

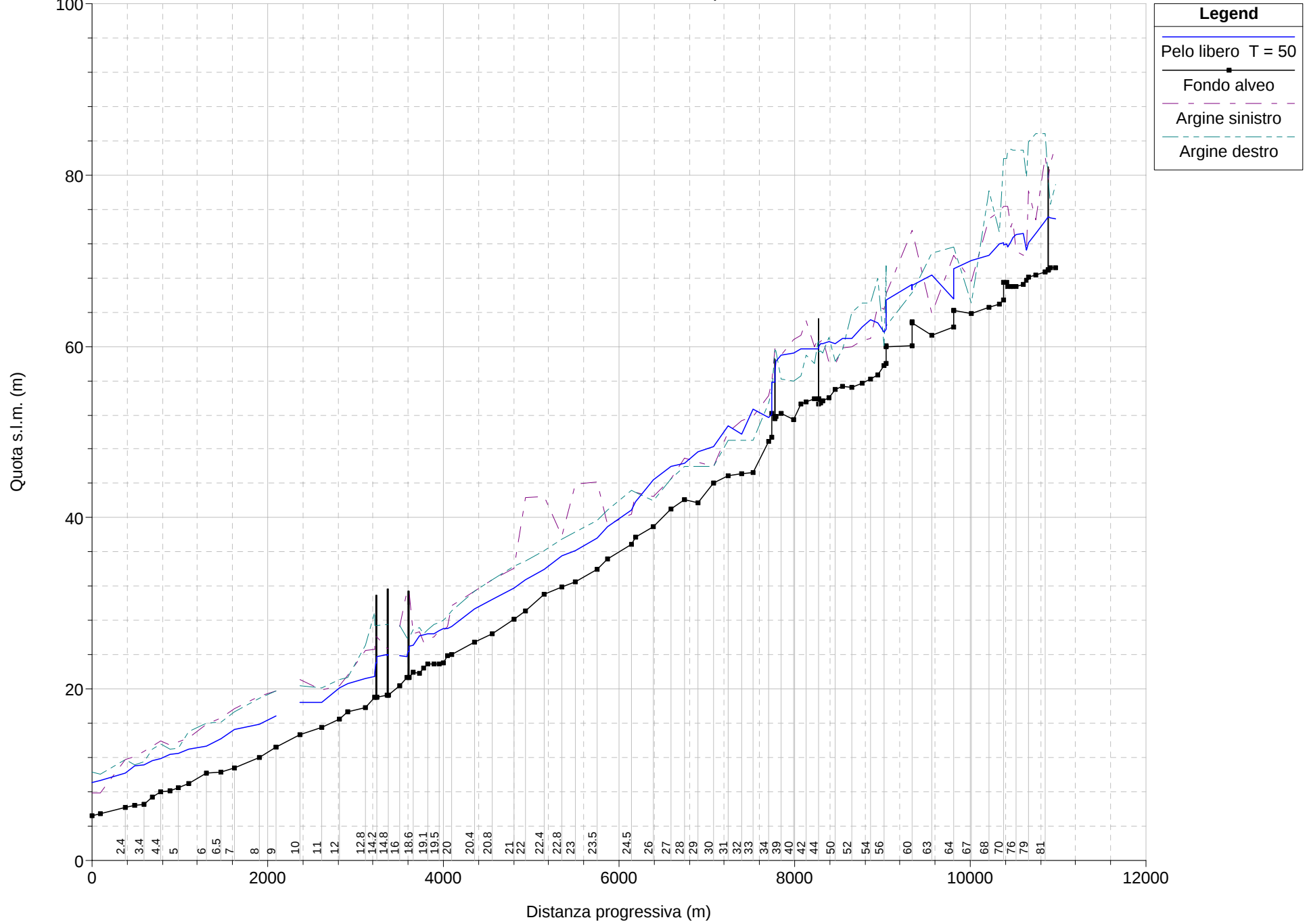


PROVINCIA DI SAVONA
PIANO DI BACINO STRALCIO SUL RISCHIO IDROGEOLOGICO
ALLEGATO VERIFICHE IDRAULICHE

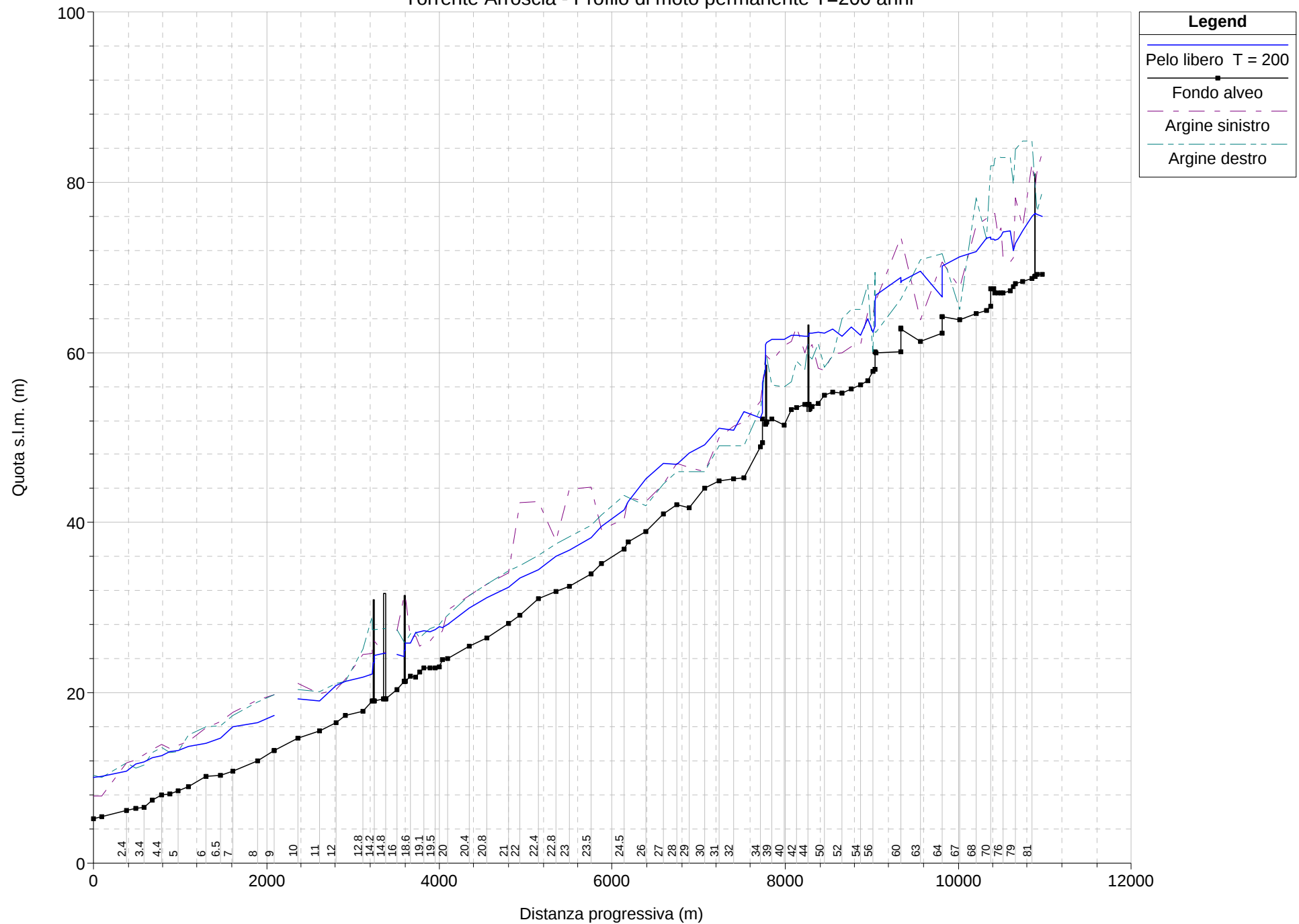
2. TORRENTE ARROSCIA

**2.1 PROFILI DI RIGURGITO IN CONDIZIONI DI MOTO
PERMANENTE PER LE PORTATE T=50, 200, 500 ANNI**

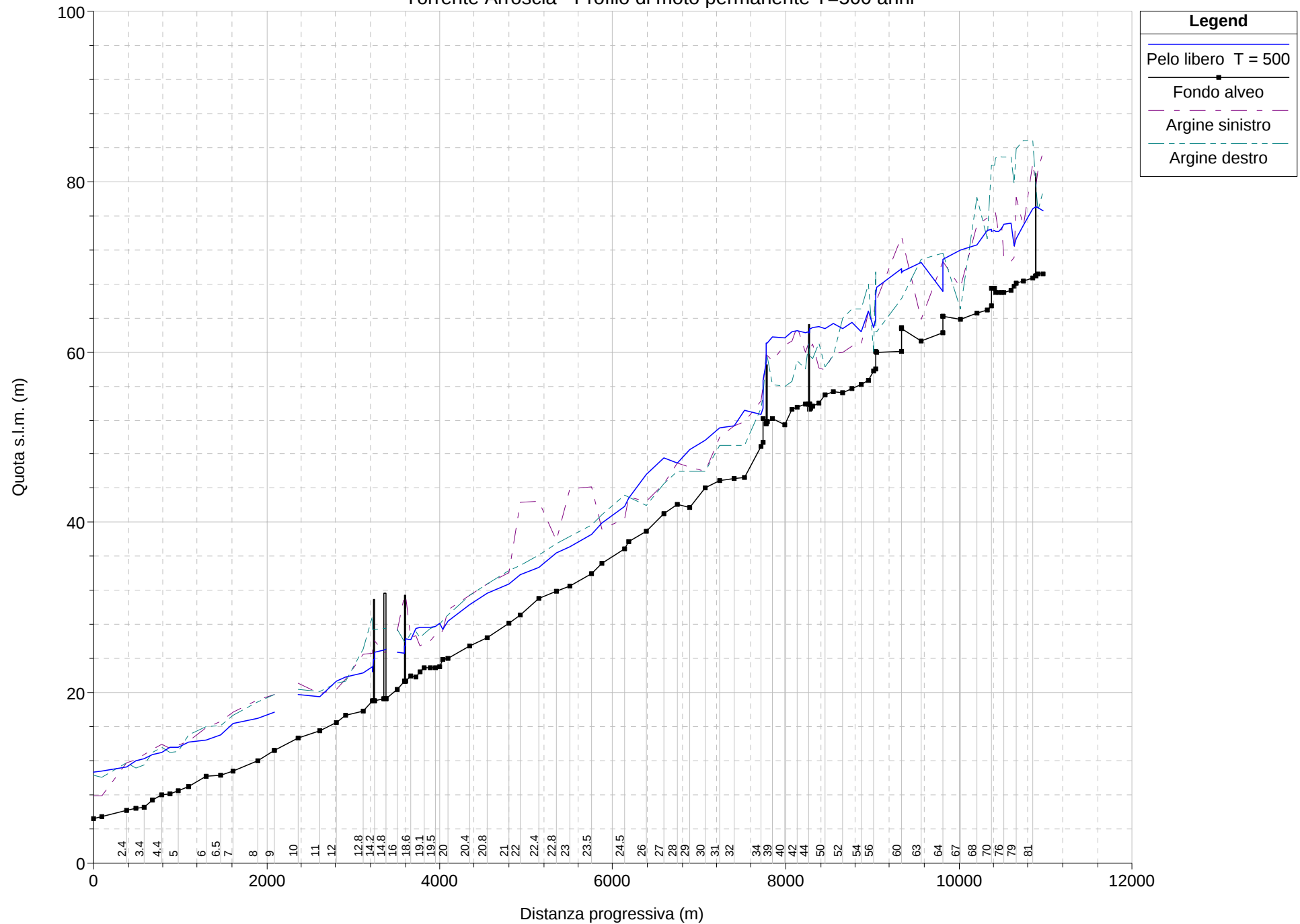
Torrente Arroscia - Profilo di moto permanente T=50 anni



Torrente Arroscia - Profilo di moto permanente T=200 anni



Torrente Arroscia - Profilo di moto permanente T=500 anni





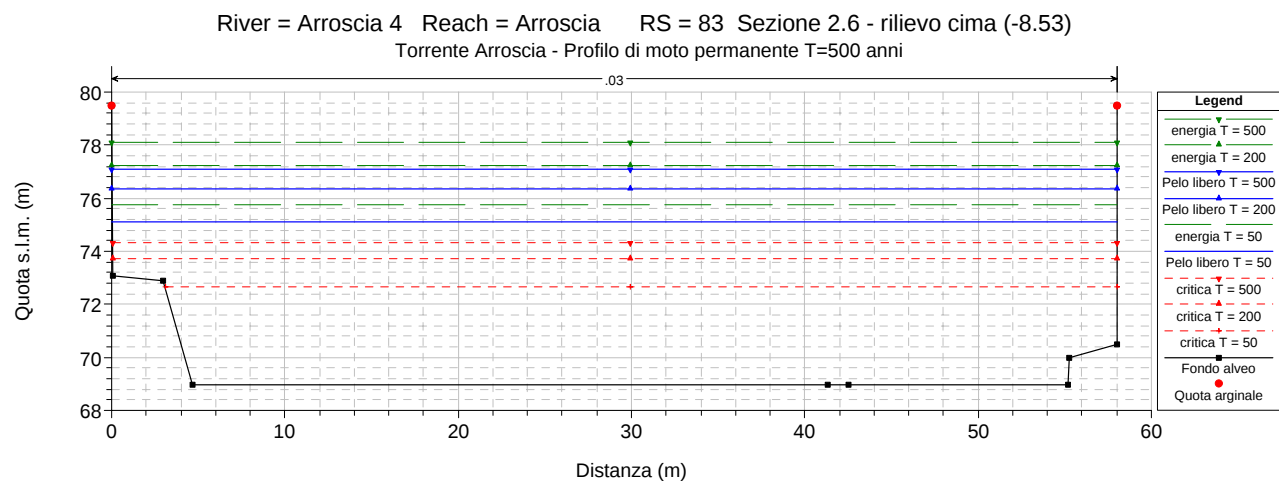
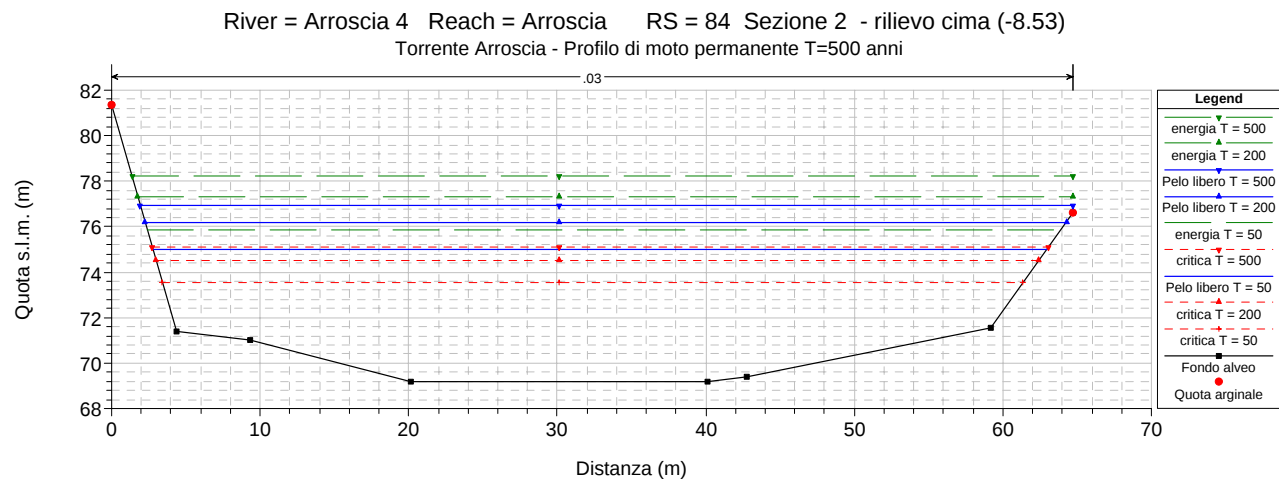
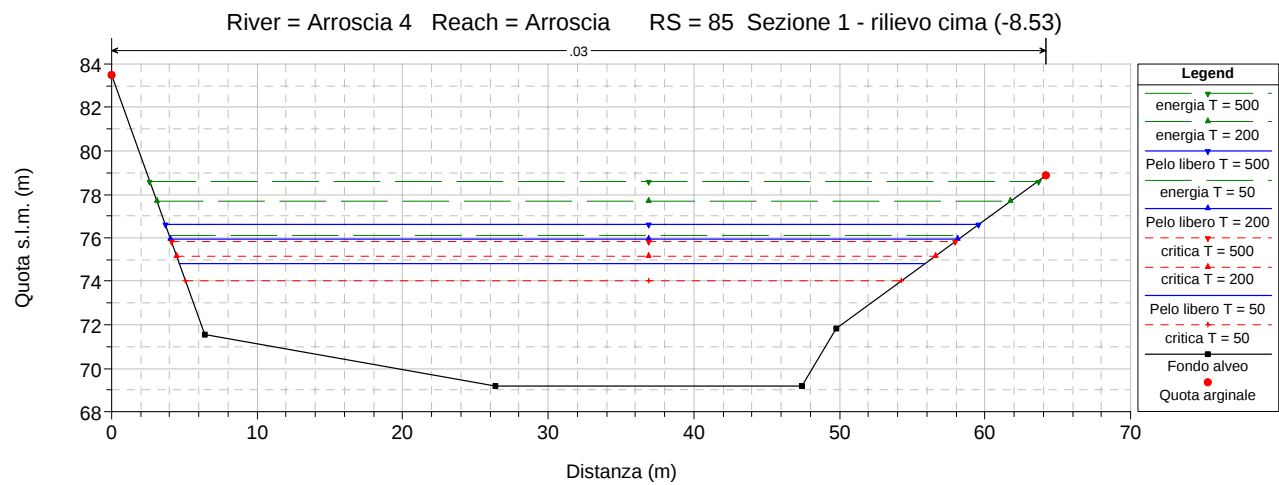
PROVINCIA DI SAVONA
PIANO DI BACINO STRALCIO SUL RISCHIO IDROGEOLOGICO
ALLEGATO VERIFICHE IDRAULICHE

2. TORRENTE ARROSCIA

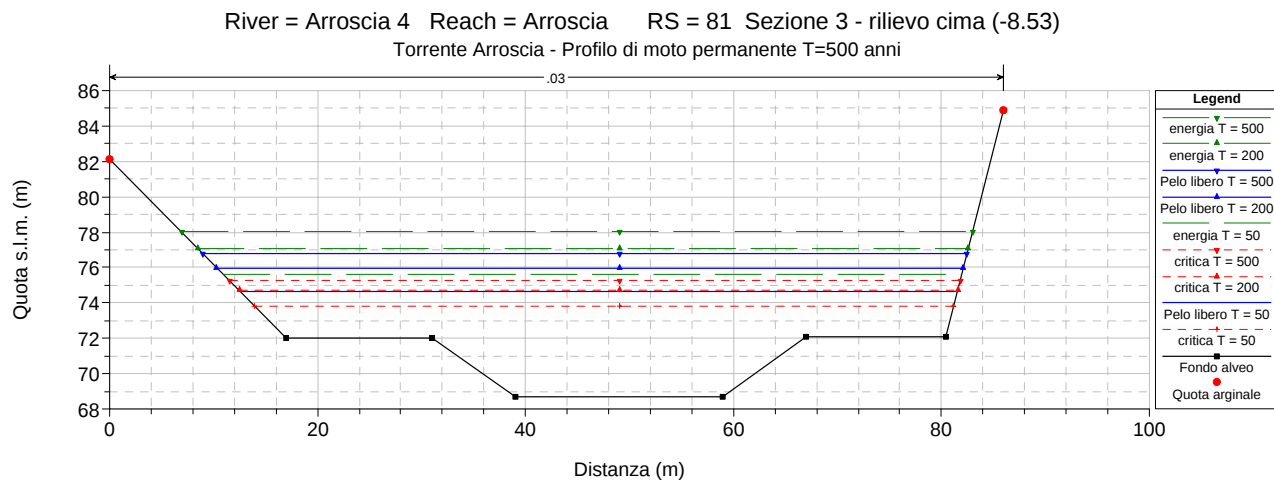
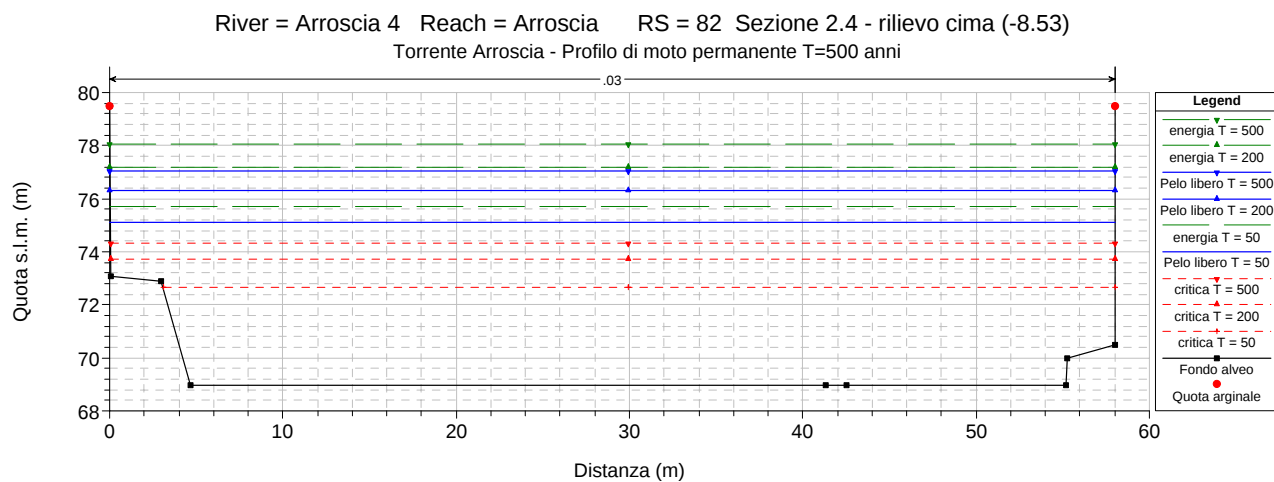
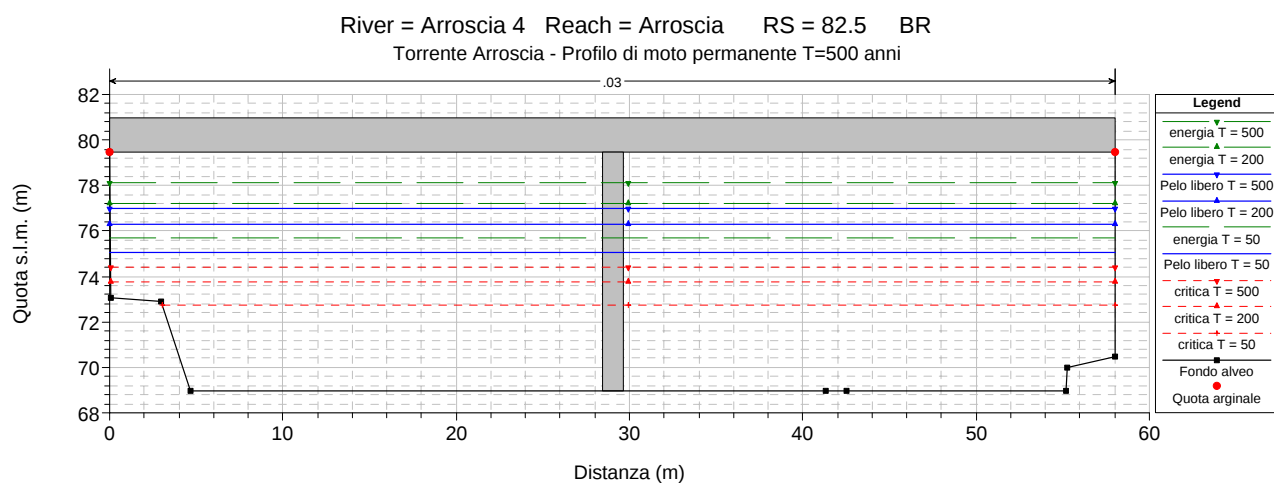
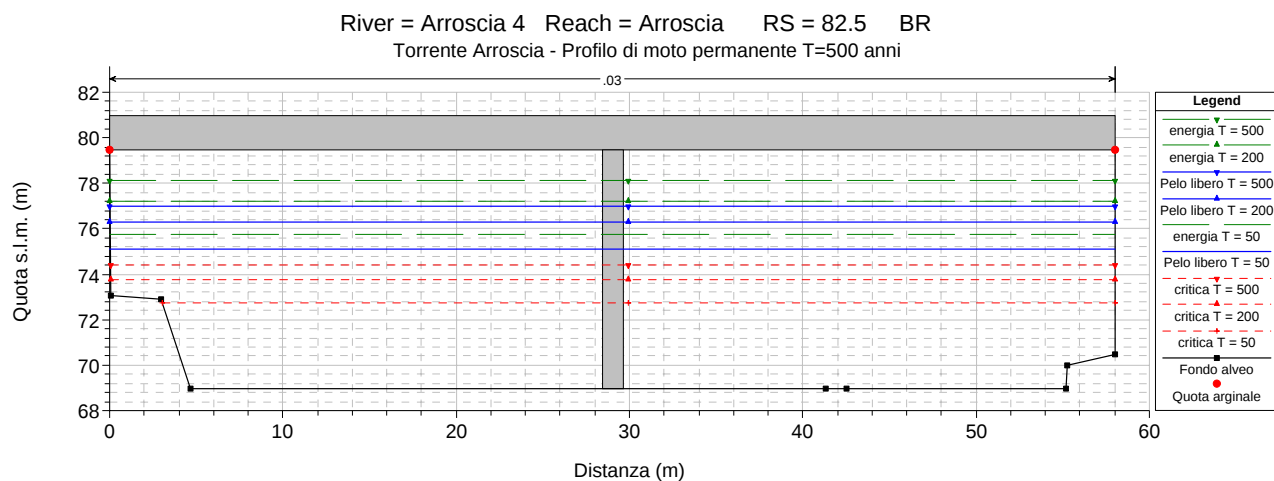
- 2.2 GEOMETRIA DELLE SEZIONI ED ALTEZZA DEL PELO LIBERO IN CONDIZIONI DI MOTO PERMANENTE PER LE PORTATE T=50, 200, 500 ANNI.**
(dalla sezione 1 alla sezione 85)

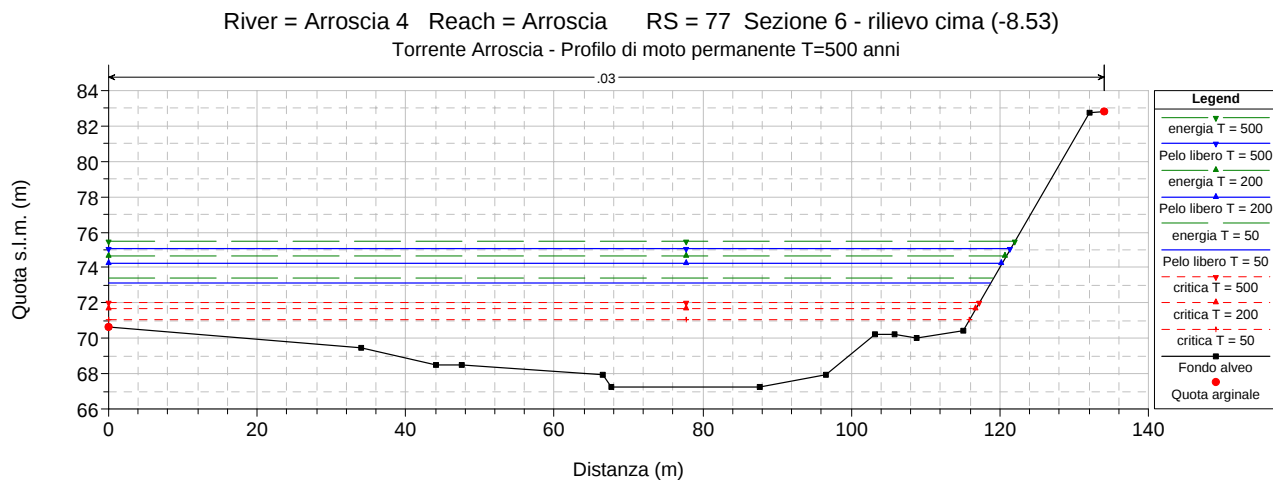
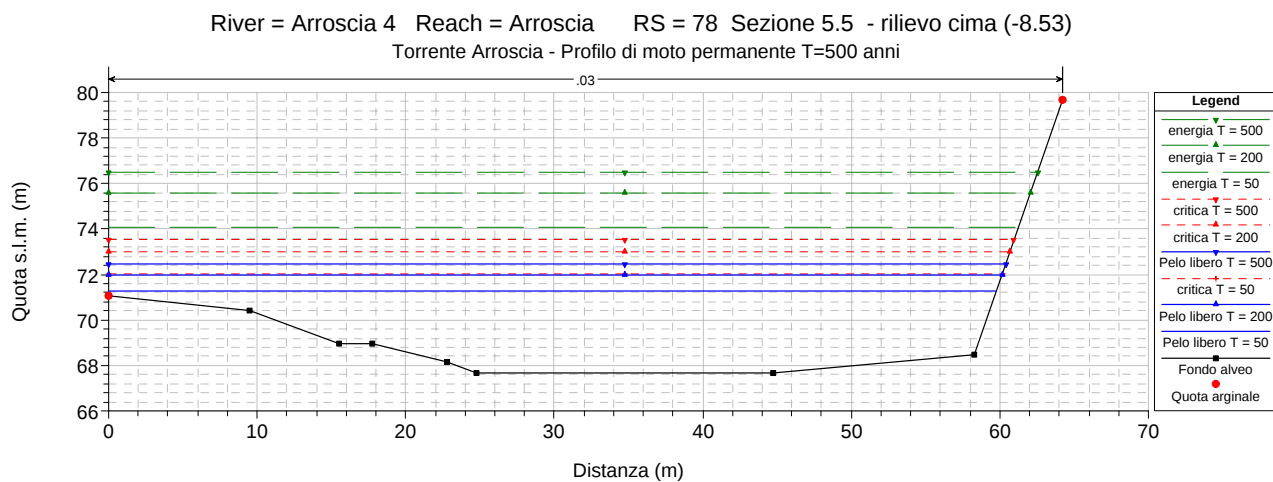
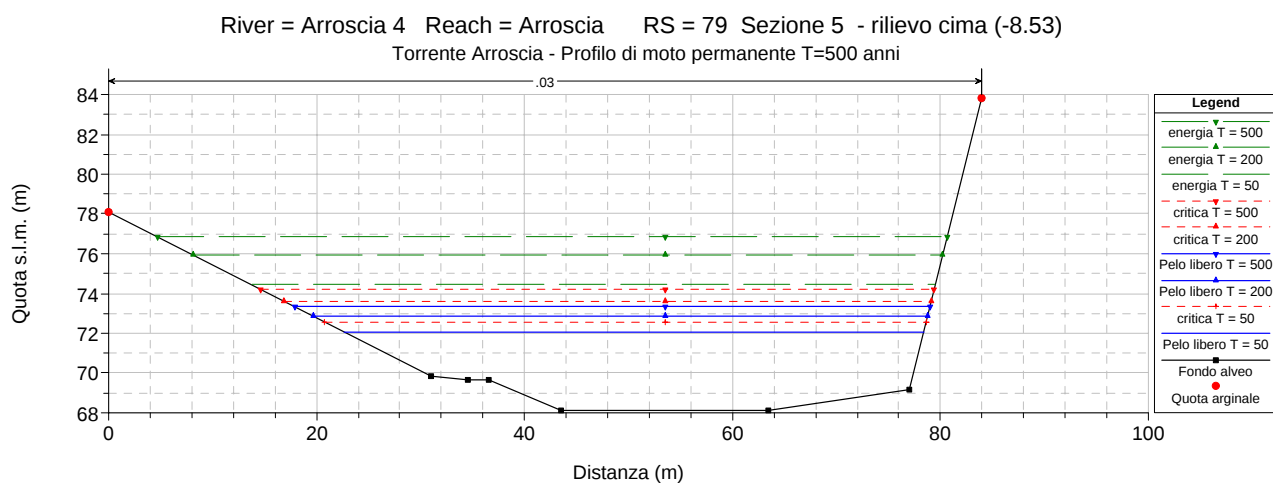
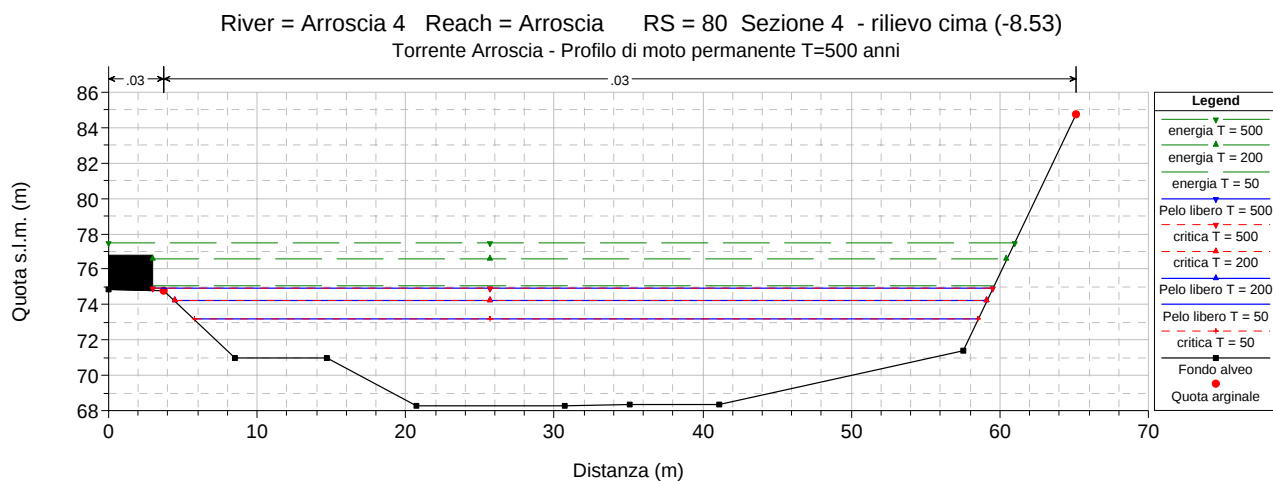
TORRENTE ARROSCIA

