



COMUNE DI ORBETELLO

INDAGINI IDROLOGICHE IDRAULICHE DI SUPPORTO AL REGOLAMENTO URBANISTICO DEL COMUNE DI ORBETELLO AI SENSI DEL REGOLAMENTO DI ATTUAZIONE N.26/R DELL' ART. 62 DELLA LEGGE REGIONALE 1/2005

ELABORATO	TXT03
SCALA	-----
DATA	Febbraio 2011
REVISIONE	01

OGGETTO

ALLEGATO 2:
RISULTATI DELLA
MODELLISTICA IDROLOGICA-IDRAULICA

PROGETTISTA:

ING. ANDREA BENVENUTI
VIA CLAUDIO MONTEVERDI 40
50144 FIRENZE

COMMITTENTE:

COMUNE DI ORBETELLO

REV.	DESCRIZIONE	REDATTO	DATA	VERIFICATO	DATA	APPROVATO	DATA
00	PRIMA EMISSIONE	A.BENVENUTI	MARZO '10	A.BENVENUTI	MARZO '10	A.BENVENUTI	MARZO '10
01	SECONDA EMISSIONE	A.BENVENUTI	FEBBRAIO '11	A.BENVENUTI	FEBBRAIO '11	A.BENVENUTI	FEBBRAIO '11

Fiume Albegna

Analisi idrologica

Modello di Infiltrazione:

Metodo dell'Infiltrazione a Soglia

Modello di Formazione dell'Onda di Piena:

Metodo di Nash GIUH

Parametri geomorfologici:

Bacino	A [kmq]	L [km]	la [mm]	Ks [mm/h]	Rb -	Rl -	Ra -	n -	k [h]	Tl [h]
Albegna 1	620.10	64.60	10.27	1.29	3.80	2.08	4.25	3.18	3.21	10.20
Albegna 2	673.60	64.60	10.65	1.32	3.83	2.08	4.28	3.17	3.20	10.14
Albegna 3	745.00	70.50	10.60	1.37	3.87	2.10	4.31	3.18	3.56	11.34

Parametri pluviometrici:

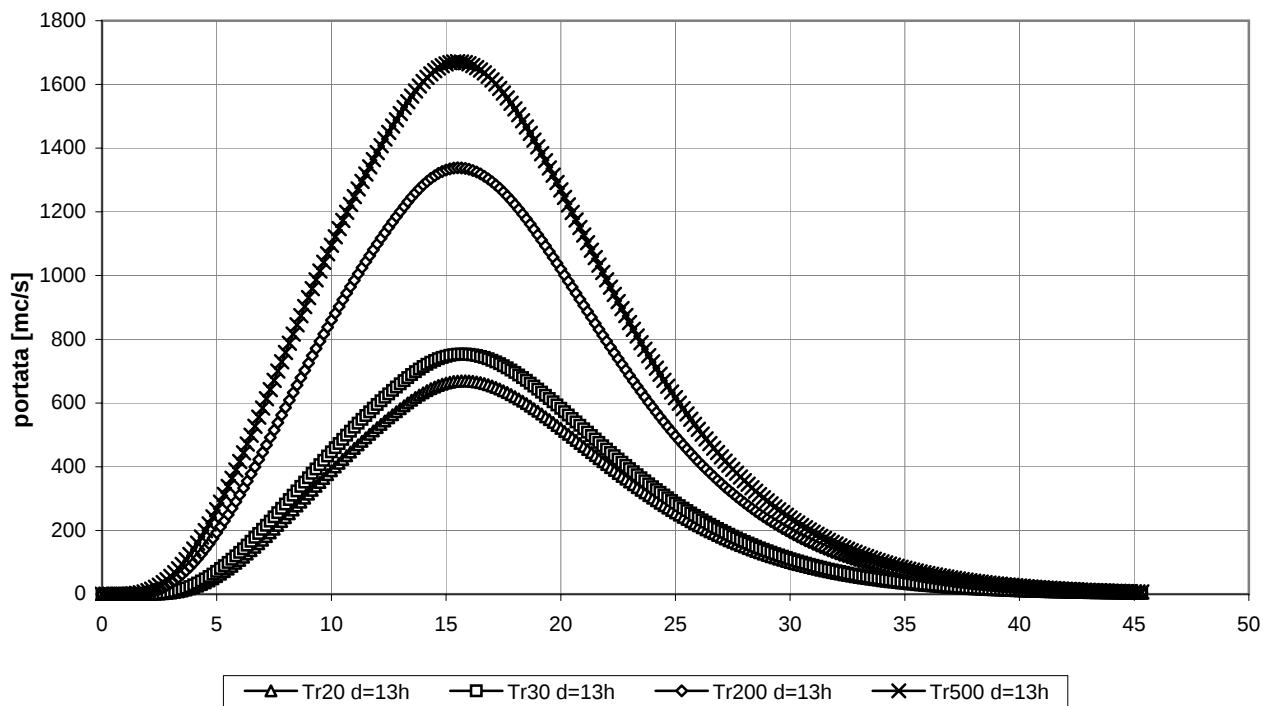
Stazione	Codice	A	N	M	Stazione	Codice	A	N	M
Castel del Piano	2901	23.846	0.331	0.200	Castel del Piano	2901	23.846	0.331	0.200
Granaione	2941	24.763	0.284	0.213	Granaione	2941	24.763	0.284	0.213
Cana	2949	23.844	0.336	0.208	Cana	2949	23.844	0.336	0.208
Poggio Perotto	3011	21.610	0.360	0.210	Poggio Perotto	3011	21.610	0.360	0.210
Capanne	3041	24.285	0.334	0.213	Capanne	3041	24.285	0.334	0.213
Usi	3053	24.188	0.333	0.214	Usi	3053	24.188	0.333	0.214
Scansano	3071	24.370	0.313	0.218	Scansano	3071	24.370	0.313	0.218
Marsiliana	3089	24.275	0.321	0.224	Marsiliana	3089	24.275	0.321	0.224
Castel del Piano	2900	23.889	0.330	0.200	Castel del Piano	2900	23.889	0.330	0.200
Madonna Camicione	2902	21.316	0.371	0.190	Madonna Camicione	2902	21.316	0.371	0.190
Vetta Amiata	2912	19.562	0.407	0.184	Vetta Amiata	2912	19.562	0.407	0.184
Monte Amiata	2913	19.845	0.400	0.185	Monte Amiata	2913	19.845	0.400	0.185
Casello Guardiano	2914	20.500	0.387	0.187	Casello Guardiano	2914	20.500	0.387	0.187
Cinigiano	2918	23.519	0.308	0.200	Cinigiano	2918	23.519	0.308	0.200
Campagnatico	2930	24.960	0.240	0.200	Campagnatico	2930	24.960	0.240	0.200
Granaione	2940	24.733	0.281	0.210	Granaione	2940	24.733	0.281	0.210
Cana	2950	23.844	0.336	0.208	Cana	2950	23.844	0.336	0.208
Montorgiali	2952	24.570	0.296	0.217	Montorgiali	2952	24.570	0.296	0.217
Istia	2954	25.109	0.273	0.211	Istia	2954	25.109	0.273	0.211
Poggio Cavallo	2958	25.397	0.250	0.200	Poggio Cavallo	2958	25.397	0.250	0.200
Montiano	3004	23.349	0.322	0.219					

Sintesi dei risultati del modello idrologico:

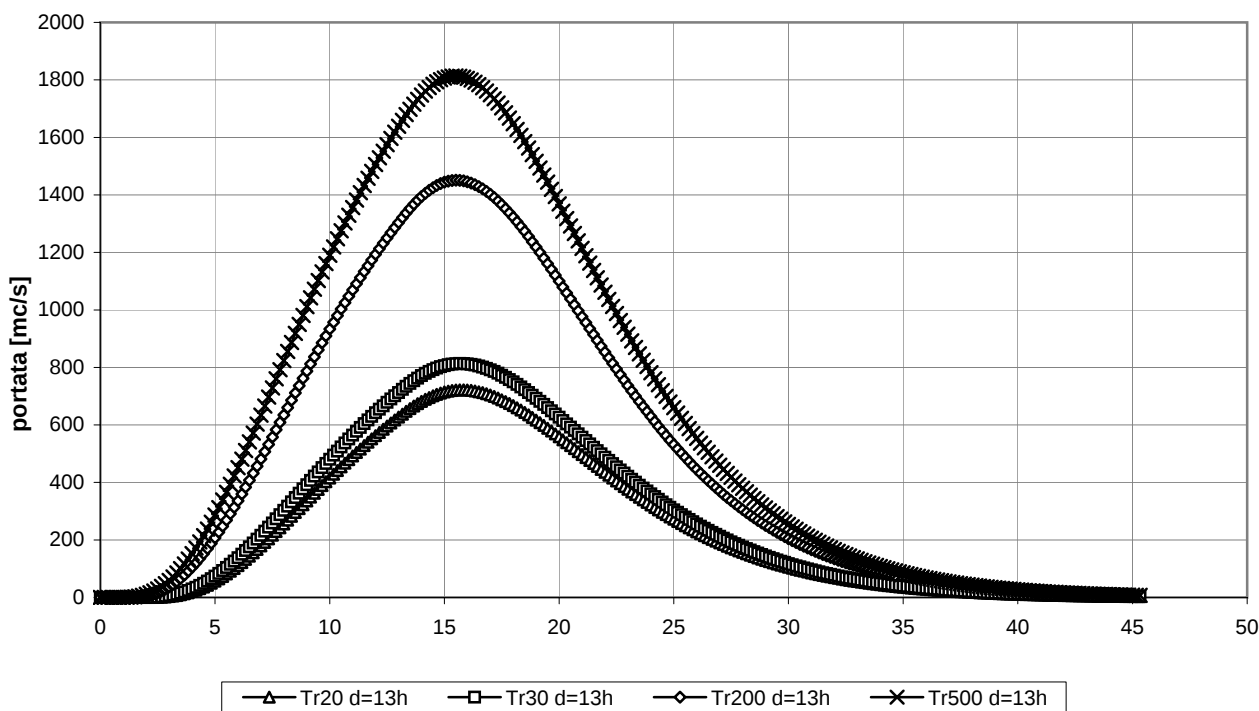
Albegna 1				Albegna 2				Albegna 3			
TR	d	Qmax	V	TR	d	Qmax	V	TR	d	Qmax	V
[anni]	[h]	[mc/s]	[mc]	[anni]	[h]	[mc/s]	[mc]	[anni]	[h]	[mc/s]	[mc]
20	13	669.75	36449919	20	13	722.04	39048988	20	13	734.15	42646981
30	13	753.64	41284040	30	13	813.53	44298306	30	13	829.06	48444236
200	13	1338.17	75122979	200	13	1451.13	80051168	200	13	1490.50	94459545
500	13	1671.35	94459545	500	13	1813.35	102041000	500	13	1867.45	112214695

Idrogrammi di piena:

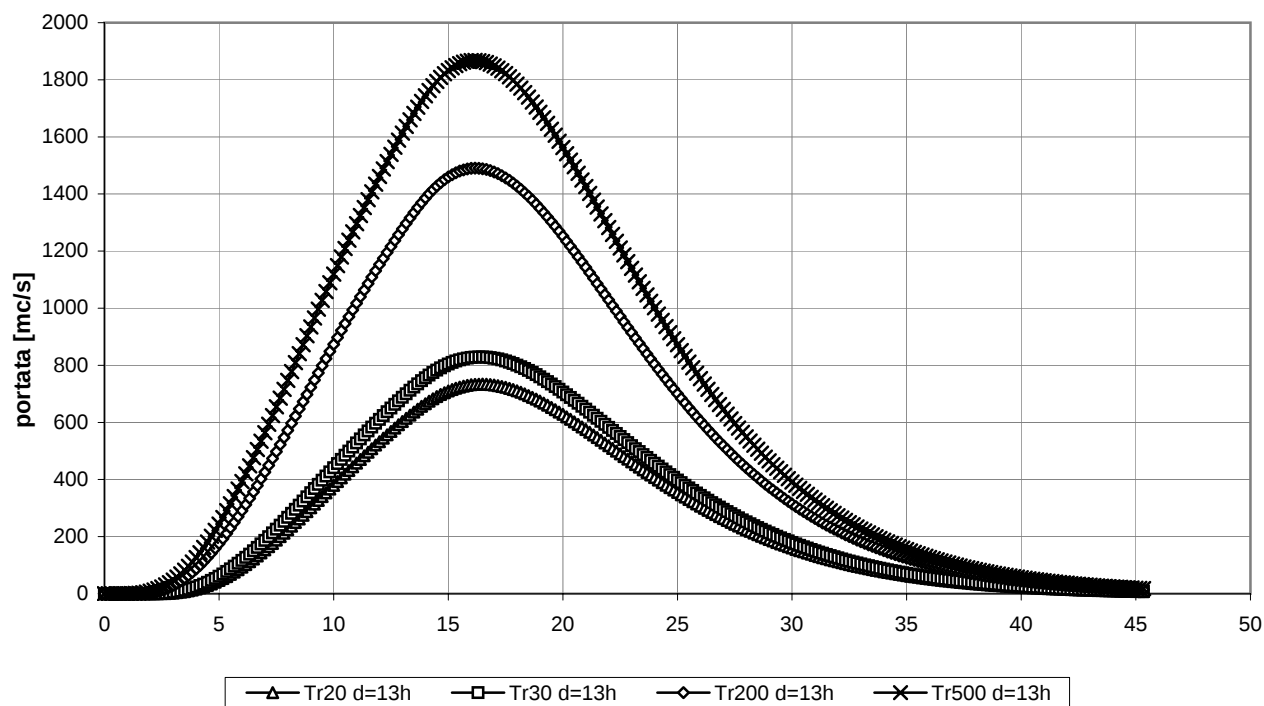
Idrogrammi di piena Fiume Albegna - Bacino Albegna 1



