Mannu	2722	Tr 500 anni	1.00	307.00	50.83	52.72	1.89	4.65	183.43	320.44	1.21
Rio_Mannu	2721	Tr 50 anni	10.52	190.68	50.79	52.61	1.82	3.98	150.38	280.49	0.99
Rio_Mannu	2721	Tr 100 anni	10.52	225.55	50.79	52.62	1.83	4.63	152.39	280.92	1.16
Rio_Mannu	2721	Tr 200 anni	10.52	260.59	50.79	52.67	1.88	4.77	168.40	297.05	1.17
Rio_Mannu	2721	Tr 500 anni	10.52	307.00	50.79	52.74	1.95	4.98	188.80	324.27	1.20
Rio_Mannu	2711	Tr 50 anni	10.52	190.68	50.79	52.63	1.84	3.79	156.81	284.62	0.94
Rio_Mannu	2711	Tr 100 anni	10.52	225.55	50.79	52.68	1.89	4.05	171.24	302.68	0.99
Rio_Mannu	2711	Tr 200 anni	10.52	260.59	50.79	52.72	1.93	4.35	183.91	320.66	1.05
Rio_Mannu	2711	Tr 500 anni	10.52	307.00	50.79	52.80	2.01	4.47	209.28	333.24	1.06
Rio_Mannu	2700	Tr 50 anni	2.00	190.68	50.17	52.94	2.77	4.11	131.06	215.19	0.84
Rio_Mannu	2700	Tr 100 anni	2.00	225.55	50.17	53.03	2.86	4.29	152.68	244.86	0.86
Rio_Mannu	2700	Tr 200 anni	2.00	260.59	50.17	53.20	3.03	4.13	198.44	278.36	0.80
Rio_Mannu	2700	Tr 500 anni	2.00	307.00	50.17	53.26	3.09	4.47	216.45	289.33	0.86
Rio_Mannu	2693	Bridge									
Rio_Mannu	2688	Tr 50 anni	3.60	190.68	50.20	51.90	1.70	7.71	68.40	199.61	1.92
Rio_Mannu	2688	Tr 100 anni	3.60	225.55	50.20	51.97	1.77	8.03	81.52	218.80	1.97
Rio_Mannu	2688	Tr 200 anni	3.60	260.59	50.20	52.02	1.82	8.35	93.11	239.86	2.02
Rio_Mannu	2688	Tr 500 anni	3.60	307.00	50.20	52.07	1.87	8.71	107.17	255.05	2.07
Rio_Mannu	2686	Tr 50 anni	2.00	190.68	50.31	51.75	1.44	9.89	58.76	154.37	2.75
Rio_Mannu	2686	Tr 100 anni	2.00	225.55	50.31	51.80	1.49	10.25	66.27	159.24	2.80
Rio_Mannu	2686	Tr 200 anni	2.00	260.59	50.31	51.84	1.53	10.58	73.58	171.68	2.85
Rio_Mannu	2686	Tr 500 anni	2.00	307.00	50.31	51.91	1.60	10.95	85.47	195.06	2.88
Rio_Mannu	2684	Tr 50 anni	1.00	190.68	50.29	51.76	1.47	9.11	61.53	155.31	2.53
Rio_Mannu	2684	Tr 100 anni	1.00	225.55	50.29	51.81	1.52	9.44	69.65	164.65	2.57
Rio_Mannu	2684	Tr 200 anni	1.00	260.59	50.29	51.86	1.57	9.74	77.58	176.65	2.61
Rio_Mannu	2684	Tr 500 anni	1.00	307.00	50.29	51.94	1.65	10.05	93.66	213.25	2.62
Rio_Mannu	2683	Tr 50 anni	31.14	190.68	50.27	51.75	1.48	8.14	56.69	153.62	2.81
Rio_Mannu	2683	Tr 100 anni	31.14	225.55	50.27	51.80	1.53	8.39	64.53	159.06	2.81
Rio_Mannu	2683	Tr 200 anni	31.14	260.59	50.27	51.85	1.58	8.61	72.26	172.99	2.81
Rio_Mannu	2683	Tr 500 anni	31.14	307.00	50.27	51.94	1.67	8.80	88.95	211.02	2.75

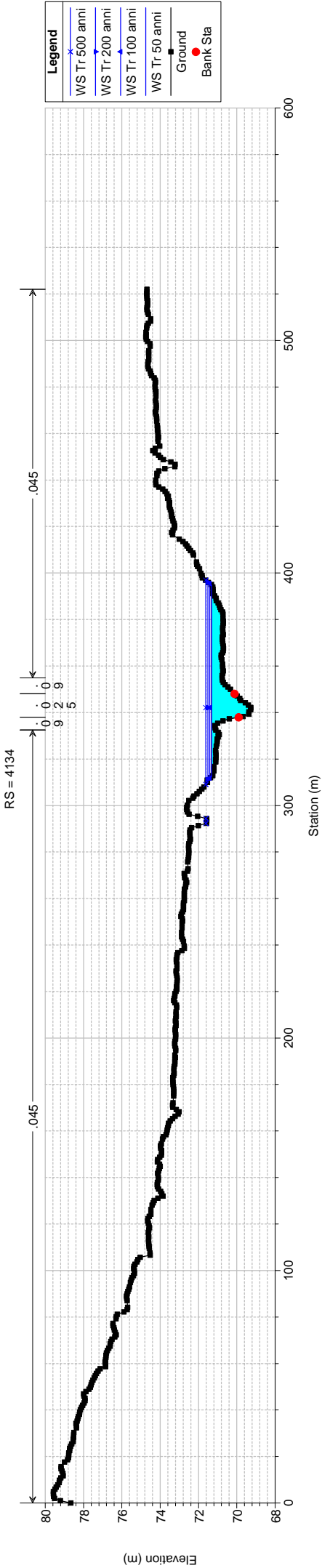
HEC-RAS Plan: Sim_Prog River: Rio_Mannu Reach: Rio_Mannu (Continued)

Reach	River Sta	Profile	Length Chnl (m)	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Max Chl Dpth (m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Rio_Mannu	2650	Tr 50 anni	50.00	190.68	49.75	51.53	1.78	5.71	90.25	218.72	1.53
Rio_Mannu	2650	Tr 100 anni	50.00	225.55	49.75	51.59	1.84	5.90	104.35	223.36	1.55
Rio_Mannu	2650	Tr 200 anni	50.00	260.59	49.75	51.65	1.90	6.07	117.35	241.28	1.56
Rio_Mannu	2650	Tr 500 anni	50.00	307.00	49.75	51.71	1.96	6.33	134.27	289.18	1.60
Rio_Mannu	2600	Tr 50 anni	50.00	190.68	48.65	50.73	2.08	5.79	86.80	205.09	1.62
Rio_Mannu	2600	Tr 100 anni	50.00	225.55	48.65	50.79	2.14	5.98	98.98	207.74	1.64
Rio_Mannu	2600	Tr 200 anni	50.00	260.59	48.65	50.85	2.20	6.15	110.49	212.37	1.65
Rio_Mannu	2600	Tr 500 anni	50.00	307.00	48.65	50.91	2.26	6.34	126.25	255.22	1.66
Rio_Mannu	2550	Tr 50 anni	50.00	190.68	47.97	49.56	1.59	7.22	62.91	120.92	2.25
Rio_Mannu	2550	Tr 100 anni	50.00	225.55	47.97	49.63	1.66	7.33	71.71	122.19	2.21
Rio_Mannu	2550	Tr 200 anni	50.00	260.59	47.97	49.70	1.73	7.42	80.46	123.77	2.17
Rio_Mannu	2550	Tr 500 anni	50.00	307.00	47.97	49.80	1.83	7.53	91.94	126.87	2.12
Rio_Mannu	2500	Tr 50 anni	50.00	190.68	47.70	49.58	1.88	3.99	126.73	259.13	1.13
Rio_Mannu	2500	Tr 100 anni	50.00	225.55	47.70	49.70	2.00	3.84	160.93	285.06	1.04
Rio_Mannu	2500	Tr 200 anni	50.00	260.59	47.70	49.76	2.06	3.97	177.31	292.94	1.05
Rio_Mannu	2500	Tr 500 anni	50.00	307.00	47.70	49.82	2.12	4.18	196.01	300.05	1.08
Rio_Mannu	2450	Tr 50 anni	54.89	190.68	47.30	48.66	1.55	5.33	80.10	184.94	1.79
Rio_Mannu	2450	Tr 100 anni	54.89	225.55	47.30	48.71	1.60	5.73	90.34	209.17	1.90
Rio_Mannu	2450	Tr 200 anni	54.89	260.59	47.30	48.78	1.67	5.88	106.22	253.00	1.91
Rio_Mannu	2450	Tr 500 anni	54.89	307.00	47.30	48.86	1.75	5.98	126.52	282.76	1.90
Rio_Mannu	2396	Tr 50 anni	29.91	190.68	47.30	48.35	1.67	4.33	69.21	92.54	1.68
Rio_Mannu	2396	Tr 100 anni	29.91	225.55	47.30	48.49	1.81	4.57	83.98	108.97	1.61
Rio_Mannu	2396	Tr 200 anni	29.91	260.59	47.30	48.58	1.90	4.86	93.90	113.87	1.62
Rio_Mannu	2396	Tr 500 anni	29.91	307.00	47.30	48.74	2.06	5.03	114.59	166.19	1.55
Rio_Mannu	2395	Tr 50 anni	29.91	190.68	47.29	48.35	1.67	4.69	69.65	92.68	1.70
Rio_Mannu	2395	Tr 100 anni	29.91	225.55	47.29	48.51	1.83	4.84	85.87	110.53	1.60
Rio_Mannu	2395	Tr 200 anni	29.91	260.59	47.29	48.58	1.90	5.20	93.54	113.93	1.66
Rio_Mannu	2395	Tr 500 anni	29.91	307.00	47.29	48.84	2.16	4.83	136.28	245.69	1.37
Rio_Mannu	2365	Tr 50 anni	23.33	190.68	46.10	48.02	1.92	4.70	82.57	90.33	1.26
Rio_Mannu	2365	Tr 100 anni	23.33	225.55	46.10	48.15	2.05	4.86	94.78	94.02	1.25
Rio_Mannu	2365	Tr 200 anni	23.33	260.59	46.10	48.24	2.14	5.12	103.56	96.64	1.28
Rio_Mannu	2365	Tr 500 anni	23.33	307.00	46.10	48.42	2.32	5.16	125.32	149.87	1.22
Rio_Mannu	2342	Tr 50 anni	28.65	190.68	46.05	46.76	1.09	7.43	41.82	77.29	3.32
Rio_Mannu	2342	Tr 100 anni	28.65	225.55	46.05	46.83	1.16	7.70	47.31	78.16	3.27
Rio_Mannu	2342	Tr 200 anni	28.65	260.59	46.05	46.90	1.23	7.81	53.36	79.12	3.16
Rio_Mannu	2342	Tr 500 anni	28.65	307.00	46.05	46.99	1.32	8.09	60.23	80.37	3.11
Rio_Mannu	2313	Tr 50 anni	5.79	190.68	45.77	48.07	2.30	3.70	148.98	227.77	0.83
Rio_Mannu	2313	Tr 100 anni	5.79	225.55	45.77	48.16	2.39	3.81	171.78	242.05	0.84
Rio_Mannu	2313	Tr 200 anni	5.79	260.59	45.77	48.24	2.47	3.98	190.41	254.30	0.86
Rio_Mannu	2313	Tr 500 anni	5.79	307.00	45.77	48.32	2.55	4.27	210.47	271.27	0.91
Rio_Mannu	2307	Tr 50 anni	8.30	190.68	45.42	48.25	2.83	3.79	170.34	265.47	0.77
Rio_Mannu	2307	Tr 100 anni	8.30	225.55	45.42	48.31	2.89	4.09	187.70	280.45	0.82
Rio_Mannu	2307	Tr 200 anni	8.30	260.59	45.42	48.37	2.95	4.31	205.81	290.86	0.85
Rio_Mannu	2307	Tr 500 anni	8.30	307.00	45.42	48.51	3.09	4.37	249.38	319.64	0.84
Rio_Mannu	2299	Tr 50 anni	7.94	190.68	45.44	47.82	2.38	5.68	115.07	218.22	1.29
Rio_Mannu	2299	Tr 100 anni	7.94	225.55	45.44	47.91	2.47	5.90	136.26	252.34	1.31
Rio_Mannu	2299	Tr 200 anni	7.94	260.59	45.44	47.97	2.53	6.17	150.34	263.30	1.35
Rio_Mannu	2299	Tr 500 anni	7.94	307.00	45.44	48.02	2.58	6.62	164.46	274.10	1.43
Rio_Mannu	2291	Tr 50 anni	18.16	190.68	45.12	47.15	2.03	7.96	79.68	206.36	2.04
Rio_Mannu	2291	Tr 100 anni	18.16	225.55	45.12	47.19	2.07	8.38	88.52	207.46	2.12
Rio_Mannu	2291	Tr 200 anni	18.16	260.59	45.12	47.23	2.11	8.71	97.14	208.81	2.17
Rio_Mannu	2291	Tr 500 anni	18.16	307.00	45.12	47.28	2.16	9.13	107.47	211.19	2.25
Rio_Mannu	2273	Tr 50 anni	23.06	190.68	44.99	46.75	1.76	7.06	81.40	212.28	1.87
Rio_Mannu	2273	Tr 100 anni	23.06	225.55	44.99	46.80	1.81	7.35	92.02	213.46	1.92
Rio_Mannu	2273	Tr 200 anni	23.06	260.59	44.99	46.85	1.86	7.58	102.23	214.05	1.95
Rio_Mannu	2273	Tr 500 anni	23.06	307.00	44.99	46.91	1.92	7.88	114.49	214.75	1.99
Rio_Mannu	2272	Tr 50 anni	23.06	190.68	44.96	46.86	1.89	5.30	104.29	214.12	1.36
Rio_Mannu	2272	Tr 100 anni	23.06	225.55	44.96	46.93	1.97	5.38	119.80	216.13	1.35
Rio_Mannu	2272	Tr 200 anni	23.06	260.59	44.96	47.00	2.04	5.40	136.01	218.95	1.32

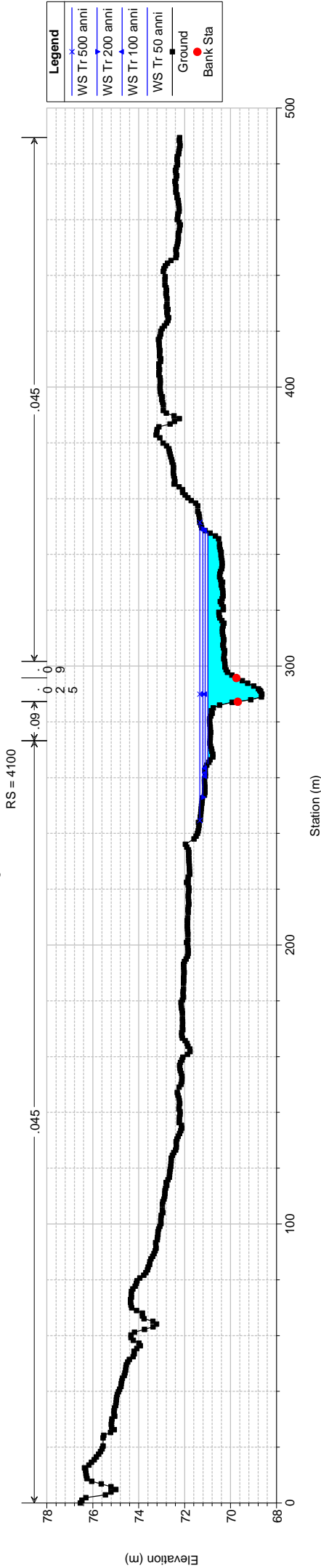
HEC-RAS Plan: Sim_Prog River: Rio_Mannu Reach: Rio_Mannu (Continued)