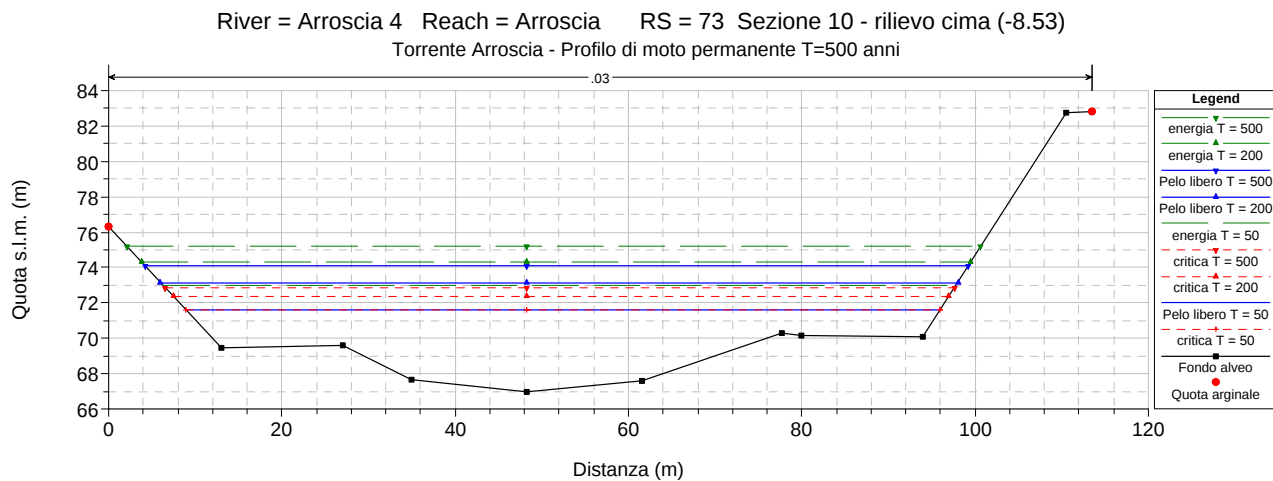
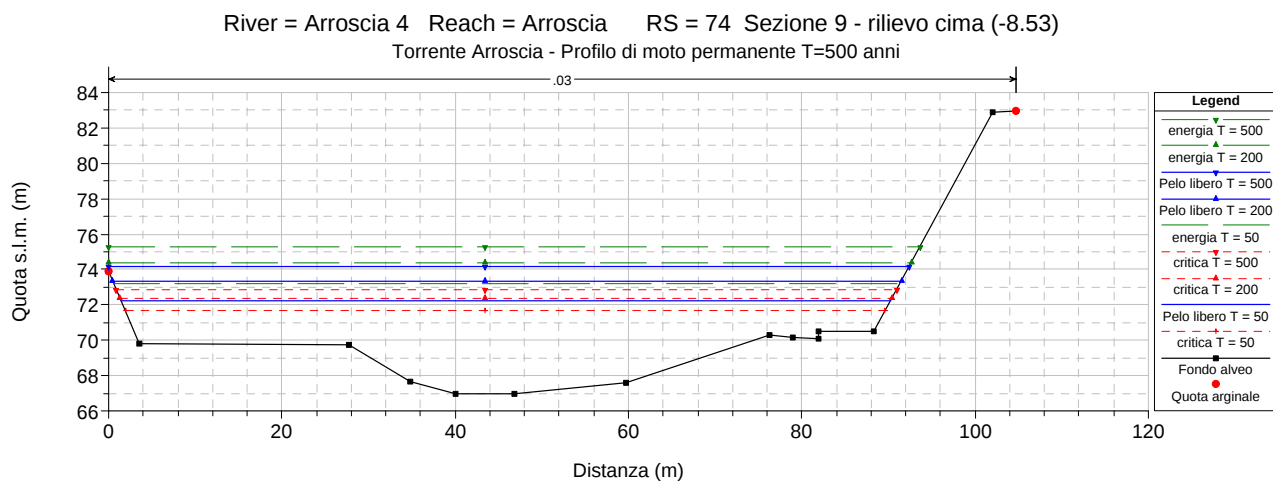
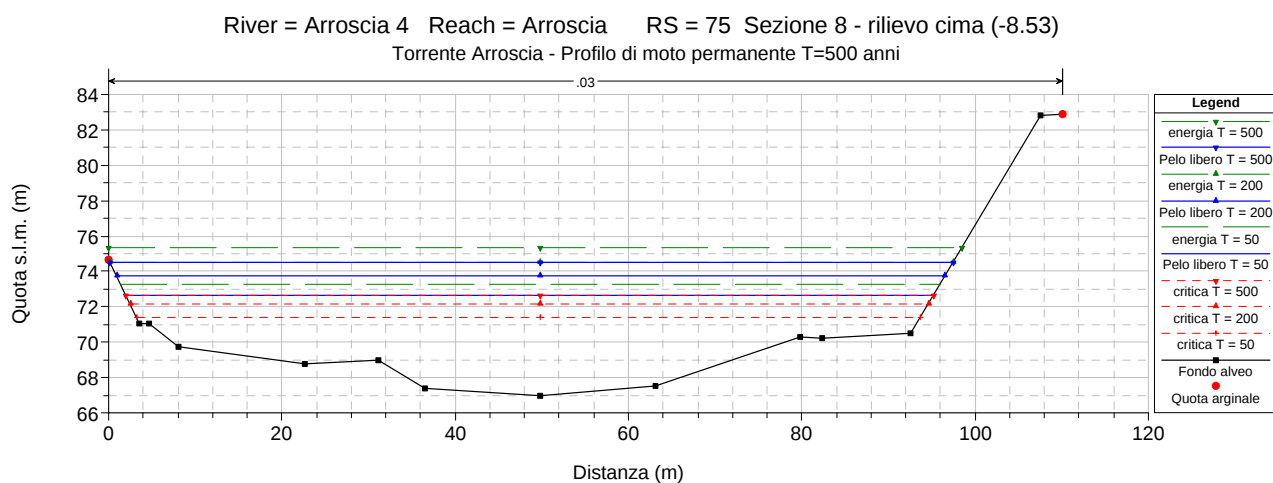
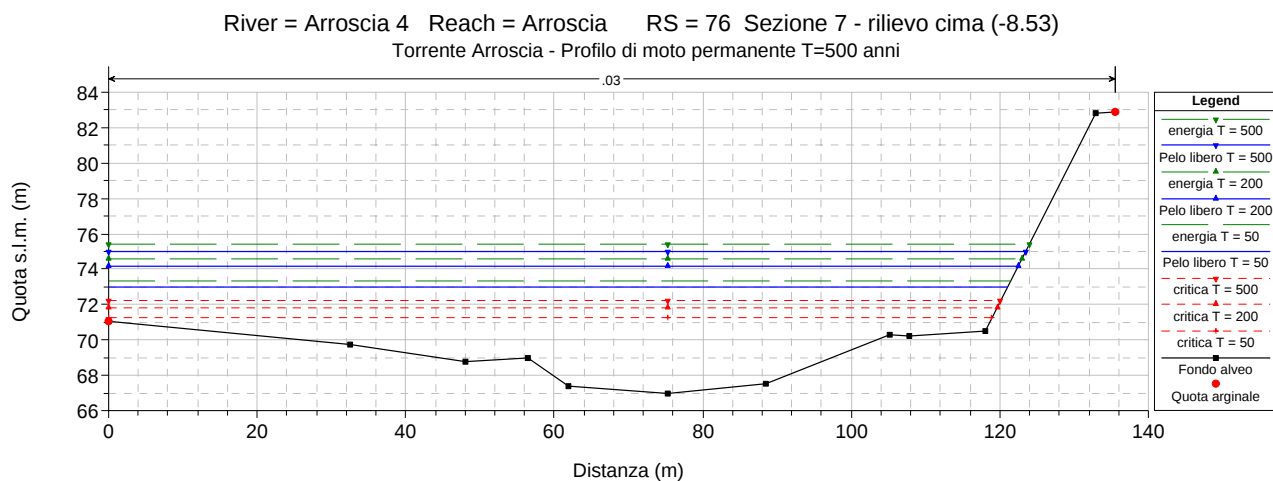
Sezioni trasversali



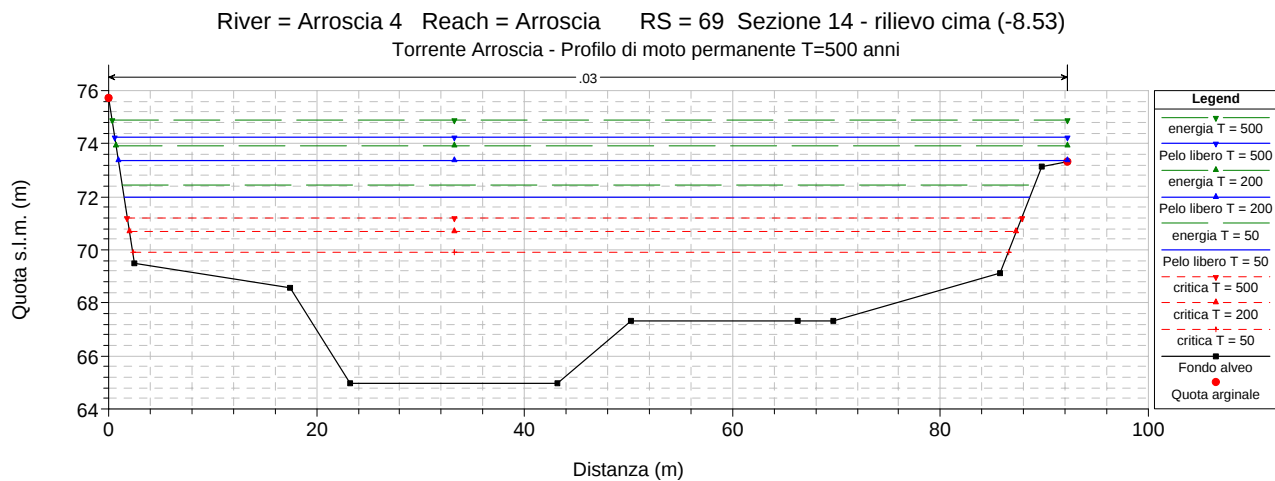
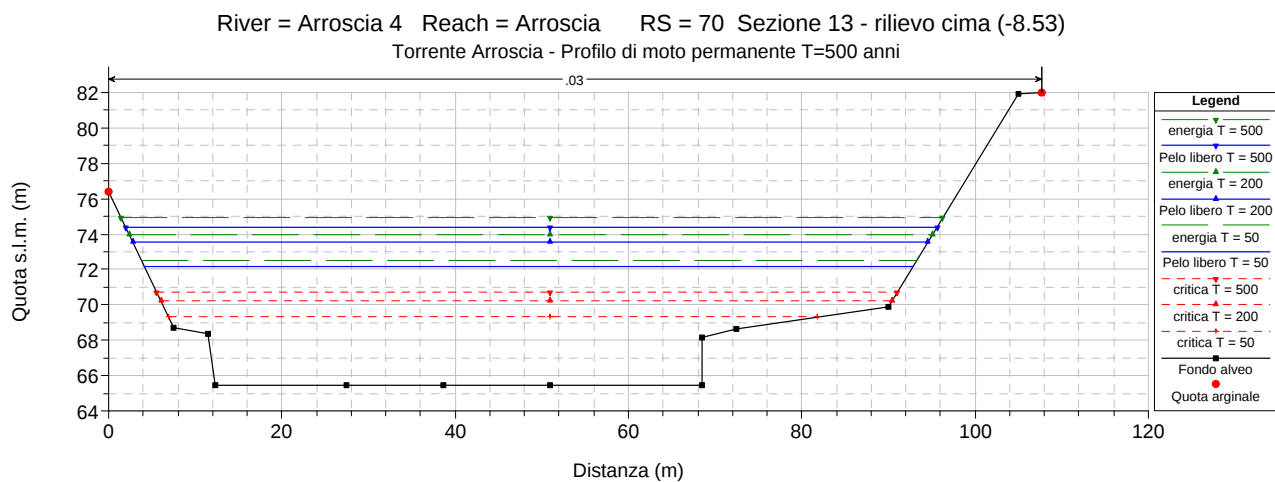
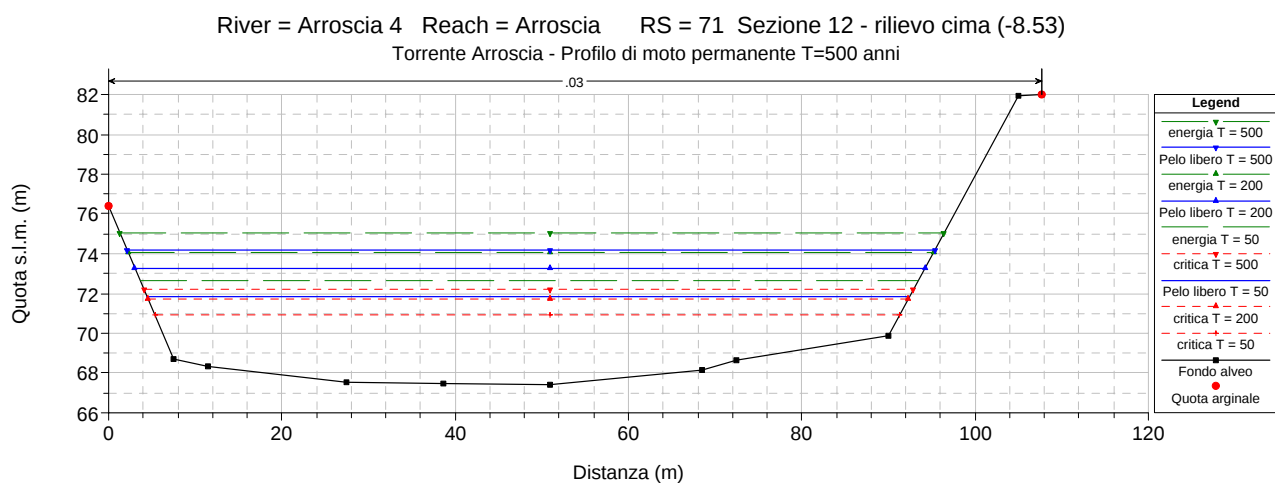
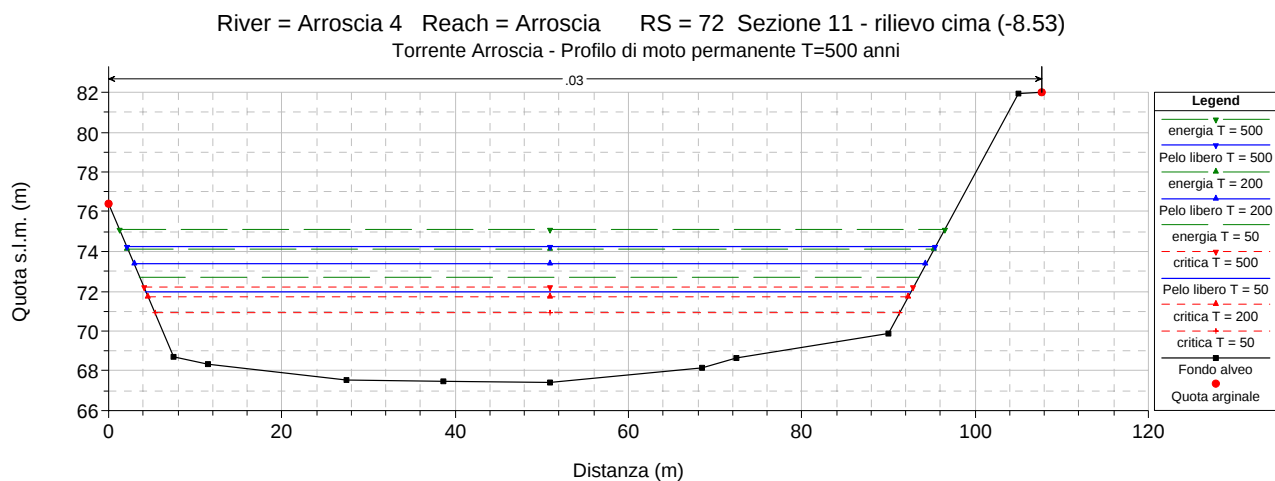
Torrente Arroscia – verifica idraulica – sezioni trasversali

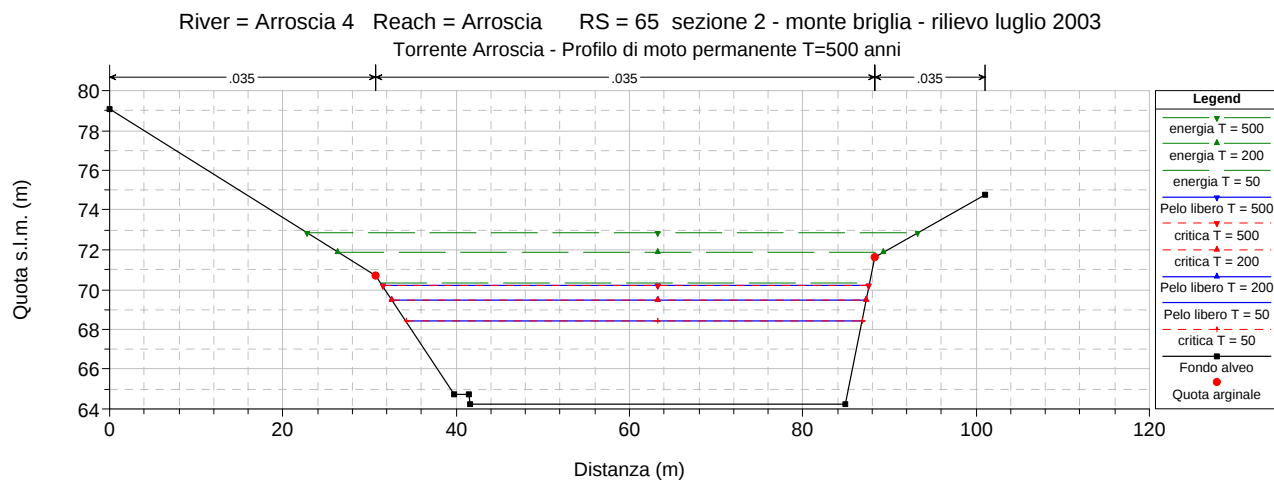
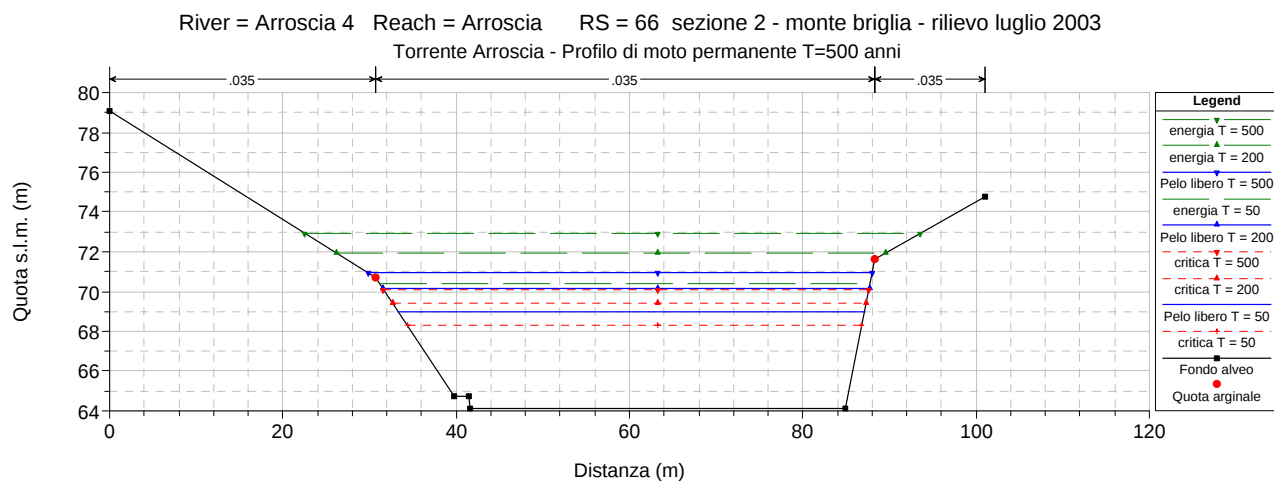
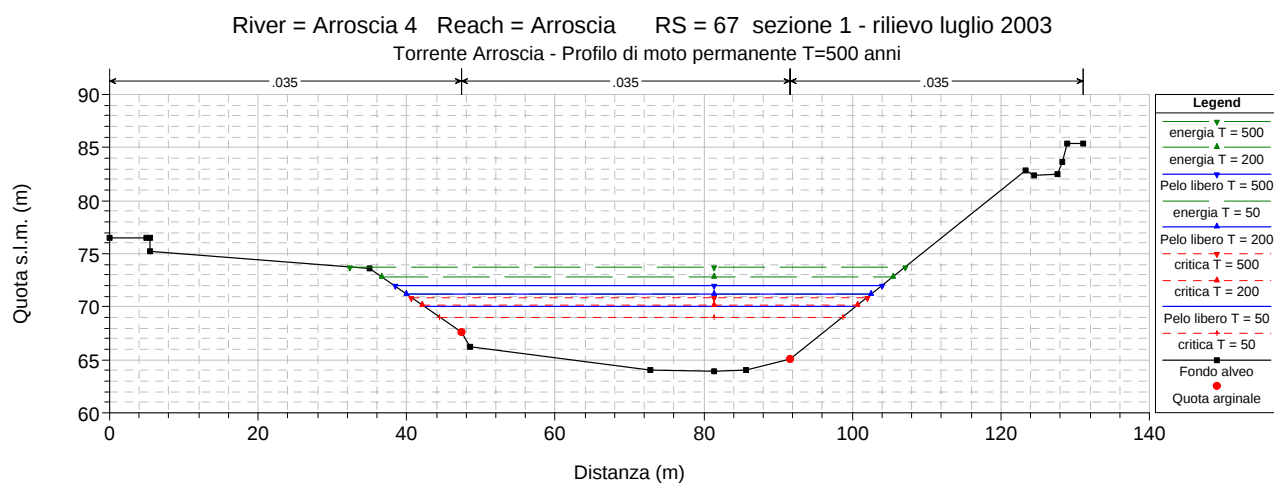
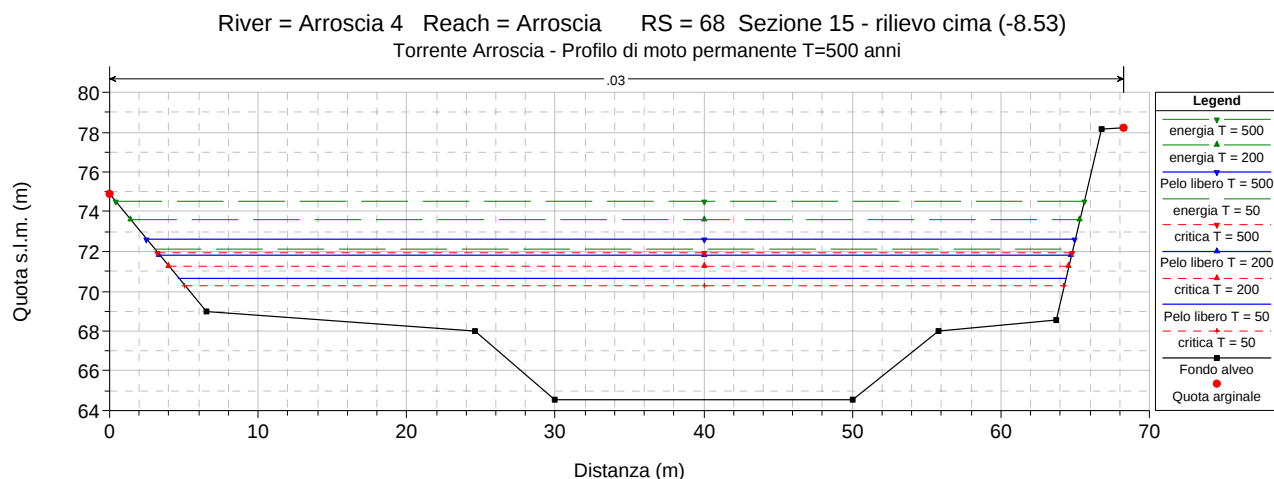


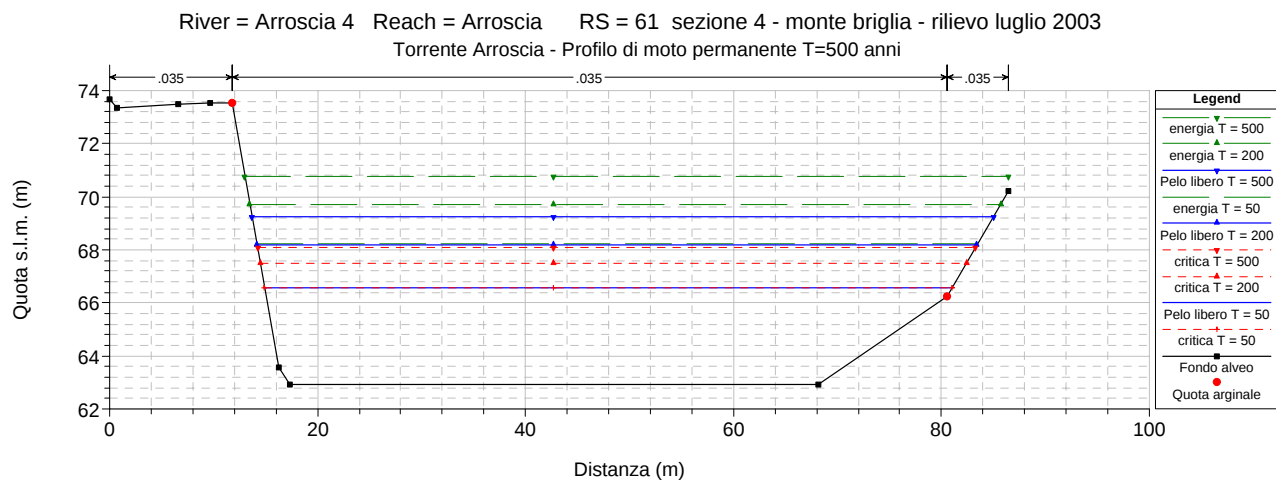
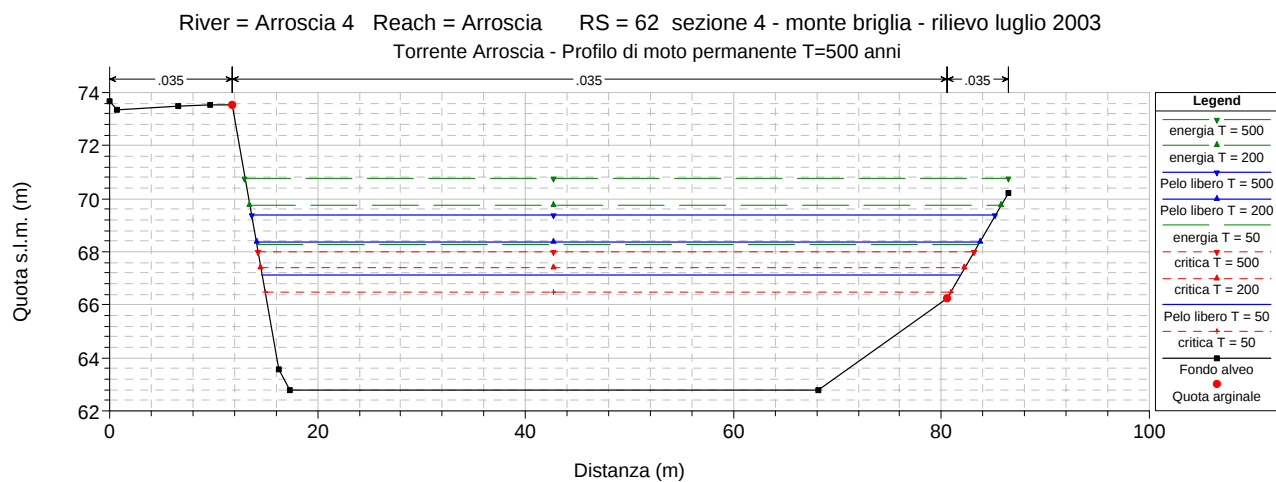
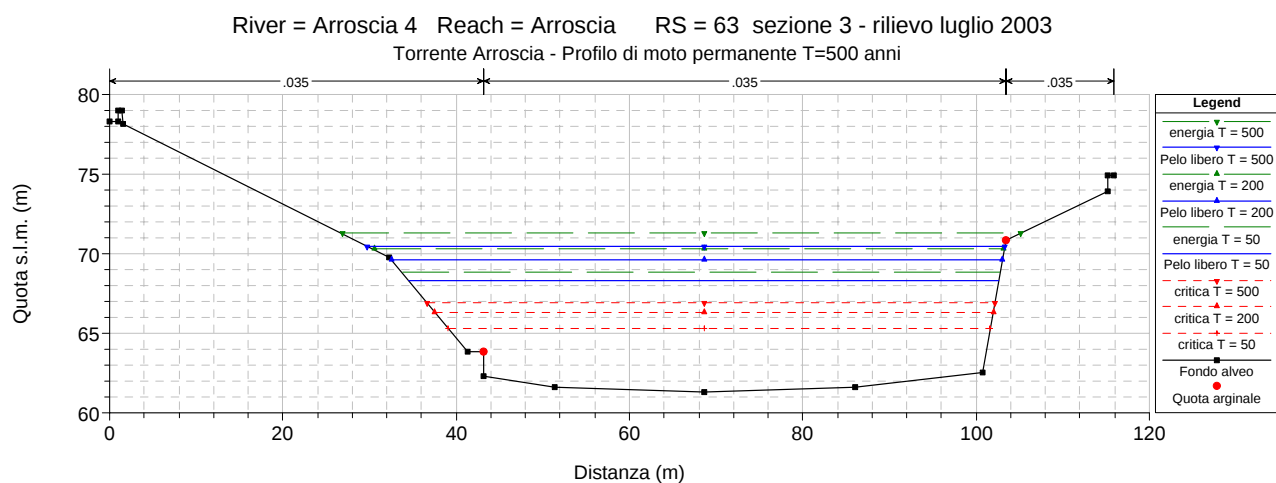
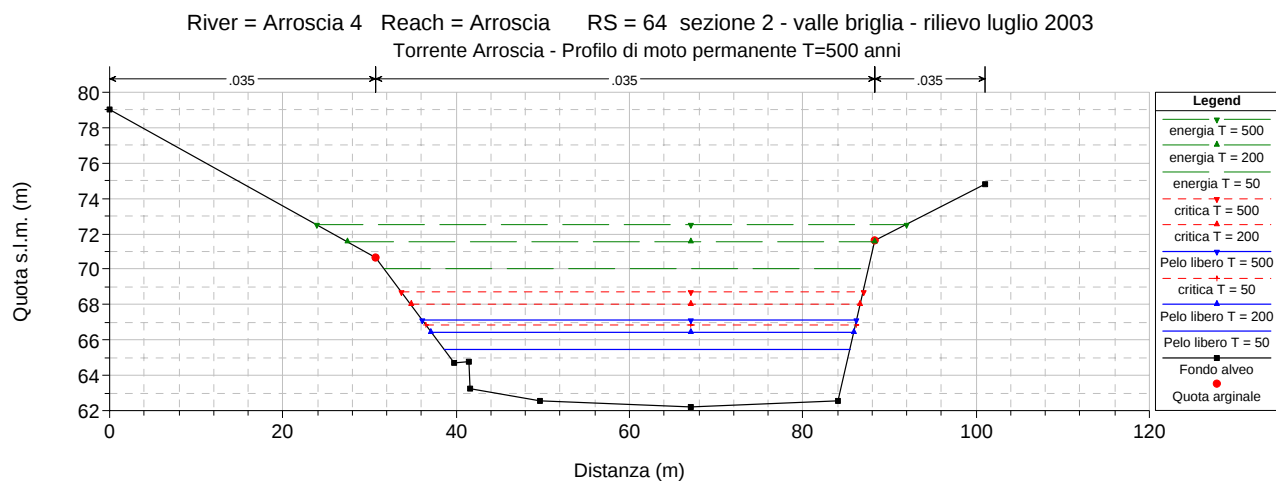




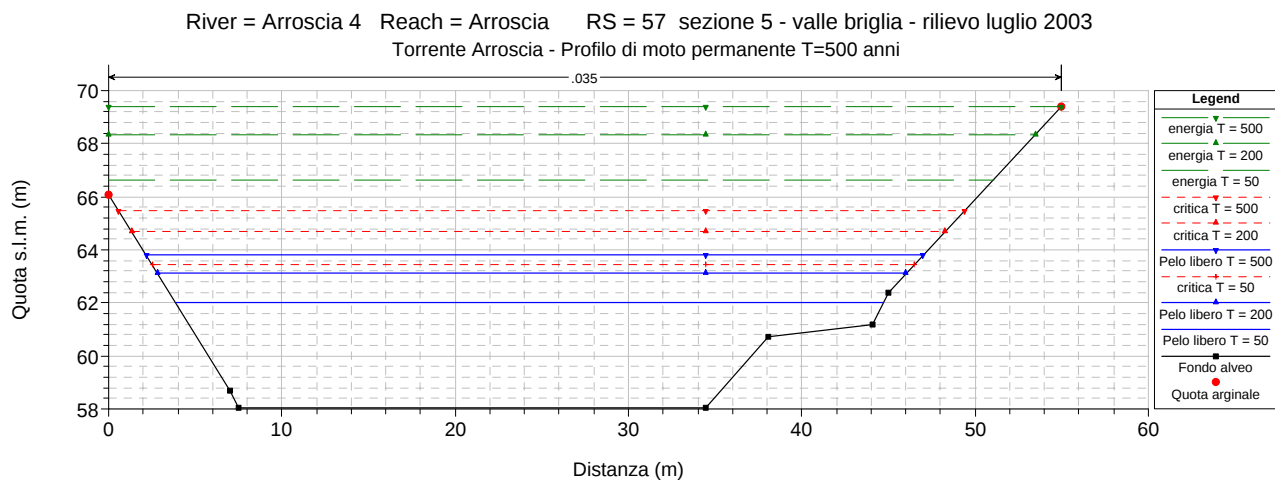
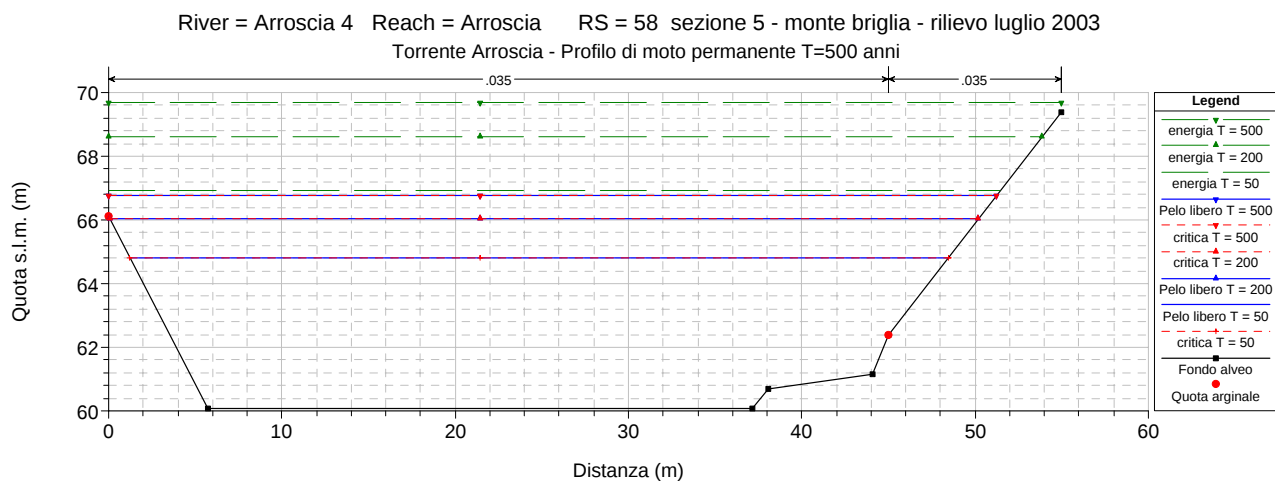
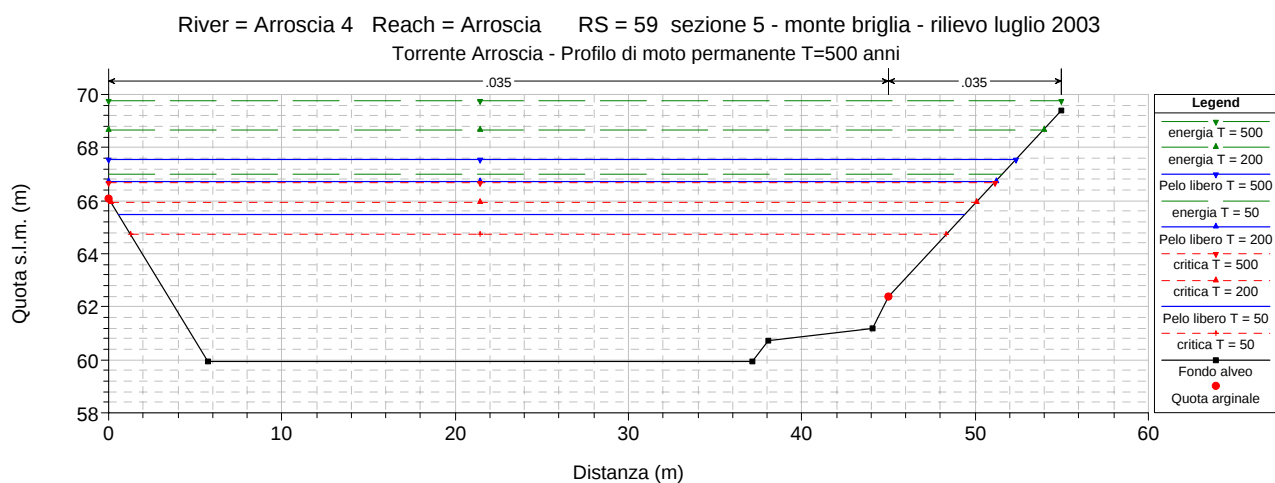
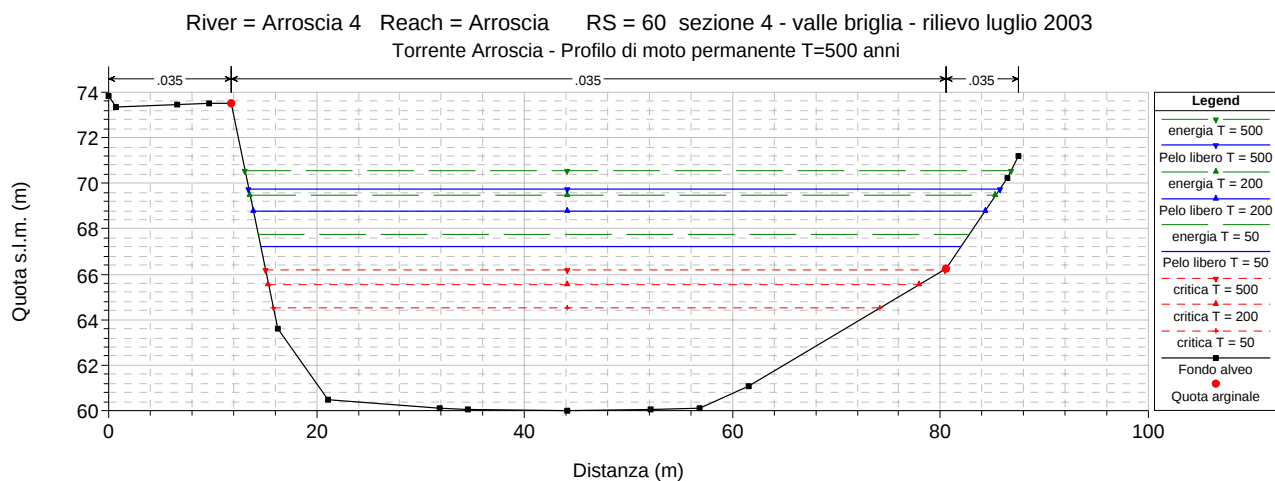
Torrente Arroscia – verifica idraulica – sezioni trasversali