Idrogrammi di piena Fiume Albegna - Bacino Albegna 2



Idrogrammi di piena Fiume Albegna - Bacino Albegna 3



Risultati della modellistica idraulica

HEC-RAS Risultati TR20											
Sezione	River Sta	Q Total	Min Ch El	W.S. Elev	Crit. W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude
		[mc/s]	[m slm]	[m slm]	[m slm]	[m slm]	[m/m]	[m/s]	[mq]	[m]	[-]
00980__05	55	670.00	3.20	9.41	6.86	9.58	0.000779	1.83	366.55	103.49	0.31
00960__05	54	670.00	1.56	9.35	6.21	9.42	0.000680	1.18	568.52	282.88	0.27
00944__05	53	670.00	1.45	9.20	6.54	9.31	0.000760	1.47	476.92	214.77	0.29
00930__05	52	670.00	1.36	9.05	5.84	9.17	0.000651	1.48	451.74	151.03	0.27
00900__05	51	670.00	1.05	8.71	6.26	8.93	0.001466	2.06	324.52	122.34	0.40
00870__05	50	670.00	0.02	8.34	5.50	8.54	0.001119	1.95	343.38	113.86	0.36
00840__05	49	670.00	0.35	7.95	4.90	8.14	0.001210	1.92	349.12	125.95	0.37
00810__05	48	670.00	0.57	7.77	4.22	7.83	0.000372	1.08	619.11	222.88	0.21
00780__05	47	670.00	-0.14	7.48	4.49	7.67	0.001069	1.93	346.28	113.43	0.35
00750__05	46	670.00	-0.62	7.05	4.29	7.25	0.001307	1.97	340.66	126.05	0.38
00720__05	45	670.00	-1.22	6.70	3.94	6.90	0.001185	1.96	342.05	116.98	0.37
00690__05	44	670.00	-2.31	6.40	3.21	6.55	0.000804	1.71	392.93	123.71	0.31
00660__05	43	670.00	-2.20	6.15	3.04	6.32	0.000894	1.83	366.34	112.90	0.32
00630__05	42	670.00	-2.90	5.89	1.89	6.04	0.000891	1.74	384.86	127.80	0.32
00600__05	41	670.00	-2.39	5.70	2.76	5.80	0.000585	1.43	468.57	154.26	0.26
00590__05	40	722.00	-2.17	5.66	1.90	5.75	0.000427	1.32	546.63	158.53	0.23
00580__05	39	722.00	-2.64	5.58	2.26	5.71	0.000621	1.60	450.78	130.18	0.27
00560__05	38	722.00	-2.32	5.41	2.31	5.57	0.000831	1.73	416.42	132.34	0.31
00540__05	37	722.00	-2.19	5.38	2.48	5.48	0.000482	1.39	518.19	152.40	0.24
00531__05	36	722.00	-2.68	5.35	2.06	5.43	0.000437	1.31	551.22	166.54	0.23
00520__05	35	722.00	-3.66	5.17	1.70	5.31	0.000703	1.63	443.98	137.00	0.29
00500__05	34	722.00	-3.16	5.04	2.15	5.18	0.000622	1.67	431.21	115.26	0.28
00492PA05	33	722.00	-2.83	4.93	2.00	5.10	0.000798	1.80	400.45	115.06	0.31
00492PD05	32	722.00	-3.23	4.91	1.98	5.05	0.000642	1.69	426.30	116.39	0.28
00480__05	31	722.00	-2.31	4.79	1.95	4.94	0.000650	1.73	416.58	110.51	0.28
00460__05	30	722.00	-3.07	4.70	1.74	4.85	0.000628	1.69	427.05	114.35	0.28
00453__05	29	722.00	-2.22	4.62	2.00	4.77	0.000690	1.72	418.74	117.74	0.29
00440__05	28	722.00	-2.08	4.54	1.91	4.69	0.000718	1.71	422.82	123.88	0.30
00420__05	27	722.00	-1.54	4.41	1.66	4.55	0.000684	1.68	430.38	126.21	0.29
00400__05	26	722.00	-1.83	4.23	1.48	4.38	0.000721	1.71	422.86	125.28	0.30
00380__05	25	722.00	-1.37	4.08	1.50	4.24	0.000747	1.73	417.70	125.33	0.30
00360__05	24	722.00	-1.68	3.92	1.33	4.08	0.000774	1.74	415.67	127.29	0.31
00340__05	23	722.00	-1.67	3.76	1.29	3.92	0.000805	1.75	413.06	128.96	0.31
00320__05	22	722.00	-1.61	3.63	1.13	3.78	0.000767	1.71	423.30	132.30	0.30
00300__05	21	722.00	-1.63	3.50	1.02	3.65	0.000521	1.67	433.25	132.20	0.29
00280__05	20	722.00	-1.64	3.40	1.09	3.55	0.000600	1.74	413.84	130.76	0.31
00260__05	19	722.00	-1.65	3.28	1.03	3.43	0.000607	1.75	412.81	131.54	0.32
00240__05	18	722.00	-1.84	3.16	0.94	3.32	0.000629	1.77	407.72	130.99	0.32
00220__05	17	722.00	-1.92	3.02	0.94	3.18	0.000684	1.82	397.68	130.97	0.33
00200__05	16	722.00	-1.80	2.88	1.13	3.06	0.000811	1.89	381.81	134.13	0.36
00180__05	15	722.00	-1.91	2.75	1.17	2.90	0.000710	1.73	416.18	151.39	0.33
00154PA05	14	722.00	-1.90	2.58	0.80	2.69	0.000468	1.47	491.70	167.90	0.27
00154PD05	13	722.00	-1.89	2.52	0.90	2.65	0.000552	1.55	466.80	166.94	0.30
00140__05	12	722.00	-1.15	2.39	0.95	2.54	0.000730	1.69	427.03	165.13	0.34
00120__05	11	722.00	-1.65	2.25	0.79	2.40	0.000716	1.70	424.61	160.45	0.33
00100__05	10	722.00	-1.77	2.11	0.75	2.26	0.000801	1.75	411.74	161.63	0.35
00088PA05	9	722.00	-1.74	2.02	0.69	2.18	0.000827	1.77	408.68	162.33	0.36
00088PD05	8	722.00	-2.74	2.00	-0.06	2.12	0.000510	1.52	474.35	163.83	0.29
00080__05	7	722.00	-2.55	1.92	0.49	2.06	0.000692	1.65	437.08	167.96	0.33
00060__05	6	722.00	-2.00	1.75	0.50	1.93	0.000930	1.85	390.36	158.30	0.38
00048__05	5	722.00	-2.20	1.69	0.02	1.82	0.000611	1.57	459.33	173.43	0.31
00040__05	4	734.00	-2.14	1.54	0.21	1.74	0.001095	1.98	371.06	154.04	0.41
00032__05	3	734.00	-2.22	1.40	0.24	1.64	0.001278	2.18	336.53	134.92	0.44
00020__05	2	734.00	-2.38	1.20	0.22	1.49	0.002054	2.39	307.38	154.11	0.54