Reach	River Sta	Profile	Length Chnl (m)	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Max Chl Dpth (m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Rio_Mannu	2272	Tr 500 anni	23.06	307.00	44.96	47.10	2.14	5.41	156.65	220.00	1.29
Rio_Mannu	2250	Tr 50 anni	50.00	190.68	44.72	46.58	1.86	5.40	103.40	214.18	1.44
Rio_Mannu	2250	Tr 100 anni	50.00	225.55	44.72	46.65	1.93	5.53	117.35	215.65	1.45
Rio_Mannu	2250	Tr 200 anni	50.00	260.59	44.72	46.71	1.99	5.63	130.91	217.69	1.44
Rio_Mannu	2250	Tr 500 anni	50.00	307.00	44.72	46.78	2.06	5.79	147.08	218.85	1.45
Rio_Mannu	2200	Tr 50 anni	50.24	190.68	44.23	45.94	1.71	5.26	102.25	227.53	1.48
Rio_Mannu	2200	Tr 100 anni	50.24	225.55	44.23	46.00	1.77	5.42	115.97	235.80	1.50
Rio_Mannu	2200	Tr 200 anni	50.24	260.59	44.23	46.06	1.83	5.57	129.16	239.01	1.51
Rio_Mannu	2200	Tr 500 anni	50.24	307.00	44.23	46.12	1.89	5.77	144.75	239.43	1.52
Rio_Mannu	2150	Tr 50 anni	49.80	190.68	43.73	45.11	1.38	5.86	90.99	237.98	1.82
Rio_Mannu	2150	Tr 100 anni	49.80	225.55	43.73	45.16	1.43	6.04	103.53	247.24	1.83
Rio_Mannu	2150	Tr 200 anni	49.80	260.59	43.73	45.21	1.48	6.20	115.52	249.62	1.84
Rio_Mannu	2150	Tr 500 anni	49.80	307.00	43.73	45.27	1.54	6.41	130.18	250.43	1.85
Rio_Mannu	2100	Tr 50 anni	50.00	190.68	44.11	44.50	1.06	2.98	91.00	205.16	1.67
Rio_Mannu	2100	Tr 100 anni	50.00	225.55	44.11	44.55	1.11	3.25	101.70	205.68	1.69
Rio_Mannu	2100	Tr 200 anni	50.00	260.59	44.11	44.60	1.16	3.49	111.80	213.60	1.71
Rio_Mannu	2100	Tr 500 anni	50.00	307.00	44.11	44.67	1.23	3.71	128.14	225.63	1.68
Rio_Mannu	2050	Tr 50 anni	50.00	190.68	42.39	44.46	2.07	3.66	157.20	247.03	0.90
Rio_Mannu	2050	Tr 100 anni	50.00	225.55	42.39	44.53	2.14	3.82	174.88	248.09	0.92
Rio_Mannu	2050	Tr 200 anni	50.00	260.59	42.39	44.57	2.18	4.08	186.72	249.02	0.97
Rio_Mannu	2050	Tr 500 anni	50.00	307.00	42.39	44.64	2.25	4.37	202.63	252.09	1.02
Rio_Mannu	2000	Tr 50 anni	50.00	190.68	42.02	43.84	1.82	5.15	118.77	238.74	1.26
Rio_Mannu	2000	Tr 100 anni	50.00	225.55	42.02	43.90	1.88	5.36	134.22	239.83	1.28
Rio_Mannu	2000	Tr 200 anni	50.00	260.59	42.02	43.97	1.95	5.52	149.63	241.40	1.30
Rio_Mannu	2000	Tr 500 anni	50.00	307.00	42.02	44.04	2.02	5.69	168.97	244.13	1.31
Rio_Mannu	1950	Tr 50 anni	50.00	190.68	40.80	42.39	1.59	7.84	64.82	150.72	2.32
Rio_Mannu	1950	Tr 100 anni	50.00	225.55	40.80	42.44	1.64	8.06	74.11	166.28	2.33
Rio_Mannu	1950	Tr 200 anni	50.00	260.59	40.80	42.50	1.70	8.27	83.07	173.05	2.34
Rio_Mannu	1950	Tr 500 anni	50.00	307.00	40.80	42.56	1.76	8.51	94.48	183.15	2.35
Rio_Mannu	1900	Tr 50 anni	50.00	190.68	40.68	42.94	2.26	4.11	153.98	205.52	0.93
Rio_Mannu	1900	Tr 100 anni	50.00	225.55	40.68	43.01	2.33	4.33	168.92	206.18	0.96
Rio_Mannu	1900	Tr 200 anni	50.00	260.59	40.68	43.05	2.37	4.70	177.55	206.57	1.03
Rio_Mannu	1900	Tr 500 anni	50.00	307.00	40.68	43.14	2.46	4.90	195.94	207.47	1.05
Rio_Mannu	1850	Tr 50 anni	50.00	190.68	40.24	42.45	2.21	5.68	133.82	274.78	1.29
Rio_Mannu	1850	Tr 100 anni	50.00	225.55	40.24	42.50	2.26	5.99	147.56	285.28	1.35
Rio_Mannu	1850	Tr 200 anni	50.00	260.59	40.24	42.55	2.31	6.18	162.94	299.46	1.37
Rio_Mannu	1850	Tr 500 anni	50.00	307.00	40.24	42.60	2.36	6.56	177.60	307.22	1.44
Rio_Mannu	1800	Tr 50 anni		190.68	39.34	41.76	2.42	5.26	115.69	217.77	1.17
Rio_Mannu	1800	Tr 100 anni		225.55	39.34	41.84	2.50	5.41	132.70	222.79	1.18
Rio_Mannu	1800	Tr 200 anni		260.59	39.34	41.91	2.57	5.53	148.75	225.01	1.19
Rio_Mannu	1800	Tr 500 anni		307.00	39.34	42.00	2.66	5.67	169.14	231.28	1.19

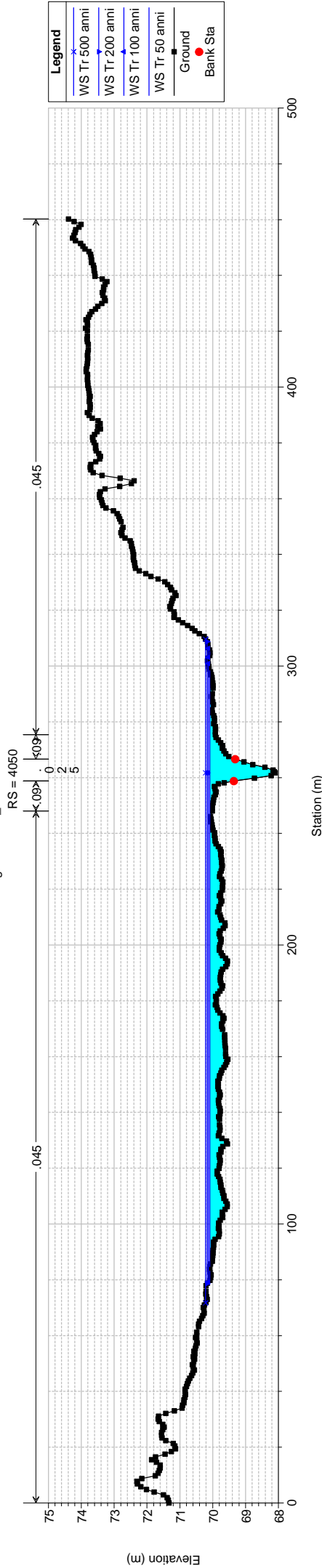
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



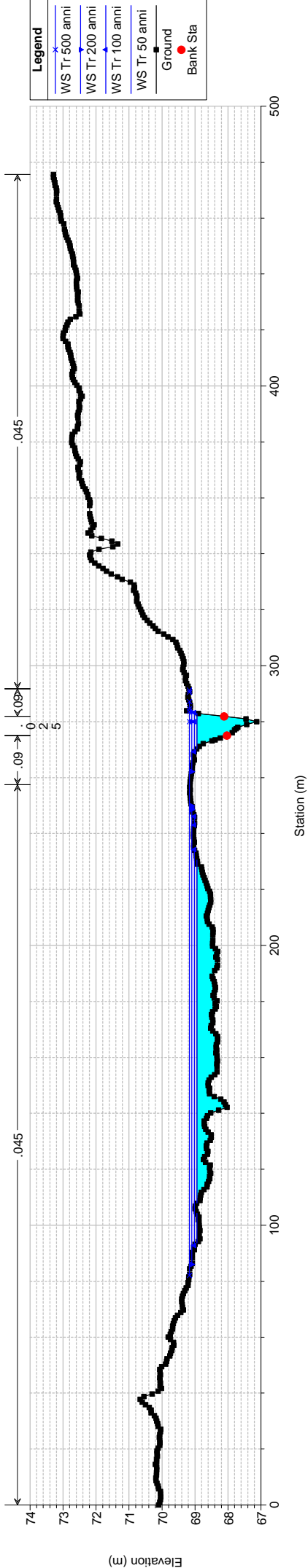
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



Mulino_de_Josso Plan: Simulazione_Progetto

Geom: geometria_PROGETTO Flow: Portate

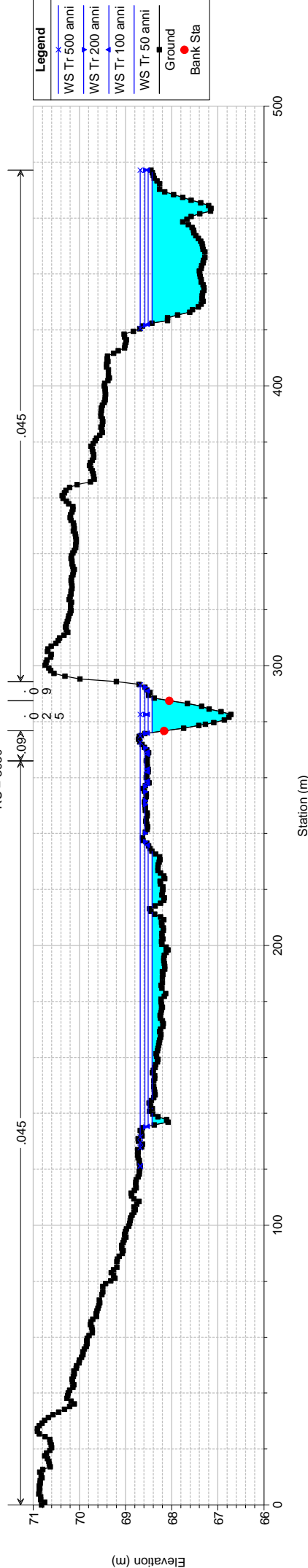
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Mulino_de_Josso Plan: Simulazione_Progetto

Geom: geometria_PROGETTO Flow: Portate

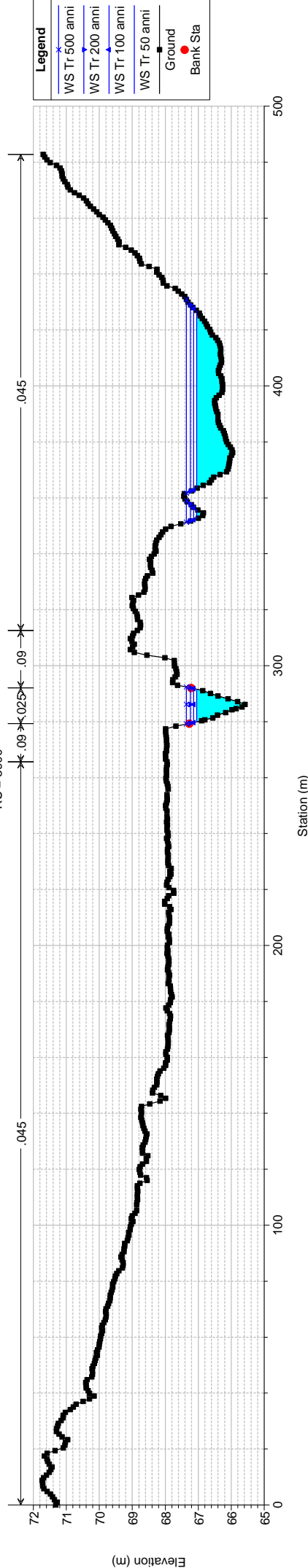
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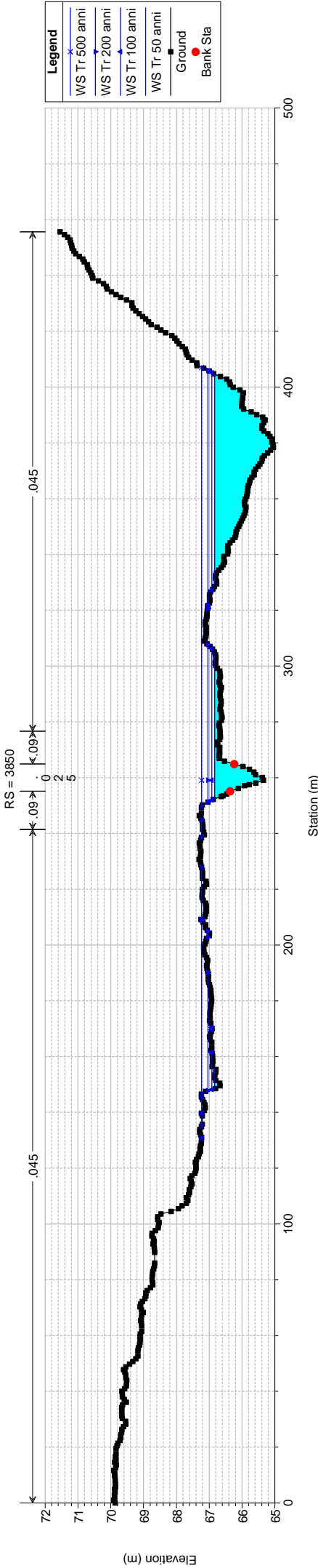
Mulino_de_Josso Plan: Simulazione_Progetto

Geom: geometria_PROGETTO Flow: Portate

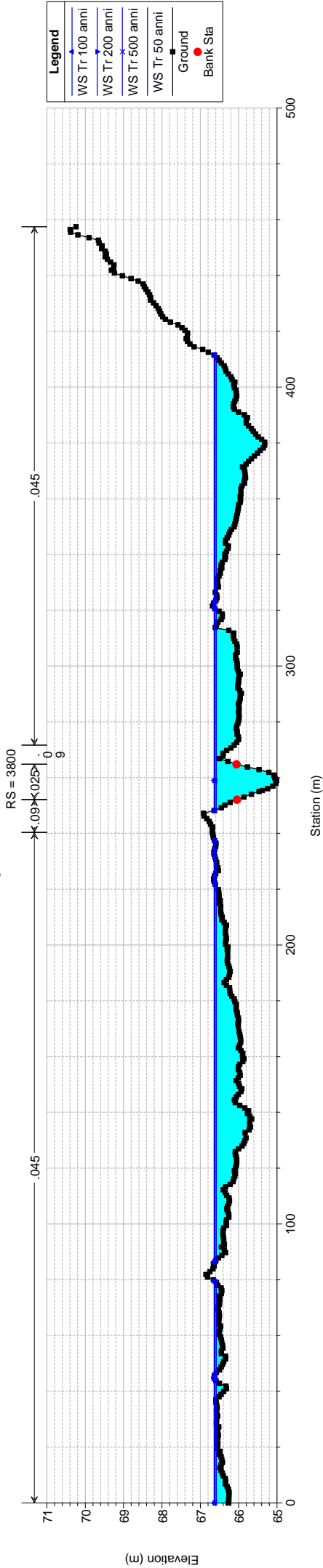
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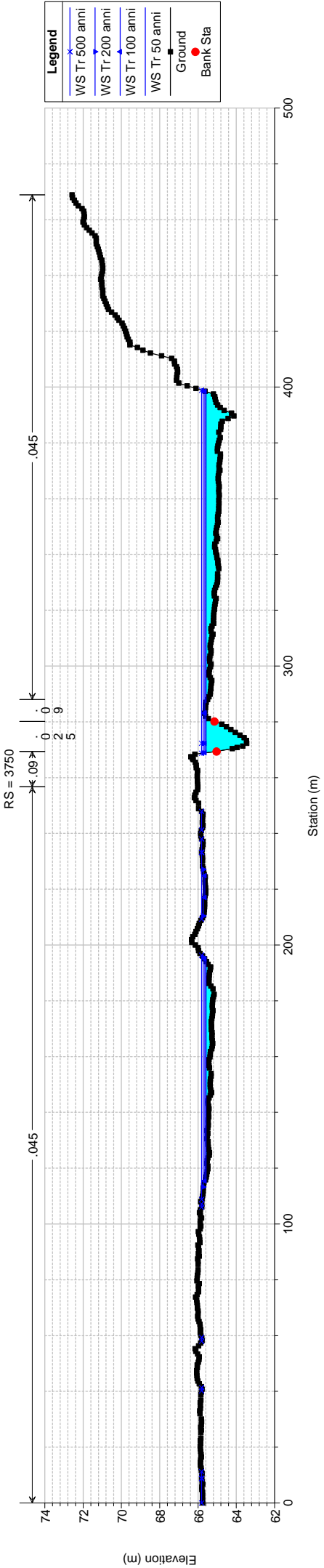
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