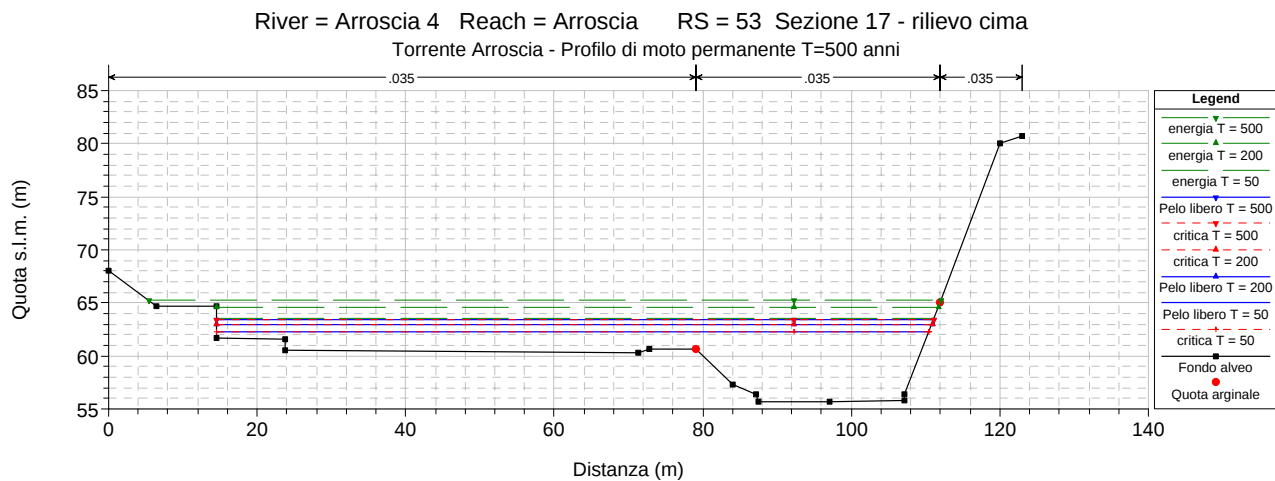
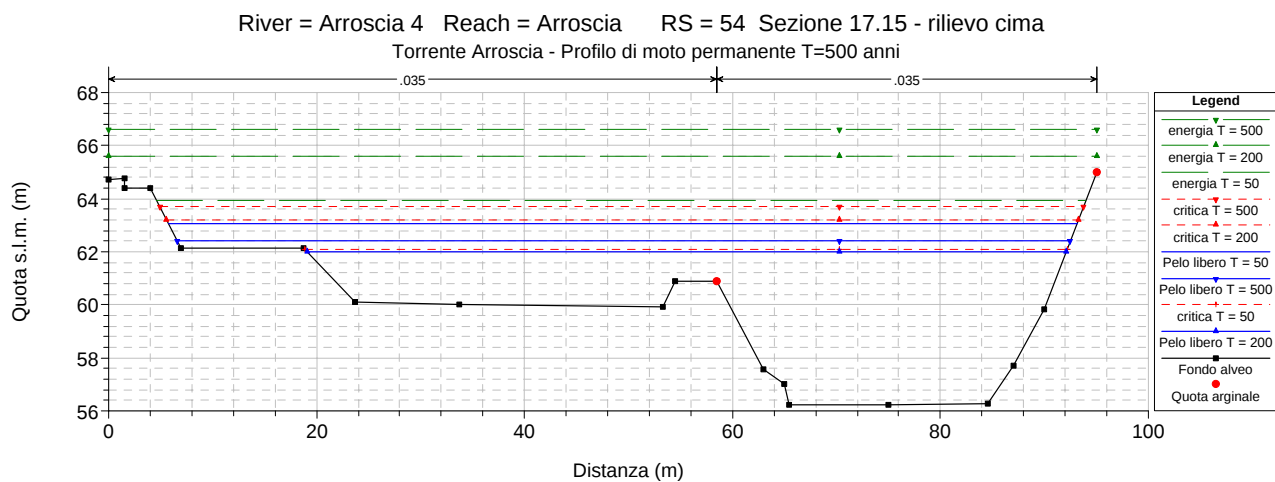
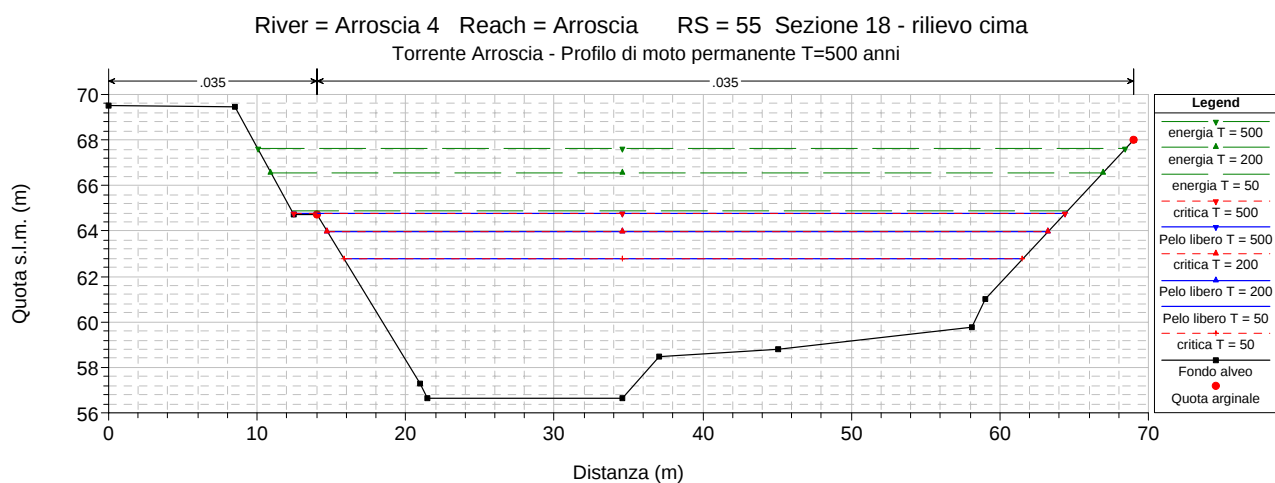
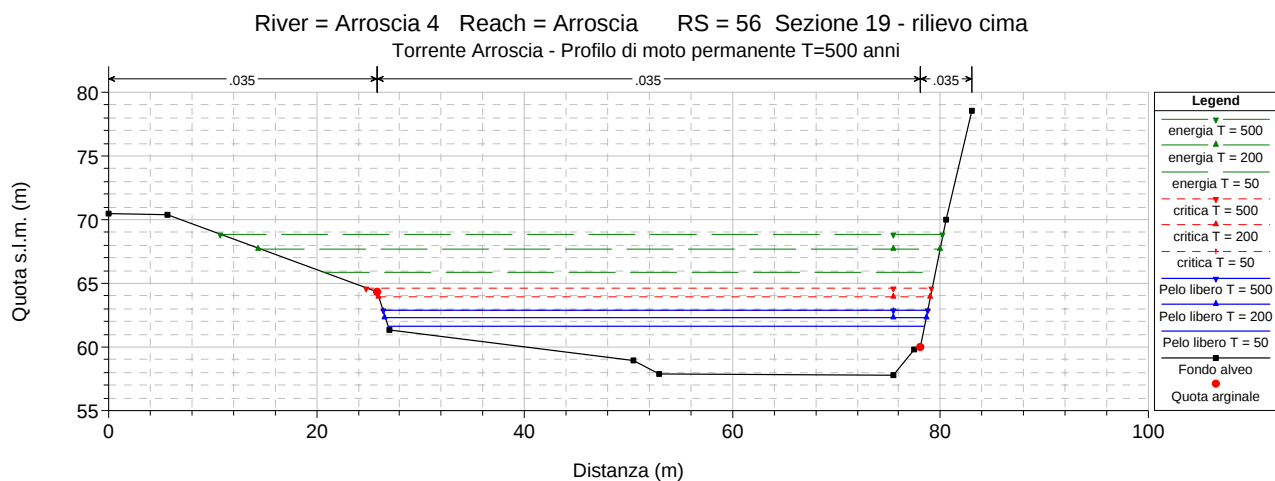


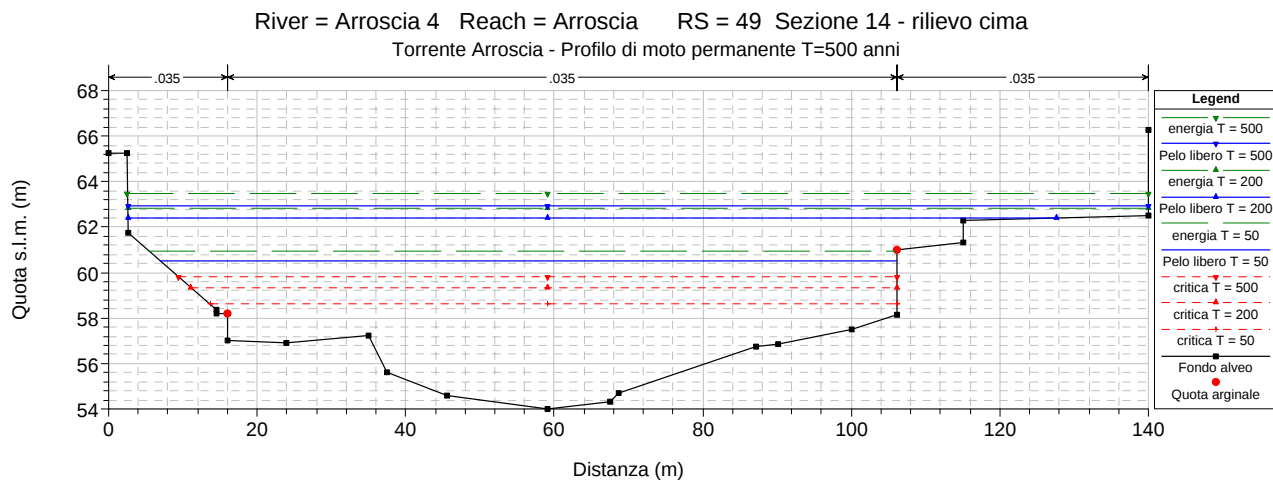
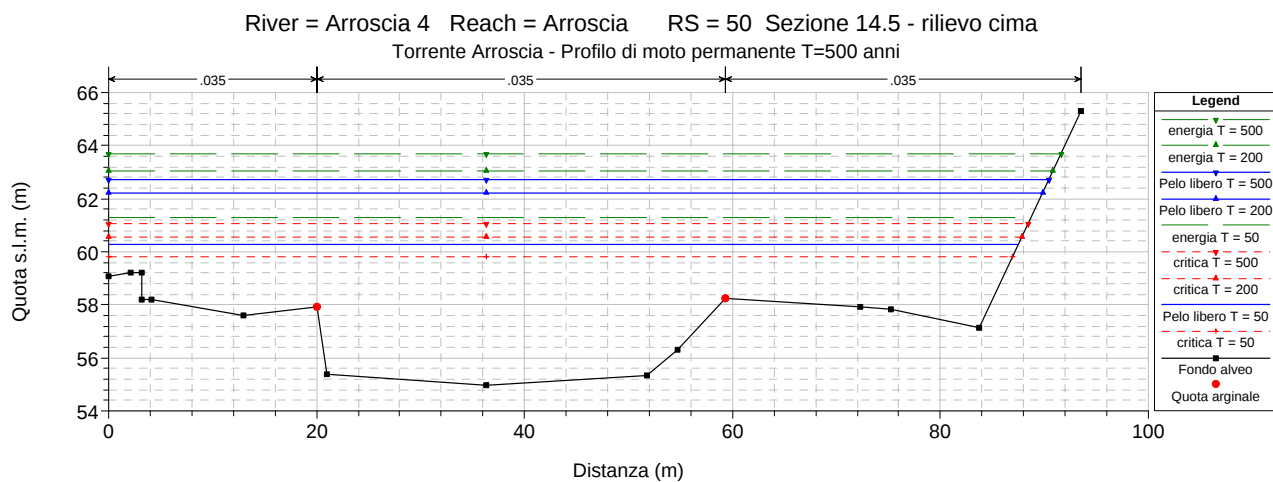
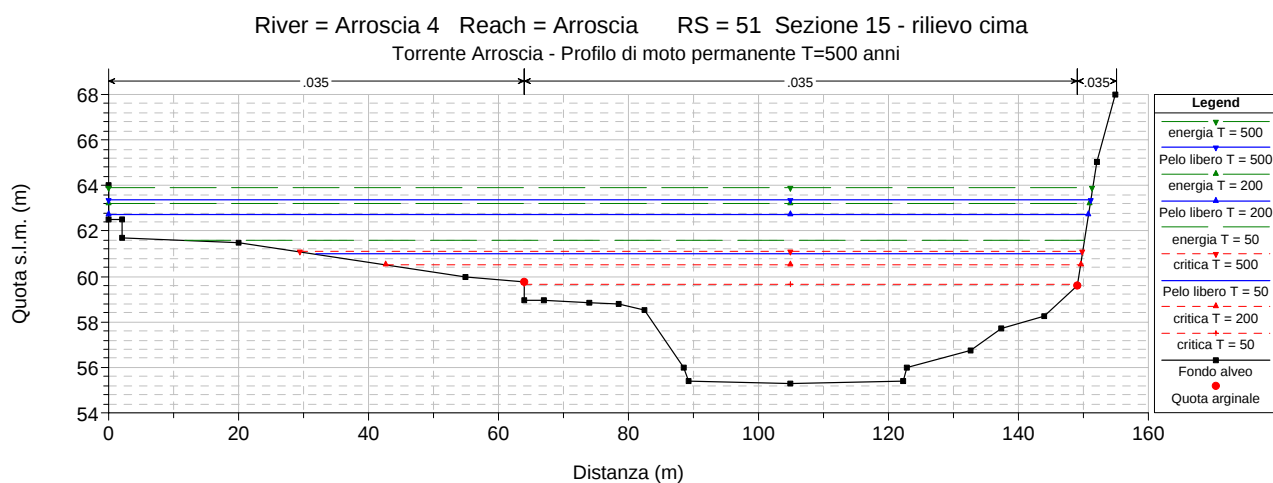
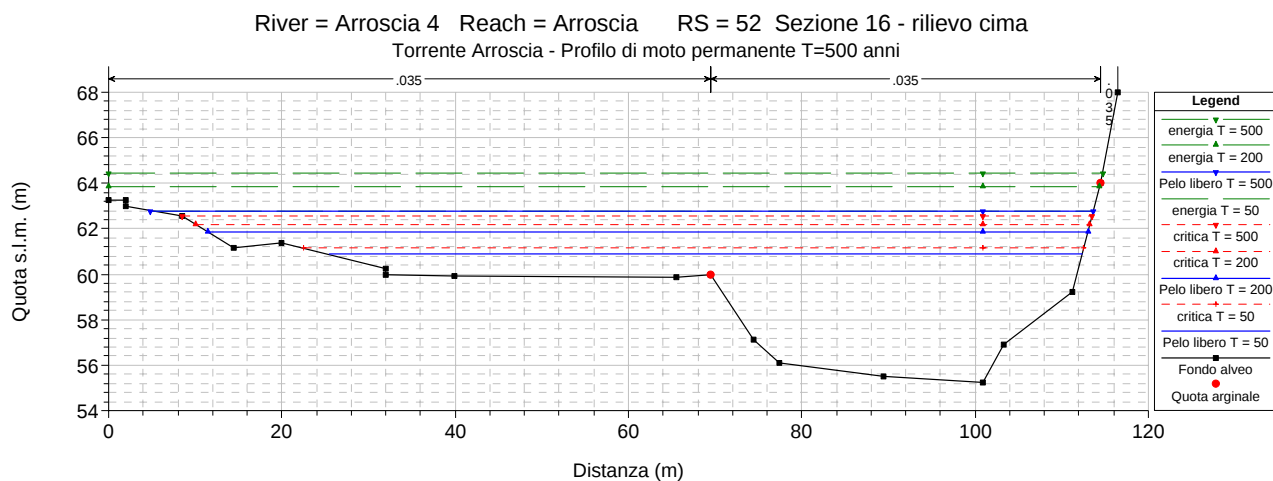


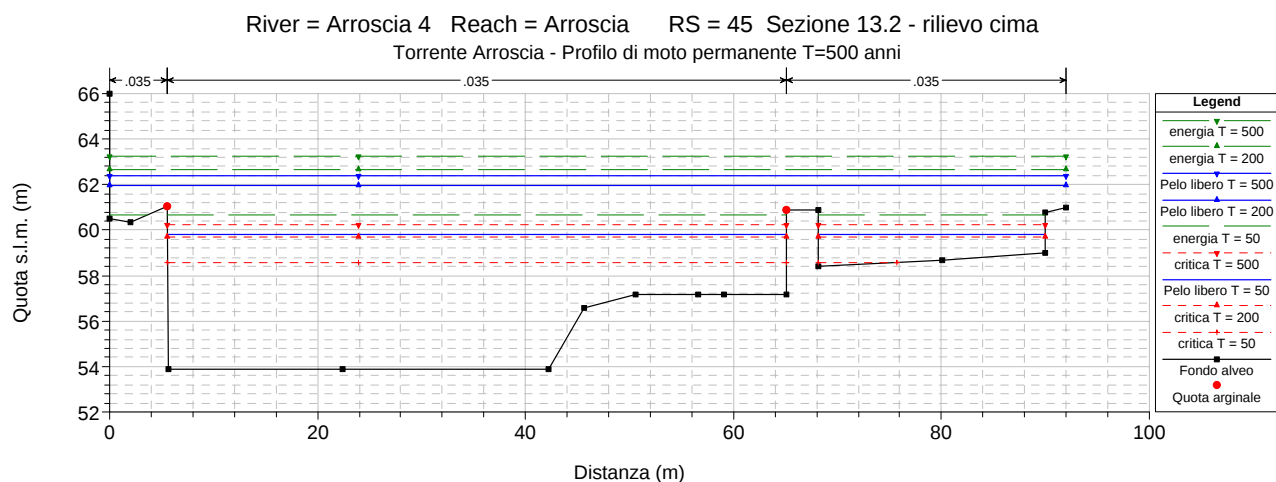
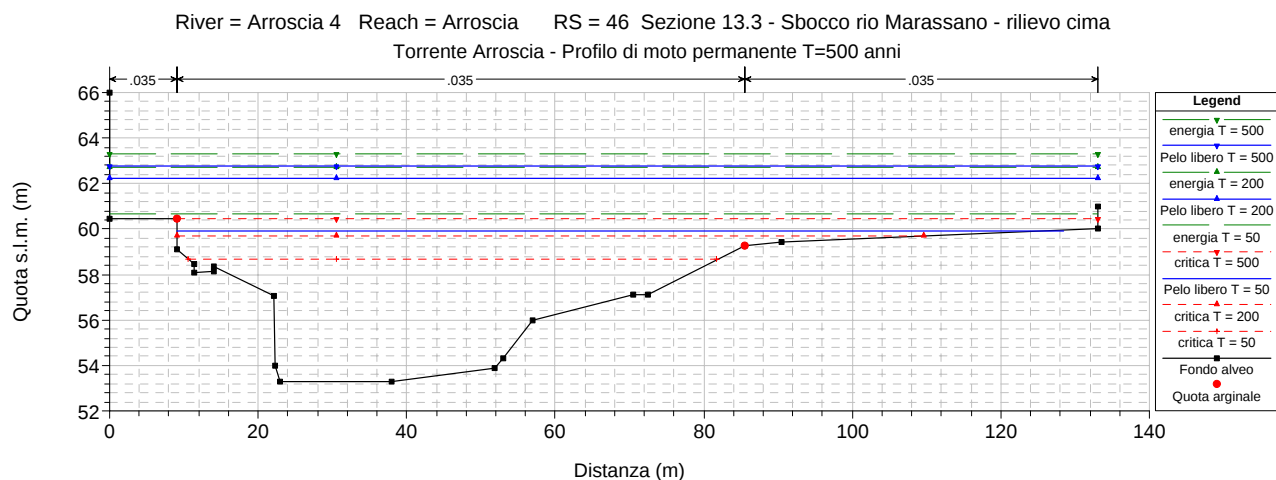
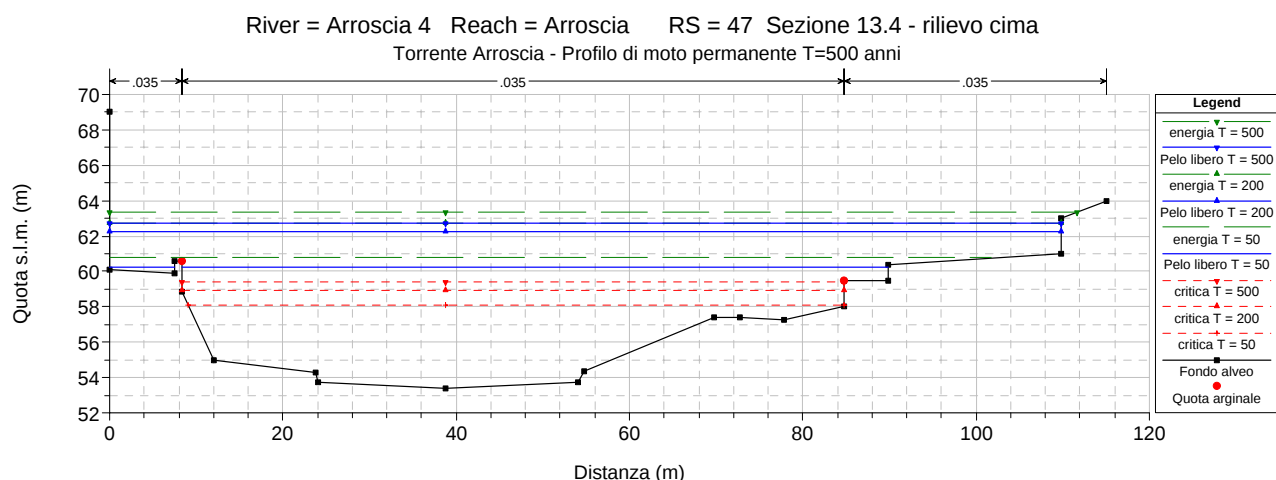
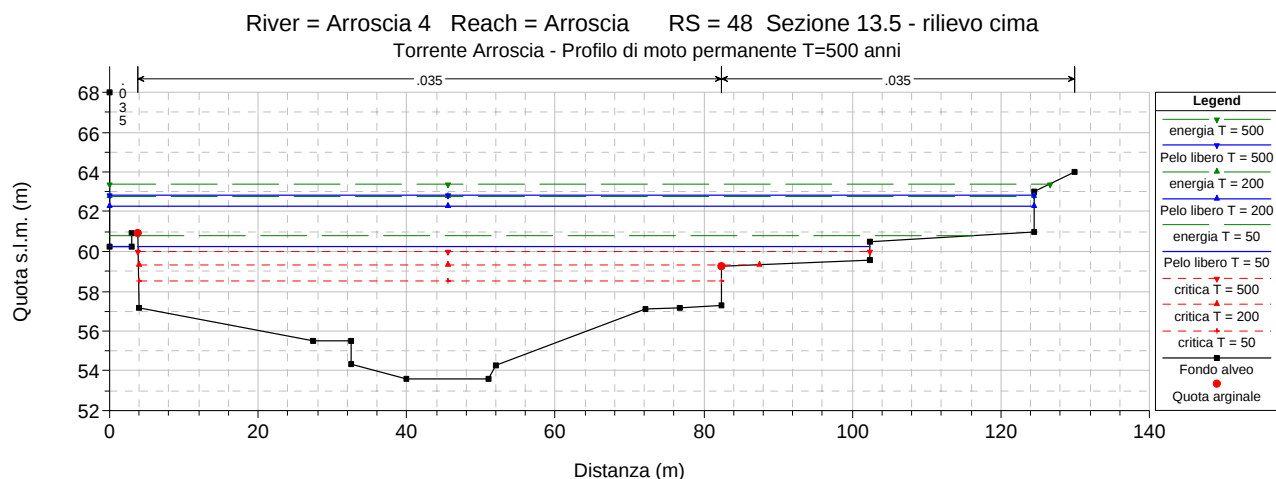


Torrente Arroscia – verifica idraulica – sezioni trasversali

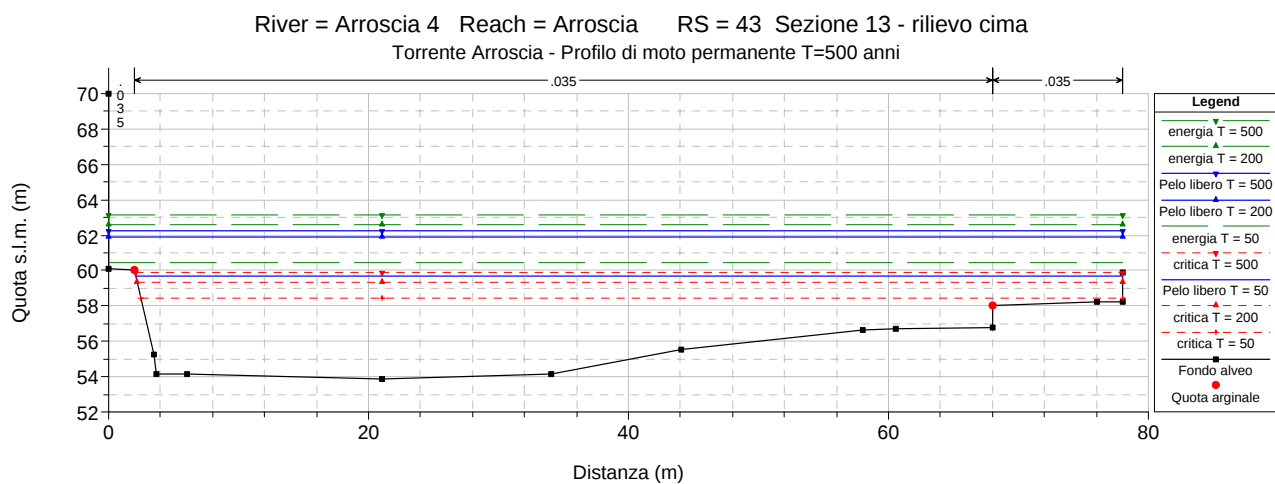
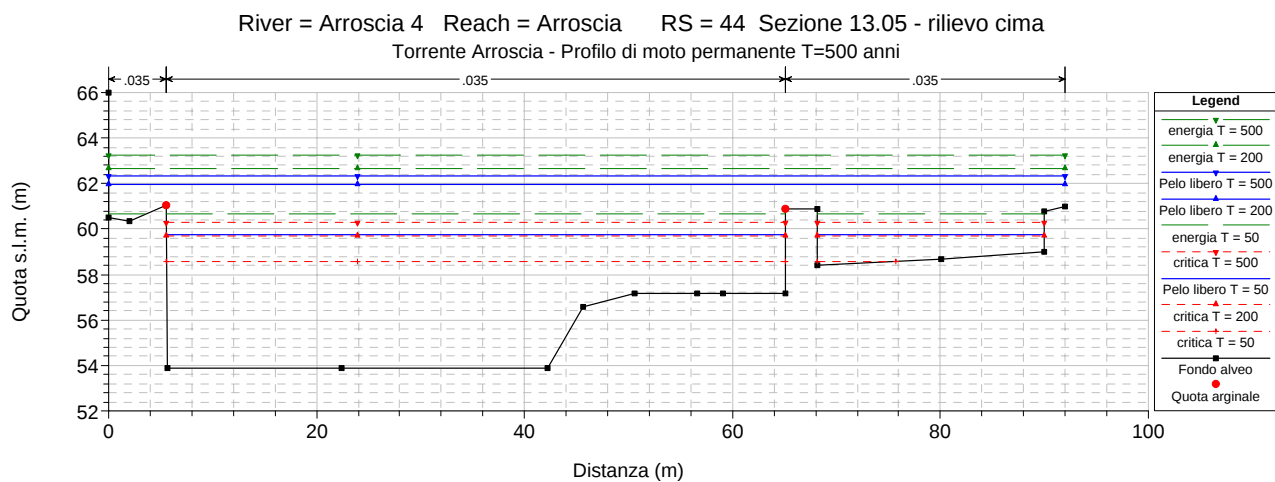
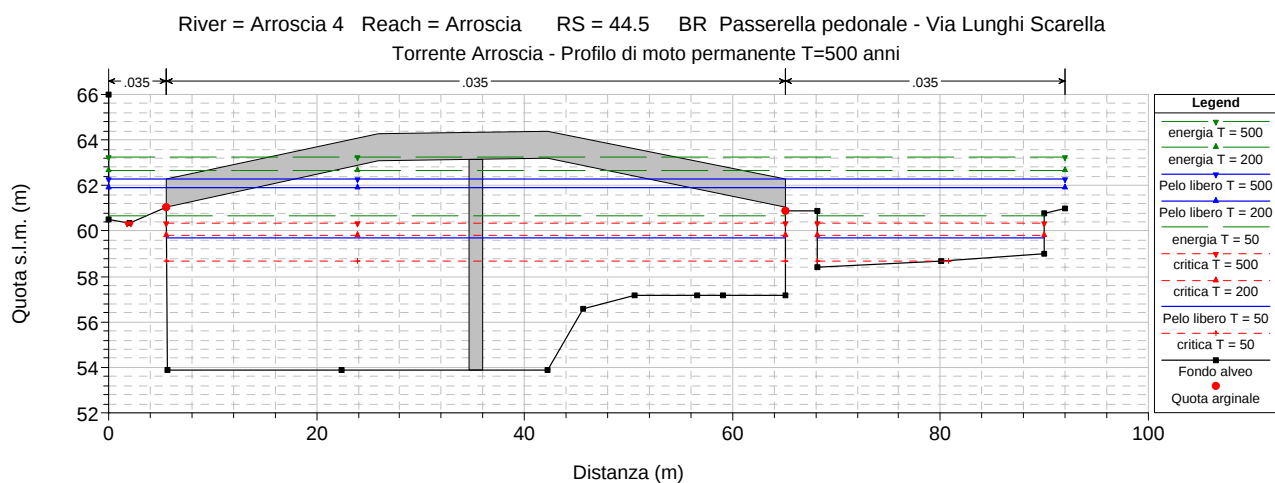
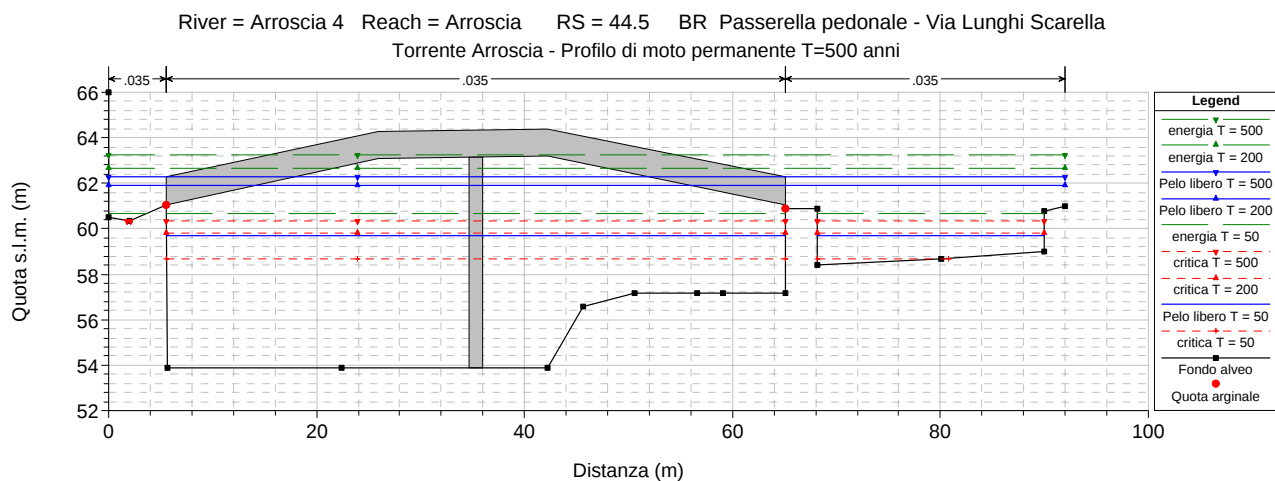