HEC-RAS Risultati TR30											
Sezione	River Sta	Q Total	Min Ch El	W.S. Elev	Crit. W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude
		[mc/s]	[m slm]	[m slm]	[m slm]	[m slm]	[m/m]	[m/s]	[mq]	[m]	[-]
00980__05	55	754.00	3.20	9.62	7.06	9.81	0.000832	1.94	387.85	104.84	0.32
00960__05	54	754.00	1.56	9.57	6.40	9.64	0.000609	1.19	631.49	283.72	0.26
00944__05	53	754.00	1.45	9.43	6.85	9.54	0.000707	1.49	526.35	215.69	0.28
00930__05	52	754.00	1.36	9.28	6.55	9.40	0.000652	1.55	486.07	152.05	0.28
00900__05	51	754.00	1.05	8.93	6.60	9.17	0.001437	2.14	351.66	123.28	0.41
00870__05	50	754.00	0.02	8.56	5.74	8.78	0.001130	2.05	368.66	114.65	0.36
00840__05	49	754.00	0.35	8.18	5.17	8.38	0.001193	2.00	377.50	126.80	0.37
00810__05	48	754.00	0.57	8.01	4.42	8.07	0.000360	1.12	672.65	223.88	0.21
00780__05	47	754.00	-0.14	7.70	4.74	7.91	0.001076	2.03	372.11	114.17	0.36
00750__05	46	754.00	-0.62	7.29	4.58	7.50	0.001263	2.03	370.76	127.03	0.38
00720__05	45	754.00	-1.22	6.95	4.20	7.16	0.001158	2.03	371.05	117.94	0.37
00690__05	44	754.00	-2.31	6.65	3.42	6.82	0.000796	1.78	424.44	124.67	0.31
00660__05	43	754.00	-2.20	6.40	3.31	6.59	0.000893	1.91	394.93	113.99	0.33
00630__05	42	754.00	-2.90	6.14	2.16	6.31	0.000865	1.80	418.06	128.76	0.32
00600__05	41	754.00	-2.39	5.97	3.10	6.08	0.000566	1.48	510.22	155.79	0.26
00590__05	40	814.00	-2.17	5.93	2.17	6.03	0.000426	1.38	589.34	159.59	0.23
00580__05	39	814.00	-2.64	5.84	2.59	5.99	0.000623	1.68	485.20	130.95	0.28
00560__05	38	814.00	-2.32	5.68	2.63	5.84	0.000815	1.80	451.63	133.32	0.31
00540__05	37	814.00	-2.19	5.65	2.78	5.76	0.000480	1.46	559.19	153.37	0.24
00531__05	36	814.00	-2.68	5.62	3.12	5.71	0.000431	1.37	596.24	167.47	0.23
00520__05	35	814.00	-3.66	5.44	2.47	5.59	0.000693	1.69	480.69	137.89	0.29
00500__05	34	814.00	-3.16	5.30	2.35	5.46	0.000638	1.76	461.49	116.24	0.28
00492PA05	33	814.00	-2.83	5.19	2.24	5.37	0.000810	1.89	430.40	116.34	0.31
00492PD05	32	814.00	-3.23	5.16	2.21	5.33	0.000658	1.78	456.45	117.32	0.29
00480__05	31	814.00	-2.31	5.04	2.15	5.21	0.000674	1.83	444.63	111.51	0.29
00460__05	30	814.00	-3.07	4.95	1.95	5.11	0.000651	1.79	455.72	115.34	0.29
00453__05	29	814.00	-2.22	4.87	2.20	5.04	0.000715	1.82	448.08	119.50	0.30