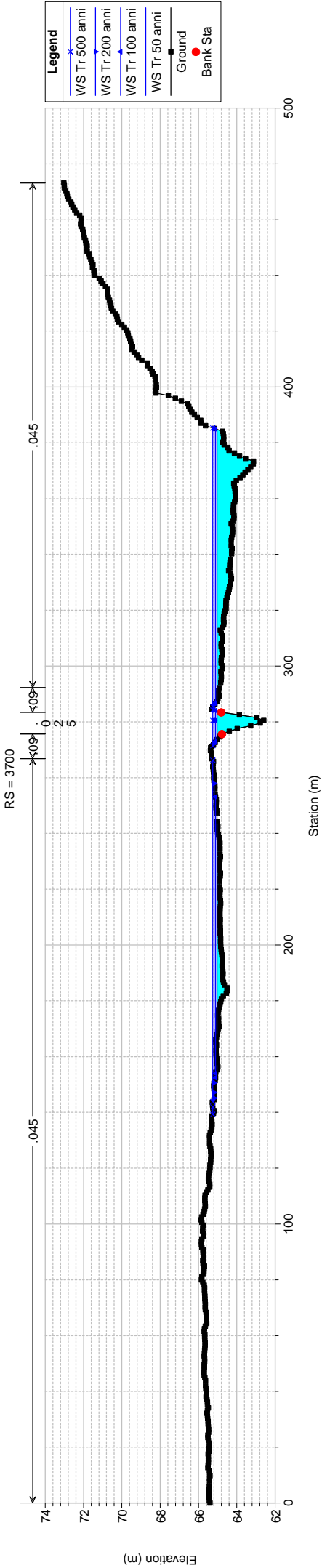
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



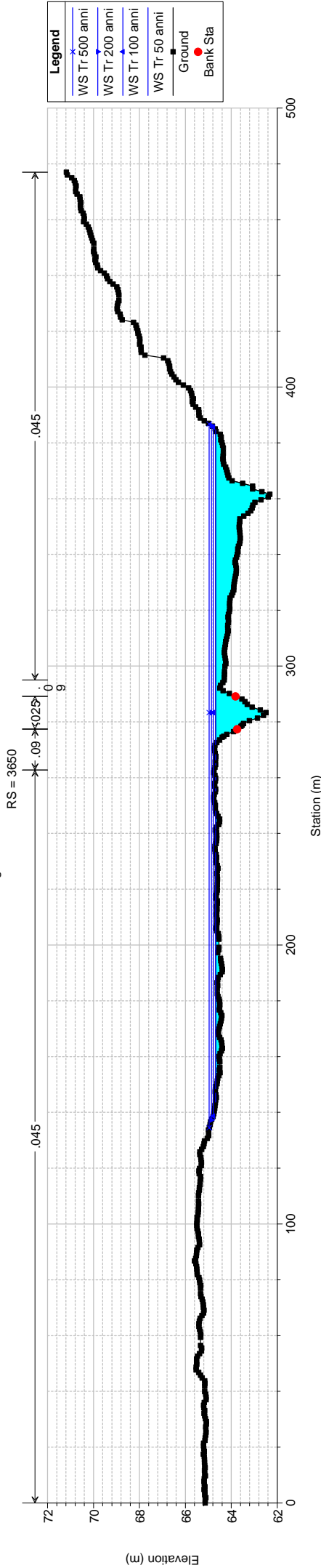
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



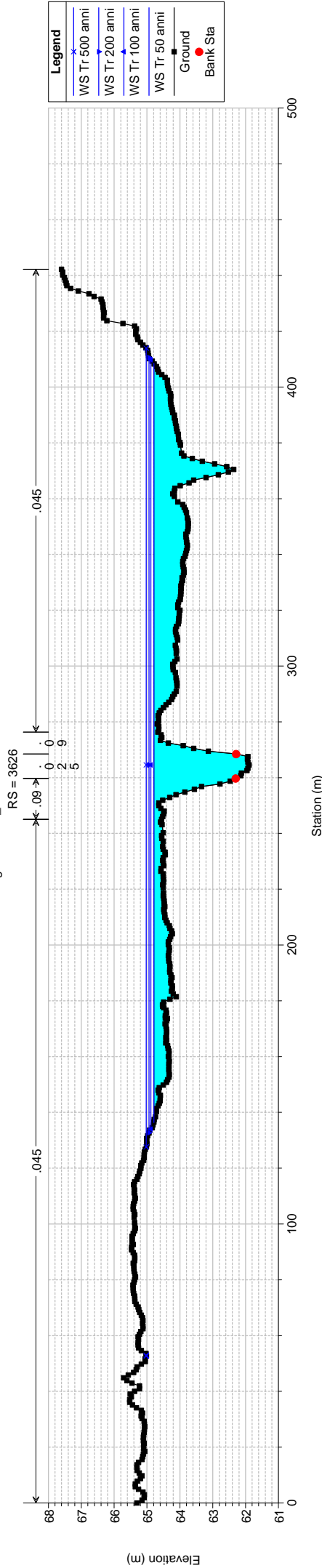
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



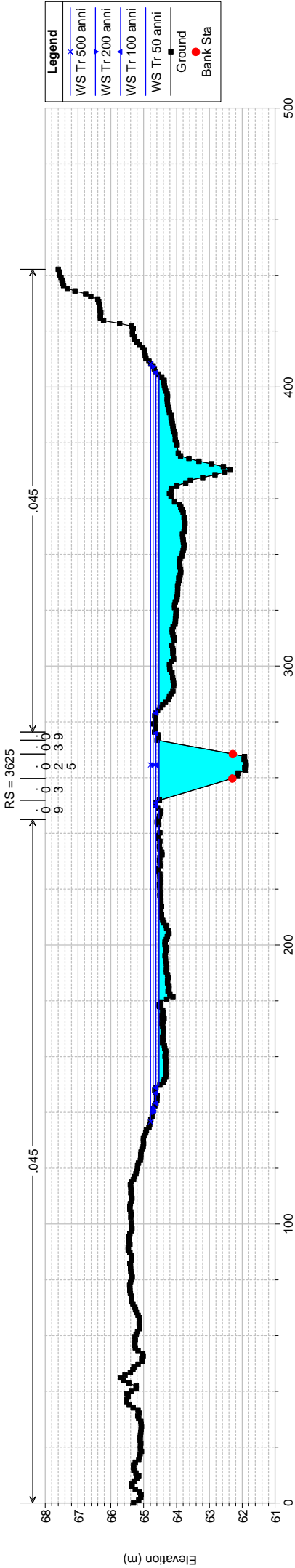
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



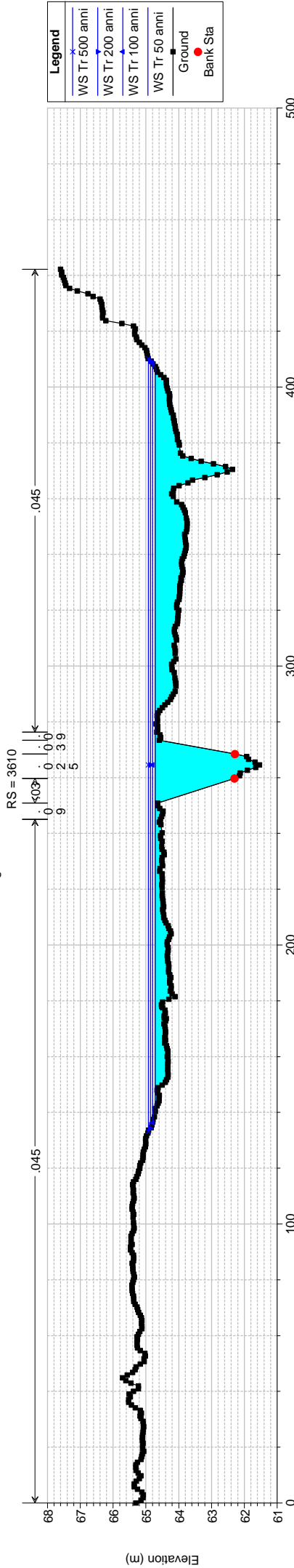
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Geom: geometria_PROGETTO Flow: Portate



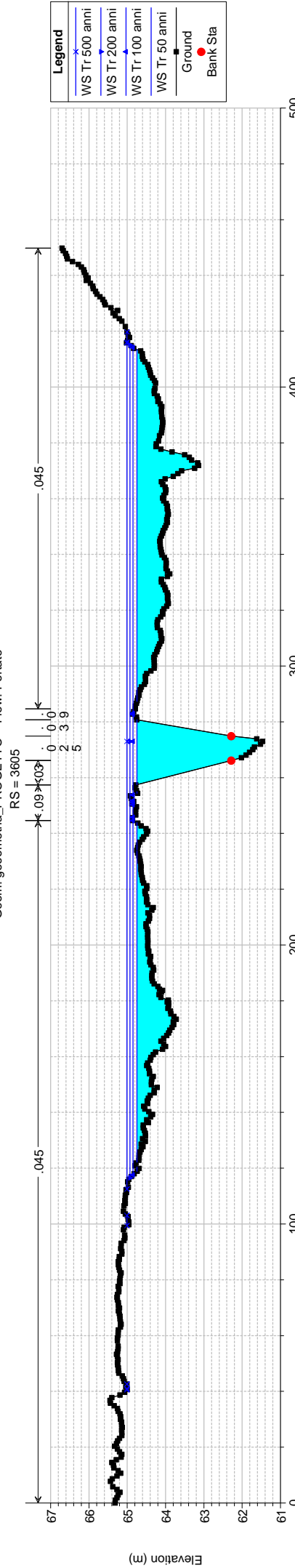
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate

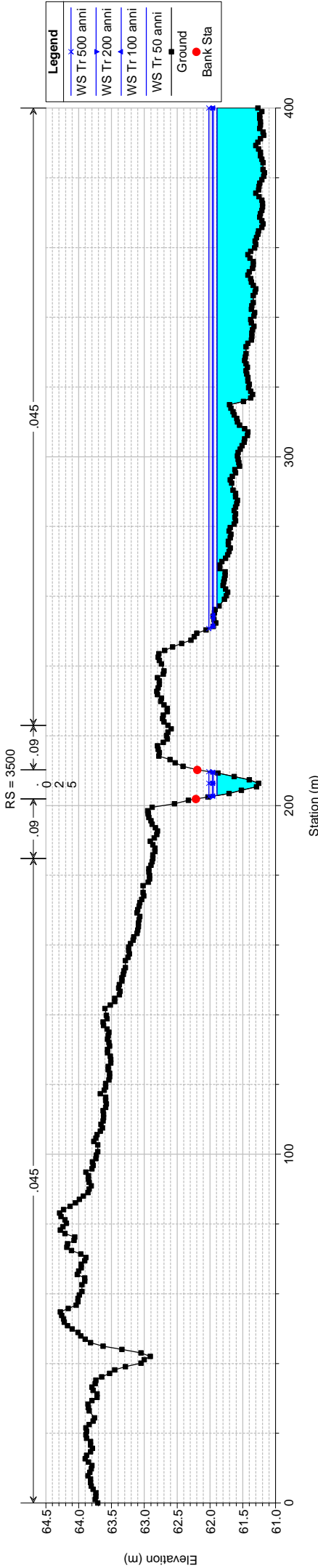


Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



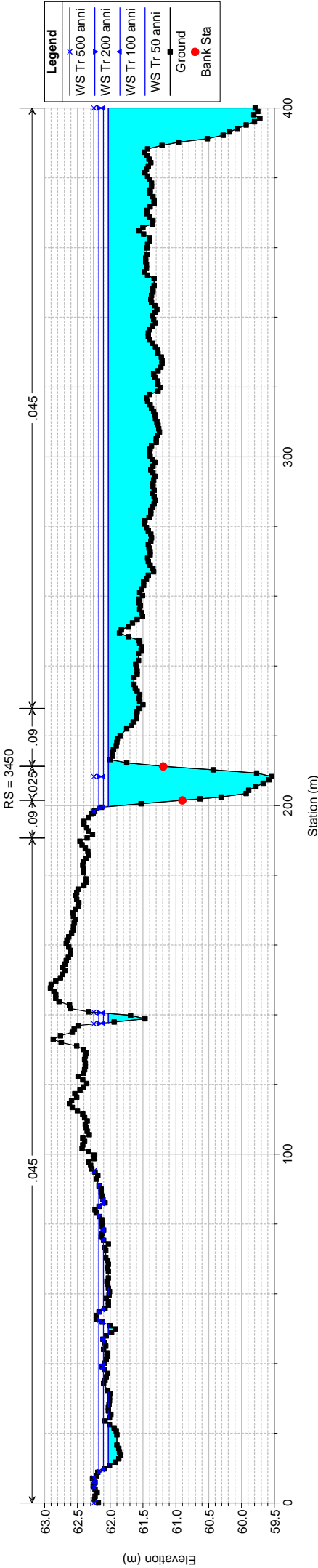
Mulino_de_Josso Plan: Simulazione_Progetto

Geom: geometria_PROGETTO Flow: Portate



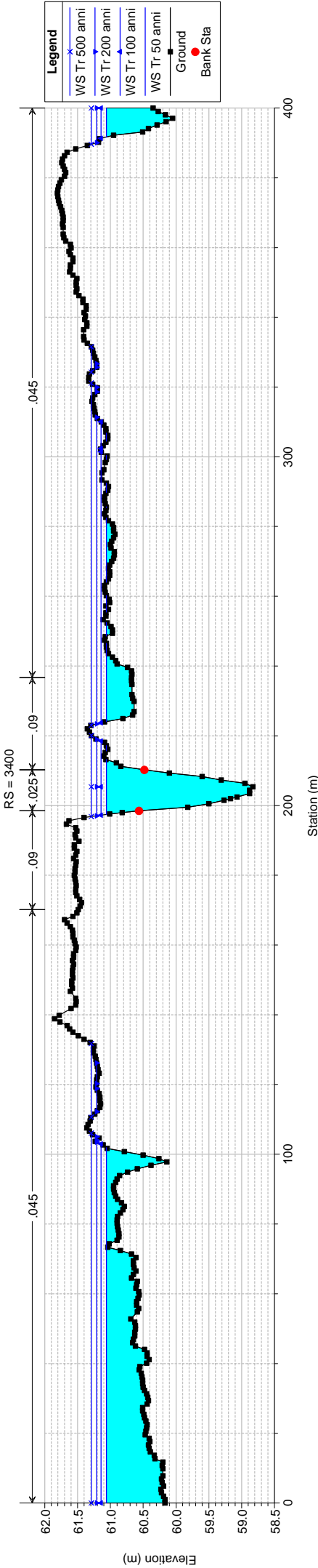
Mulino_de_Josso Plan: Simulazione_Progetto