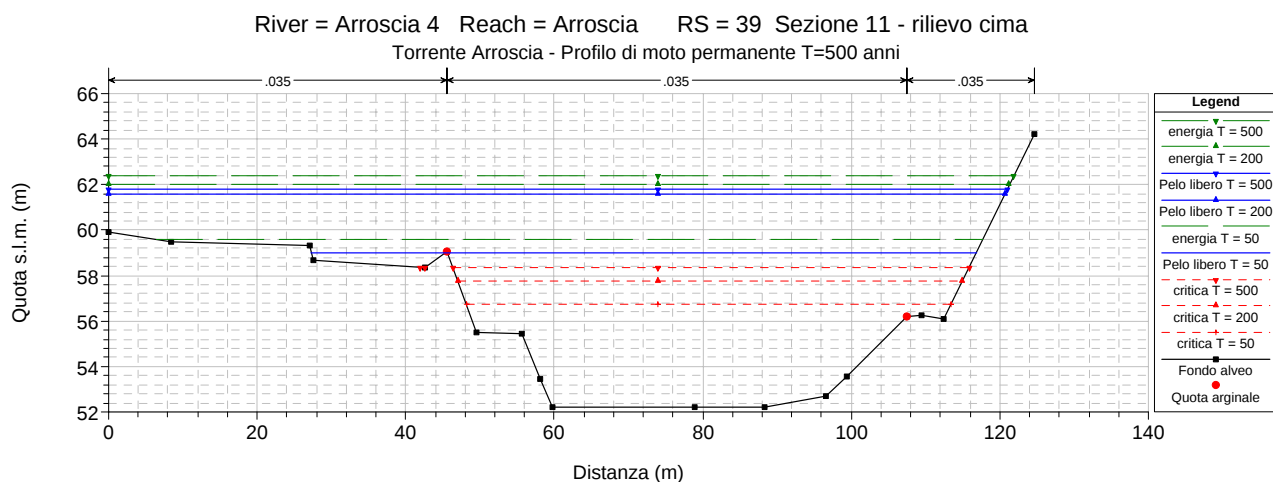
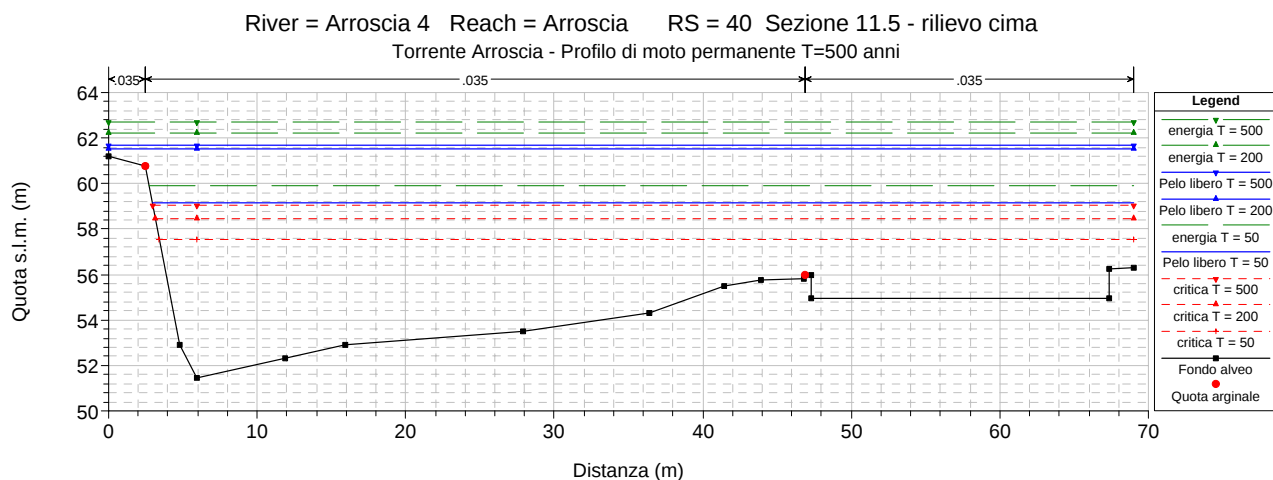
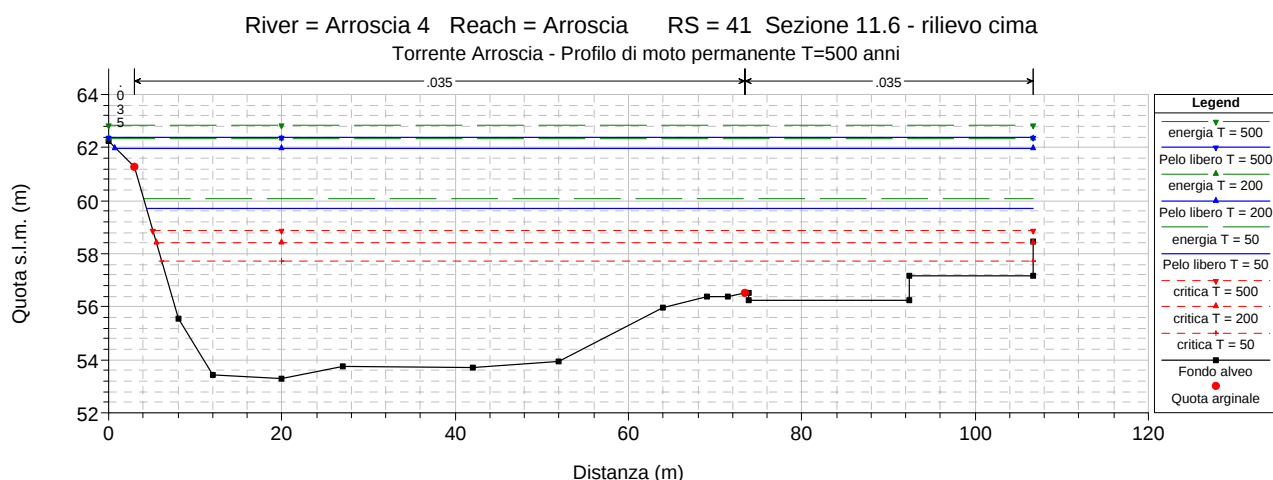
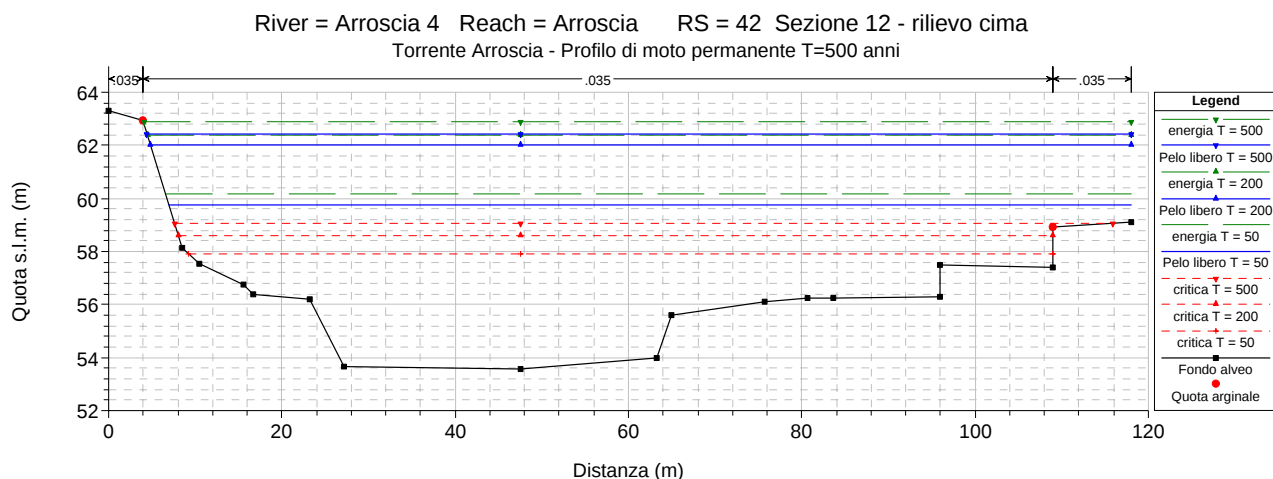


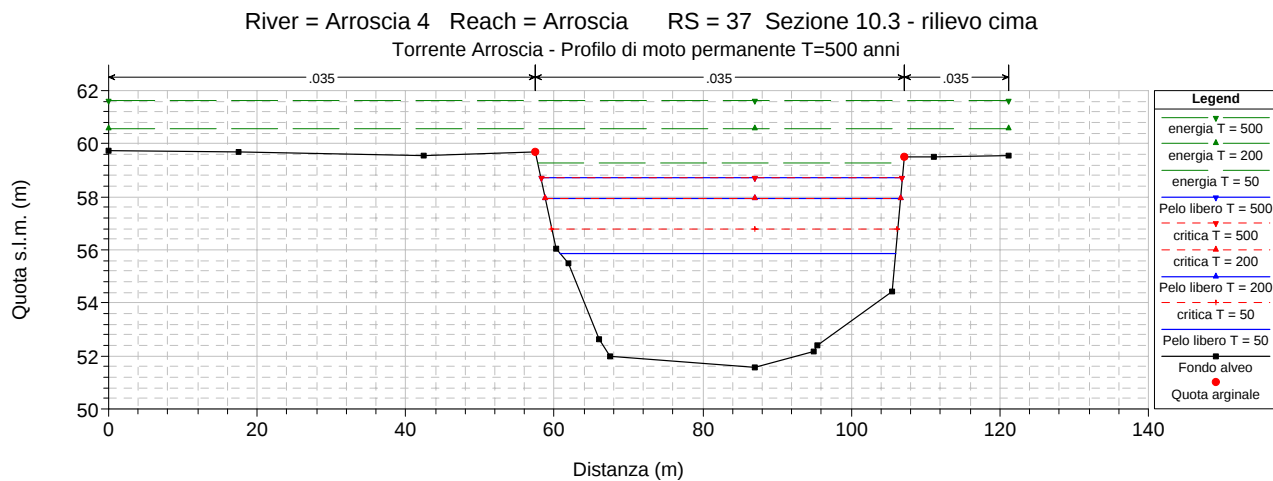
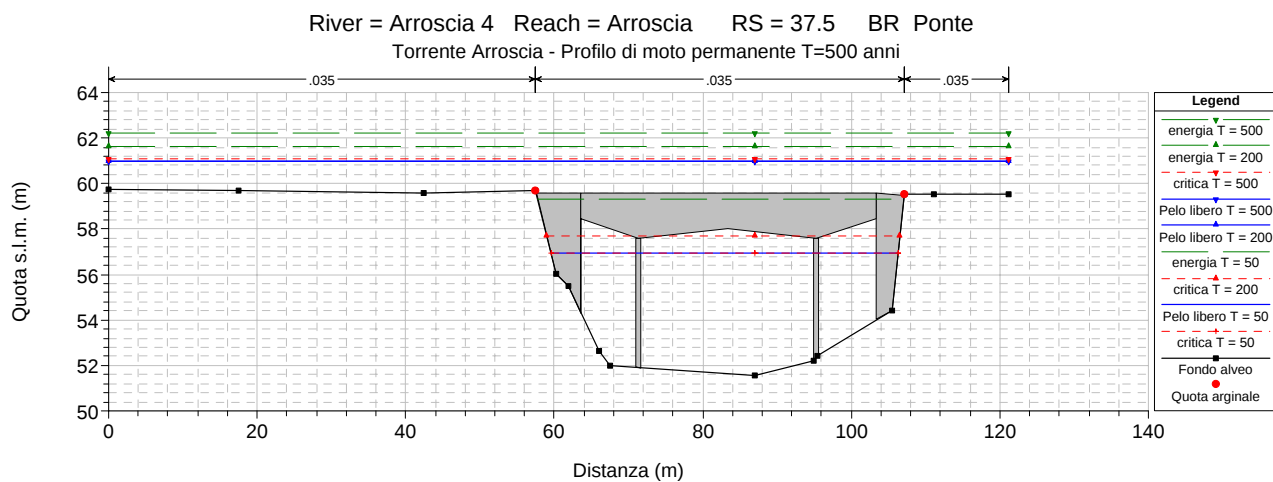
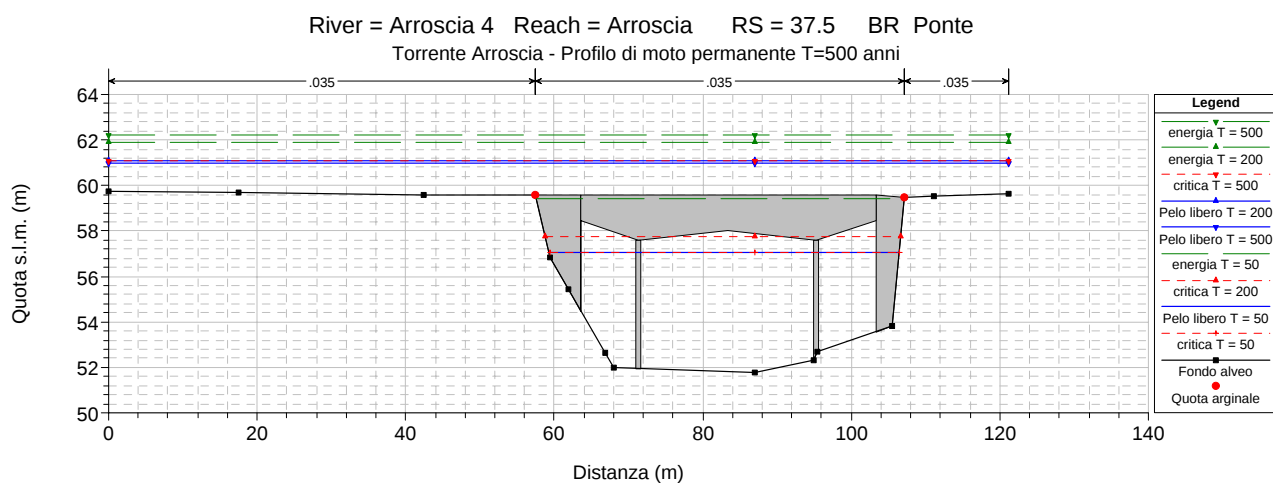
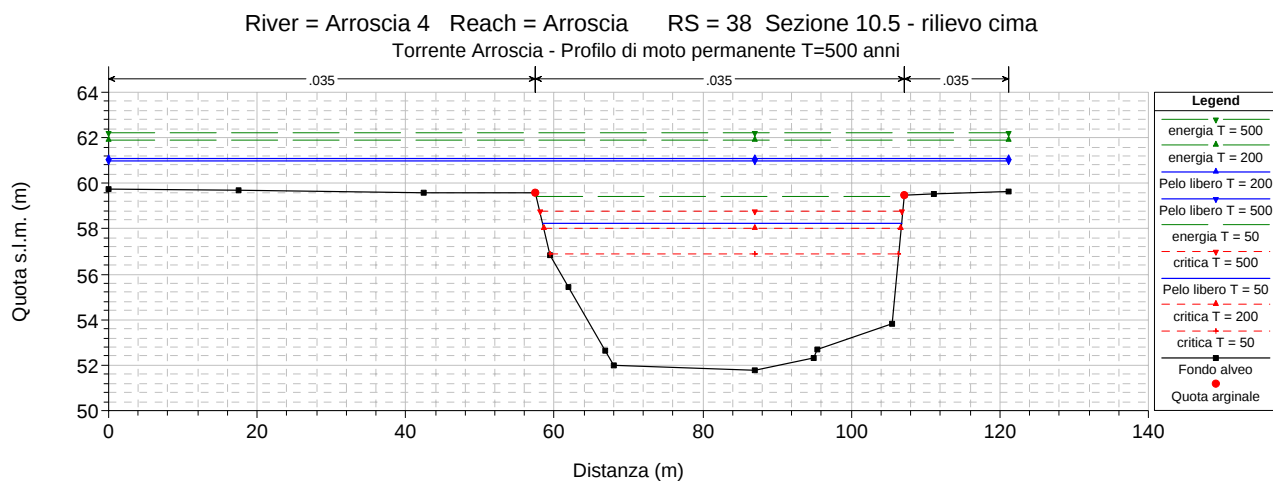




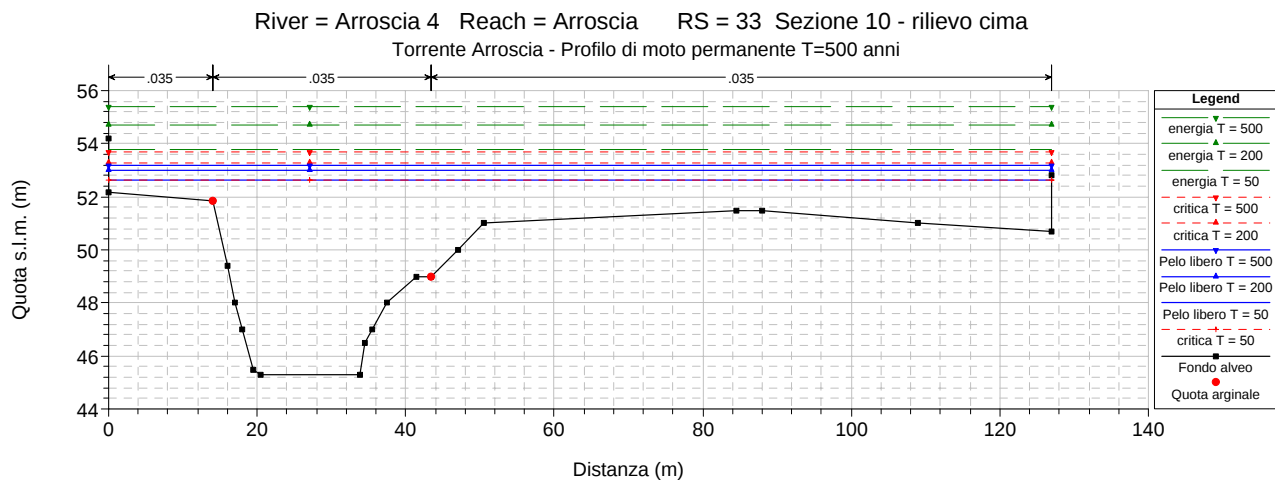
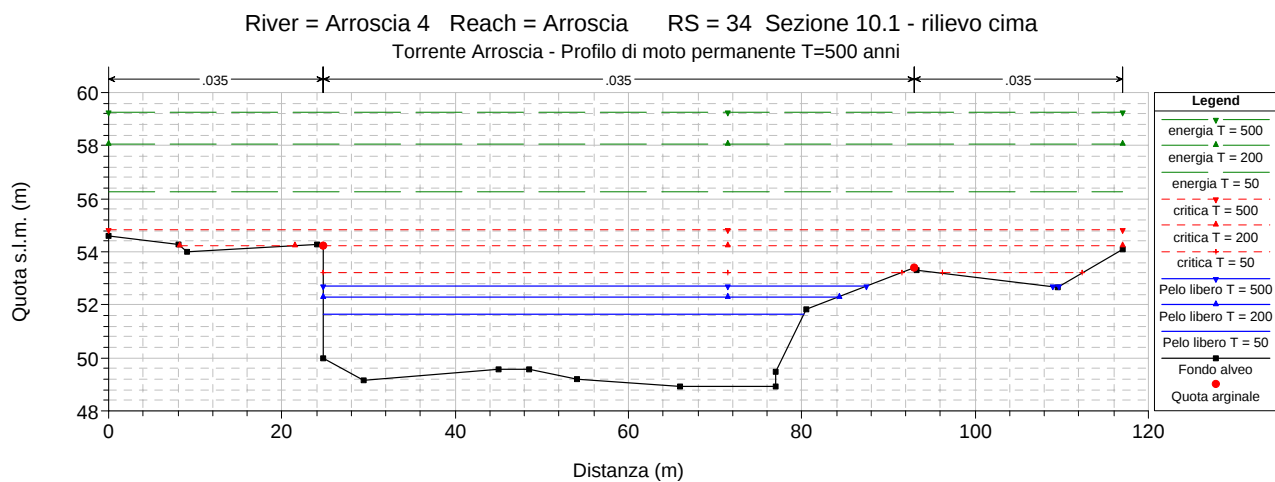
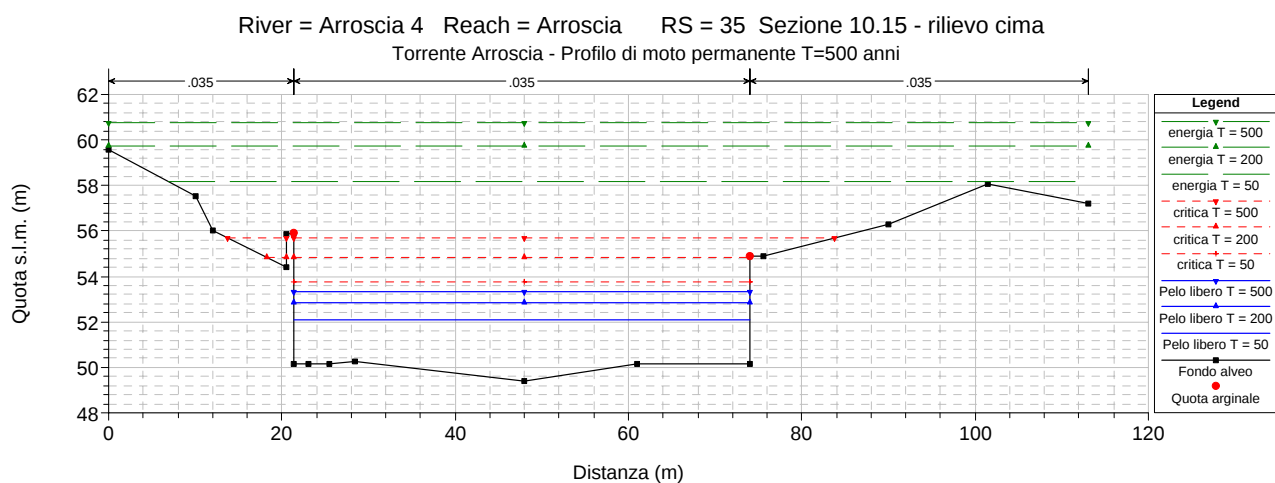
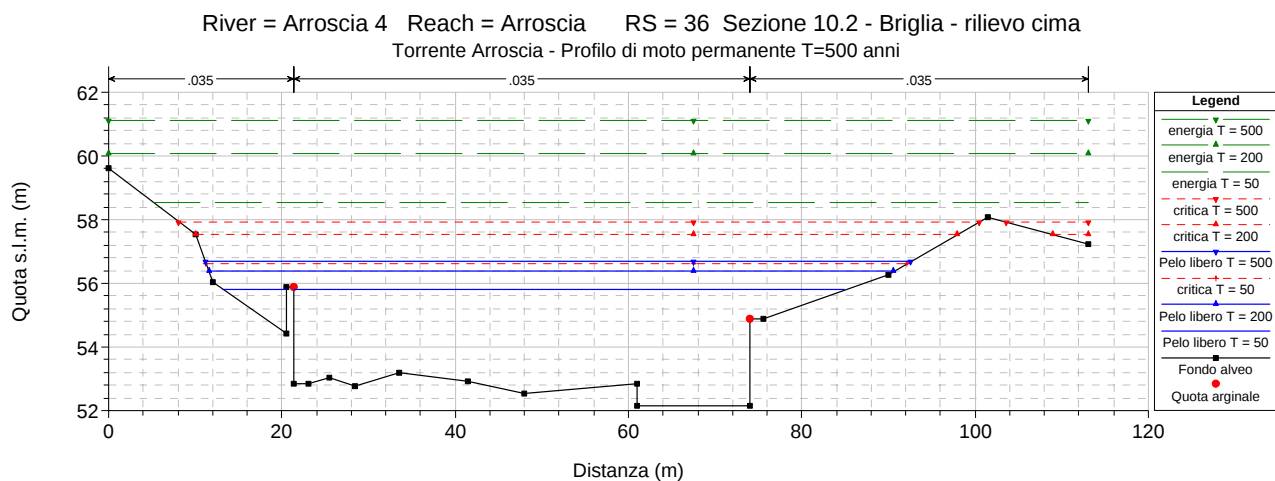
Torrente Arroscia – verifica idraulica – sezioni trasversali

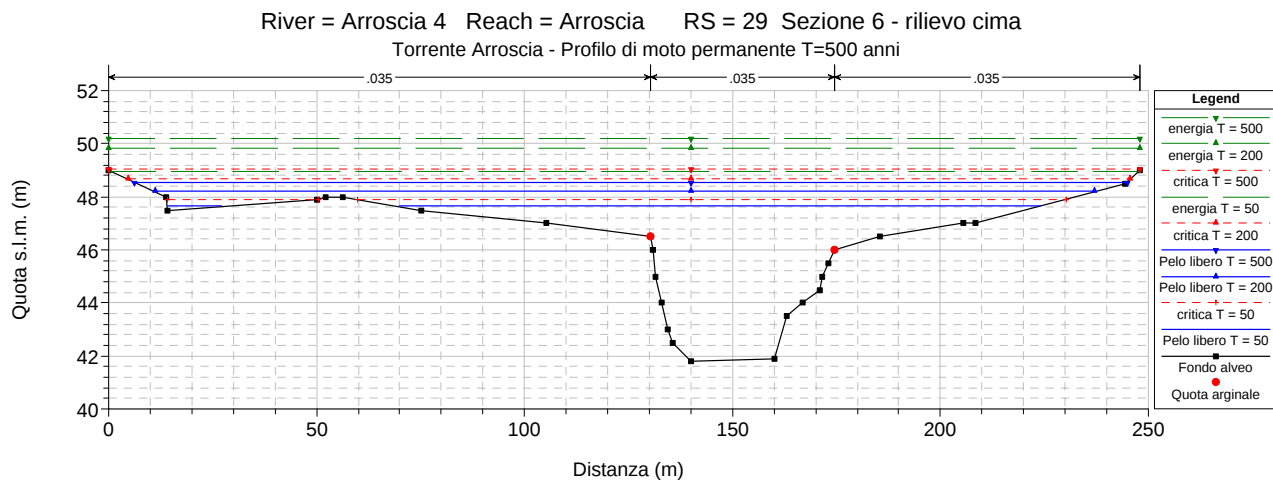
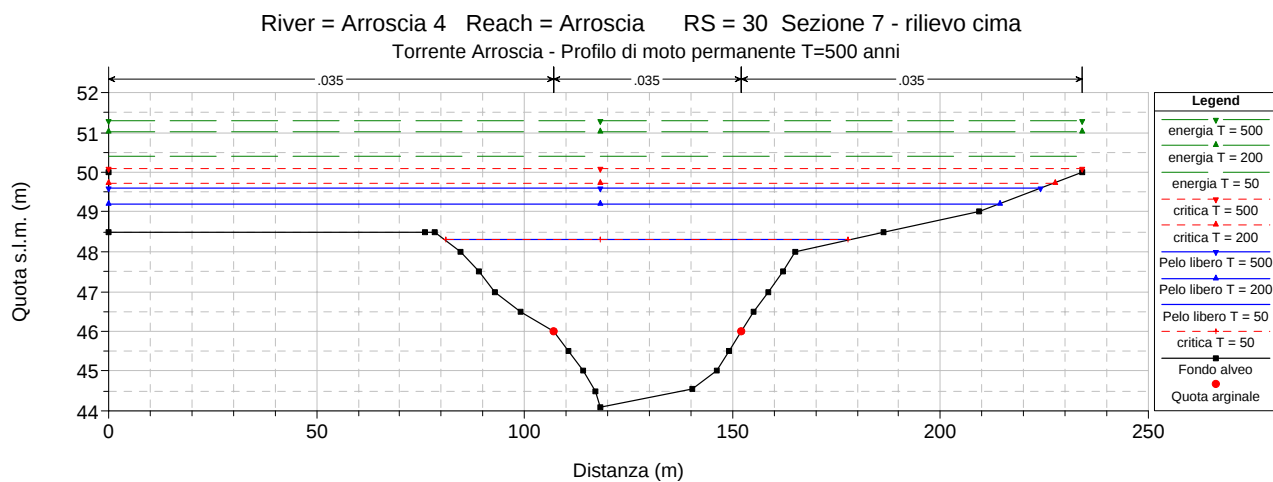
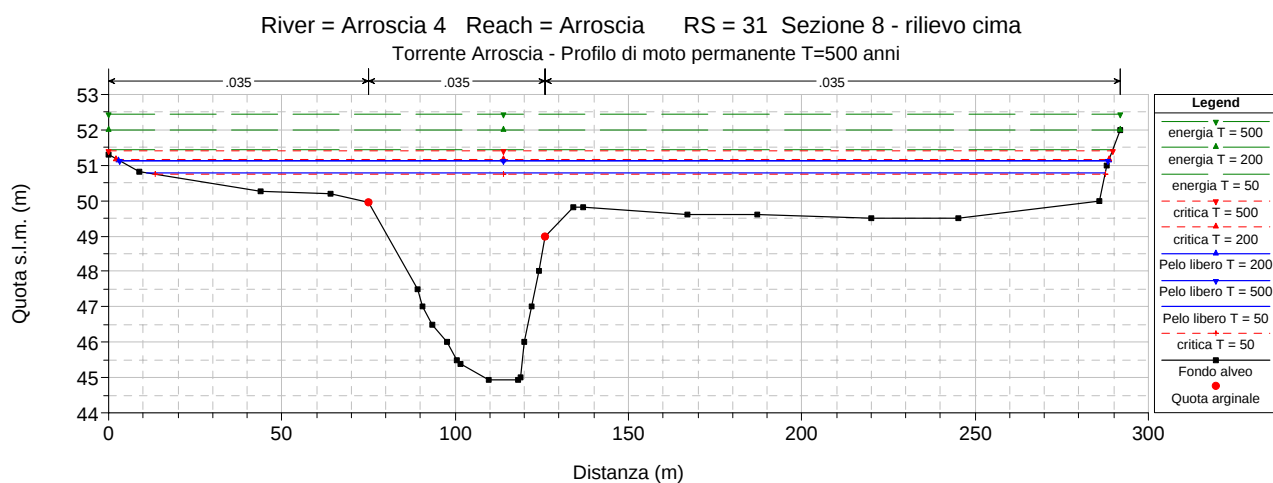
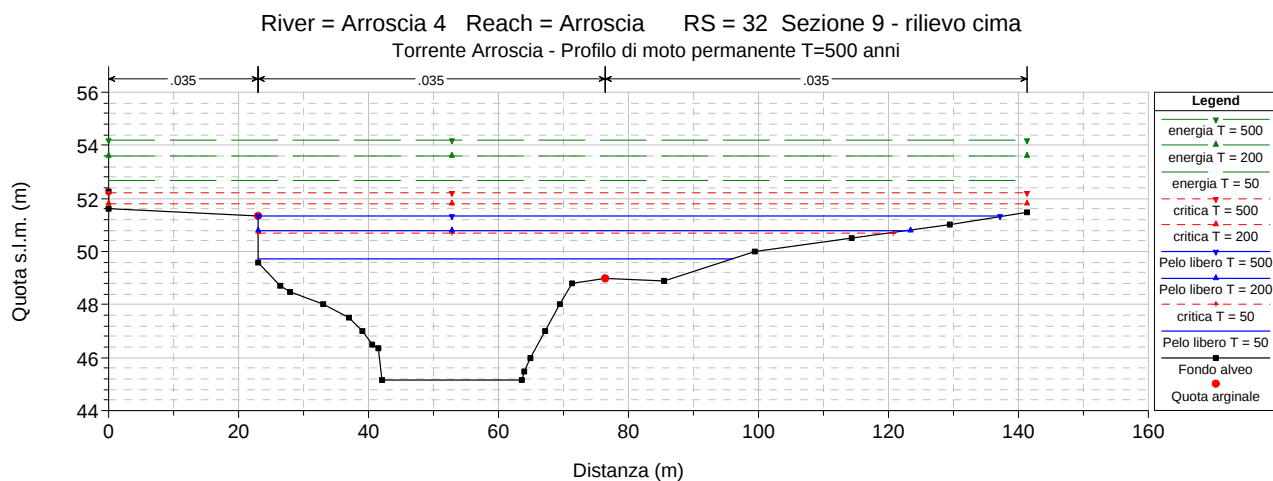


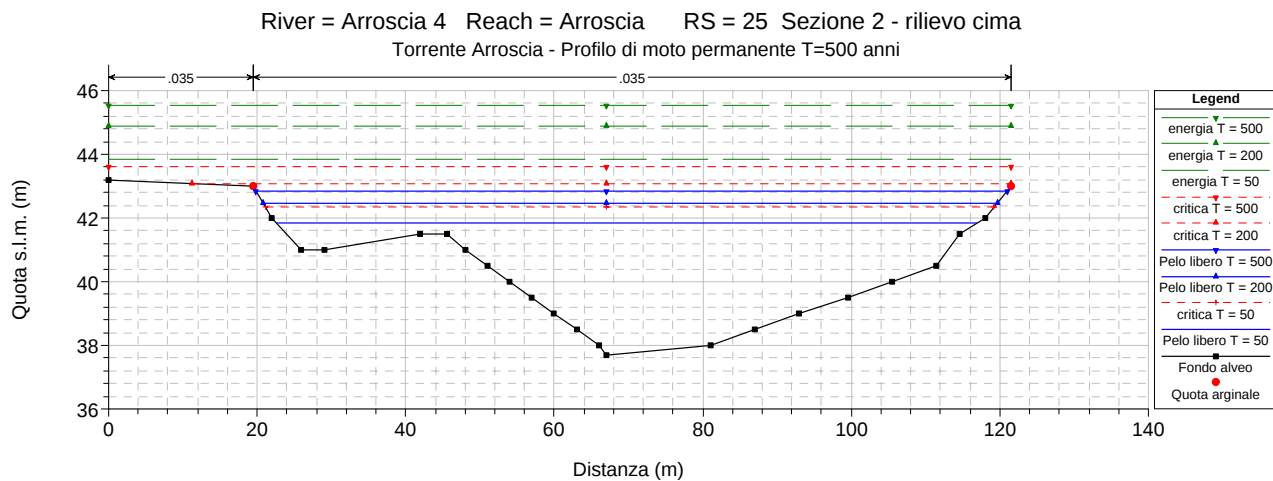
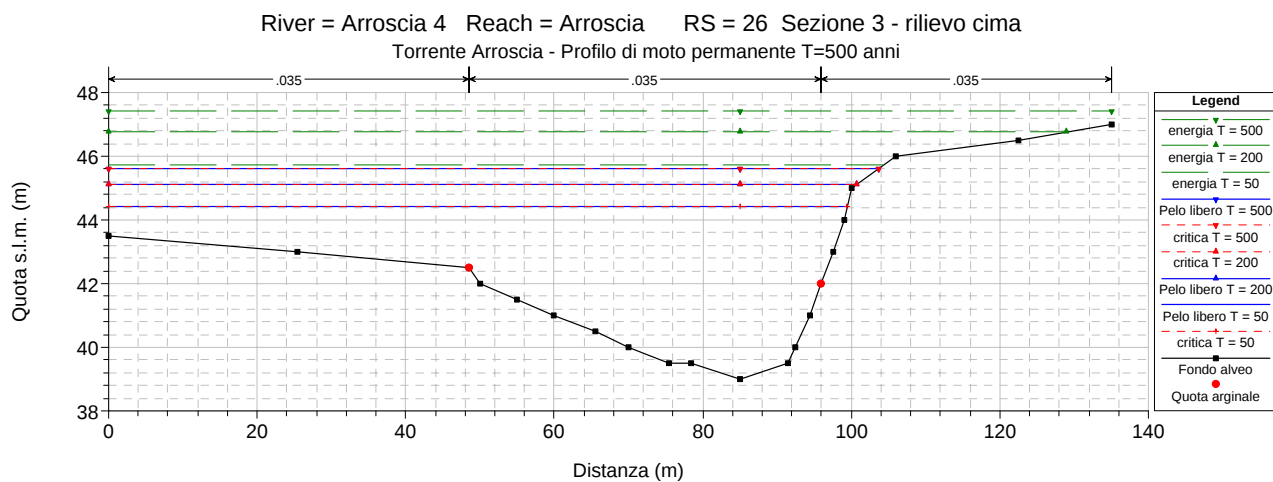
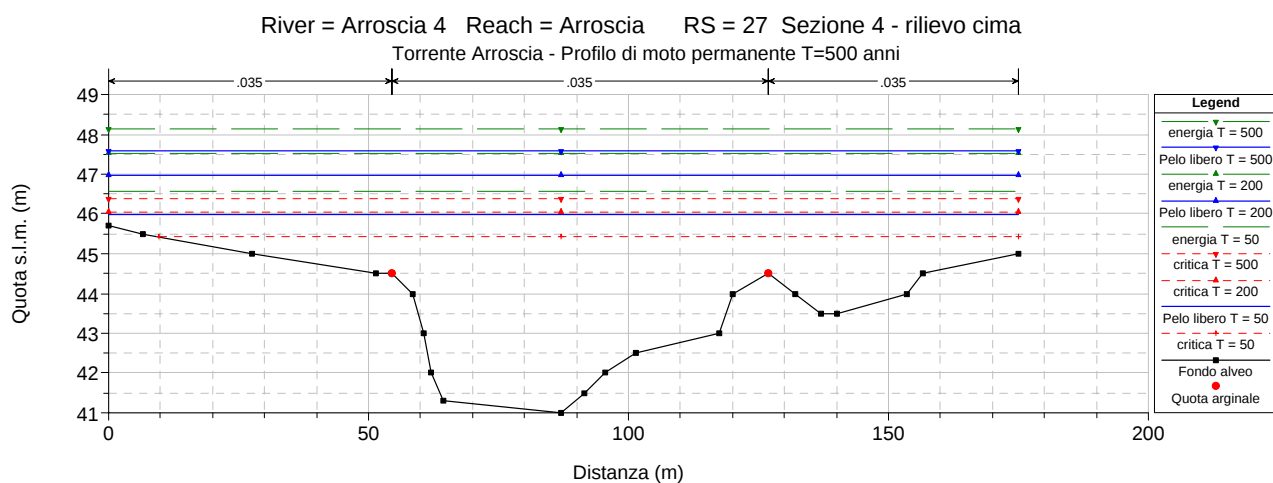
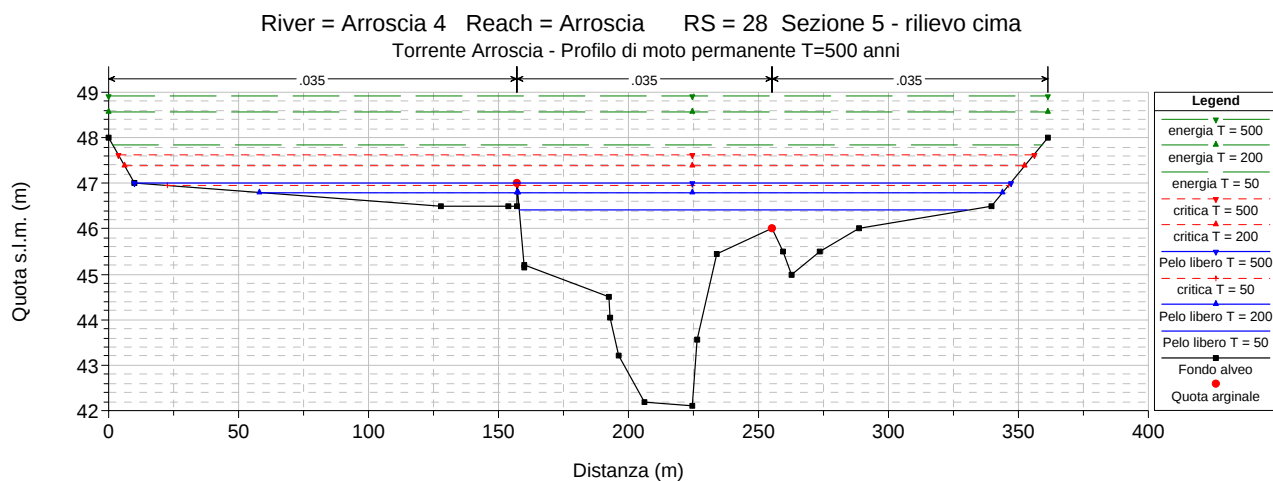


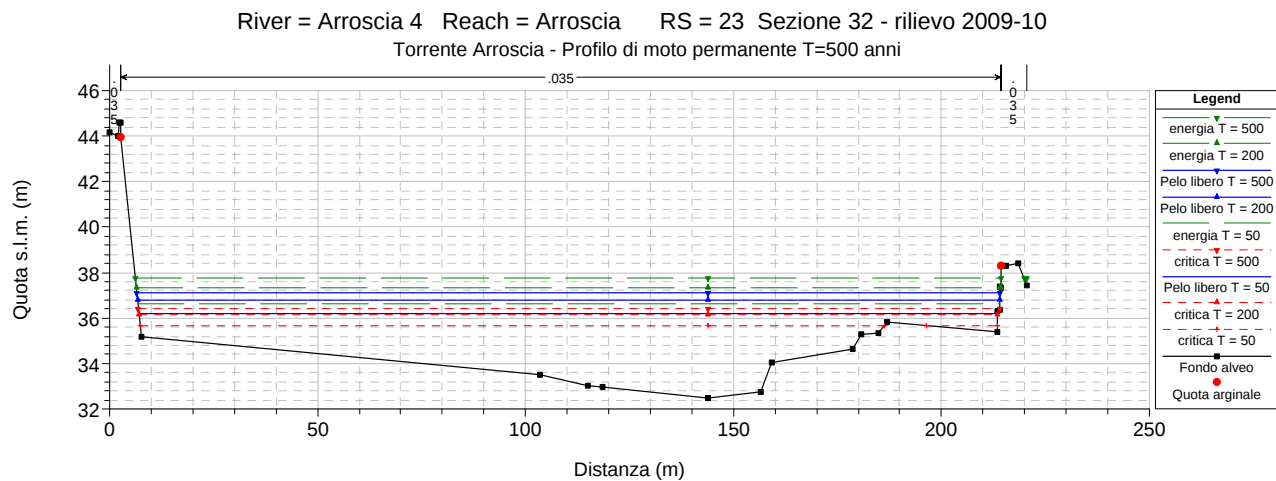
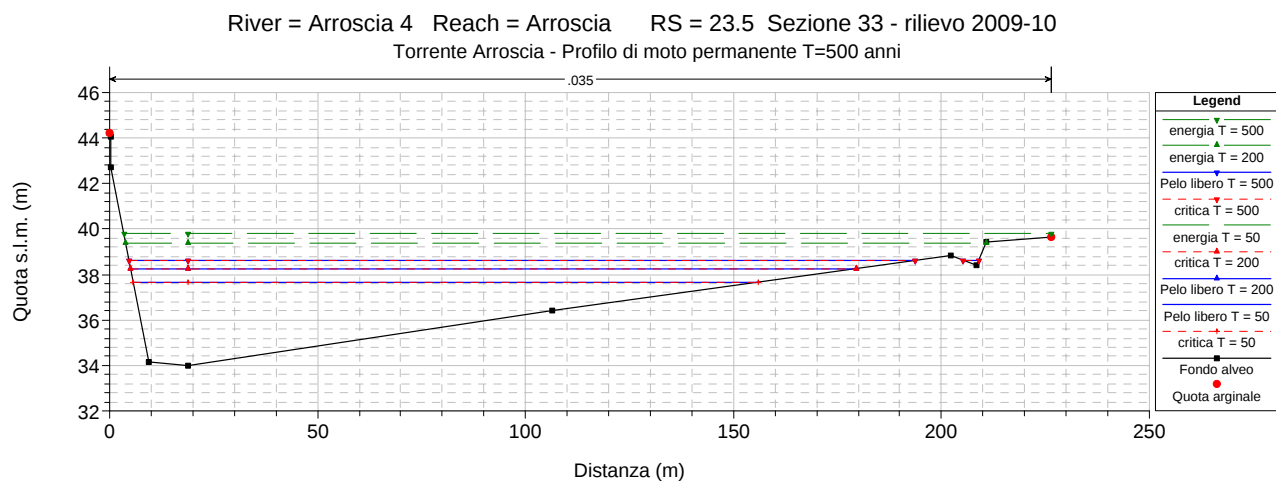
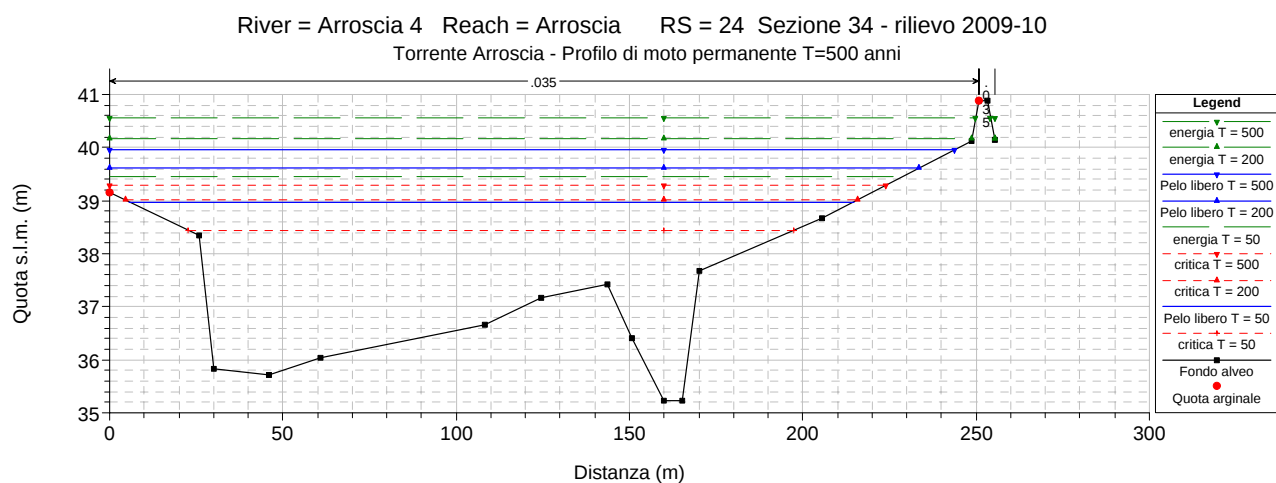
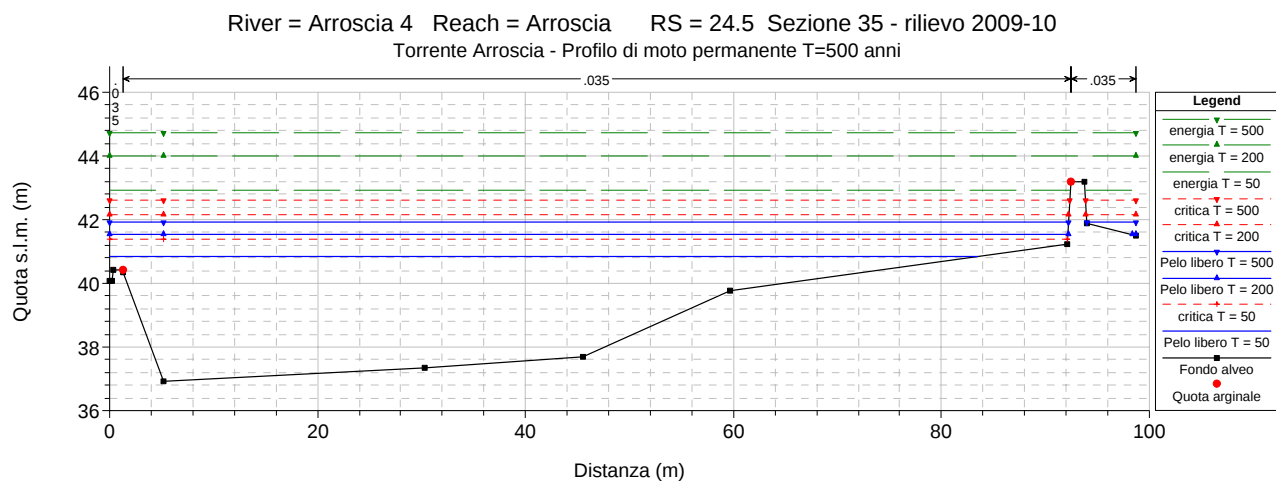


Torrente Arroscia – verifica idraulica – sezioni trasversali



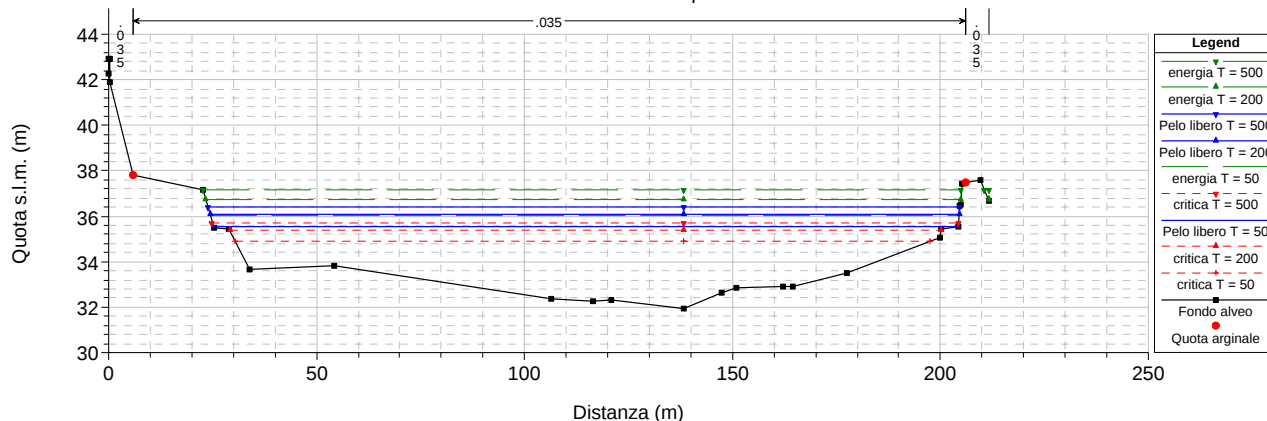






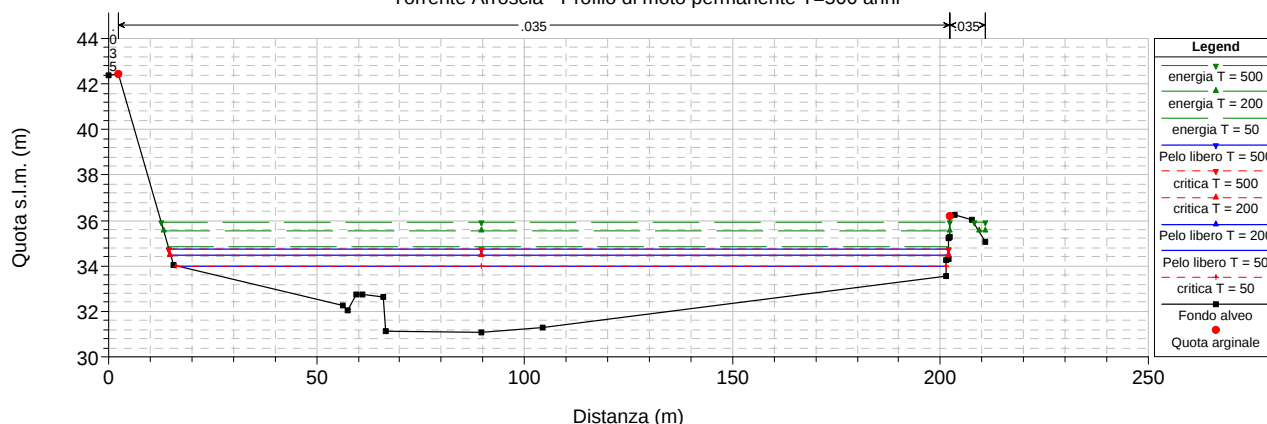
River = Arroscia 4 Reach = Arroscia RS = 22.8 Sezione 31 - rilievo 2009-10

Torrente Arroscia - Profilo di moto permanente T=500 anni



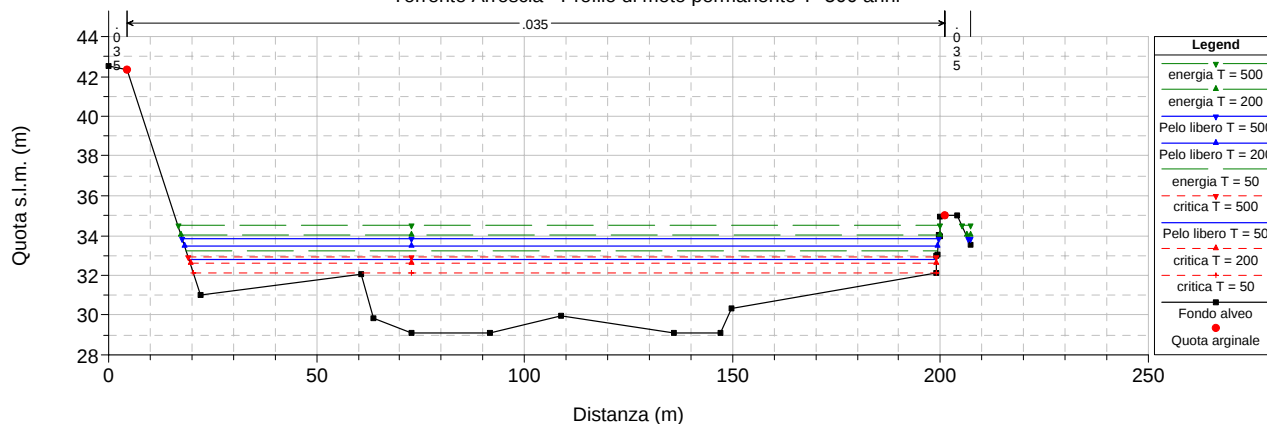
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Torrente Arroscia - Profilo di moto permanente T=500 anni



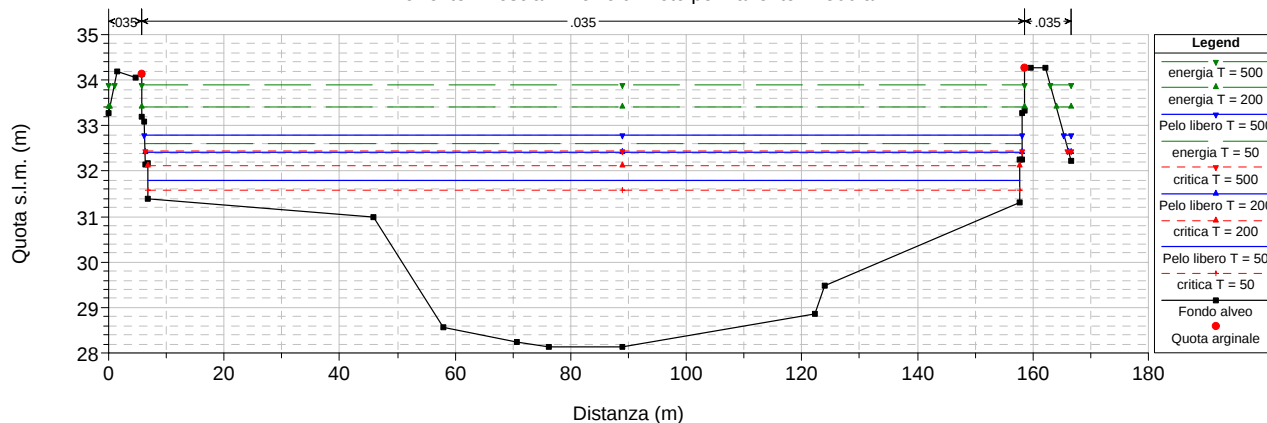
River = Arroscia 4 Reach = Arroscia RS = 22 Sezione 29 - rilievo 2009-10

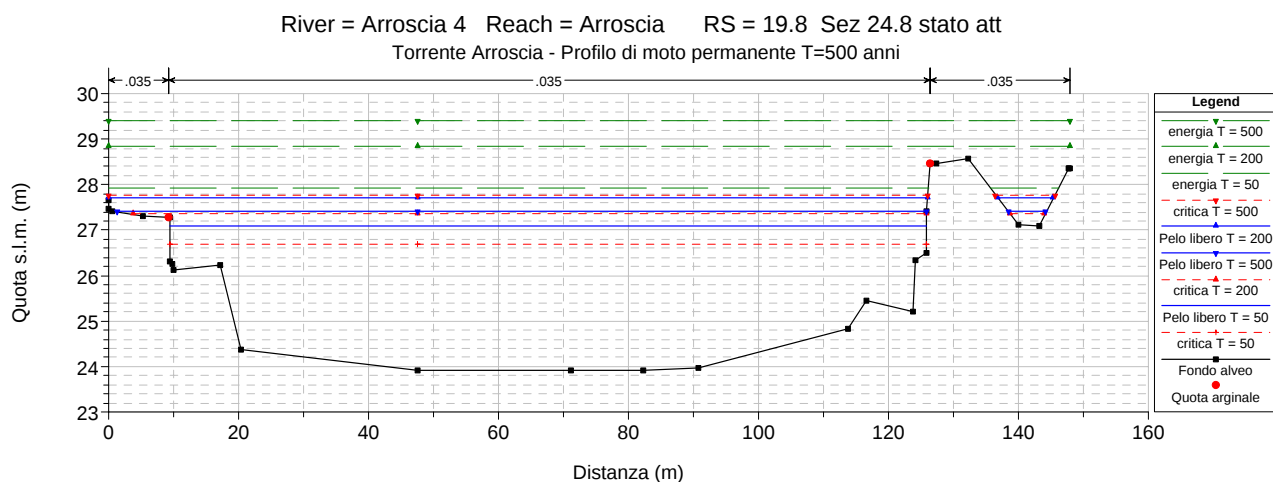
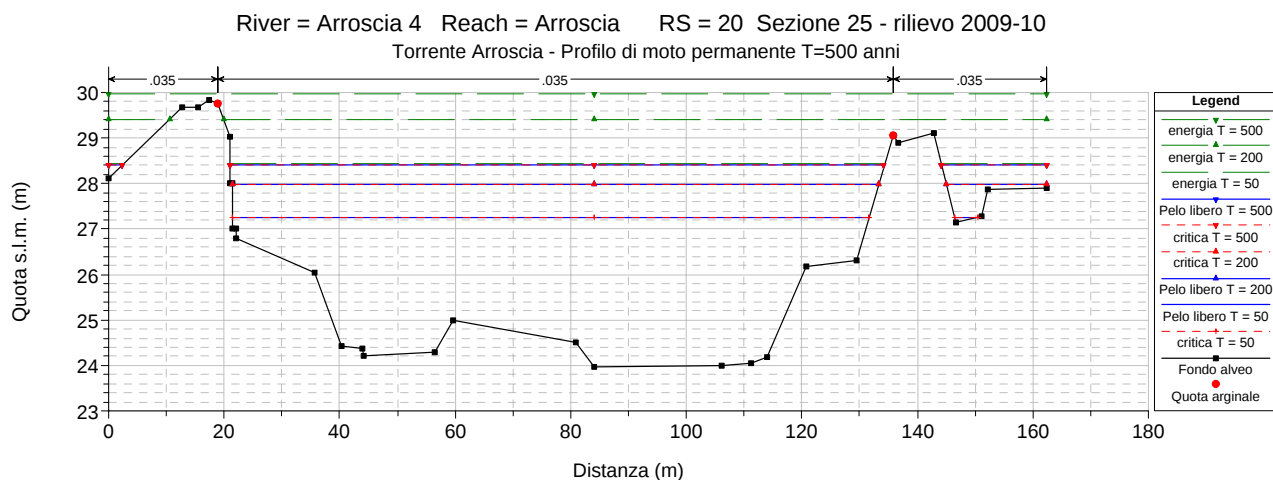
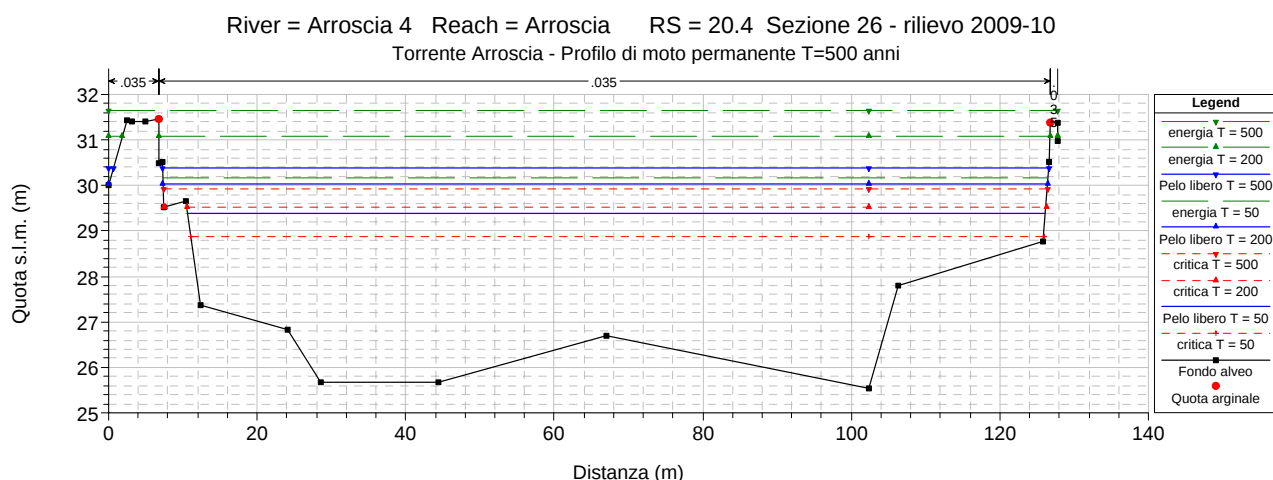
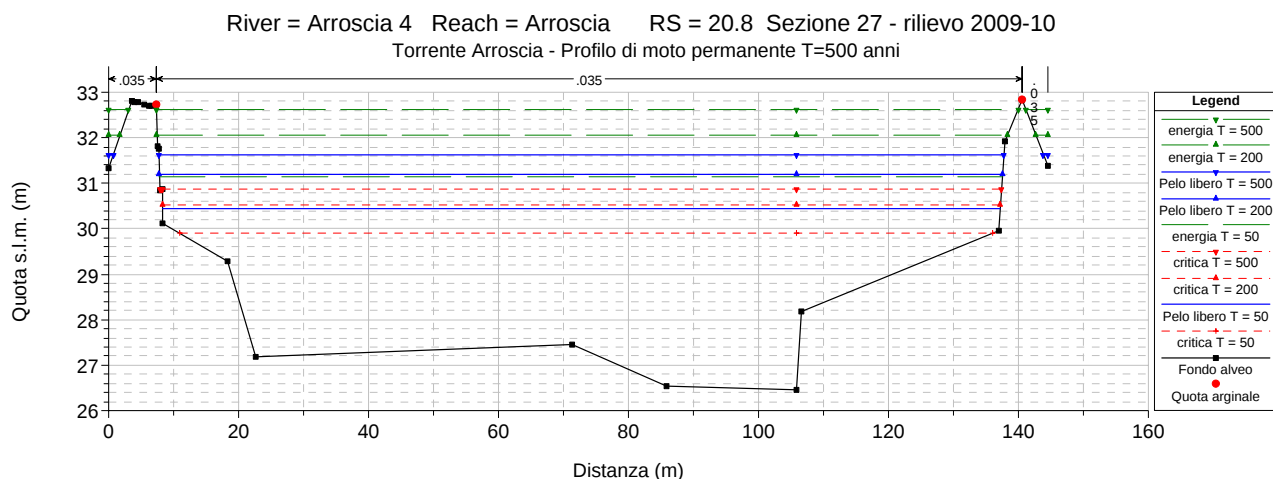
Torrente Arroscia - Profilo di moto permanente T=500 anni

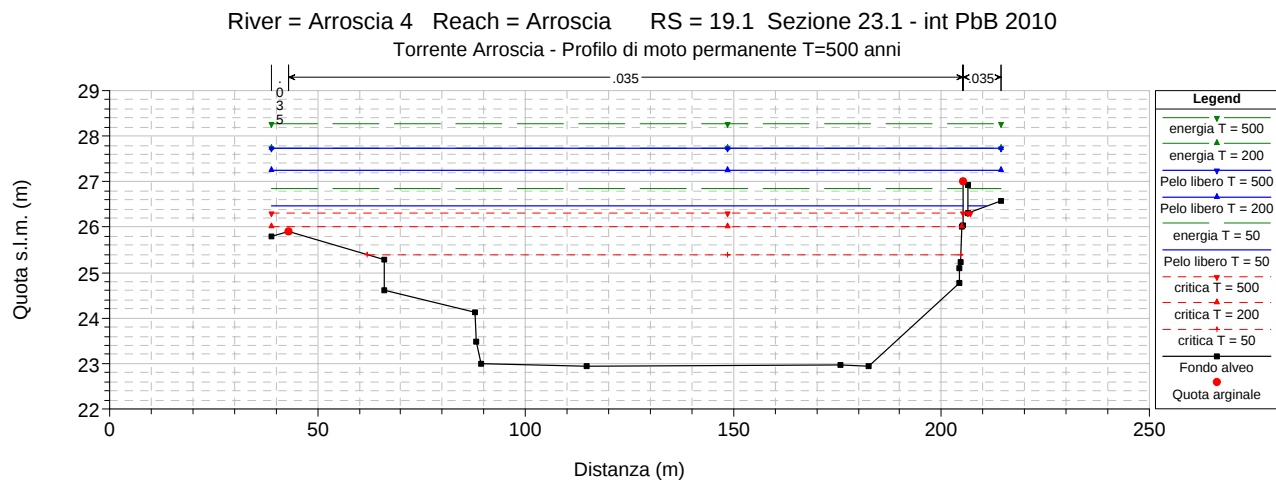
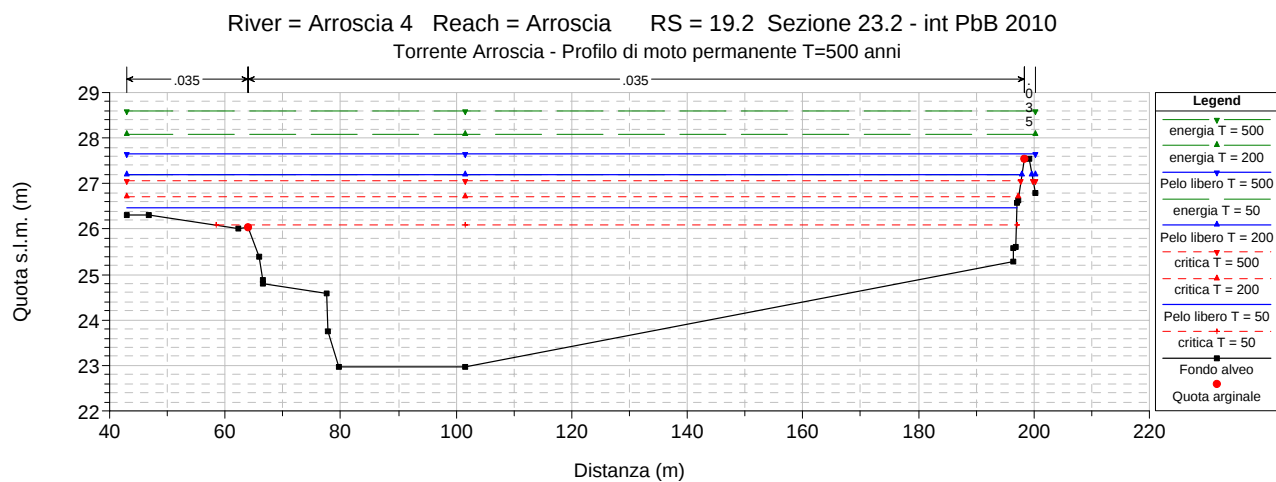
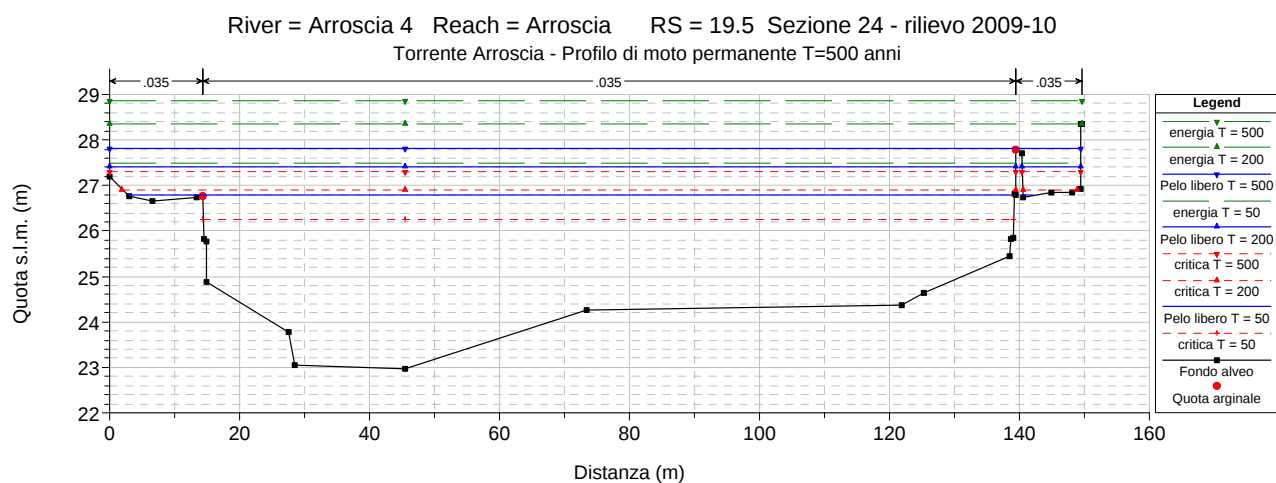
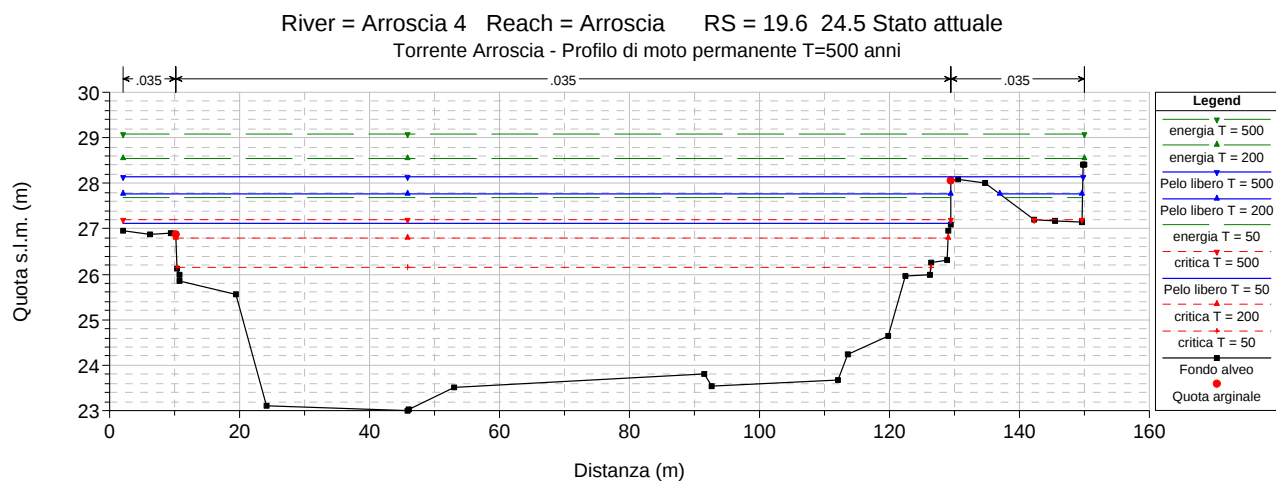