Geom: geometria_PROGETTO Flow: Portate

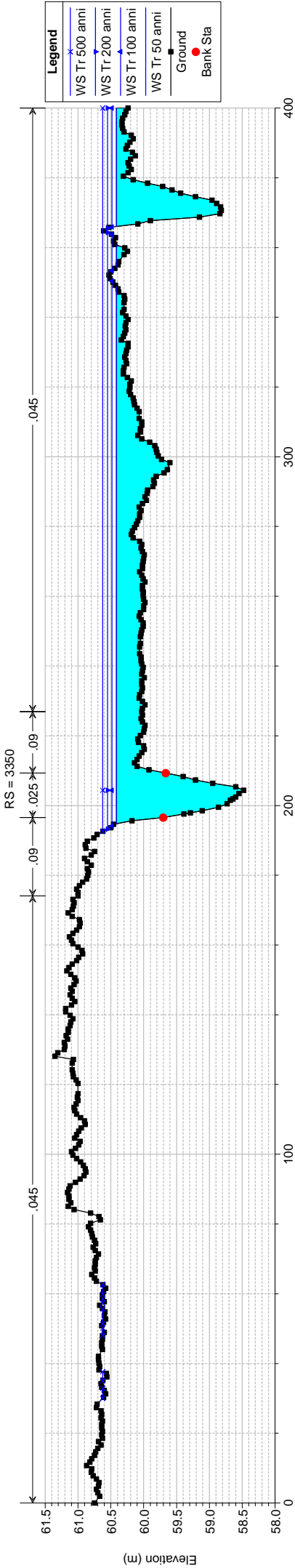


Mulino_de_Josso Plan: Simulazione_Progetto

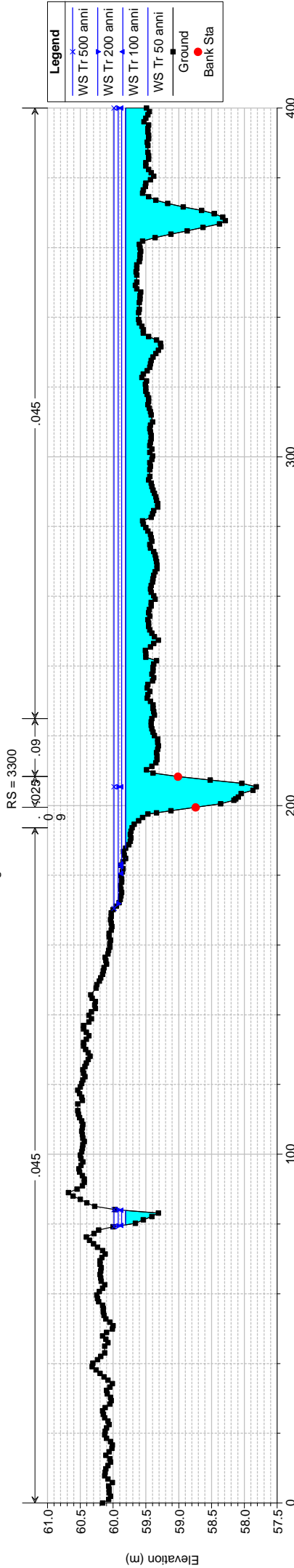
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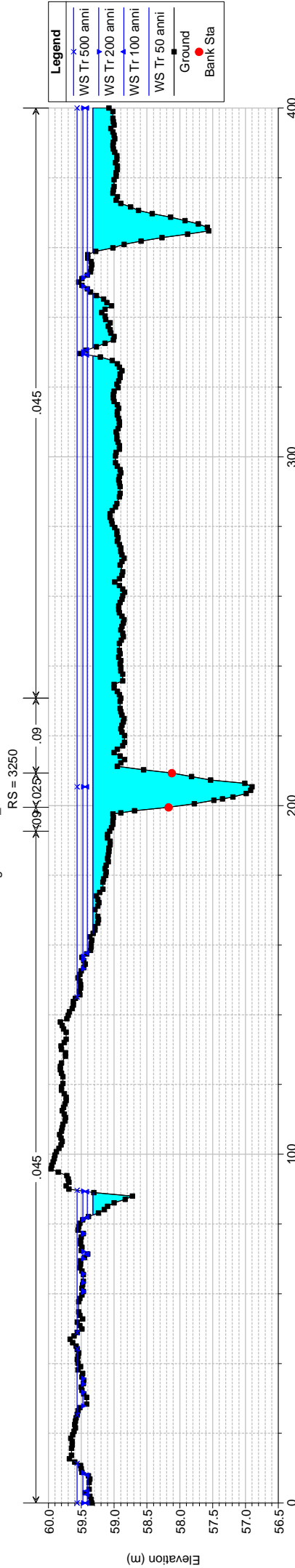
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



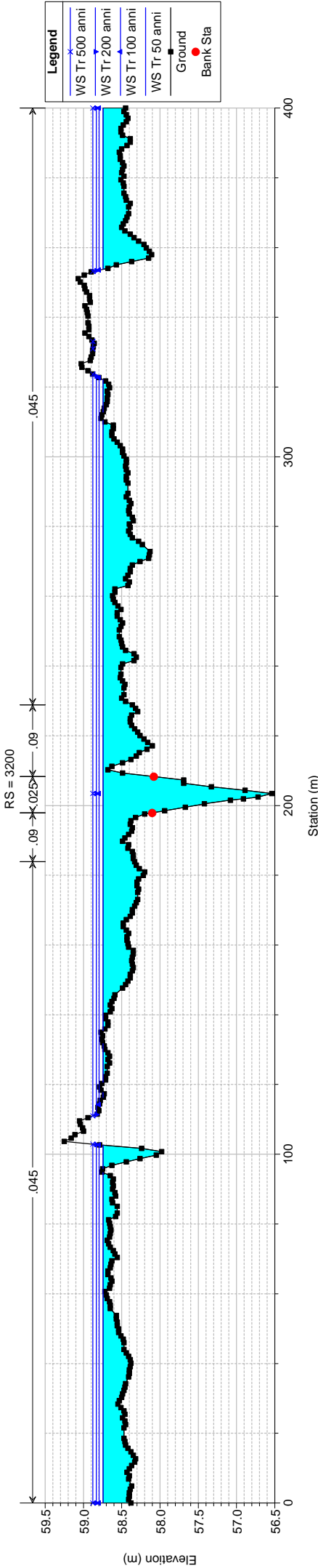
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Geom: geometria_PROGETTO Flow: Portate



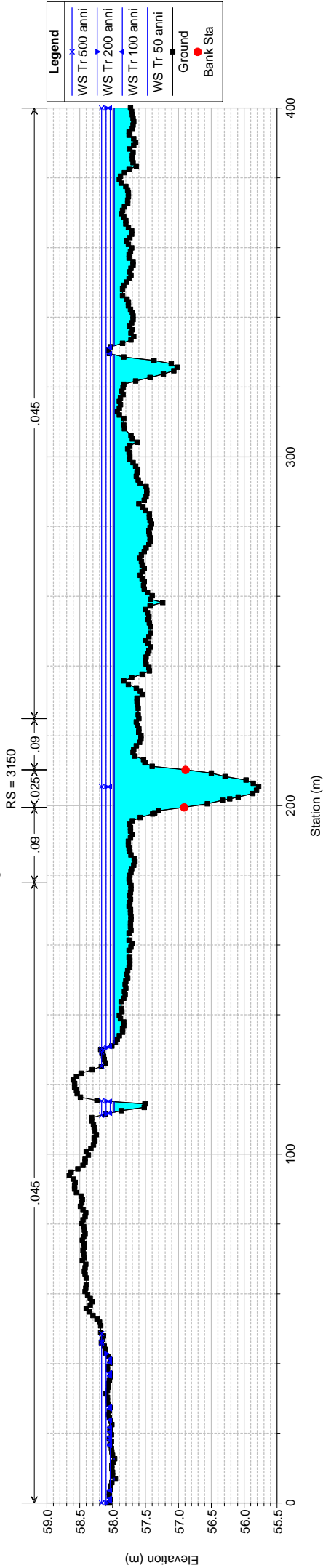
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



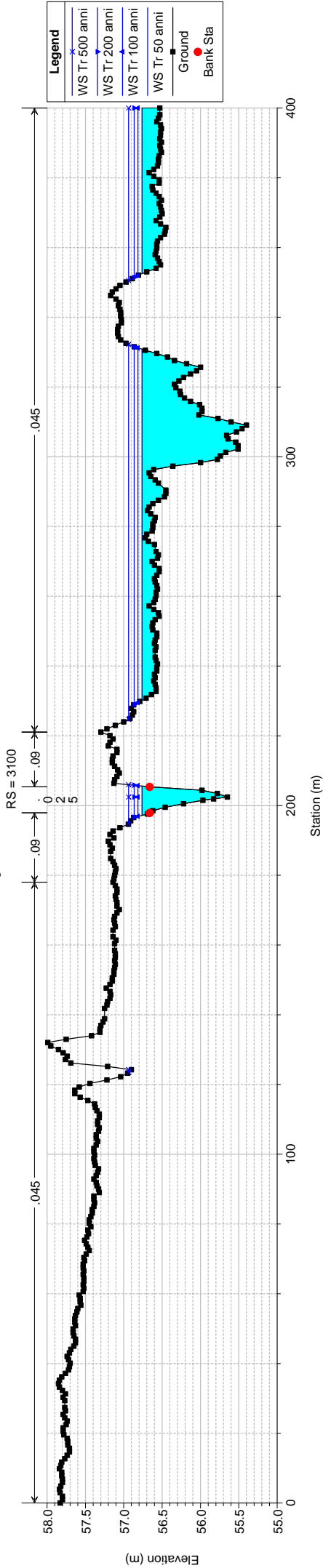
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



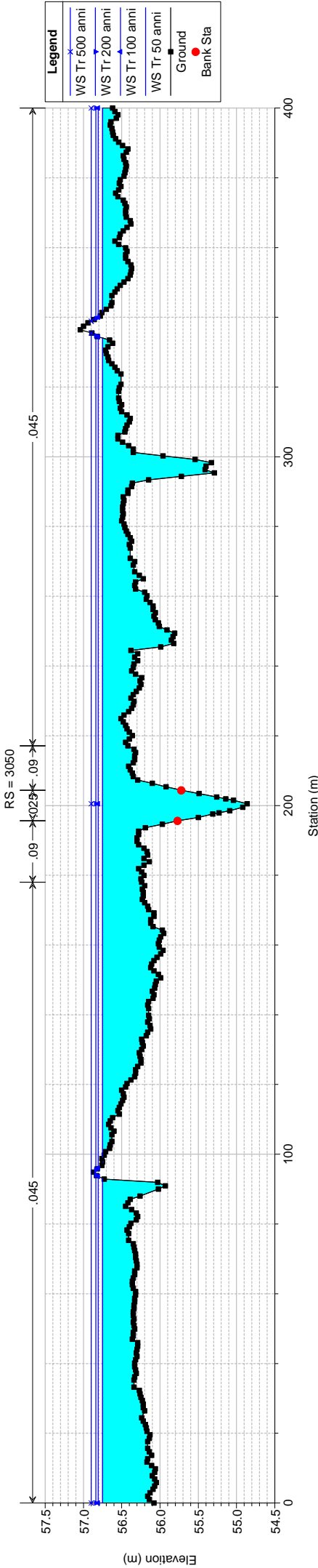
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



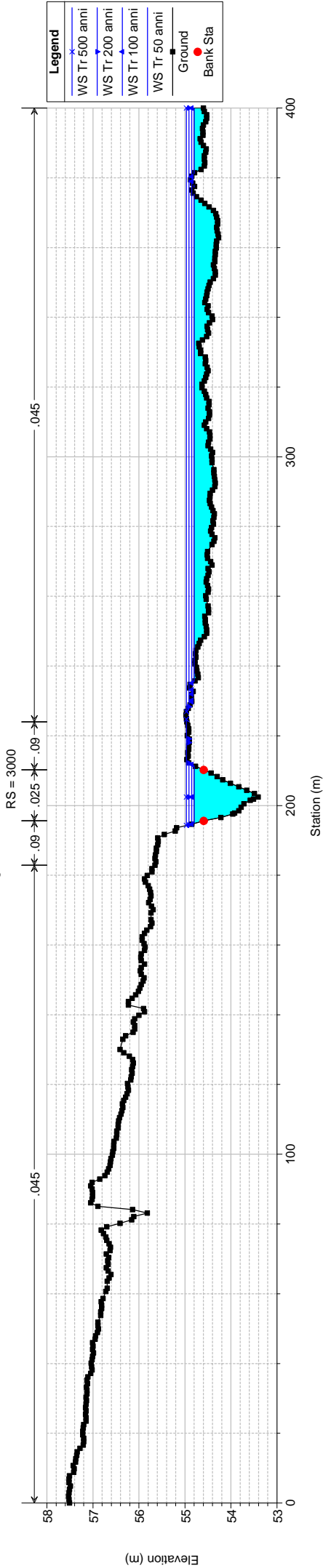
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



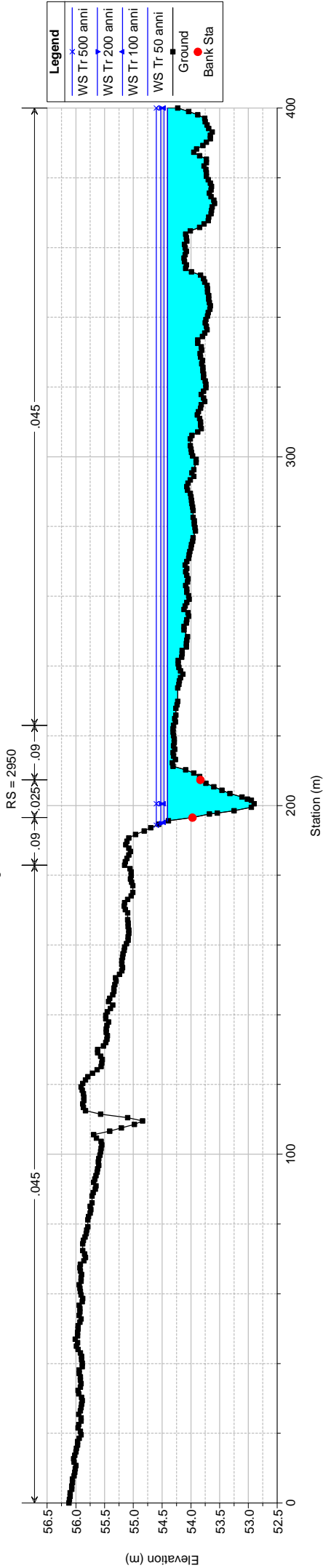
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