River = Arroscia 4 Reach = Arroscia RS = 21 Sezione 28 - rilievo 2009-10

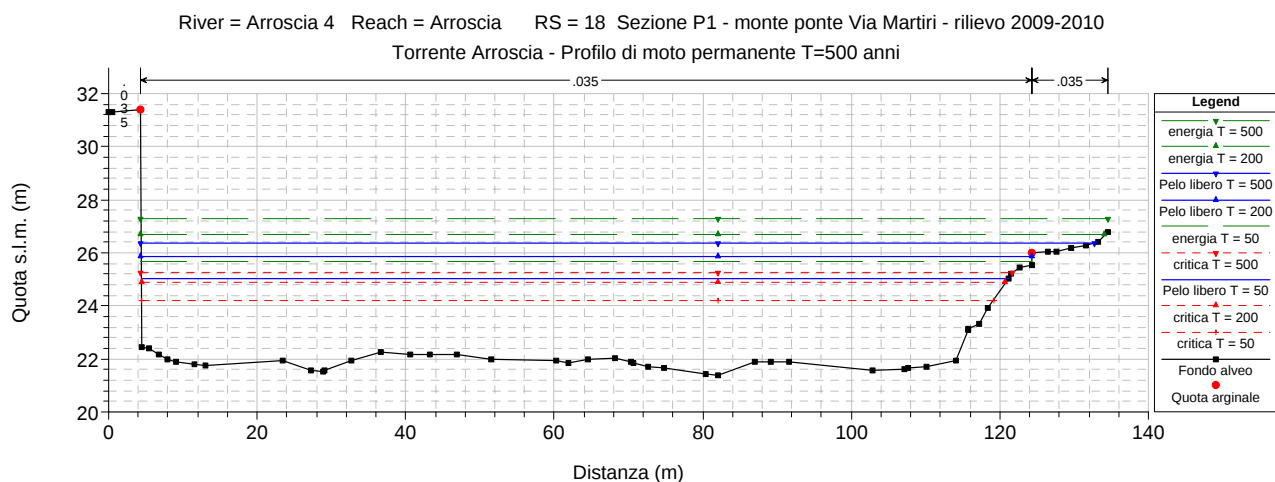
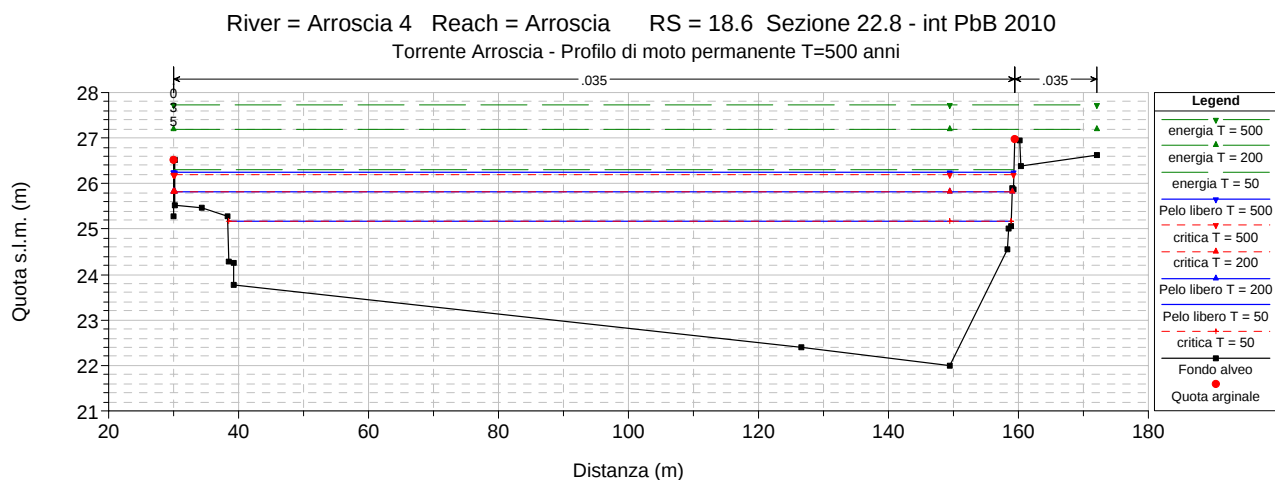
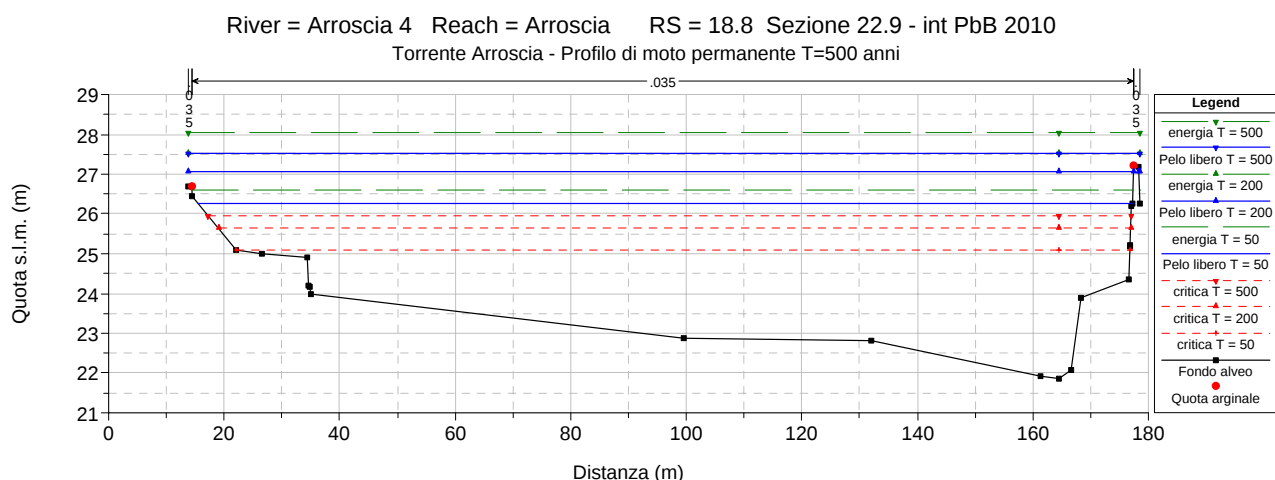
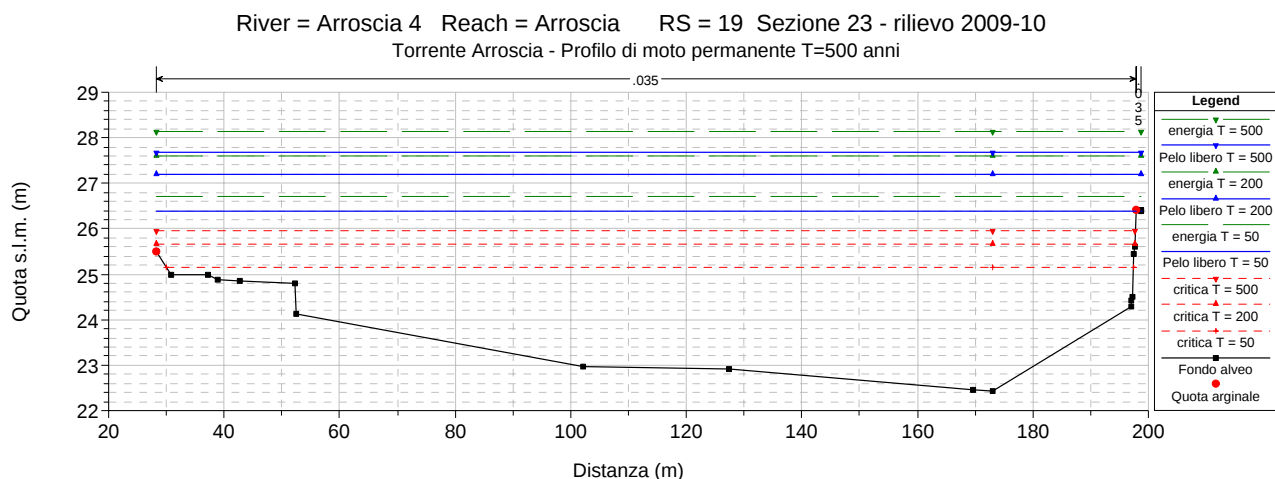
Torrente Arroscia - Profilo di moto permanente T=500 anni

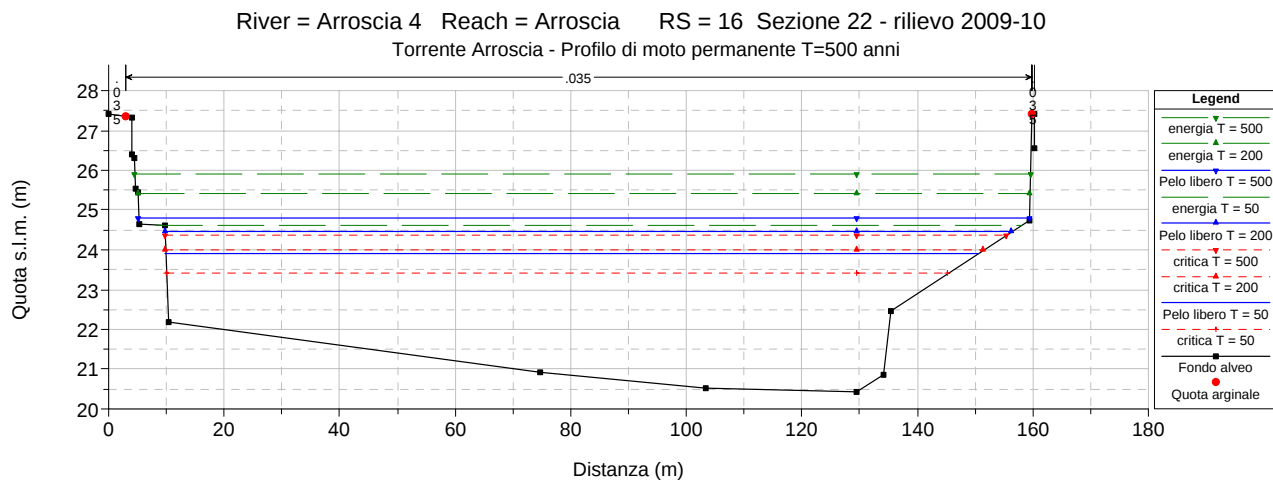
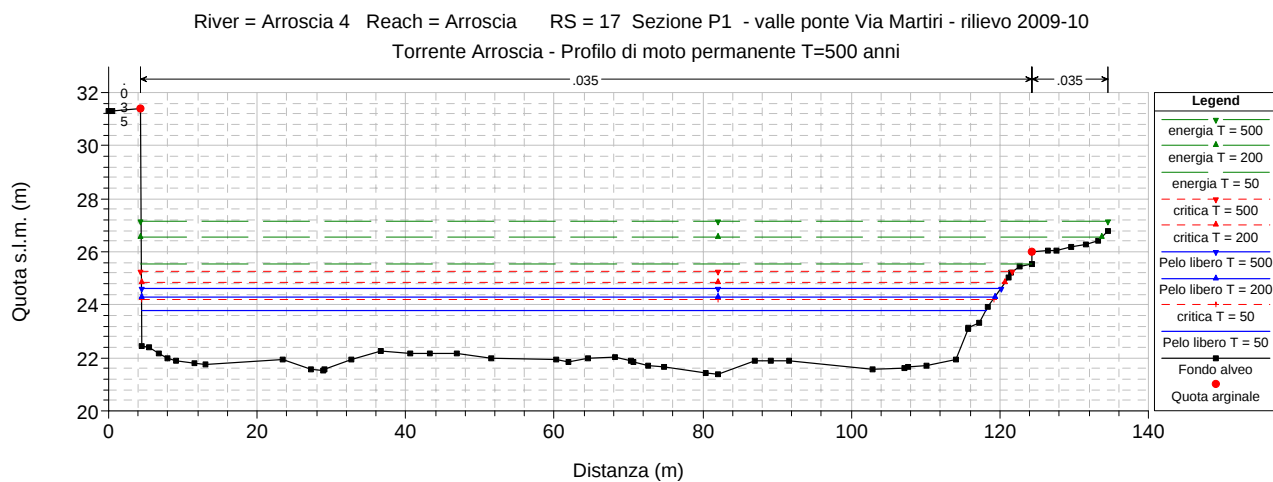
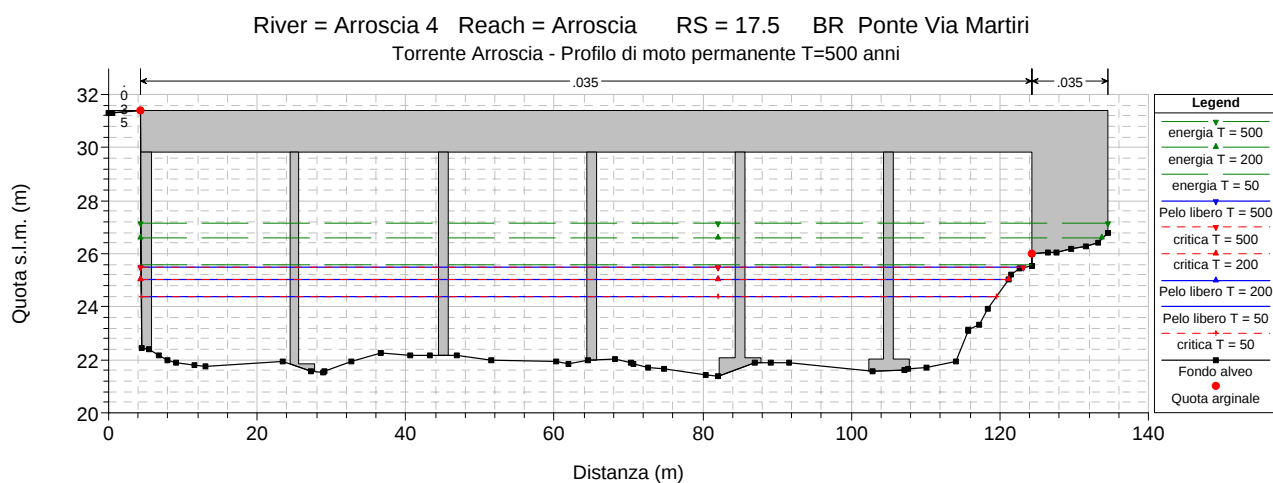
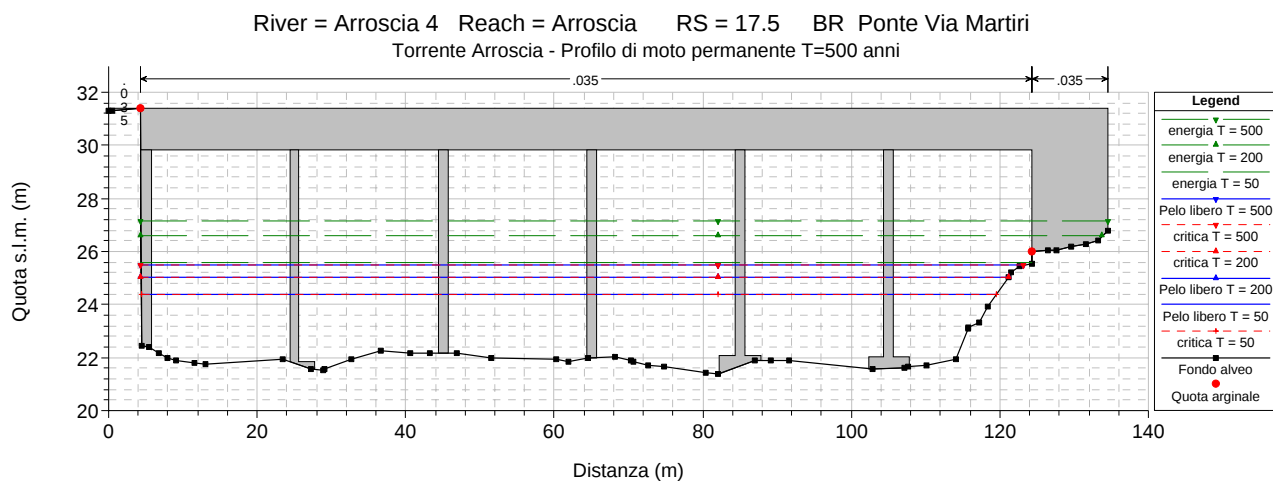




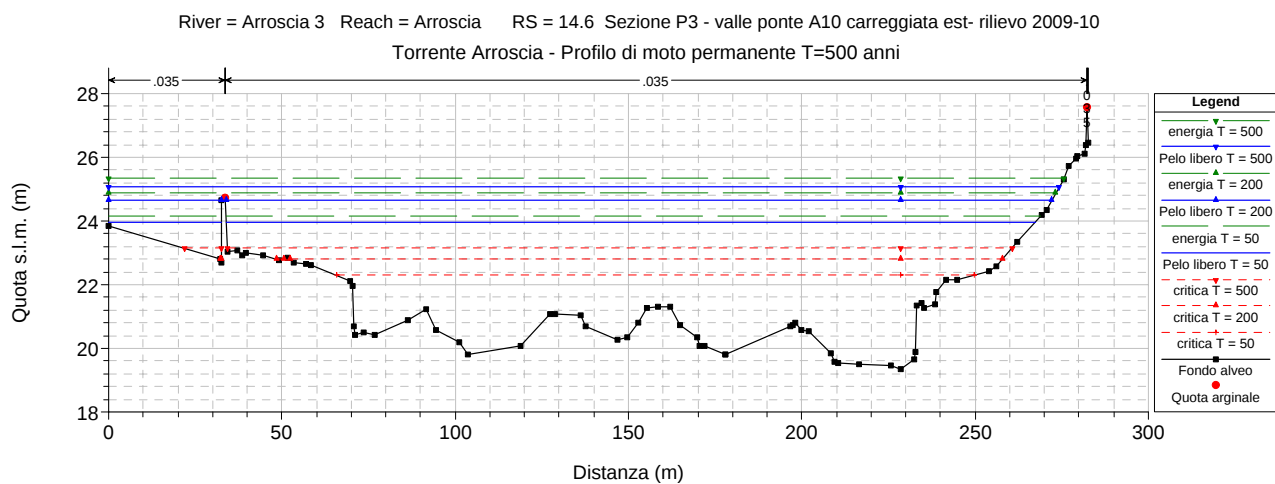
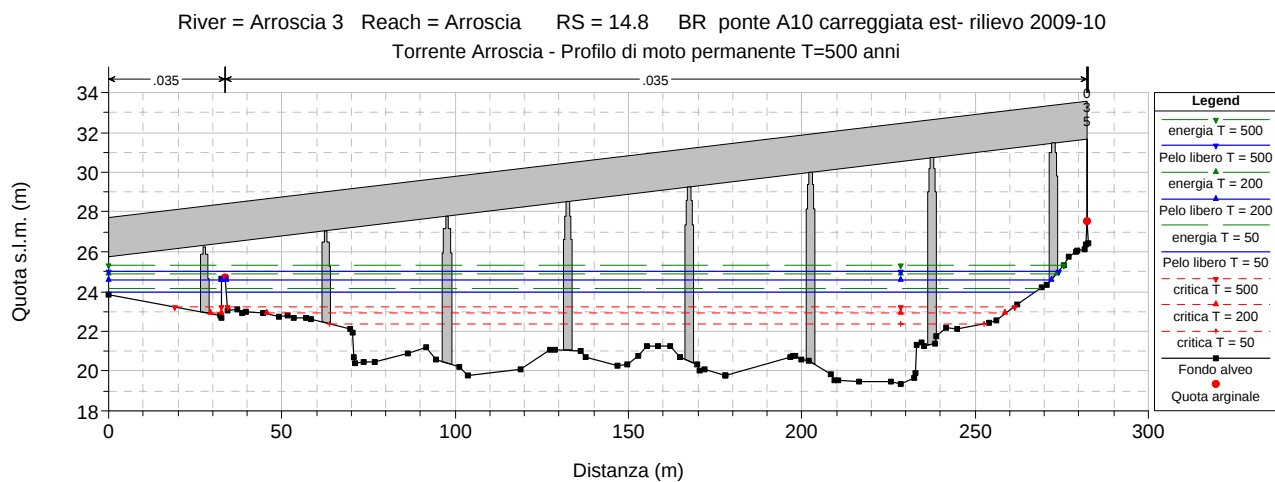
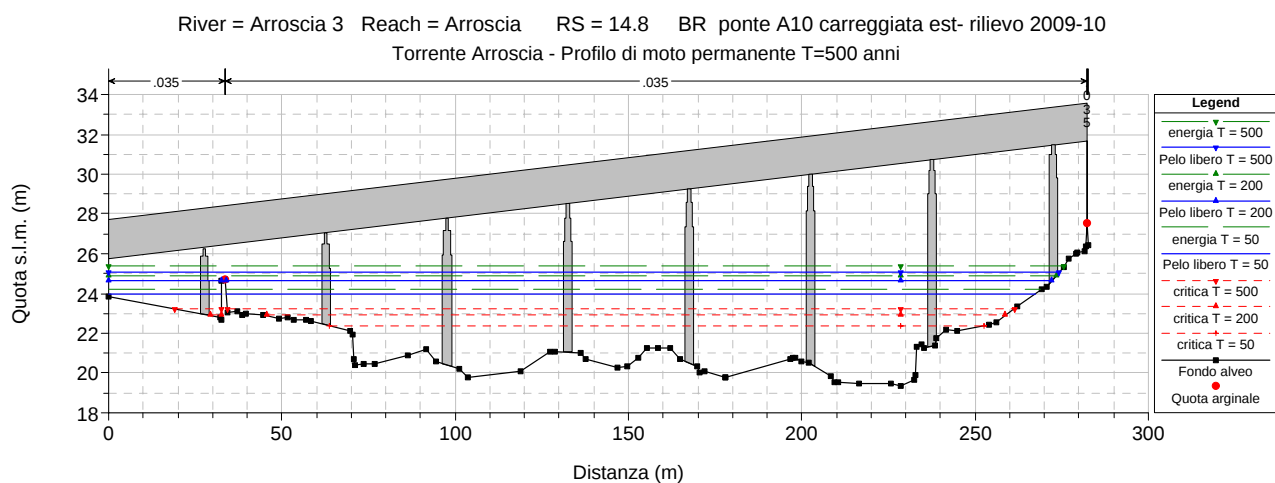
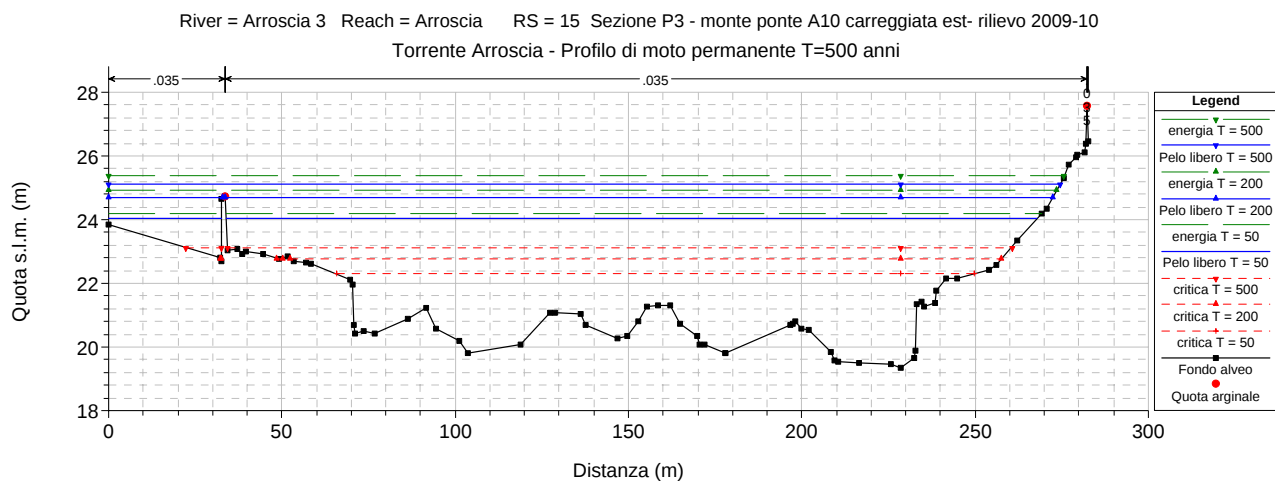


Torrente Arroscia – verifica idraulica – sezioni trasversali

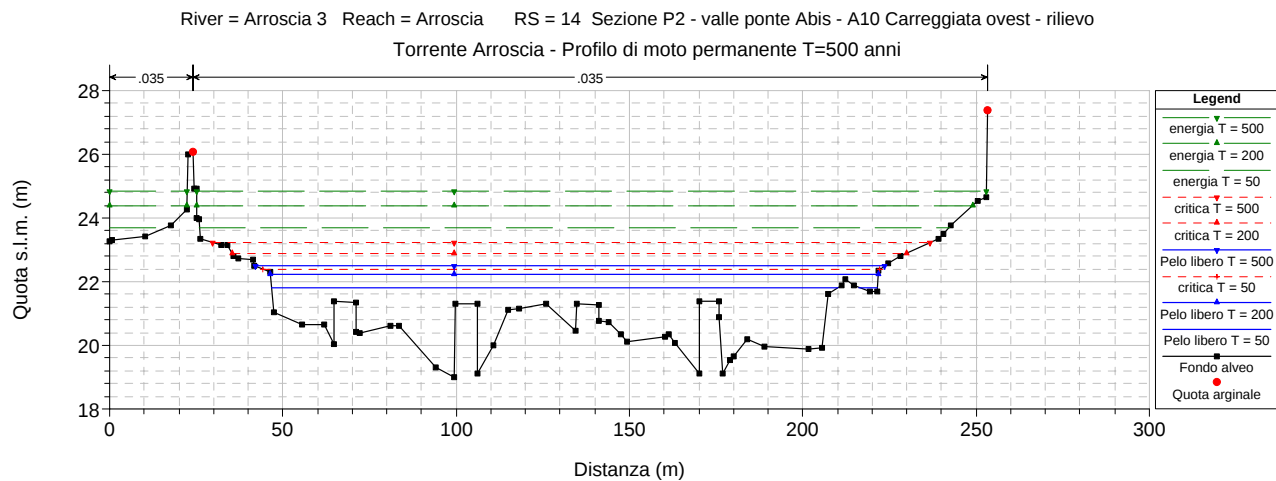
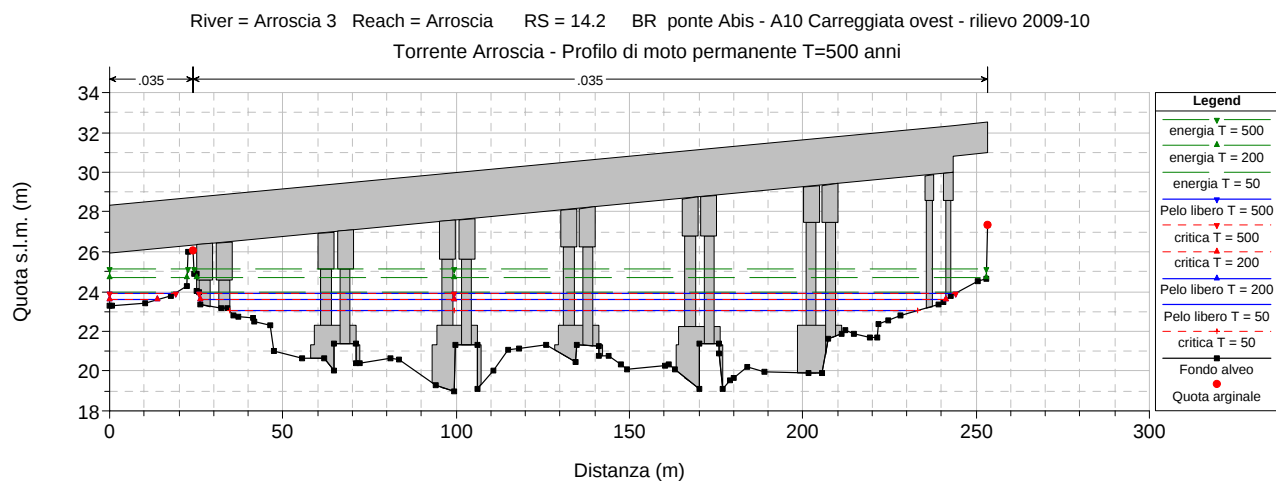
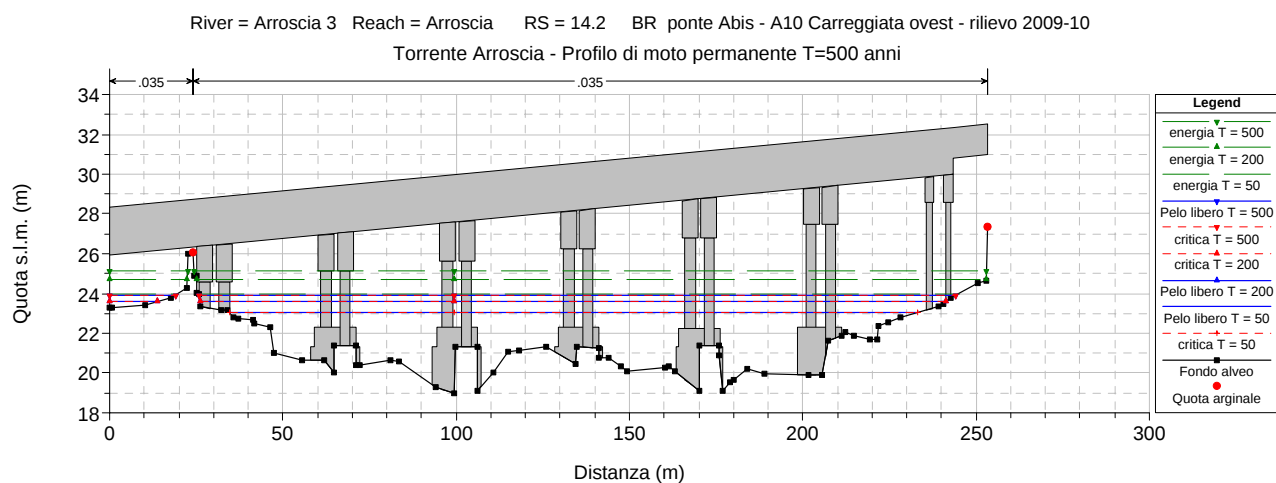
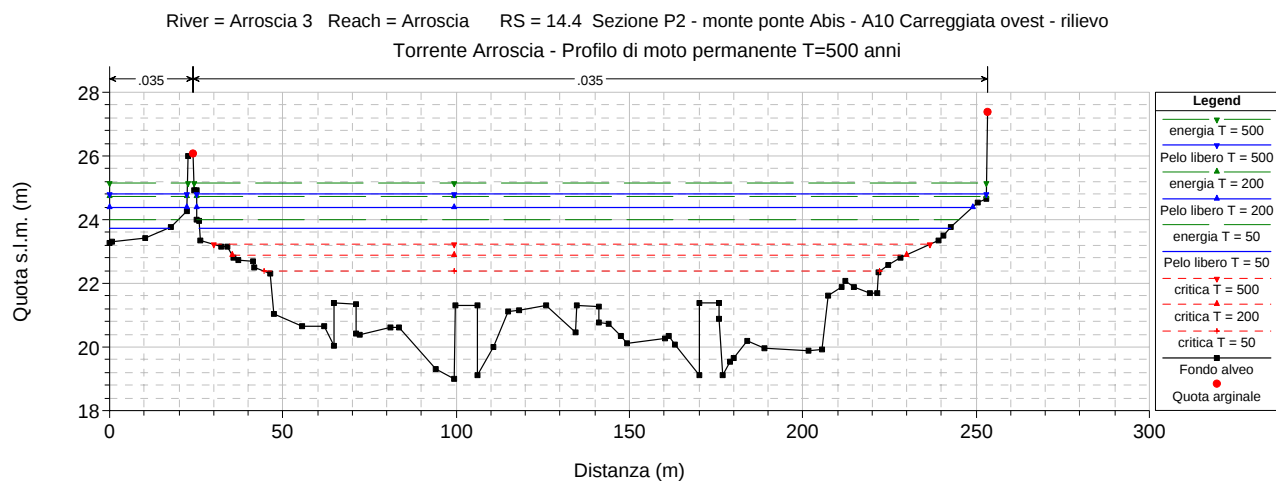


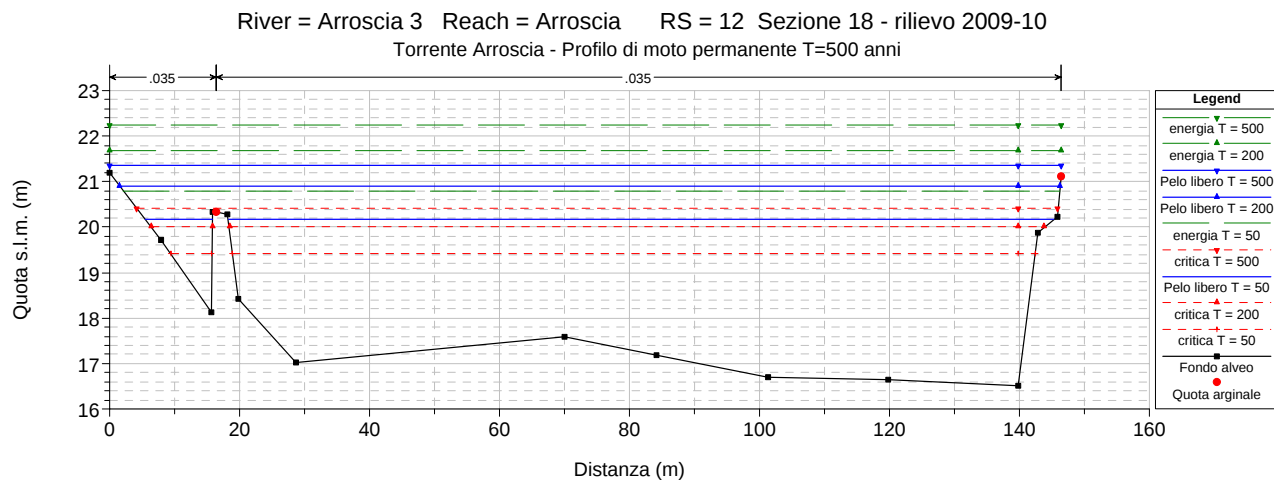
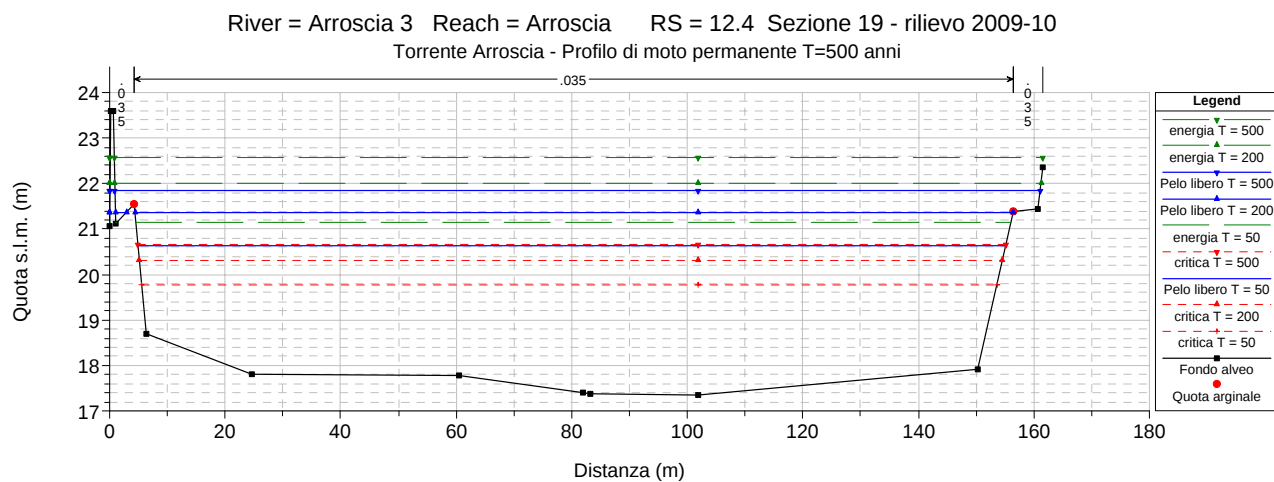
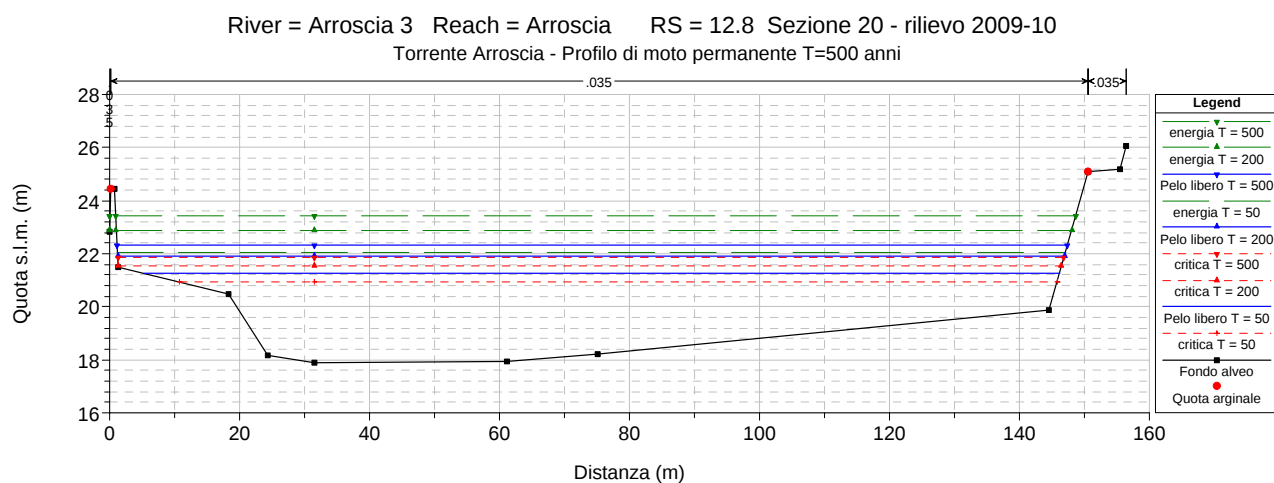
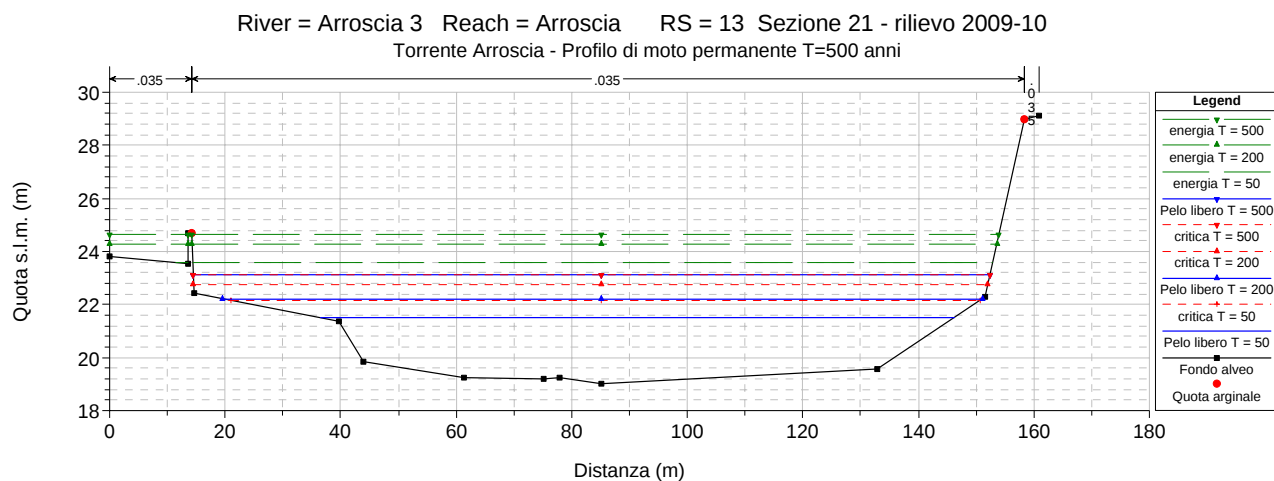


Torrente Arroscia – verifica idraulica – sezioni trasversali

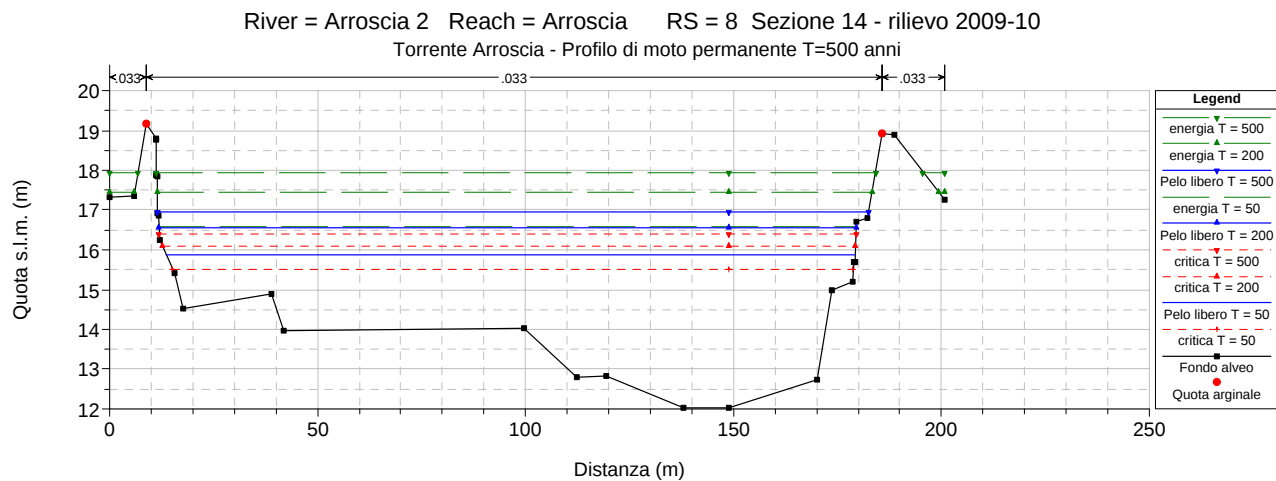
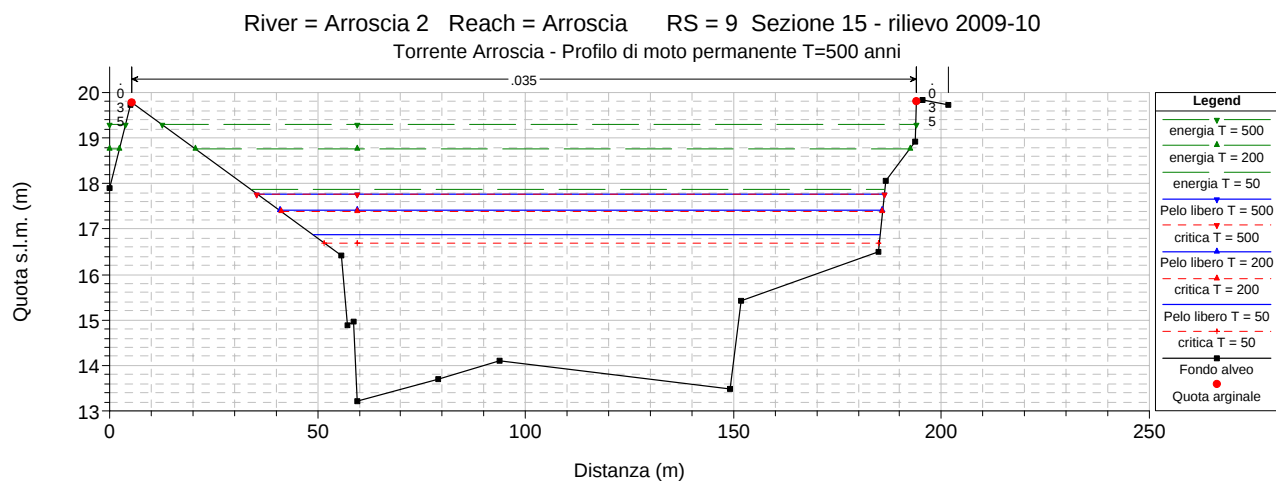
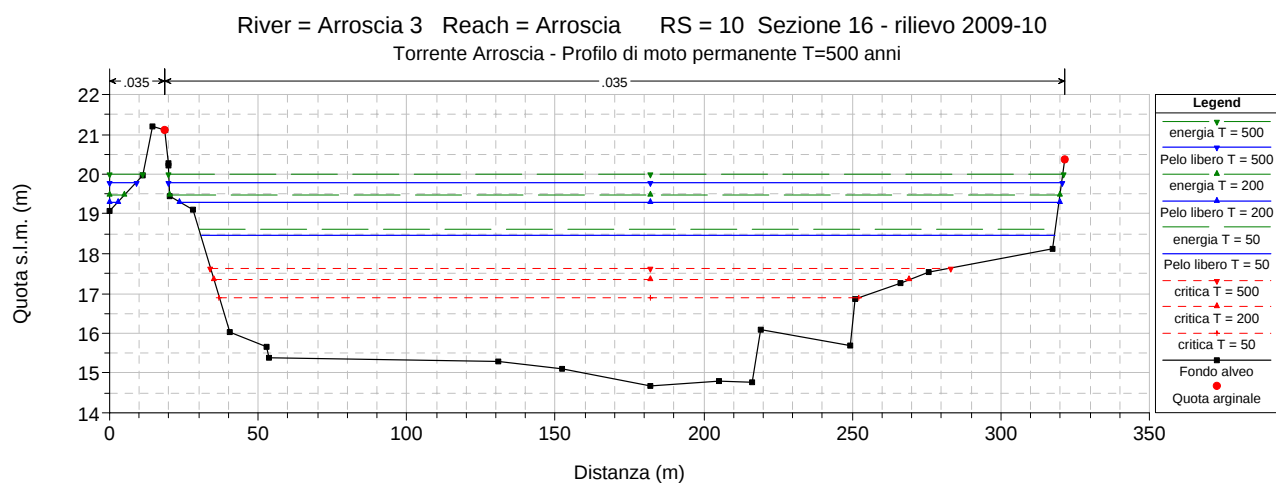
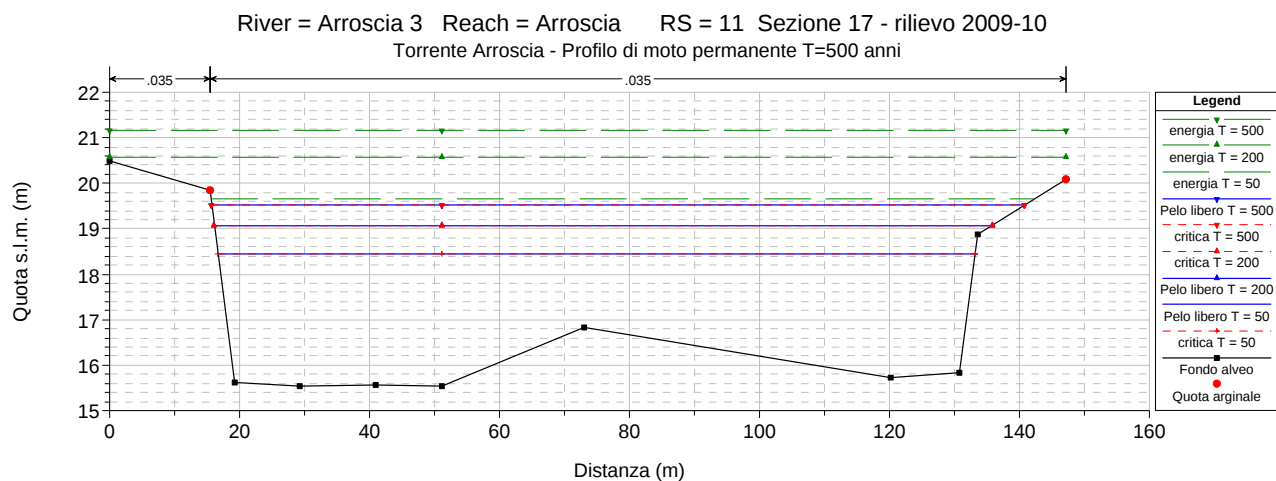


Torrente Arroscia – verifica idraulica – sezioni trasversali

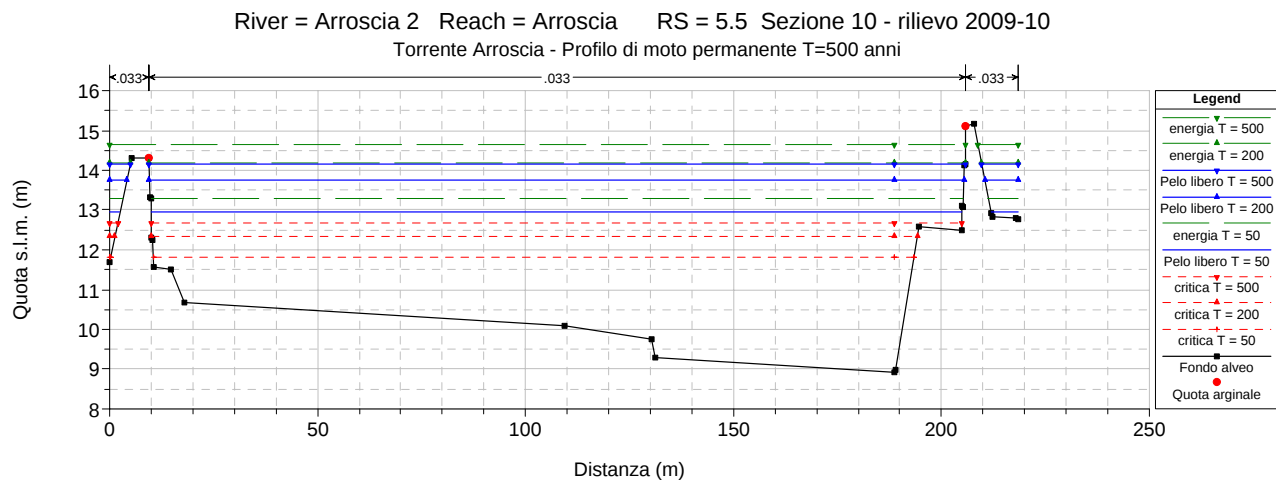
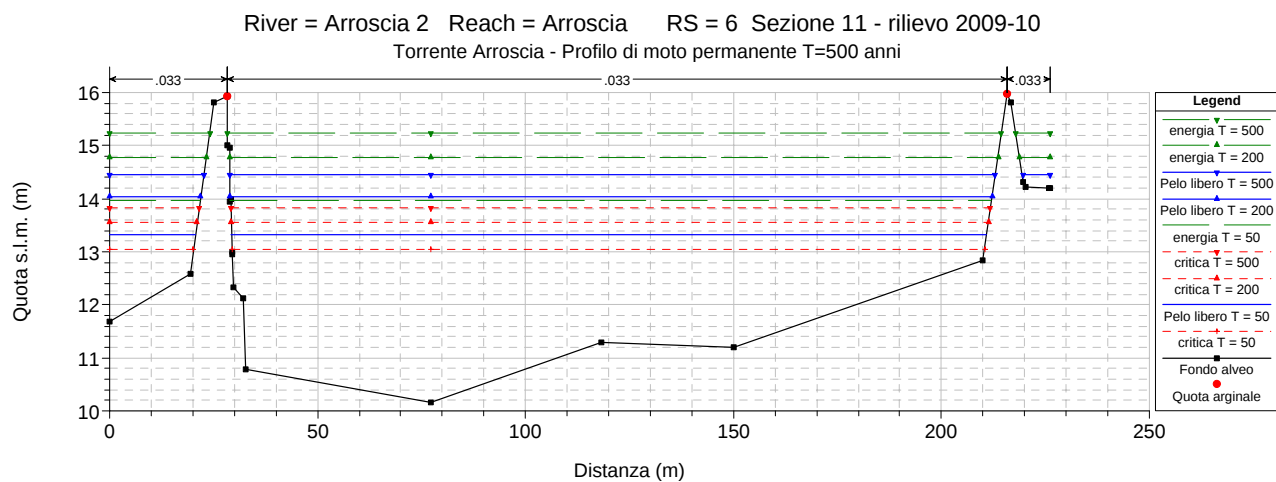
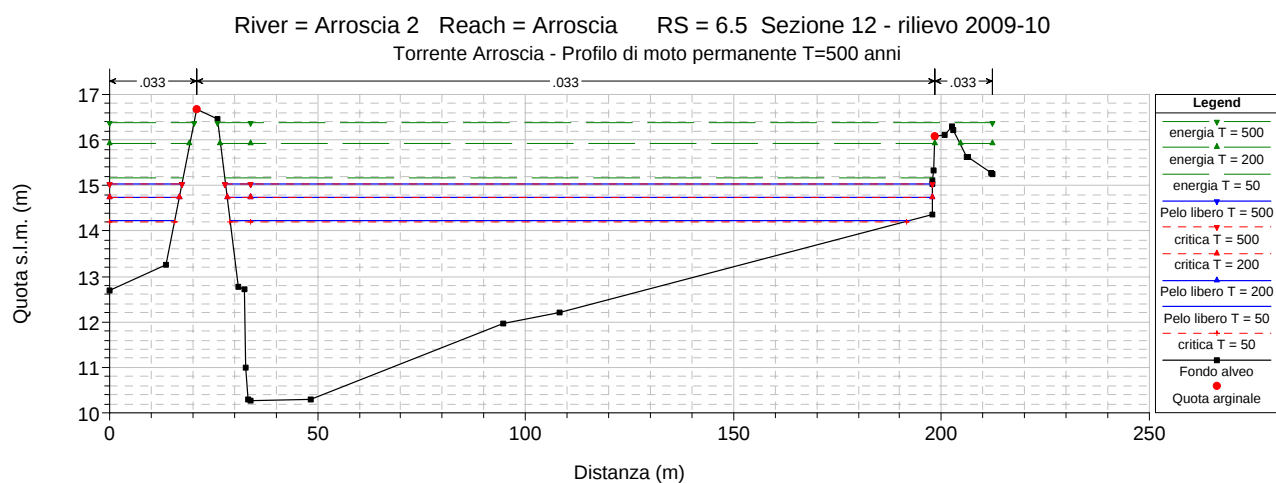
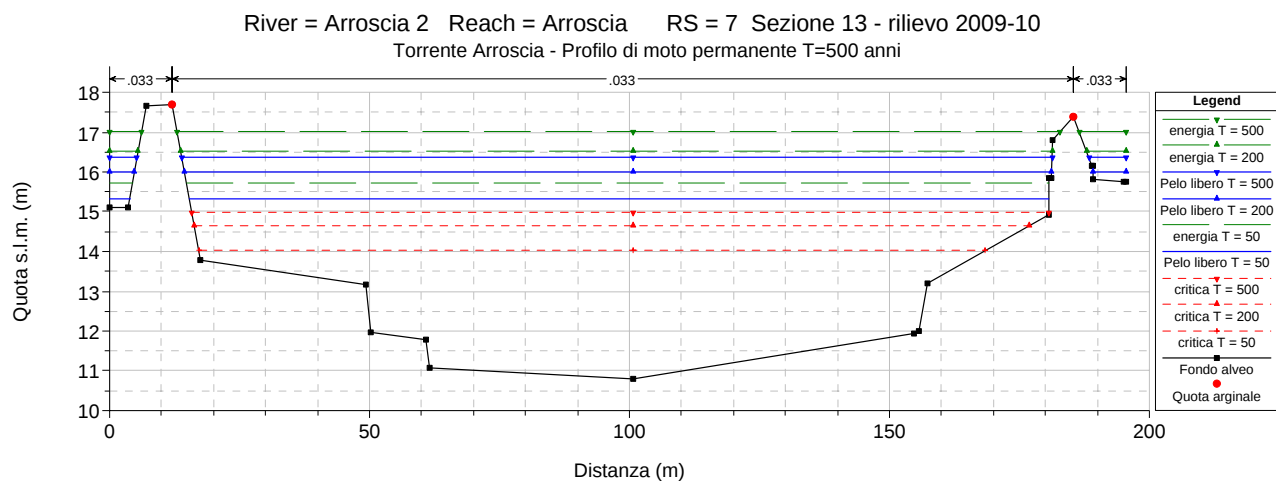


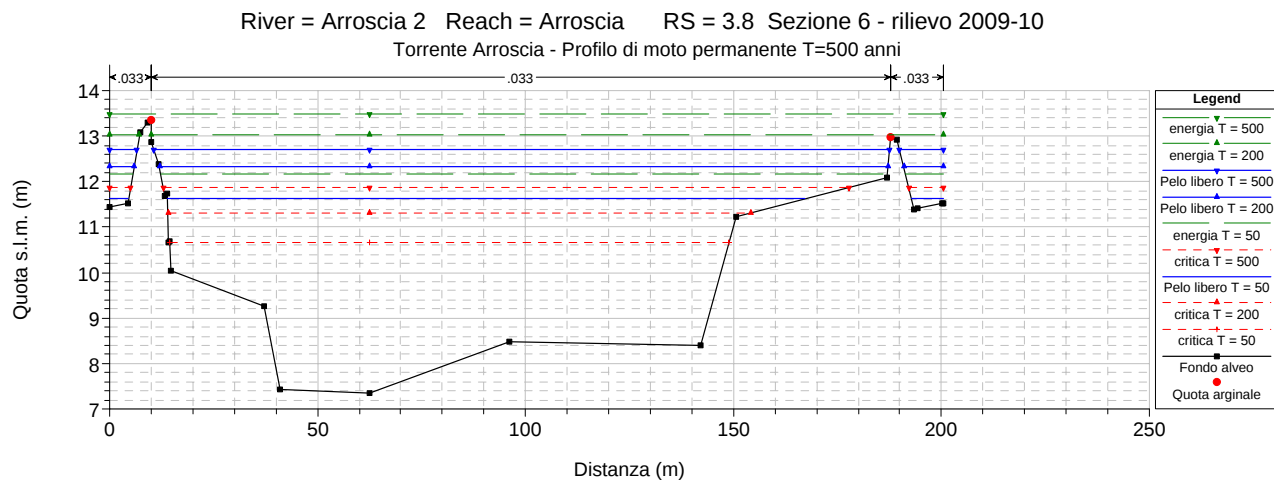
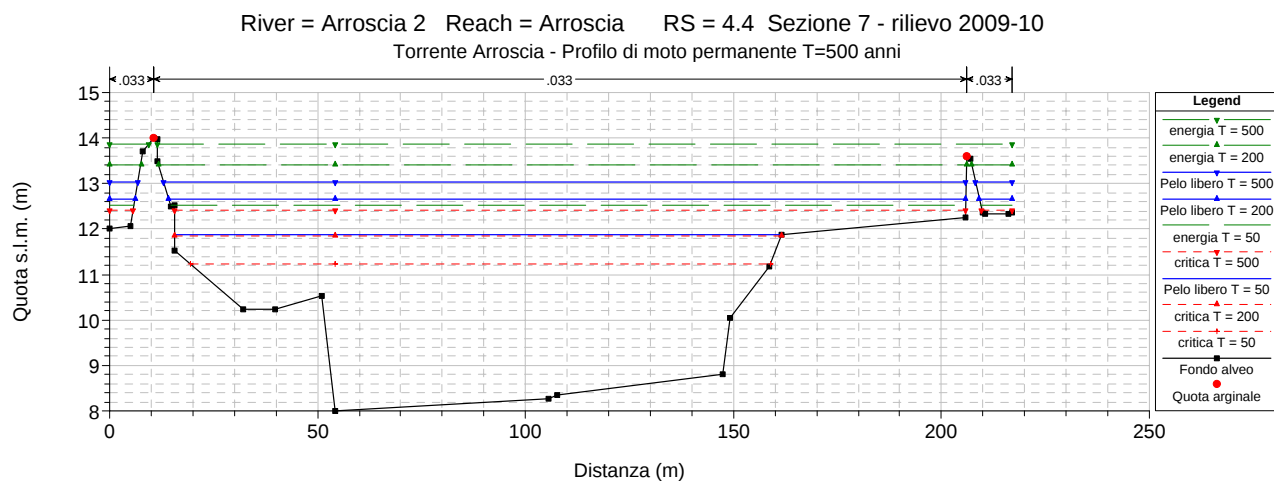
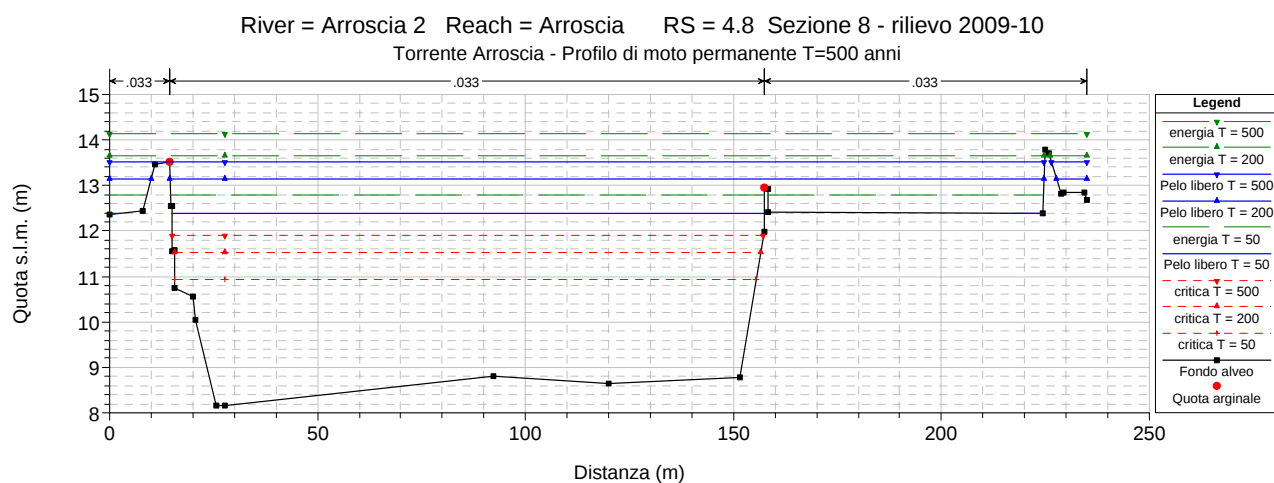
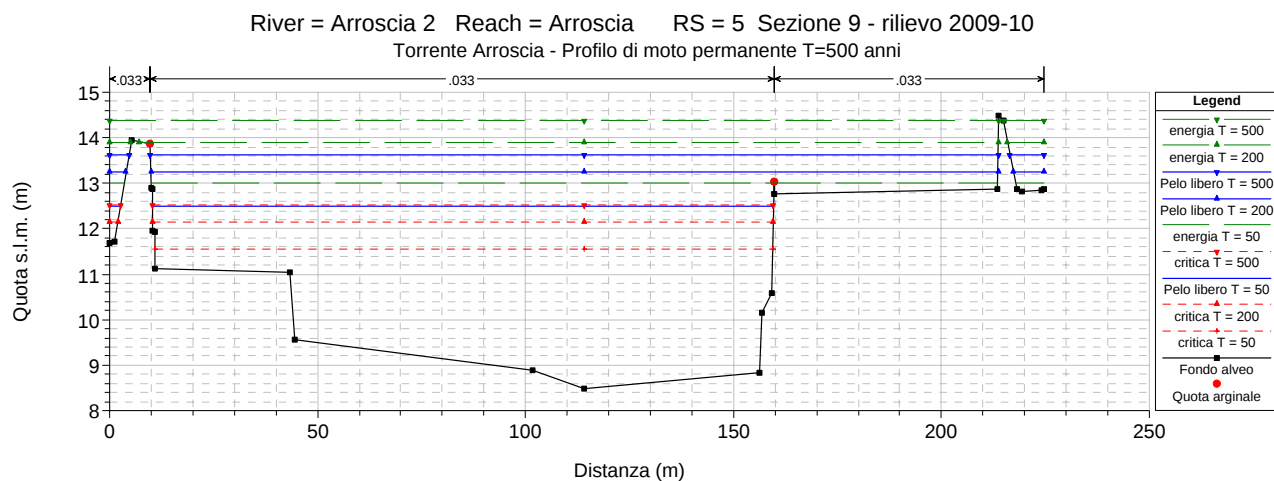


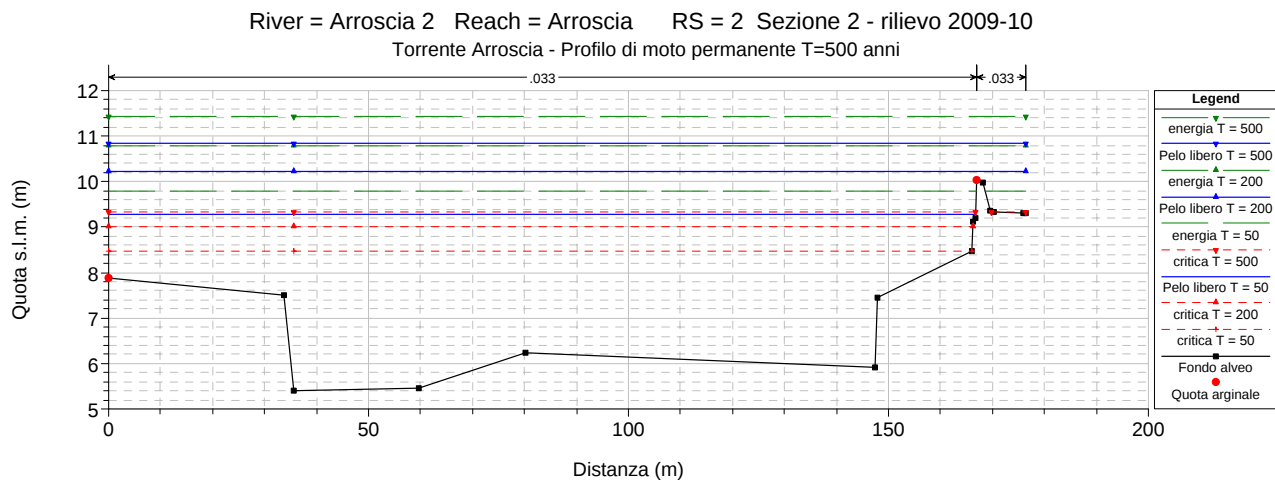
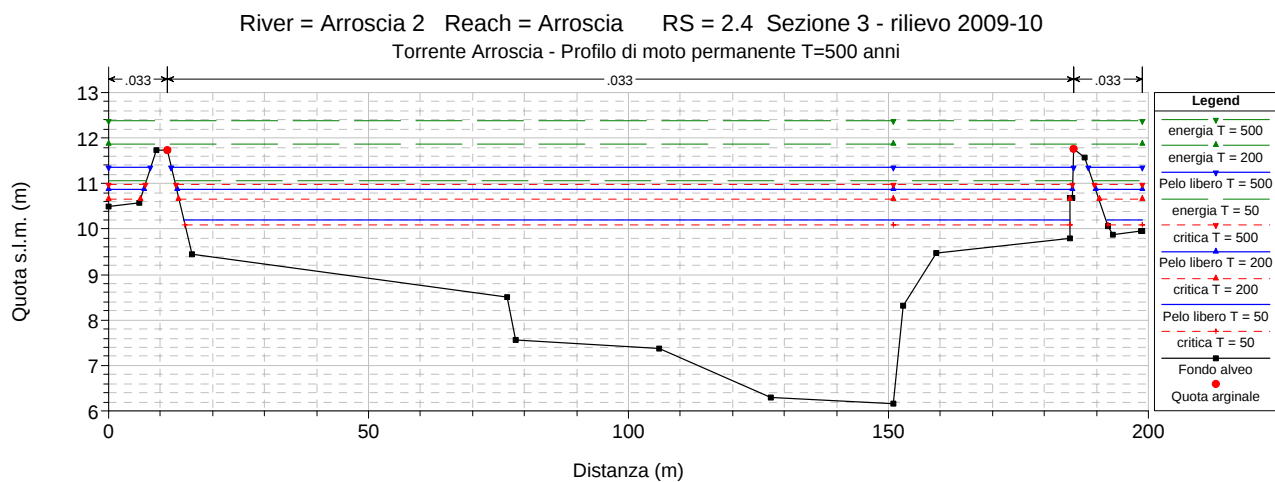
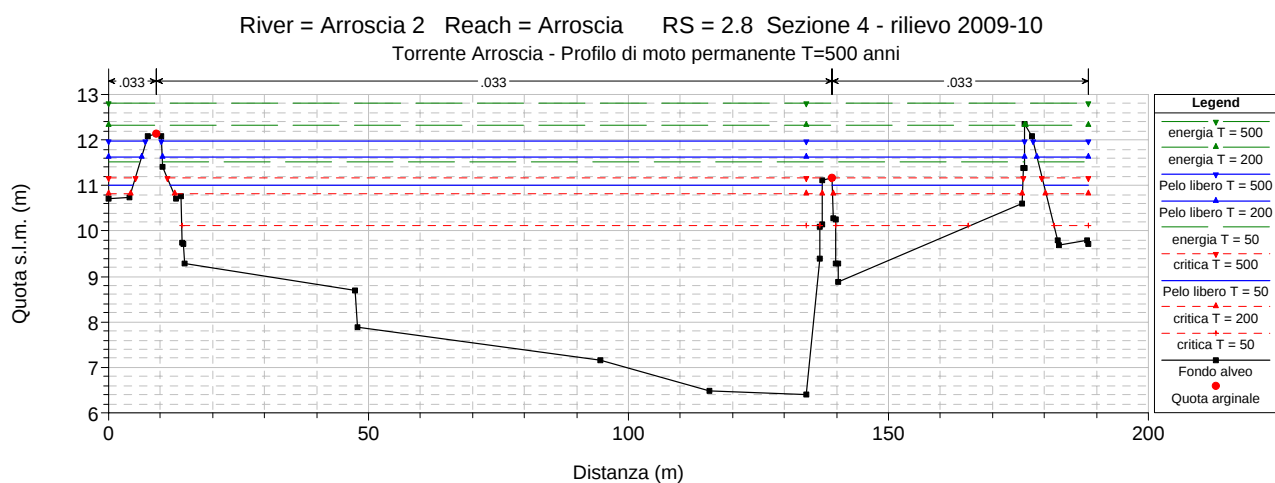
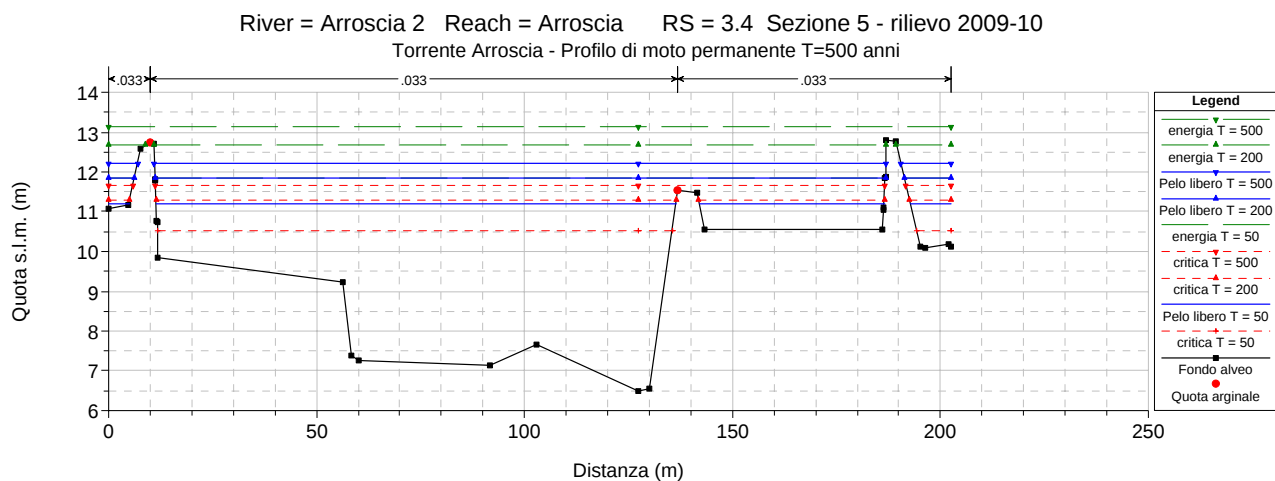
Torrente Arroscia – verifica idraulica – sezioni trasversali