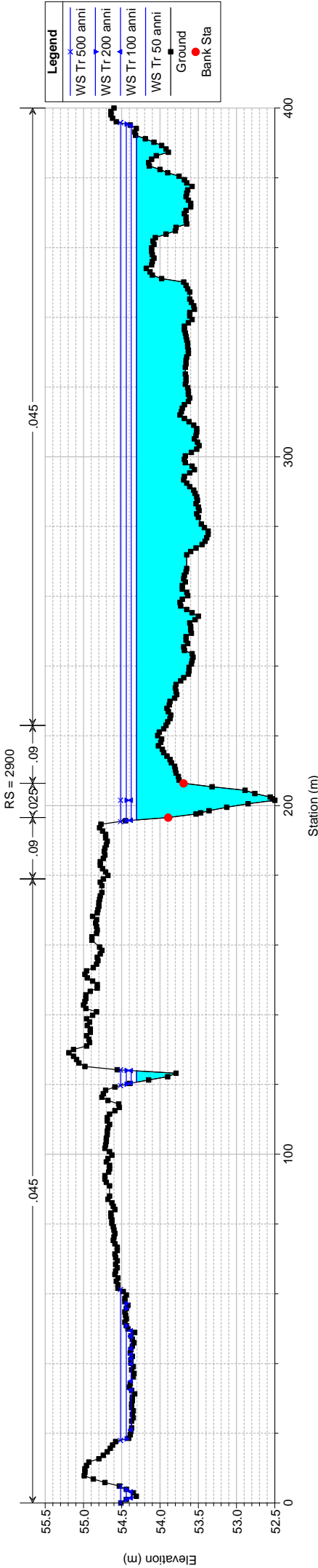
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



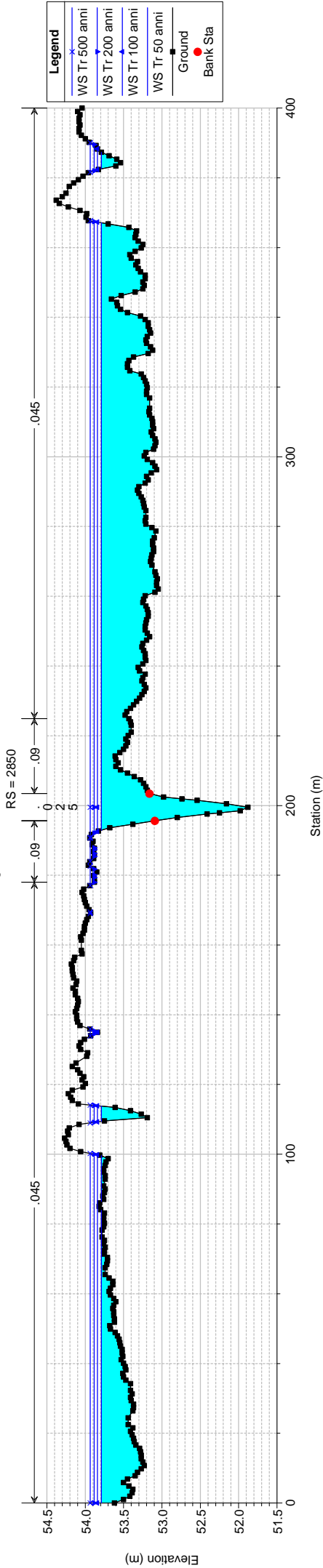
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



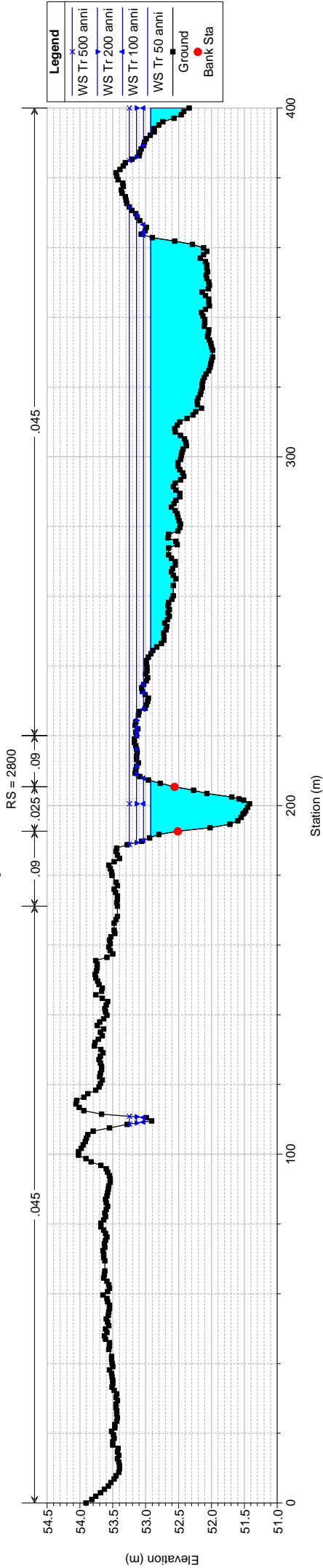
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



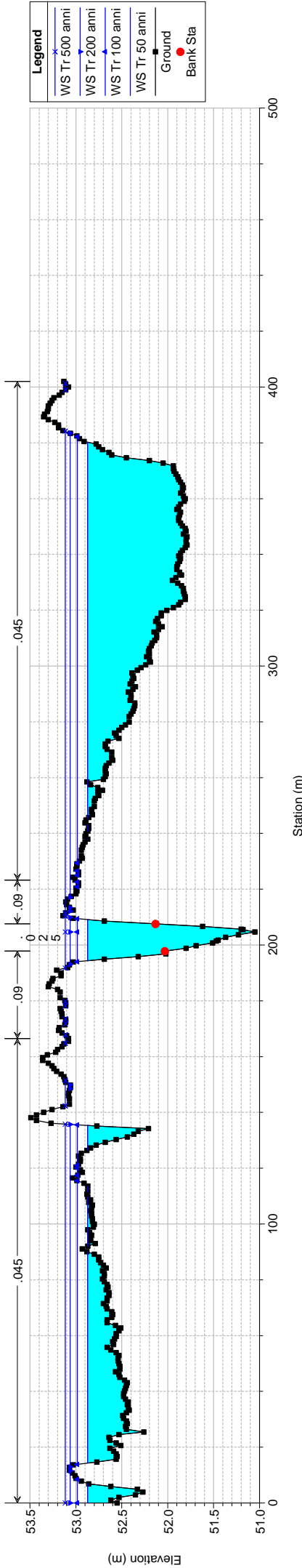
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



Mulino_de_Josso Plan: Simulazione_Progetto

Geom: geometria_PROGETTO Flow: Portate

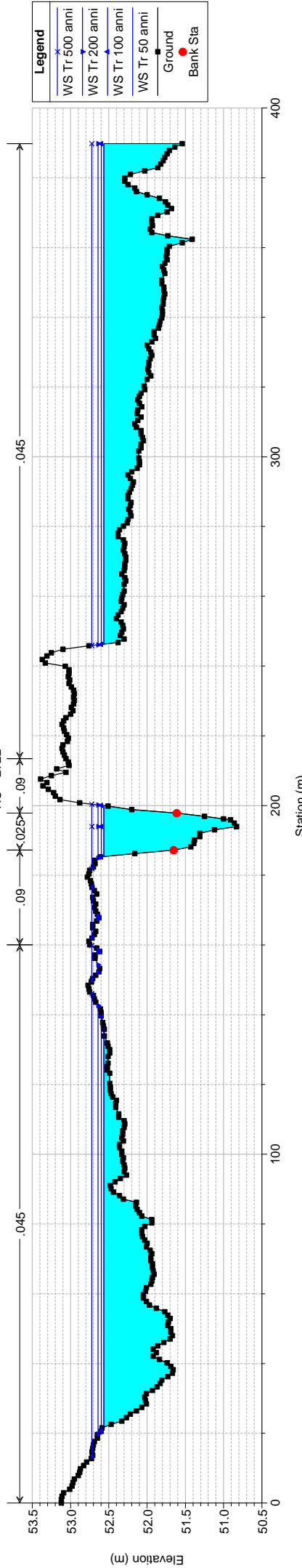
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Mulino_de_Josso Plan: Simulazione_Progetto

Geom: geometria_PROGETTO Flow: Portate

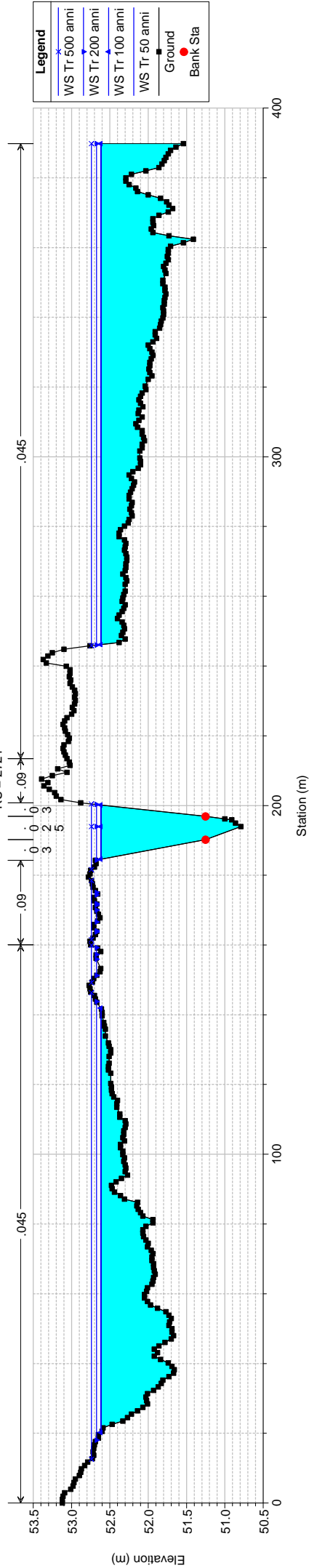
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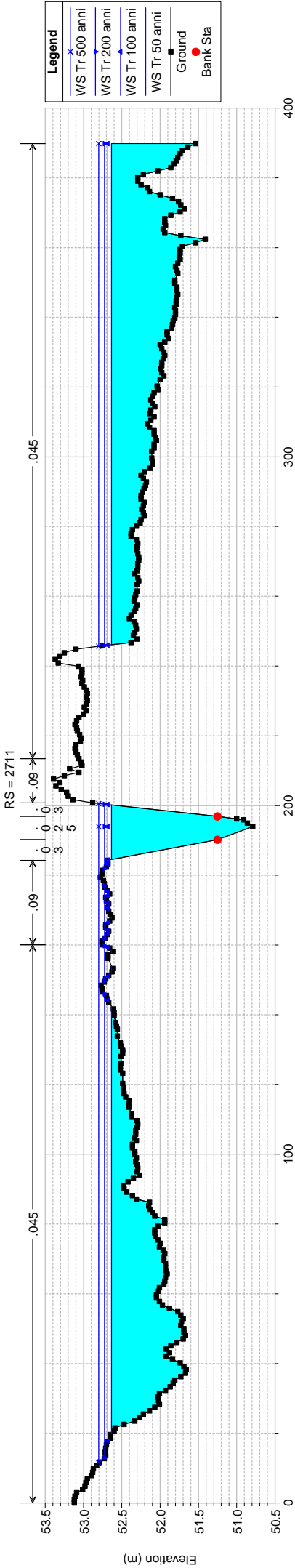
Mulino_de_Josso Plan: Simulazione_Progetto

Geom: geometria_PROGETTO Flow: Portate

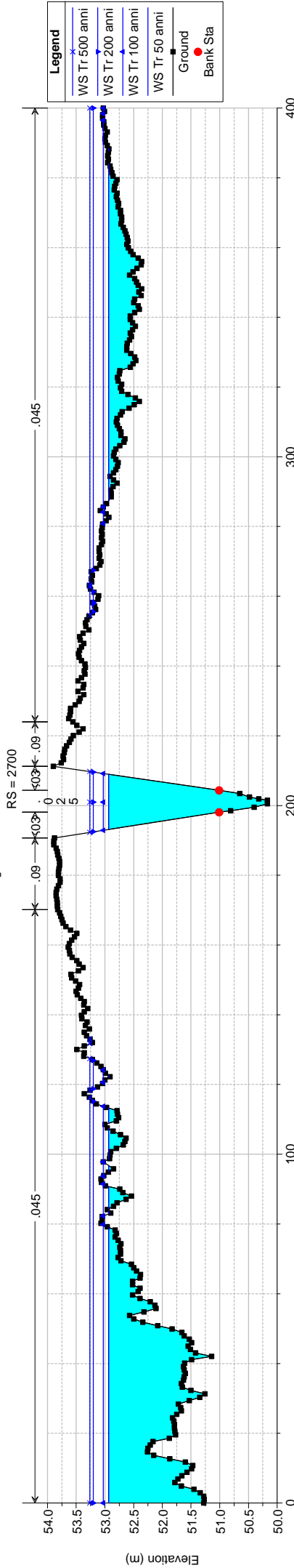
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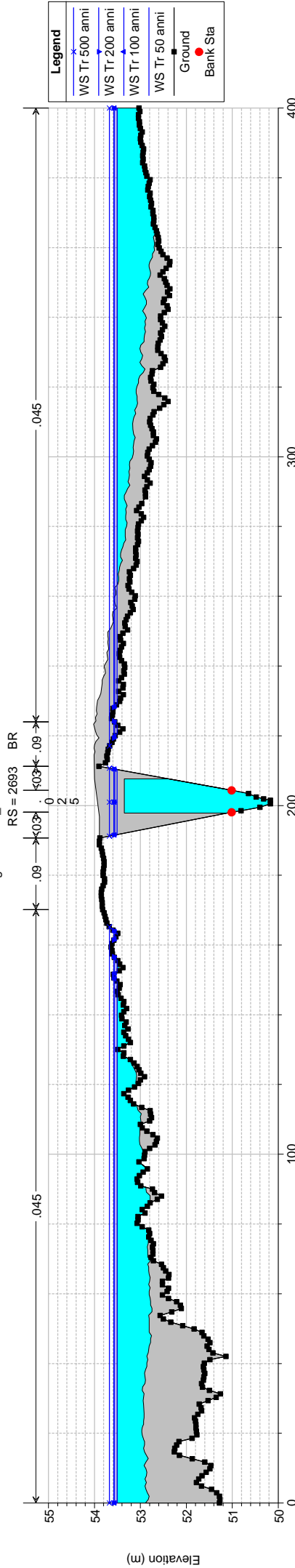
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate

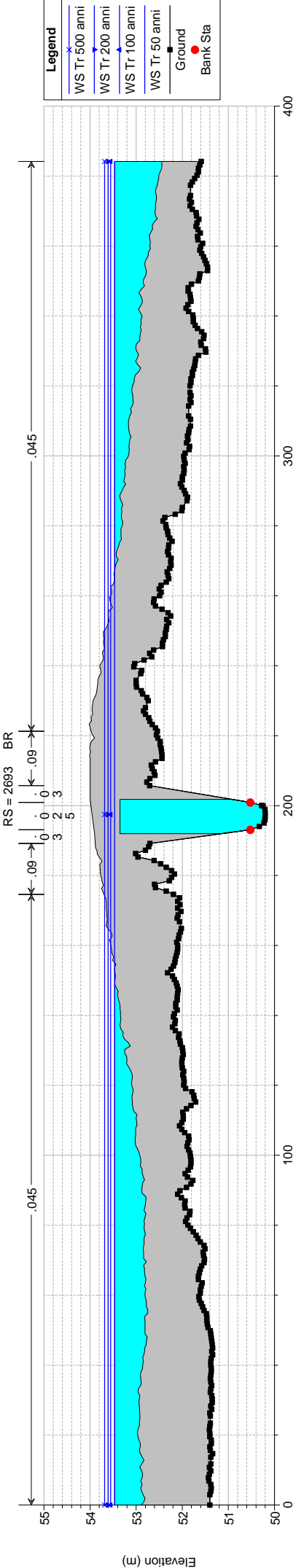


Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



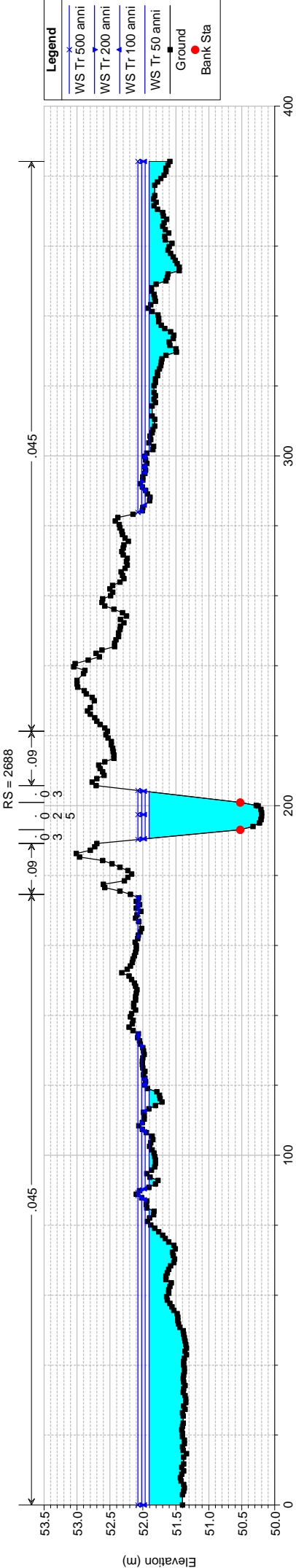
Mulino_de_Josso Plan: Simulazione_Progetto