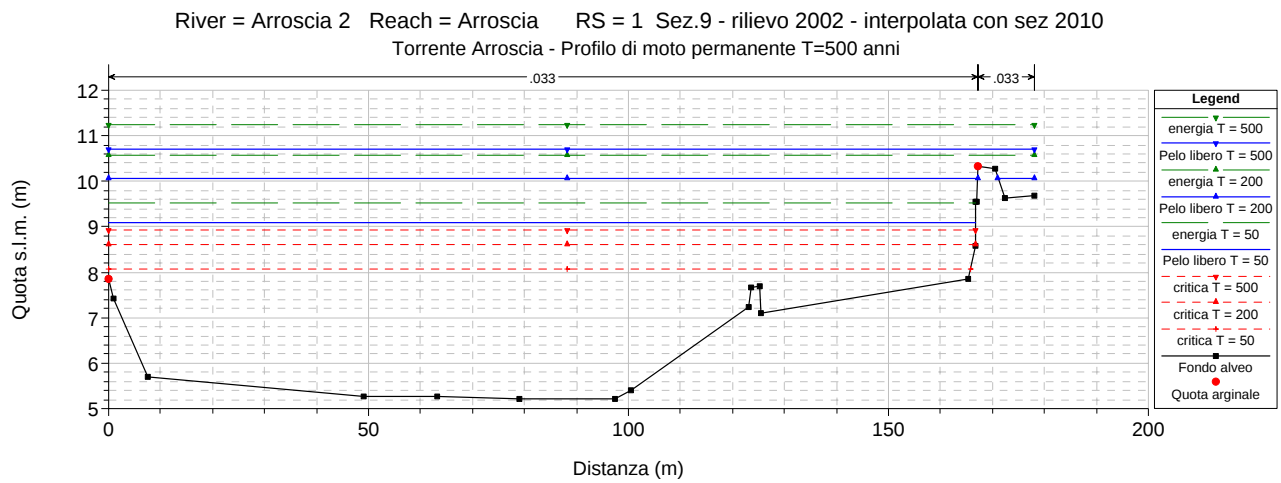


Torrente Arroscia – verifica idraulica – sezioni trasversali











PROVINCIA DI SAVONA
PIANO DI BACINO STRALCIO SUL RISCHIO IDROGEOLOGICO
ALLEGATO VERIFICHE IDRAULICHE

2. TORRENTE ARROSCIA

**2.3 TABELLE DELLE GRANDEZZE IDRAULICHE SIGNIFICATIVE
PER LE PORTATE T=50, 200, 500 ANNI.**

Torrente Arroscia T=50 anni										
Sezioni	Portata totale	Fondo alveo	Argine sinistro	Argine destro	Pelo libero	Profondità critica	Energia (m2)	Velocità (m/s)	Area bagnata	N° Froude
85	1170	69.17	83.47	78.87	74.82	74.02	76.14	5.09	229.78	0.77
84	1170	69.17	81.35	76.59	74.99	73.53	75.84	4.08	286.66	0.60
83	1170	68.97	79.48	79.48	75.13	72.66	75.74	3.46	338.12	0.46
82.5	Bridge									
82	1170	68.97	79.48	79.48	75.10	72.66	75.72	3.47	336.73	0.46
81	1170	68.67	82.12	84.87	74.62	73.82	75.62	4.41	265.25	0.72
80	1170	68.27	74.80	84.78	73.19	73.19	75.05	6.04	193.65	1.01
79	1170	68.12	78.11	83.82	72.05	72.56	74.43	6.84	170.96	1.25
78	1170	67.67	71.07	79.69	71.26	72.02	74.09	7.45	156.99	1.47
77	1170	67.27	70.66	82.83	73.14	71.06	73.42	2.36	495.85	0.37
76	1170	66.97	71.06	82.90	73.02	71.25	73.34	2.50	467.39	0.41
75	1240	66.97	74.66	82.90	72.67	71.40	73.28	3.45	358.92	0.56
74	1240	66.97	73.87	82.96	72.25	71.65	73.17	4.24	292.20	0.75
73	1240	66.97	76.31	82.80	71.58	71.57	72.96	5.21	237.80	1.01
72	1240	67.42	76.37	81.97	71.99	70.95	72.71	3.78	328.30	0.63
71	1240	67.42	76.37	81.97	71.84	70.95	72.63	3.93	315.51	0.66
70	1240	65.46	76.37	81.97	72.14	69.30	72.50	2.65	468.13	0.37
69	1240	64.97	75.74	73.34	71.99	69.93	72.45	3.00	412.84	0.44
68	1240	64.57	74.89	78.19	70.65	70.28	72.12	5.37	230.99	0.87
67	1240	63.88	67.60	65.03	70.01	69.01	71.24	5.03	259.84	0.70
66	1240	64.14	70.68	71.64	69.00	68.32	70.39	5.22	237.49	0.79
65	1240	64.23	70.68	71.64	68.40	68.40	70.33	6.14	201.80	1.00
64	1240	62.24	70.68	71.64	65.49	66.87	70.03	9.44	131.35	1.80
63	1240	61.33	63.83	70.84	68.33	65.32	68.81	3.10	410.20	0.39
62	1240	62.80	73.53	66.24	67.13	66.49	68.29	4.78	260.03	0.77
61	1240	62.90	73.53	66.24	66.58	66.58	68.23	5.70	217.57	1.00
60	1240	60.02	73.53	66.24	67.23	64.51	67.77	3.25	381.57	0.43
59	1240	59.96	66.10	62.40	65.46	64.74	66.99	5.51	228.86	0.79
58	1240	60.06	66.10	62.40	64.82	64.82	66.93	6.45	194.76	0.99
57	1240	58.04	66.10	69.40	62.01	63.43	66.65	9.54	130.01	1.71
56	1240	57.75	64.30	60.04	61.62	62.89	65.87	9.13	136.07	1.79
55	1240	56.65	64.70	68.00	62.76	62.76	64.88	6.44	192.58	1.00
54	1240	56.25	60.90	65.00	63.05	62.09	63.95	4.65	316.87	0.63
53	1240	55.70	60.70	65.00	62.23	62.23	63.53	5.55	277.20	0.76
52	1240	55.22	59.95	64.00	60.87	61.15	62.77	6.31	220.84	0.98
51	1240	55.30	59.78	59.60	60.98	59.66	61.59	3.50	370.05	0.55
50	1240	54.97	57.94	58.23	60.28	59.79	61.29	4.88	297.25	0.71
49	1240	54.00	58.18	61.00	60.51	58.61	60.96	2.97	424.49	0.44
48	1240	53.61	60.92	59.25	60.26	58.54	60.82	3.34	382.61	0.49
47	1240	53.36	60.61	59.47	60.26	58.09	60.76	3.14	398.91	0.44
46	1240	53.28	60.47	59.29	59.93	58.67	60.69	3.88	330.48	0.61
45	1240	53.88	61.07	60.87	59.81	58.57	60.68	4.20	310.63	0.61
44.5	Bridge									
44	1240	53.88	61.07	60.87	59.75	58.57	60.65	4.26	305.77	0.62
43	1240	53.90	60.00	58.01	59.69	58.43	60.48	3.98	319.94	0.59
42	1240	53.55	62.93	58.92	59.76	57.92	60.17	2.84	441.13	0.44
41	1240	53.27	61.27	56.54	59.70	57.71	60.09	2.90	461.88	0.40
40	1240	51.46	60.75	55.95	59.17	57.53	59.91	4.00	330.44	0.55
39	1240	52.19	59.03	56.20	59.01	56.76	59.60	3.43	378.42	0.46
38	1240	51.78	59.56	59.49	58.23	56.87	59.40	4.80	258.41	0.66
37.5	Bridge									
37	1240	51.55	59.71	59.53	55.88	56.78	59.27	8.16	152.02	1.42
36	1240	52.16	55.89	54.88	55.79	56.61	58.52	7.39	174.69	1.34
35	1240	49.42	55.89	54.88	52.11	53.78	58.16	10.90	113.77	2.37
34	1240	48.90	54.21	53.39	51.66	53.21	56.25	9.49	130.67	1.97
33	1240	45.30	51.84	49.00	52.64	52.64	53.78	5.33	311.73	0.70

Torrente Arroscia – verifica idraulica – tabelle

32	1240	45.15	51.35	49.00	49.74	50.71	52.66	7.66	169.52	1.42
31	1240	44.95	49.96	49.00	50.78	50.74	51.46	4.18	422.87	0.66
30	1240	44.10	46.00	46.00	48.30	48.30	50.39	6.76	211.97	1.15
29	1240	41.80	46.50	46.00	47.64	47.91	48.98	5.34	286.09	0.78
28	1240	42.10	47.00	46.00	46.41	46.95	47.84	5.46	250.68	1.17
27	1240	41.00	44.50	44.50	45.98	45.42	46.56	3.65	403.95	0.61
26	1240	39.00	42.50	42.00	44.42	44.42	45.72	5.36	268.70	0.84
25	1240	37.70	43.00	43.00	41.85	42.36	43.83	6.24	198.79	1.37
24.5	1240	36.91	40.41	43.19	40.86	41.38	42.91	6.35	195.71	1.32
24	1260	35.22	39.15	40.88	38.98	38.44	39.46	3.09	408.17	0.71
23.5	1260	33.98	44.21	39.63	37.66	37.66	38.63	4.36	289.07	1.00
23	1260	32.50	43.94	38.30	36.20	35.68	36.65	2.98	422.73	0.66
22.8	1260	31.93	37.82	37.47	35.56	34.89	36.03	3.05	413.31	0.64
22.4	1260	31.06	42.42	36.21	33.99	33.99	34.83	4.06	310.07	1.00
22	1260	29.08	42.34	35.00	32.81	32.12	33.25	2.95	427.79	0.61
21	1260	28.13	34.14	34.29	31.80	31.59	32.59	3.95	319.14	0.87
20.8	1260	26.46	32.73	32.83	30.44	29.90	31.13	3.69	341.17	0.72
20.4	1260	25.54	31.47	31.38	29.38	28.88	30.16	3.92	321.28	0.75
20	1260	23.98	29.75	29.07	27.26	27.26	28.45	4.82	261.83	1.00
19.8	1260	23.91	27.27	28.46	27.10	26.70	27.93	4.04	311.99	0.79
19.6	1260	23.00	26.88	28.06	27.12	26.14	27.68	3.30	382.87	0.59
19.5	1260	22.97	26.77	27.78	26.78	26.25	27.49	3.73	338.53	0.72
19.2	1260	22.96	26.04	27.54	26.46	26.09	27.21	3.84	332.82	0.78
19.1	1260	22.95	25.90	27.00	26.46	25.39	26.85	2.78	455.26	0.53
19	1260	22.43	25.50	26.42	26.39	25.15	26.71	2.48	508.50	0.46
18.8	1260	21.86	26.69	27.20	26.25	25.10	26.61	2.66	473.27	0.50
18.6	1260	21.99	26.51	26.97	25.17	25.17	26.30	4.71	267.53	1.01
18	1260	21.38	31.41	26.01	25.02	24.21	25.65	3.53	356.82	0.64
17.5	Bridge									
17	1260	21.38	31.41	26.01	23.79	24.22	25.53	5.85	215.43	1.36
16	1350	20.42	27.36	27.42	23.91	23.41	24.62	3.73	361.78	0.74
15	1350	19.34	24.73	27.56	24.03	22.29	24.21	1.90	724.79	0.35
14.8	Bridge									
14.6	1350	19.34	24.73	27.56	23.98	22.29	24.17	1.93	712.50	0.36
14.4	1350	19.00	26.06	27.37	23.74	22.38	24.01	2.28	597.03	0.44
14.2	Bridge									
14	1350	19.00	26.06	27.37	21.82	22.38	23.70	6.07	222.59	1.69
13	1350	19.01	24.67	28.97	21.50	22.15	23.59	6.41	210.47	1.48
12.8	1350	17.89	24.46	25.07	21.25	20.92	22.07	3.99	338.18	0.82
12.4	1350	17.34	21.56	21.38	20.63	19.78	21.14	3.15	428.69	0.60
12	1350	16.50	20.34	21.12	20.18	19.41	20.80	3.50	391.28	0.65
11	1350	15.54	19.85	20.09	18.45	18.45	19.65	4.86	277.99	1.00
10	1350	14.67	21.10	20.38	18.45	16.89	18.62	1.83	736.57	0.37
9	1440	13.22	19.79	19.81	16.88	16.70	17.86	4.40	327.38	0.91
8	1440	12.02	19.16	18.92	15.89	15.51	16.60	3.73	386.17	0.78
7	1440	10.80	17.71	17.38	15.33	14.02	15.71	2.74	526.25	0.49
6.5	1440	10.28	16.67	16.09	14.24	14.21	15.16	4.29	341.80	0.97
6	1440	10.17	15.92	15.97	13.32	13.05	13.98	3.64	404.76	0.80
5.5	1440	8.92	14.31	15.10	12.94	11.80	13.29	2.61	553.05	0.50
5	1440	8.47	13.86	13.05	12.50	11.56	13.01	3.17	455.22	0.58
4.8	1440	8.15	13.52	12.96	12.39	10.92	12.78	2.79	516.36	0.47
4.4	1440	8.00	14.02	13.59	11.88	11.22	12.53	3.58	402.07	0.69
3.8	1440	7.35	13.34	12.98	11.62	10.66	12.17	3.29	439.90	0.62
3.4	1440	6.51	12.75	11.54	11.21	10.53	11.85	3.60	423.61	0.66
2.8	1440	6.40	12.13	11.18	11.01	10.11	11.53	3.27	469.17	0.57
2.4	1440	6.17	11.74	11.76	10.20	10.10	11.07	4.13	350.22	0.92
2	1440	5.40	7.89	10.04	9.29	8.46	9.78	3.10	464.65	0.59
1	1440	5.21	7.85	10.32	9.09	8.07	9.52	2.90	496.94	0.54

Torrente Arroscia T=200 anni										
Sezioni	Portata totale	Fondo alveo	Argine sinistro	Argine destro	Pelo libero	Profondità critica	Energia (m2)	Velocità (m/s)	Area bagnata	N° Froude
85	1690	69.17	83.47	78.87	75.92	75.15	77.68	5.87	288.07	0.81
84	1690	69.17	81.35	76.59	76.20	74.51	77.32	4.68	360.83	0.62
83	1690	68.97	79.48	79.48	76.34	73.71	77.21	4.14	408.54	0.50
82.5	Bridge									
82	1690	68.97	79.48	79.48	76.30	73.71	77.18	4.16	406.51	0.50
81	1690	68.67	82.12	84.87	75.98	74.71	77.10	4.69	360.49	0.67
80	1690	68.27	74.80	84.78	74.25	74.25	76.56	6.74	250.70	1.01
79	1690	68.12	78.11	83.82	72.85	73.60	75.94	7.78	217.15	1.30
78	1690	67.67	71.07	79.69	72.00	72.98	75.59	8.39	201.34	1.46
77	1690	67.27	70.66	82.83	74.27	71.66	74.63	2.68	630.99	0.37
76	1690	66.97	71.06	82.90	74.17	71.84	74.56	2.79	606.44	0.40
75	1780	66.97	74.66	82.90	73.73	72.14	74.49	3.88	458.30	0.57
74	1780	66.97	73.87	82.96	73.32	72.39	74.39	4.58	388.34	0.71
73	1780	66.97	76.31	82.80	73.16	72.35	74.28	4.69	379.76	0.74
72	1780	67.42	76.37	81.97	73.36	71.71	74.15	3.94	451.54	0.57
71	1780	67.42	76.37	81.97	73.27	71.71	74.09	4.02	443.33	0.58
70	1780	65.46	76.37	81.97	73.52	70.20	73.98	3.00	592.49	0.38
69	1780	64.97	75.74	73.34	73.37	70.70	73.93	3.33	534.27	0.44
68	1780	64.57	74.89	78.19	71.85	71.28	73.60	5.86	303.57	0.84
67	1780	63.88	67.60	65.03	71.21	70.15	72.80	5.75	332.19	0.72
66	1780	64.14	70.68	71.64	70.17	69.40	71.94	5.89	302.24	0.81
65	1780	64.23	70.68	71.64	69.49	69.49	71.87	6.84	260.26	1.00
64	1780	62.24	70.68	71.64	66.46	67.99	71.58	10.02	177.58	1.68
63	1780	61.33	63.83	70.84	69.60	66.30	70.27	3.69	498.05	0.42
62	1780	62.80	73.53	66.24	68.36	67.40	69.74	5.20	344.36	0.73
61	1780	62.90	73.53	66.24	68.19	67.49	69.72	5.48	326.91	0.79
60	1780	60.02	73.53	66.24	68.78	65.54	69.46	3.67	488.18	0.44
59	1780	59.96	66.10	62.40	66.74	65.95	68.68	6.23	293.18	0.80
58	1780	60.06	66.10	62.40	66.03	66.03	68.61	7.17	253.48	0.98
57	1780	58.04	66.10	69.40	63.11	64.70	68.32	10.12	175.89	1.60
56	1780	57.75	64.30	60.04	62.35	63.95	67.73	10.28	173.72	1.79
55	1780	56.65	64.70	68.00	63.98	63.98	66.56	7.12	250.12	1.00
54	1780	56.25	60.90	65.00	62.00	63.18	65.61	9.05	227.97	1.33
53	1780	55.70	60.70	65.00	62.97	62.97	64.56	6.26	348.68	0.80
52	1780	55.22	59.95	64.00	61.86	62.19	63.83	6.64	315.90	0.93
51	1780	55.30	59.78	59.60	62.70	60.52	63.20	3.25	611.70	0.43
50	1780	54.97	57.94	58.23	62.24	60.56	63.03	4.37	471.19	0.54
49	1780	54.00	58.18	61.00	62.40	59.35	62.83	2.95	628.69	0.37
48	1780	53.61	60.92	59.25	62.29	59.34	62.75	3.11	624.12	0.38
47	1780	53.36	60.61	59.47	62.25	58.91	62.73	3.12	608.36	0.37
46	1780	53.28	60.47	59.29	62.25	59.67	62.70	3.13	633.18	0.39
45	1780	53.88	61.07	60.87	61.96	59.70	62.67	3.87	498.99	0.47
44.5	Bridge									
44	1780	53.88	61.07	60.87	61.94	59.70	62.66	3.89	497.19	0.47
43	1780	53.90	60.00	58.01	61.88	59.32	62.58	3.77	490.48	0.46
42	1780	53.55	62.93	58.92	62.03	58.62	62.37	2.61	695.82	0.33
41	1780	53.27	61.27	56.54	61.99	58.43	62.33	2.73	698.80	0.32
40	1780	51.46	60.75	55.95	61.51	58.43	62.21	3.89	487.22	0.45
39	1780	52.19	59.03	56.20	61.57	57.74	61.99	3.04	667.86	0.34
38	1780	51.78	59.56	59.49	61.11	58.03	61.89	4.08	506.03	0.46
37.5	Bridge									
37	1780	51.55	59.71	59.53	57.95	57.95	60.56	7.16	248.73	1.00
36	1780	52.16	55.89	54.88	56.37	57.53	60.08	8.70	218.67	1.45
35	1780	49.42	55.89	54.88	52.86	54.83	59.73	11.62	153.24	2.17
34	1780	48.90	54.21	53.39	52.30	54.21	58.08	10.65	167.18	2.03
33	1780	45.30	51.84	49.00	53.02	53.28	54.72	6.64	360.21	0.85

Torrente Arroscia – verifica idraulica – tabelle

32	1780	45.15	51.35	49.00	50.80	51.80	53.59	7.65	259.86	1.22
31	1780	44.95	49.96	49.00	51.15	51.17	52.01	4.88	525.40	0.74
30	1780	44.10	46.00	46.00	49.20	49.73	51.00	6.68	374.30	1.01
29	1780	41.80	46.50	46.00	48.19	48.67	49.83	6.19	397.83	0.86
28	1780	42.10	47.00	46.00	46.80	47.39	48.56	6.21	340.39	1.23
27	1780	41.00	44.50	44.50	46.96	46.04	47.52	3.65	575.76	0.54
26	1780	39.00	42.50	42.00	45.13	45.13	46.76	6.12	339.26	0.89
25	1780	37.70	43.00	43.00	42.47	43.09	44.87	6.86	259.52	1.35
24.5	1780	36.91	40.41	43.19	41.53	42.14	44.01	6.99	255.82	1.33
24	1820	35.22	39.15	40.88	39.61	39.01	40.17	3.31	550.02	0.69
23.5	1820	33.98	44.21	39.63	38.27	38.27	39.39	4.69	387.67	1.01
23	1820	32.50	43.94	38.30	36.78	36.14	37.35	3.35	543.91	0.66
22.8	1820	31.93	37.82	37.47	36.08	35.41	36.74	3.58	507.74	0.68
22.4	1820	31.06	42.42	36.21	34.46	34.46	35.52	4.57	398.35	1.00
22	1820	29.08	42.34	35.00	33.46	32.60	34.03	3.34	545.17	0.61
21	1820	28.13	34.14	34.29	32.41	32.13	33.41	4.41	412.63	0.85
20.8	1820	26.46	32.73	32.83	31.19	30.51	32.07	4.15	438.48	0.72
20.4	1820	25.54	31.47	31.38	30.03	29.54	31.10	4.57	398.48	0.80
20	1820	23.98	29.75	29.07	27.99	27.99	29.42	5.30	347.60	0.97
19.8	1820	23.91	27.27	28.46	27.71	27.35	28.84	4.73	390.37	0.83
19.6	1820	23.00	26.88	28.06	27.77	26.78	28.55	3.93	471.78	0.64
19.5	1820	22.97	26.77	27.78	27.42	26.90	28.35	4.32	431.64	0.75
19.2	1820	22.96	26.04	27.54	27.21	26.72	28.07	4.17	448.33	0.75
19.1	1820	22.95	25.90	27.00	27.26	26.01	27.74	3.10	594.60	0.52
19	1820	22.43	25.50	26.42	27.20	25.66	27.61	2.82	646.70	0.46
18.8	1820	21.86	26.69	27.20	27.06	25.63	27.52	3.01	604.62	0.50
18.6	1820	21.99	26.51	26.97	25.83	25.83	27.20	5.20	349.92	1.01
18	1820	21.38	31.41	26.01	25.87	24.87	26.67	3.98	457.15	0.65
17.5	Bridge									
17	1820	21.38	31.41	26.01	24.31	24.87	26.54	6.62	274.96	1.37
16	1900	20.42	27.36	27.42	24.46	23.99	25.41	4.32	439.63	0.80
15	1900	19.34	24.73	27.56	24.69	22.79	24.93	2.15	904.21	0.36
14.8	Bridge									
14.6	1900	19.34	24.73	27.56	24.64	22.79	24.88	2.19	890.10	0.37
14.4	1900	19.00	26.06	27.37	24.39	22.89	24.72	2.57	751.19	0.45
14.2	Bridge									
14	1900	19.00	26.06	27.37	22.21	22.89	24.40	6.55	290.24	1.62
13	1900	19.01	24.67	28.97	22.22	22.74	24.29	6.38	297.74	1.36
12.8	1900	17.89	24.46	25.07	21.90	21.52	22.89	4.40	431.50	0.82
12.4	1900	17.34	21.56	21.38	21.37	20.31	22.00	3.51	541.28	0.59
12	1900	16.50	20.34	21.12	20.90	20.00	21.68	3.93	494.16	0.66
11	1900	15.54	19.85	20.09	19.08	19.08	20.56	5.40	351.95	1.00
10	1900	14.67	21.10	20.38	19.30	17.34	19.49	1.93	982.83	0.34
9	2080	13.22	19.79	19.81	17.41	17.38	18.77	5.16	402.97	0.99
8	2080	12.02	19.16	18.92	16.57	16.08	17.45	4.17	499.23	0.77
7	2080	10.80	17.71	17.38	15.99	14.64	16.53	3.27	639.96	0.53
6.5	2080	10.28	16.67	16.09	14.73	14.73	15.93	4.89	433.36	1.01
6	2080	10.17	15.92	15.97	14.04	13.54	14.78	3.85	551.85	0.74
5.5	2080	8.92	14.31	15.10	13.74	12.33	14.18	2.92	718.76	0.49
5	2080	8.47	13.86	13.05	13.25	12.16	13.91	3.63	595.14	0.60
4.8	2080	8.15	13.52	12.96	13.15	11.53	13.67	3.24	683.26	0.49
4.4	2080	8.00	14.02	13.59	12.66	11.86	13.40	3.82	548.17	0.73
3.8	2080	7.35	13.34	12.98	12.32	11.32	13.02	3.71	567.73	0.67
3.4	2080	6.51	12.75	11.54	11.86	11.29	12.68	4.13	545.89	0.68
2.8	2080	6.40	12.13	11.18	11.63	10.81	12.33	3.84	580.01	0.63
2.4	2080	6.17	11.74	11.76	10.86	10.65	11.88	4.48	470.49	0.87
2	2080	5.40	7.89	10.04	10.22	9.01	10.79	3.35	626.69	0.55
1	2080	5.21	7.85	10.32	10.06	8.62	10.57	3.15	661.91	0.51

Torrente Arroscia T=500 anni										
Sezioni	Portata totale	Fondo alveo	Argine sinistro	Argine destro	Pelo libero	Profondità critica	Energia (m2)	Velocità (m/s)	Area bagnata	N° Froude
85	2040	69.17	83.47	78.87	76.61	75.84	78.61	6.27	325.61	0.83
84	2040	69.17	81.35	76.59	76.94	75.11	78.22	5.01	407.10	0.63
83	2040	68.97	79.48	79.48	77.07	74.30	78.11	4.52	451.00	0.52
82.5	Bridge									
82	2040	68.97	79.48	79.48	77.03	74.30	78.08	4.55	448.48	0.52
81	2040	68.67	82.12	84.87	76.81	75.26	78.00	4.85	420.66	0.65
80	2040	68.27	74.80	84.78	74.89	74.89	77.48	7.12	286.42	1.00
79	2040	68.12	78.11	83.82	73.32	74.21	76.84	8.31	245.63	1.32
78	2040	67.67	71.07	79.69	72.47	73.54	76.49	8.89	229.46	1.46
77	2040	67.27	70.66	82.83	75.10	72.05	75.49	2.79	731.08	0.36
76	2040	66.97	71.06	82.90	75.01	72.22	75.43	2.87	710.04	0.38
75	2164	66.97	74.66	82.90	74.53	72.62	75.36	4.04	535.96	0.55
74	2164	66.97	73.87	82.96	74.18	72.88	75.27	4.63	467.02	0.66
73	2164	66.97	76.31	82.80	74.09	72.85	75.19	4.64	466.82	0.67
72	2164	67.42	76.37	81.97	74.25	72.21	75.08	4.06	533.41	0.54
71	2164	67.42	76.37	81.97	74.17	72.21	75.03	4.11	526.45	0.55
70	2164	65.46	76.37	81.97	74.41	70.72	74.93	3.21	674.49	0.38
69	2164	64.97	75.74	73.34	74.25	71.20	74.88	3.52	615.28	0.43
68	2164	64.57	74.89	78.19	72.61	71.92	74.55	6.17	350.77	0.83
67	2164	63.88	67.60	65.03	71.98	70.88	73.78	6.15	381.56	0.73
66	2164	64.14	70.68	71.64	70.93	70.11	72.93	6.27	345.36	0.81
65	2164	64.23	70.68	71.64	70.18	70.18	72.86	7.24	298.80	1.00
64	2164	62.24	70.68	71.64	67.09	68.73	72.55	10.35	209.09	1.62
63	2164	61.33	63.83	70.84	70.49	66.92	71.28	4.00	562.09	0.44
62	2164	62.80	73.53	66.24	69.37	68.00	70.78	5.26	415.61	0.68
61	2164	62.90	73.53	66.24	69.26	68.09	70.76	5.44	402.08	0.71
60	2164	60.02	73.53	66.24	69.76	66.20	70.54	3.92	558.63	0.44
59	2164	59.96	66.10	62.40	67.55	66.70	69.76	6.66	334.76	0.80
58	2164	60.06	66.10	62.40	66.77	66.77	69.68	7.62	291.21	0.98
57	2164	58.04	66.10	69.40	63.81	65.49	69.39	10.47	206.74	1.56
56	2164	57.75	64.30	60.04	62.88	64.65	68.82	10.81	201.05	1.75
55	2164	56.65	64.70	68.00	64.75	64.77	67.63	7.51	288.13	1.00
54	2164	56.25	60.90	65.00	62.42	63.69	66.62	9.89	262.06	1.40
53	2164	55.70	60.70	65.00	63.43	63.43	65.22	6.69	392.44	0.83
52	2164	55.22	59.95	64.00	62.80	62.56	64.46	6.24	413.31	0.81
51	2164	55.30	59.78	59.60	63.36	61.09	63.90	3.42	710.11	0.43
50	2164	54.97	57.94	58.23	62.73	61.06	63.71	4.84	516.11	0.57
49	2164	54.00	58.18	61.00	62.95	59.83	63.47	3.27	703.59	0.39
48	2164	53.61	60.92	59.25	62.83	60.02	63.39	3.43	691.56	0.41
47	2164	53.36	60.61	59.47	62.76	59.44	63.36	3.49	664.76	0.40
46	2164	53.28	60.47	59.29	62.78	60.44	63.32	3.43	704.18	0.41
45	2164	53.88	61.07	60.87	62.37	60.26	63.28	4.39	536.79	0.52
44.5	Bridge									
44	2164	53.88	61.07	60.87	62.33	60.27	63.25	4.42	532.89	0.52
43	2164	53.90	60.00	58.01	62.23	59.88	63.16	4.35	517.72	0.52
42	2164	53.55	62.93	58.92	62.45	59.08	62.89	2.97	743.24	0.36
41	2164	53.27	61.27	56.54	62.39	58.86	62.84	3.13	741.61	0.36
40	2164	51.46	60.75	55.95	61.70	59.02	62.68	4.61	499.97	0.52
39	2164	52.19	59.03	56.20	61.79	58.35	62.37	3.56	695.51	0.39
38	2164	51.78	59.56	59.49	61.00	58.77	62.22	5.06	493.36	0.57
37.5	Bridge									
37	2164	51.55	59.71	59.53	58.71	58.71	61.64	7.59	285.03	1.00
36	2164	52.16	55.89	54.88	56.69	57.94	61.12	9.57	244.22	1.52
35	2164	49.42	55.89	54.88	53.35	55.68	60.79	12.08	179.16	2.09
34	2164	48.90	54.21	53.39	52.69	54.82	59.25	11.35	190.70	2.08
33	2164	45.30	51.84	49.00	53.18	53.69	55.40	7.62	381.26	0.96

Torrente Arroscia – verifica idraulica – tabelle

32	2164	45.15	51.35	49.00	51.32	52.24	54.20	7.89	316.05	1.18
31	2164	44.95	49.96	49.00	51.12	51.42	52.43	6.00	519.42	0.91
30	2164	44.10	46.00	46.00	49.59	50.09	51.30	6.73	459.28	0.98
29	2164	41.80	46.50	46.00	48.55	49.04	50.21	6.45	481.94	0.86
28	2164	42.10	47.00	46.00	47.01	47.62	48.93	6.59	408.38	1.26
27	2164	41.00	44.50	44.50	47.58	46.37	48.15	3.70	684.11	0.51
26	2164	39.00	42.50	42.00	45.61	45.61	47.43	6.50	388.60	0.90
25	2164	37.70	43.00	43.00	42.85	43.61	45.55	7.29	296.93	1.36
24.5	2164	36.91	40.41	43.19	41.93	42.60	44.72	7.42	294.08	1.32
24	2190	35.22	39.15	40.88	39.96	39.29	40.57	3.46	633.56	0.68
23.5	2190	33.98	44.21	39.63	38.63	38.63	39.82	4.82	454.16	1.00
23	2190	32.50	43.94	38.30	37.13	36.40	37.78	3.55	616.81	0.66
22.8	2190	31.93	37.82	37.47	36.39	35.72	37.16	3.89	563.56	0.70
22.4	2190	31.06	42.42	36.21	34.74	34.74	35.94	4.86	450.88	1.00
22	2190	29.08	42.34	35.00	33.86	32.89	34.50	3.55	617.41	0.61
21	2190	28.13	34.14	34.29	32.80	32.45	33.90	4.64	471.78	0.84
20.8	2190	26.46	32.73	32.83	31.64	30.86	32.63	4.41	496.60	0.72
20.4	2190	25.54	31.47	31.38	30.38	29.93	31.64	4.97	440.52	0.83
20	2190	23.98	29.75	29.07	28.40	28.40	29.97	5.57	401.79	0.96
19.8	2190	23.91	27.27	28.46	27.40	27.78	29.42	6.29	349.79	1.16
19.6	2190	23.00	26.88	28.06	28.15	27.21	29.07	4.29	525.69	0.67
19.5	2190	22.97	26.77	27.78	27.82	27.30	28.87	4.59	491.23	0.76
19.2	2190	22.96	26.04	27.54	27.65	27.06	28.59	4.35	518.02	0.73
19.1	2190	22.95	25.90	27.00	27.73	26.32	28.27	3.29	676.94	0.52
19	2190	22.43	25.50	26.42	27.68	25.96	28.14	3.02	727.33	0.47
18.8	2190	21.86	26.69	27.20	27.52	25.96	28.05	3.22	681.43	0.50
18.6	2190	21.99	26.51	26.97	26.25	26.19	27.74	5.41	404.50	0.98
18	2190	21.38	31.41	26.01	26.37	25.25	27.28	4.23	519.99	0.65
17.5	Bridge									
17	2190	21.38	31.41	26.01	24.63	25.26	27.15	7.04	311.08	1.37
16	2300	20.42	27.36	27.42	24.79	24.38	25.91	4.69	490.61	0.84
15	2300	19.34	24.73	27.56	25.12	23.13	25.38	2.32	1020.03	0.37
14.8	Bridge									
14.6	2300	19.34	24.73	27.56	25.06	23.14	25.34	2.35	1004.55	0.38
14.4	2300	19.00	26.06	27.37	24.79	23.22	25.17	2.74	852.55	0.46
14.2	Bridge									
14	2300	19.00	26.06	27.37	22.48	23.22	24.84	6.81	337.85	1.59
13	2300	19.01	24.67	28.97	23.11	23.11	24.64	5.48	419.54	1.00
12.8	2300	17.89	24.46	25.07	22.32	21.87	23.43	4.67	492.43	0.81
12.4	2300	17.34	21.56	21.38	21.85	20.66	22.56	3.74	617.23	0.60
12	2300	16.50	20.34	21.12	21.37	20.42	22.24	4.19	561.82	0.66
11	2300	15.54	19.85	20.09	19.52	19.52	21.15	5.67	405.73	1.00
10	2300	14.67	21.10	20.38	19.80	17.63	20.01	2.03	1134.56	0.33
9	2500	13.22	19.79	19.81	17.78	17.78	19.30	5.47	456.92	1.00
8	2500	12.02	19.16	18.92	16.96	16.40	17.95	4.42	565.57	0.78
7	2500	10.80	17.71	17.38	16.36	14.99	17.01	3.57	706.77	0.56
6.5	2500	10.28	16.67	16.09	15.04	15.04	16.38	5.19	491.06	1.01
6	2500	10.17	15.92	15.97	14.44	13.83	15.25	4.03	635.57	0.72
5.5	2500	8.92	14.31	15.10	14.16	12.67	14.66	3.15	804.83	0.50
5	2500	8.47	13.86	13.05	13.63	12.52	14.38	3.90	678.24	0.61
4.8	2500	8.15	13.52	12.96	13.53	11.90	14.13	3.50	771.50	0.51
4.4	2500	8.00	14.02	13.59	13.04	12.42	13.86	4.04	626.63	0.72
3.8	2500	7.35	13.34	12.98	12.70	11.87	13.50	3.97	640.37	0.68
3.4	2500	6.51	12.75	11.54	12.23	11.67	13.15	4.41	618.06	0.70
2.8	2500	6.40	12.13	11.18	11.98	11.17	12.80	4.16	644.36	0.65
2.4	2500	6.17	11.74	11.76	11.34	10.98	12.38	4.53	562.26	0.82
2	2500	5.40	7.89	10.04	10.84	9.35	11.44	3.43	736.48	0.53
1	2500	5.21	7.85	10.32	10.71	8.94	11.25	3.25	776.43	0.48