Geom: geometria_PROGETTO Flow: Portate



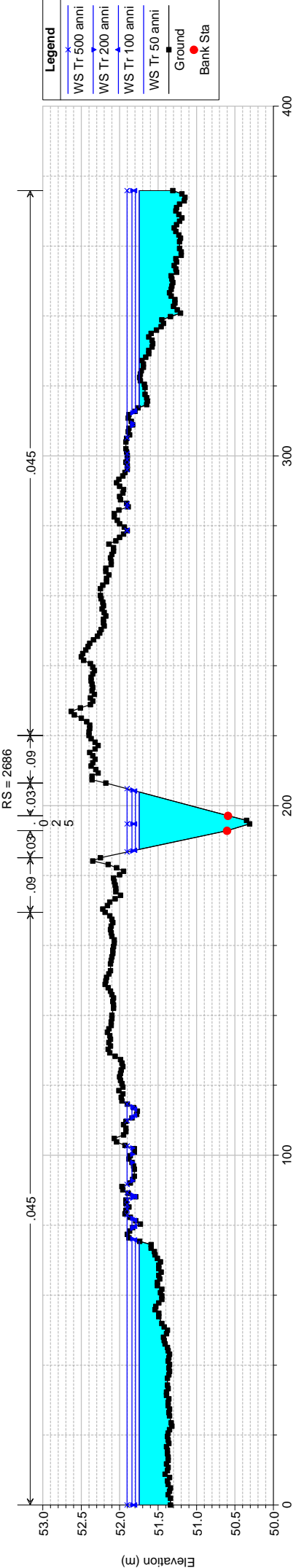
Mulino_de_Josso Plan: Simulazione_Progetto

Geom: geometria_PROGETTO Flow: Portate

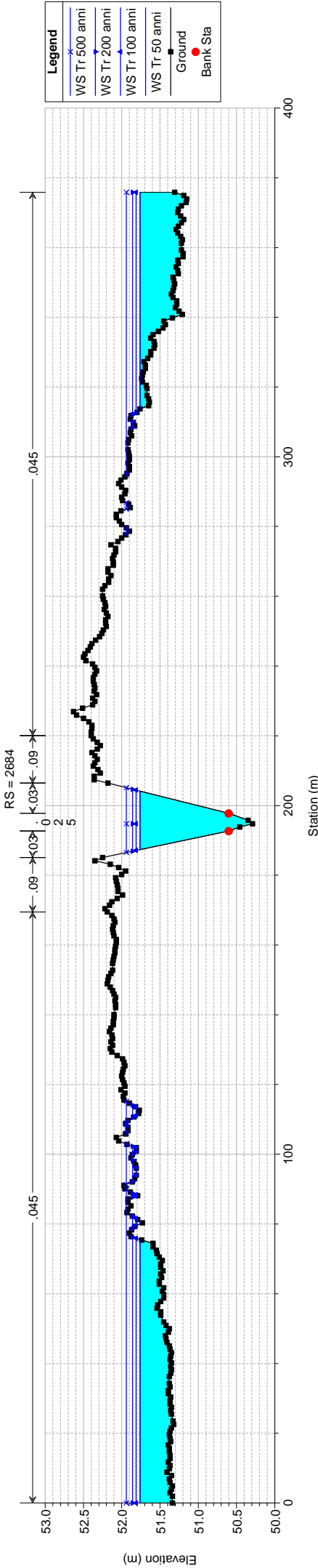


Mulino_de_Josso Plan: Simulazione_Progetto

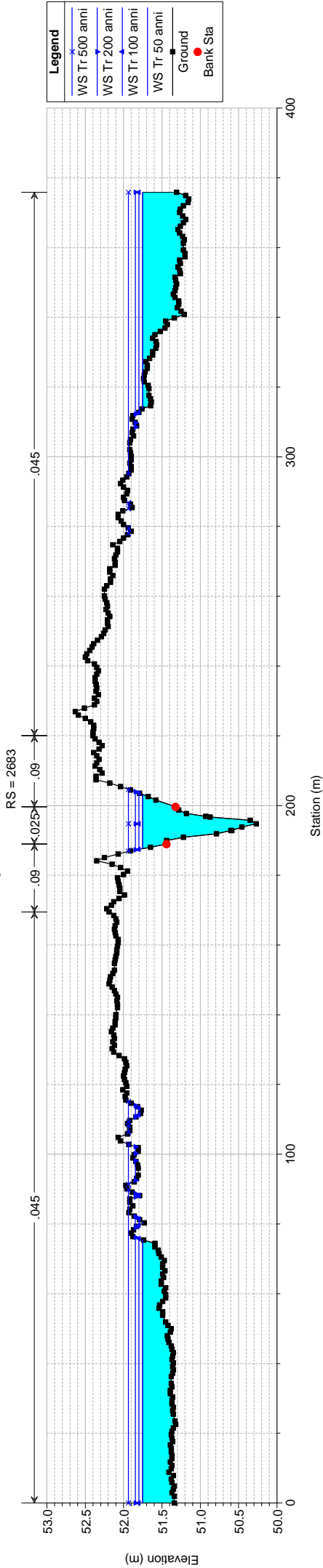
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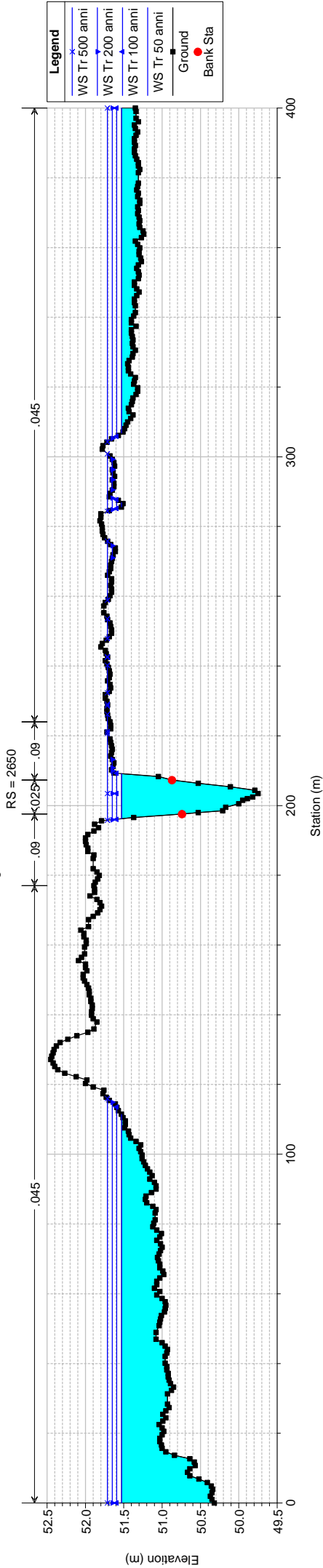
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



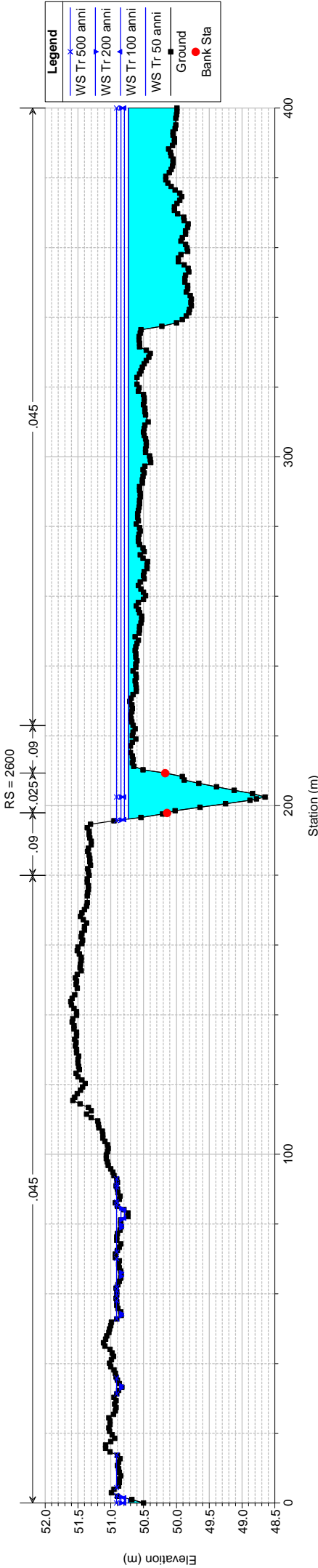
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



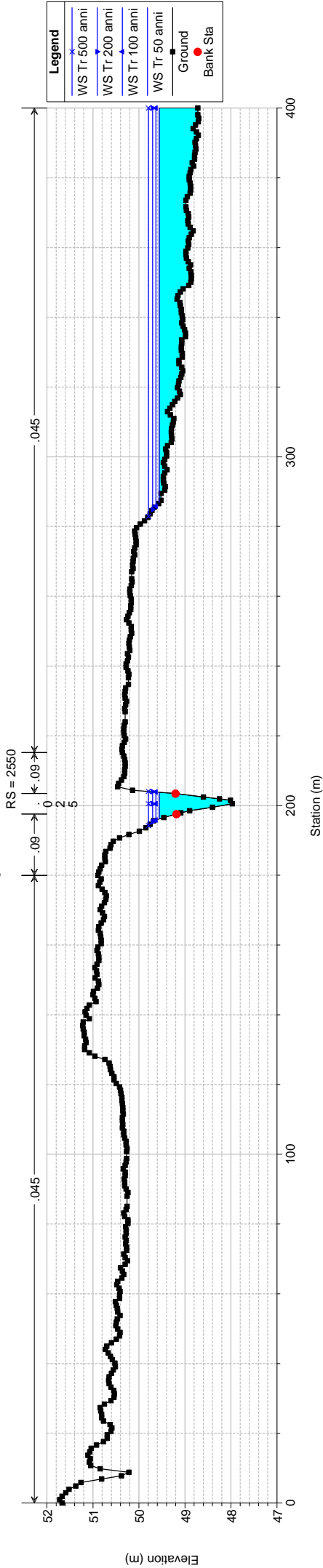
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



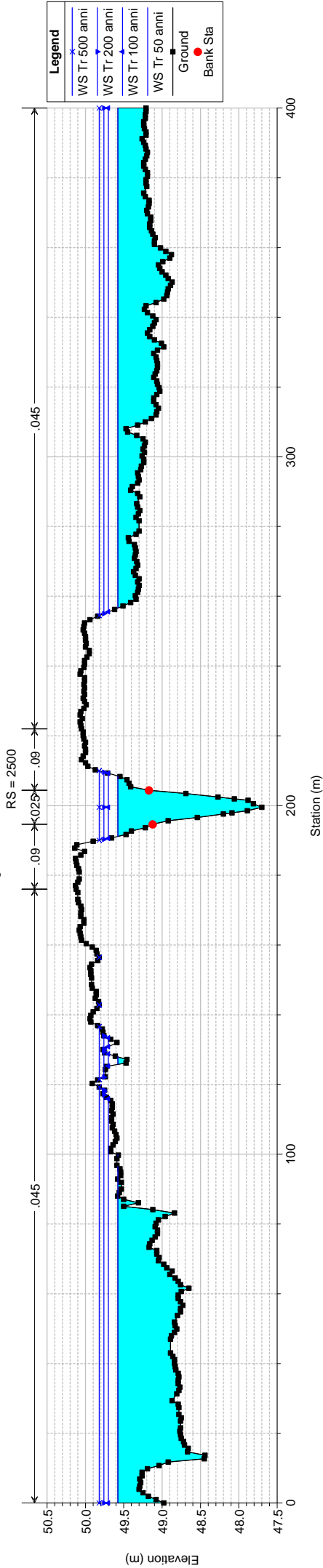
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



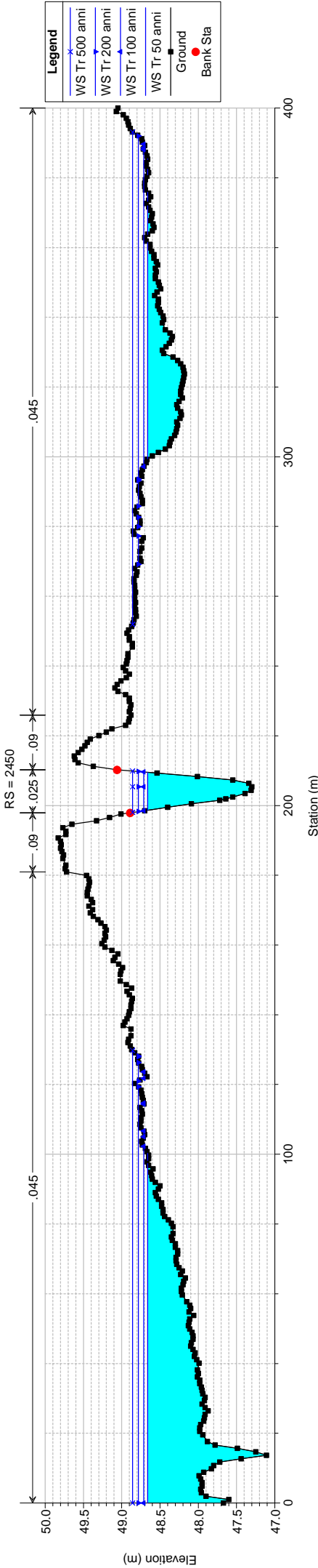
Mulino_de_Josso Plan: Simulazione_Progetto
Geom: geometria_PROGETTO Flow: Portate



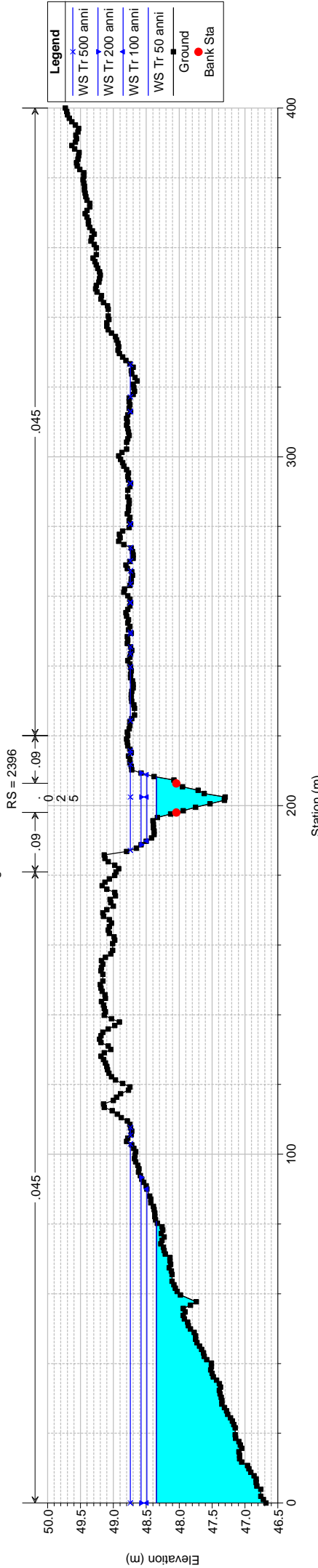
Mulino_de_Josso Plan: Simulazione_Progetto
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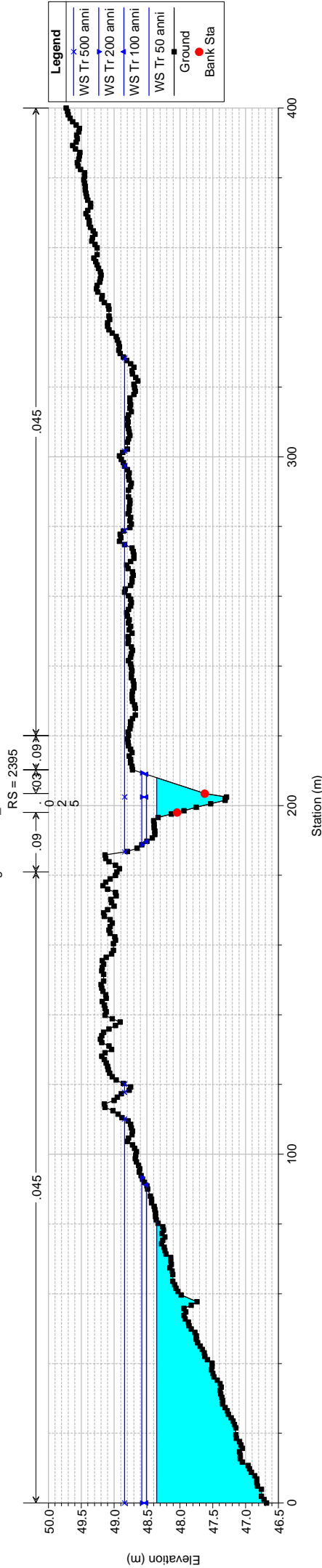
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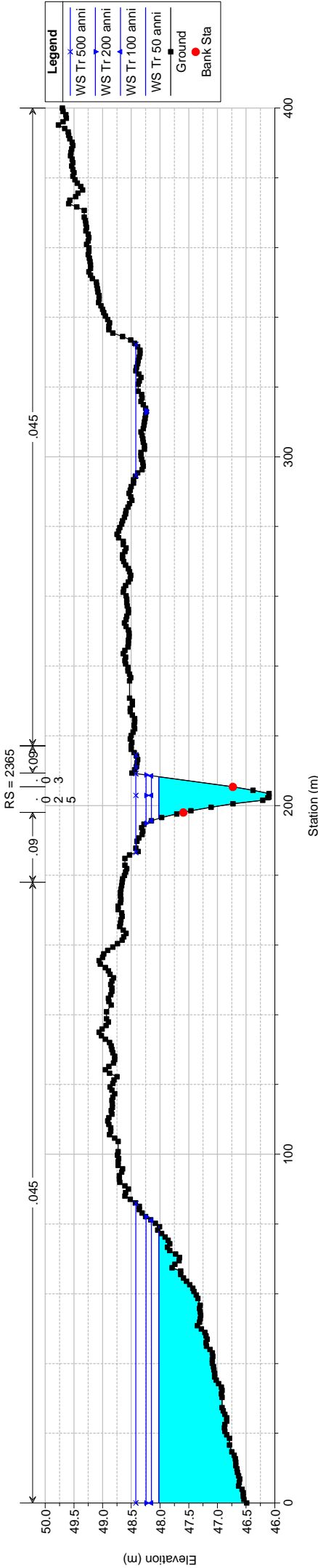
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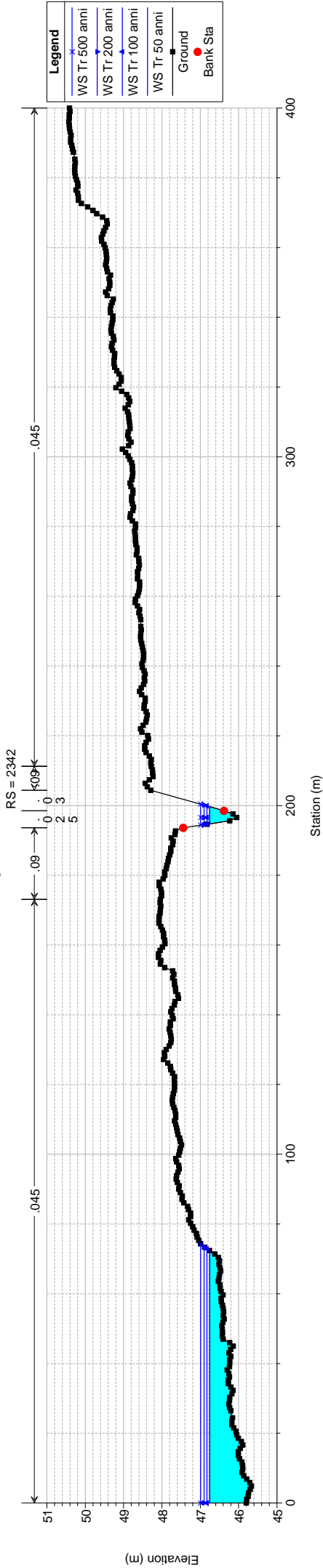
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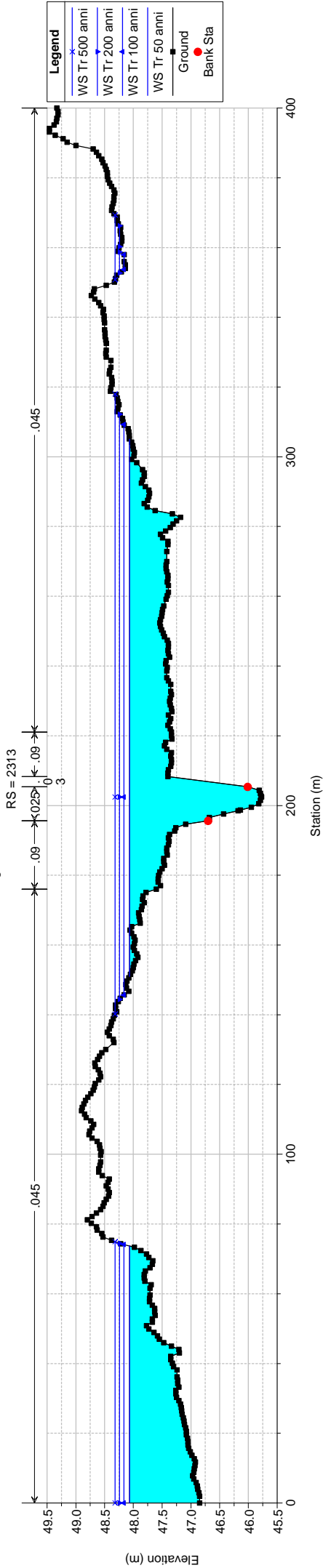
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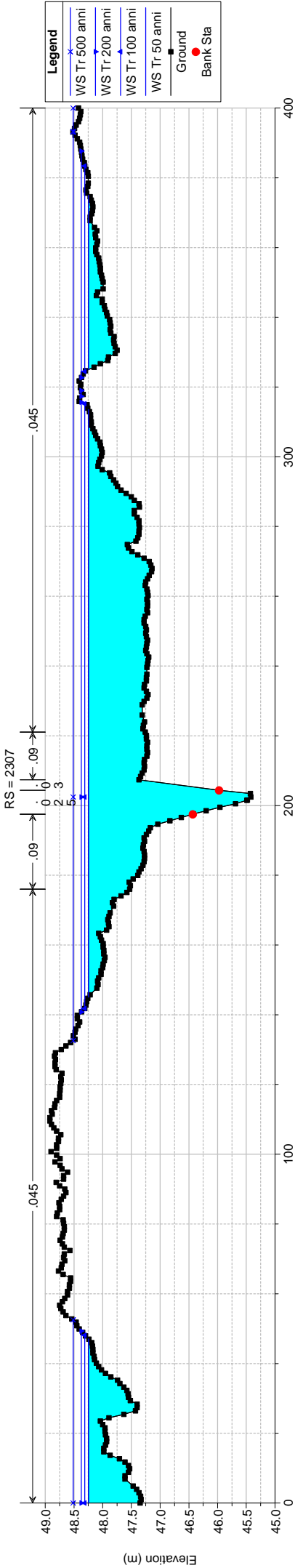
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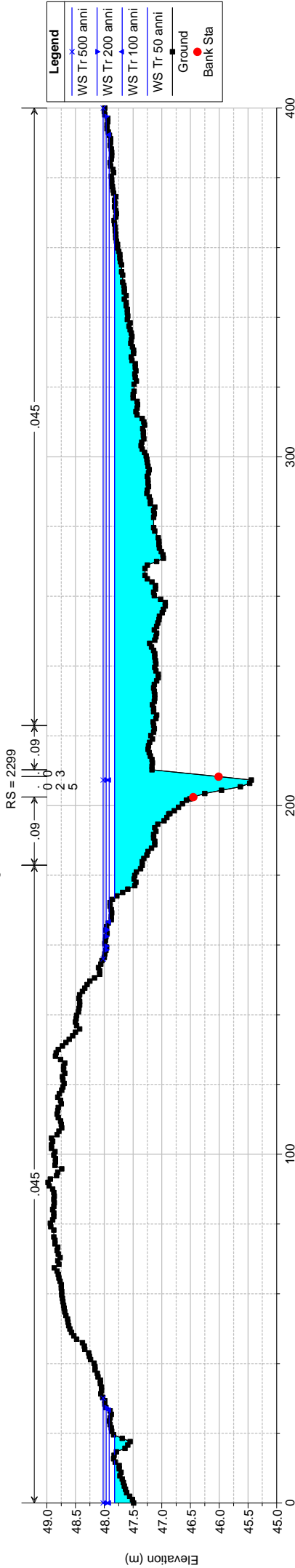
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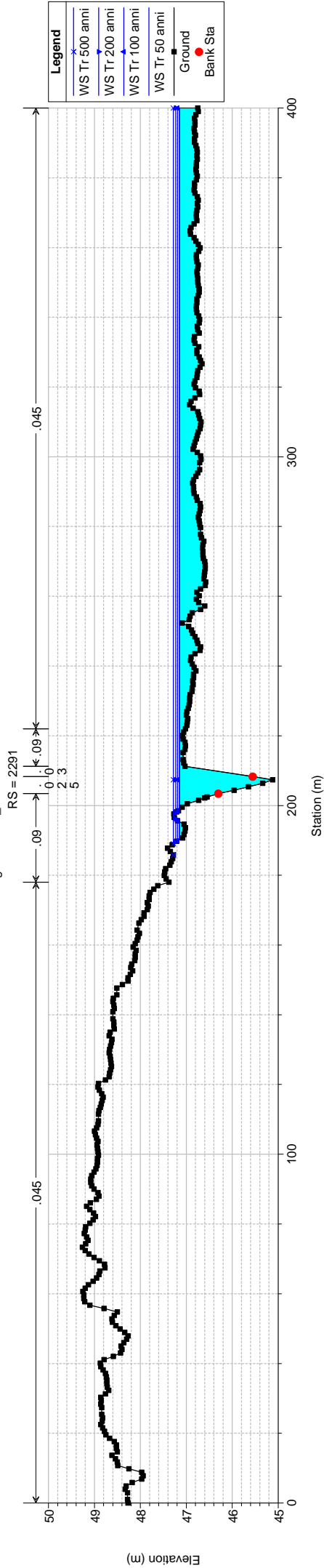
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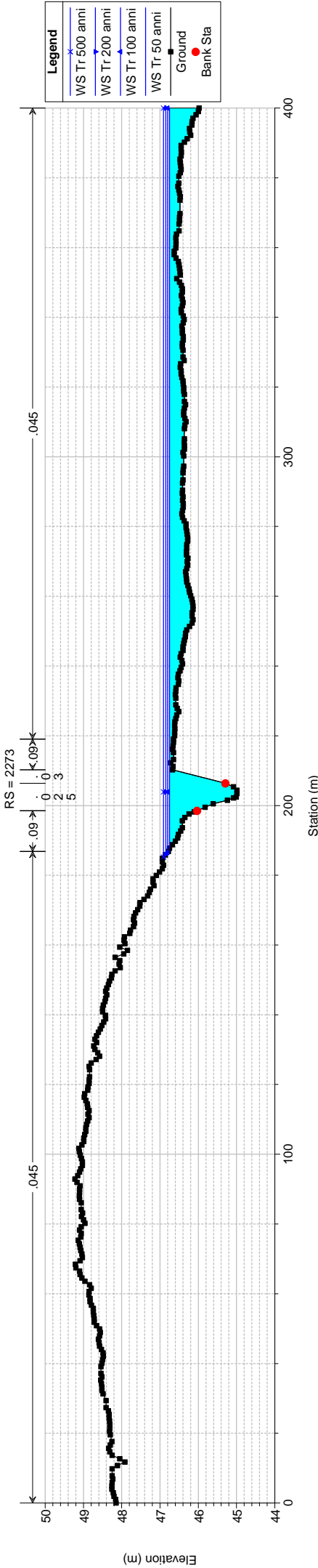
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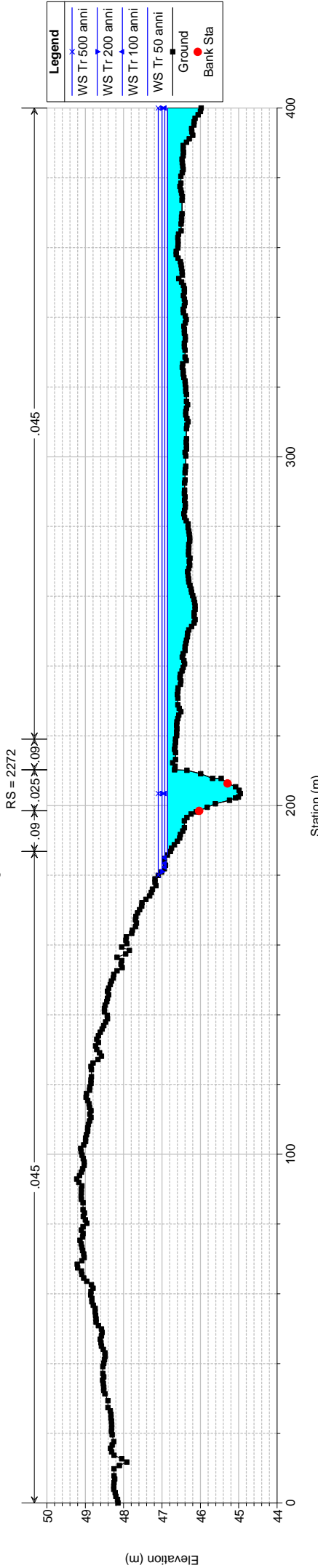
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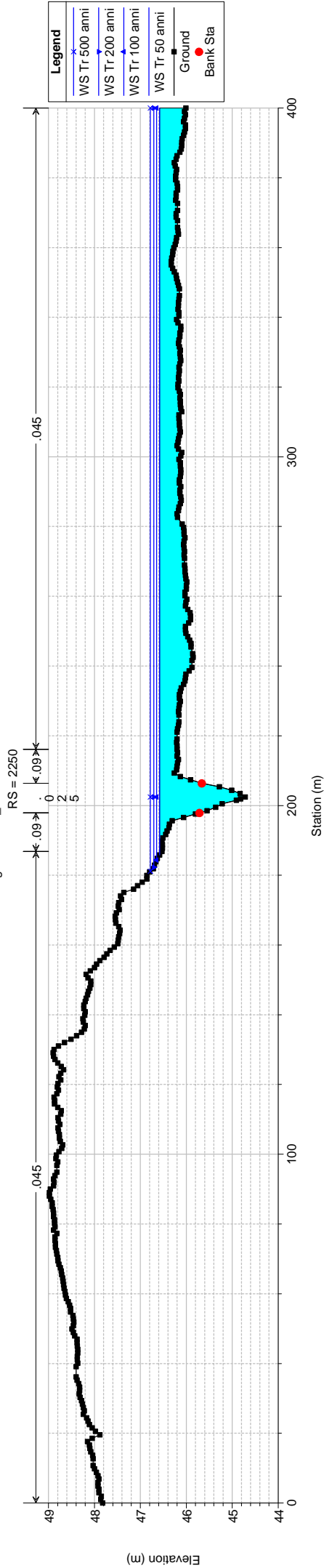
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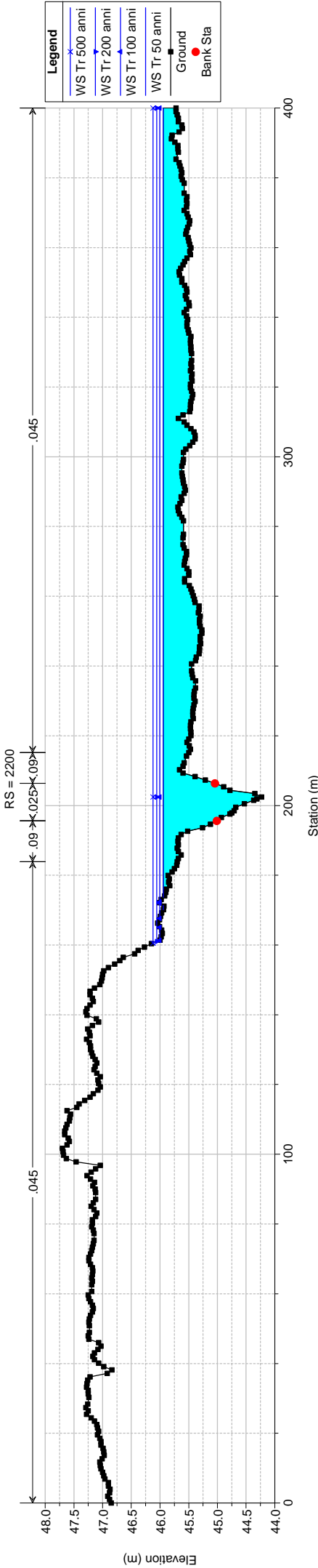
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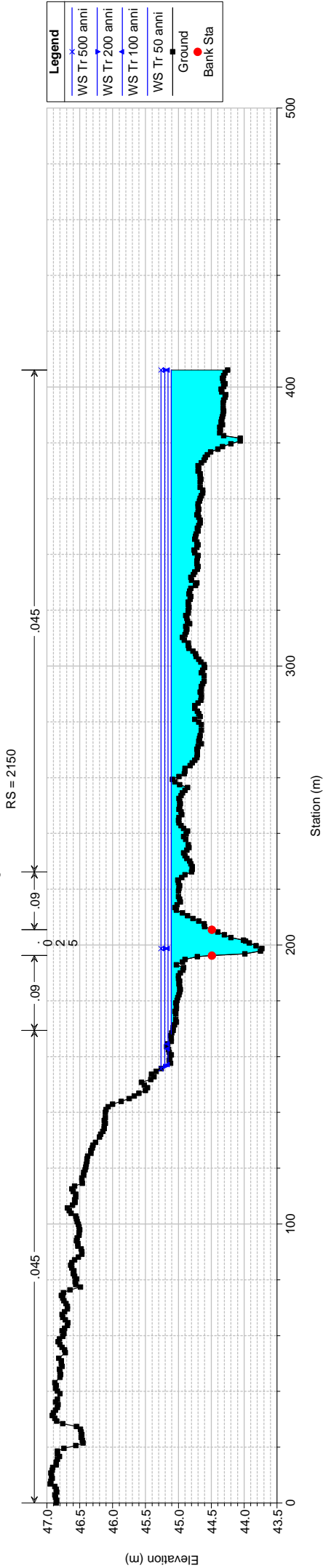
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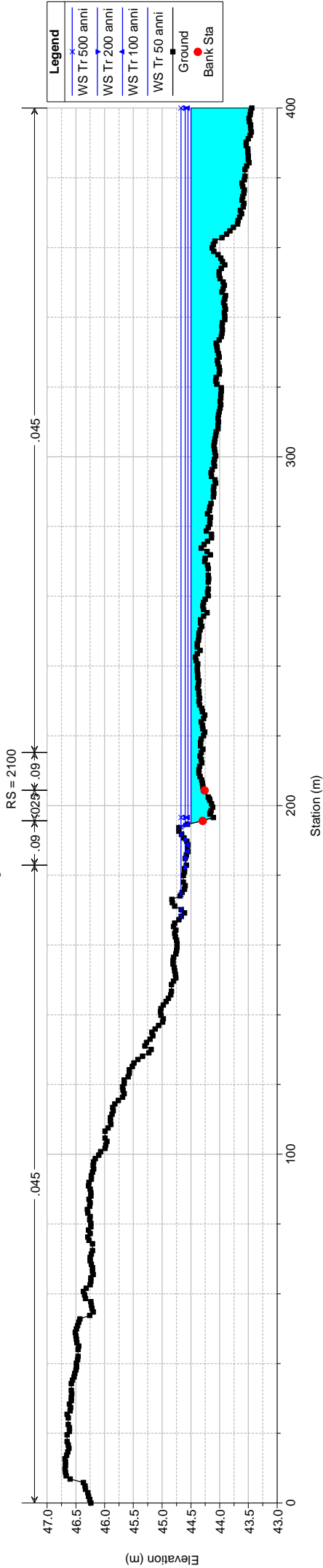
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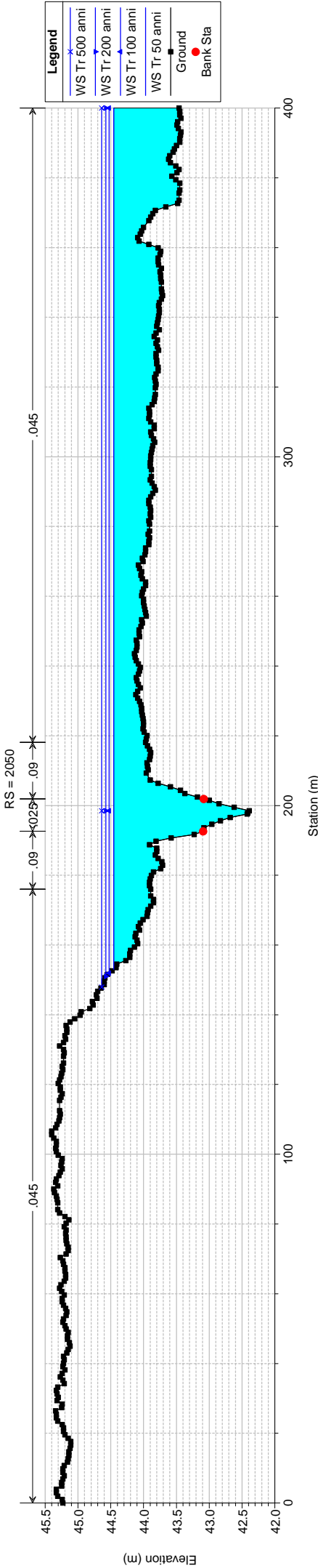
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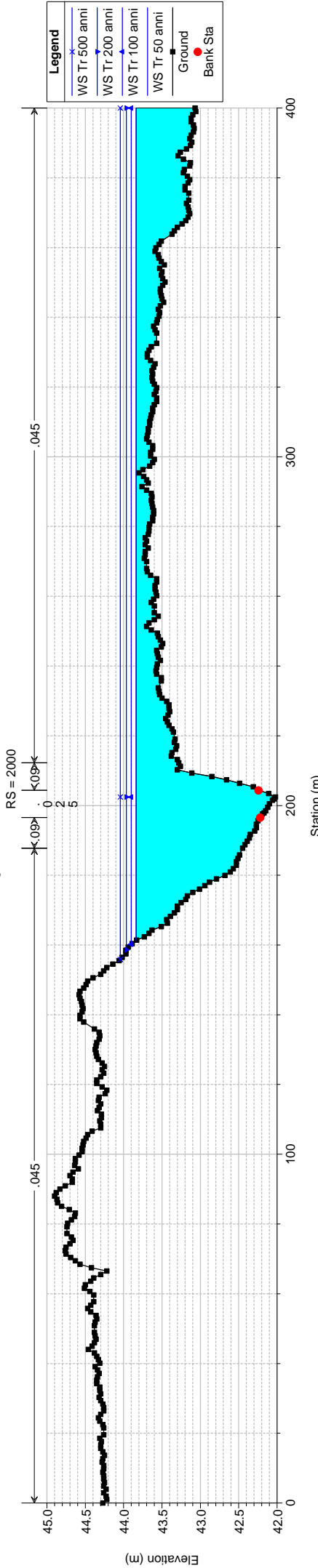
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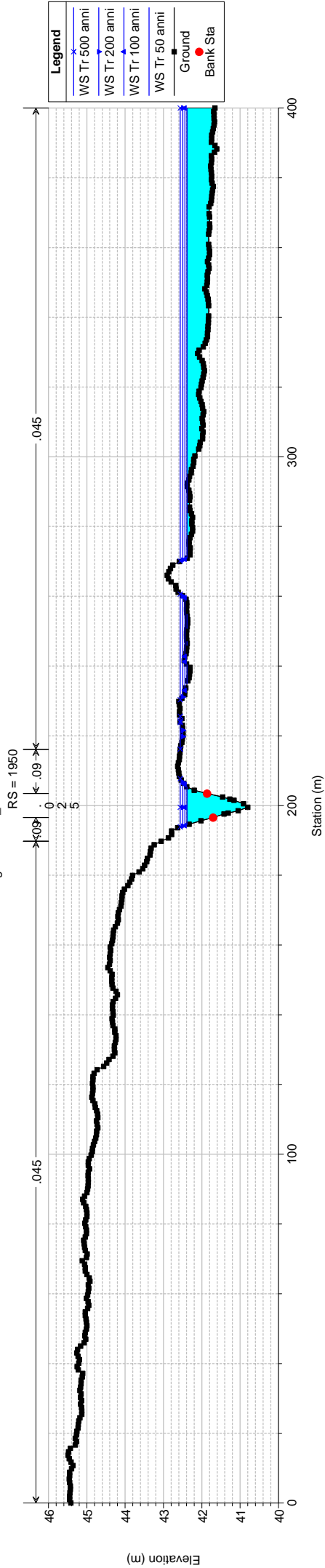
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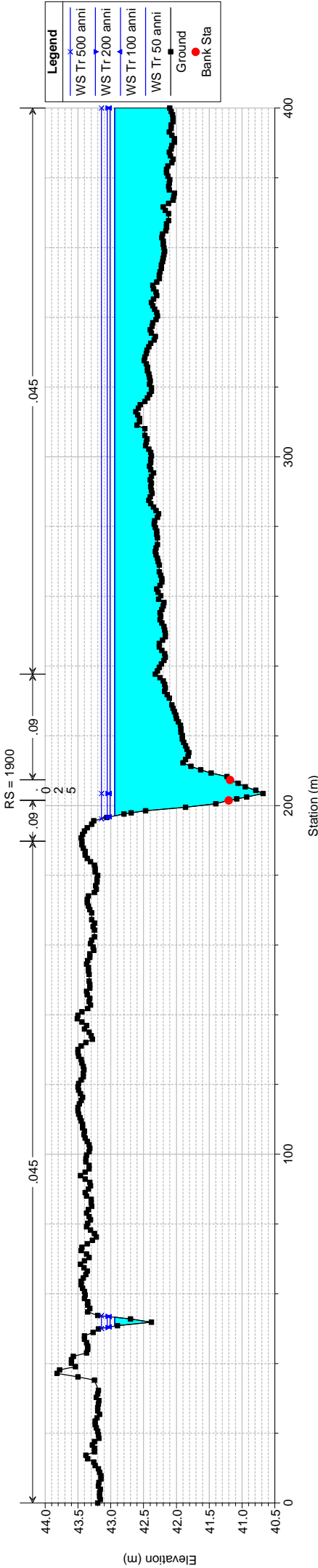
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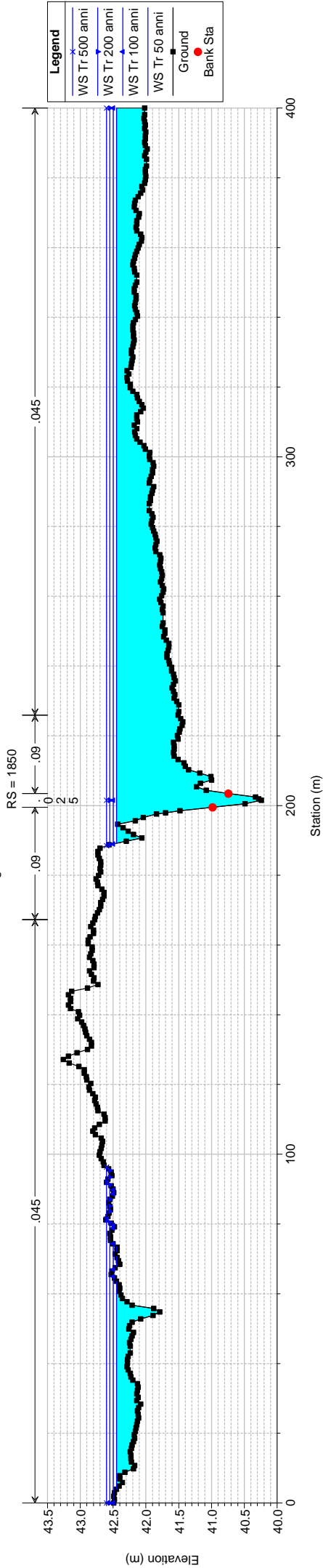
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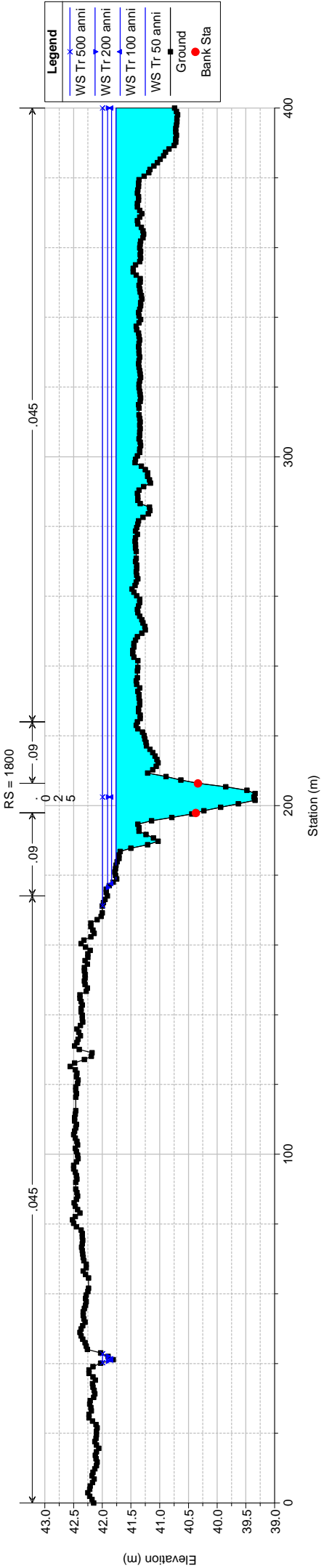
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