00440__05	28	814.00	-2.08	4.79	2.11	4.95	0.000731	1.80	453.39	124.80	0.30
00420__05	27	814.00	-1.54	4.65	1.87	4.81	0.000699	1.76	461.23	127.17	0.30
00400__05	26	814.00	-1.83	4.47	1.69	4.64	0.000737	1.80	452.93	126.33	0.30
00380__05	25	814.00	-1.37	4.32	1.70	4.49	0.000764	1.82	447.28	126.30	0.31
00360__05	24	814.00	-1.68	4.16	1.53	4.33	0.000791	1.83	445.24	128.19	0.31
00340__05	23	814.00	-1.67	3.99	1.49	4.16	0.000821	1.84	442.56	129.81	0.32
00320__05	22	814.00	-1.61	3.86	1.32	4.02	0.000784	1.80	453.25	133.20	0.31
00300__05	21	814.00	-1.63	3.73	1.20	3.88	0.000537	1.76	462.70	133.08	0.30
00280__05	20	814.00	-1.64	3.61	1.27	3.79	0.000616	1.84	442.44	131.58	0.32
00260__05	19	814.00	-1.65	3.49	1.21	3.67	0.000631	1.85	441.07	133.39	0.32
00240__05	18	814.00	-1.84	3.37	1.13	3.55	0.000649	1.87	435.18	131.76	0.33
00220__05	17	814.00	-1.92	3.22	1.12	3.41	0.000709	1.92	424.35	132.08	0.34
00200__05	16	814.00	-1.80	3.07	1.49	3.28	0.000840	1.99	408.57	136.15	0.37
00180__05	15	814.00	-1.91	2.94	1.36	3.11	0.000741	1.82	446.06	155.31	0.34
00154PA05	14	814.00	-1.90	2.77	0.91	2.89	0.000489	1.55	523.48	169.63	0.28
00154PD05	13	814.00	-1.89	2.70	1.00	2.84	0.000576	1.64	497.18	168.52	0.30
00140__05	12	814.00	-1.15	2.56	1.06	2.73	0.000750	1.79	455.93	165.74	0.34
00120__05	11	814.00	-1.65	2.42	0.91	2.58	0.000755	1.80	451.66	162.71	0.35
00100__05	10	814.00	-1.77	2.26	0.86	2.44	0.000845	1.86	437.51	163.53	0.36
00088PA05	9	814.00	-1.74	2.17	0.80	2.35	0.000876	1.88	433.67	164.25	0.37
00088PD05	8	814.00	-2.74	2.15	0.12	2.29	0.000554	1.63	498.99	165.11	0.30
00080__05	7	814.00	-2.55	2.06	0.60	2.22	0.000739	1.77	461.15	168.48	0.34
00060__05	6	814.00	-2.00	1.88	0.64	2.08	0.001019	1.98	410.39	160.49	0.40
00048__05	5	814.00	-2.20	1.81	0.14	1.96	0.000676	1.70	480.18	174.67	0.33
00040__05	4	829.00	-2.14	1.64	0.39	1.88	0.001233	2.15	385.76	154.54	0.43
00032__05	3	829.00	-2.22	1.47	0.44	1.76	0.001501	2.40	345.15	135.05	0.48
00020__05	2	829.00	-2.38	1.20	0.37	1.57	0.002620	2.70	307.38	154.11	0.61

HEC-RAS Risultati TR200											
Sezione	River Sta	Q Total	Min Ch El	W.S. Elev	Crit. W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude
		[mc/s]	[m slm]	[m slm]	[m slm]	[m slm]	[m/m]	[m/s]	[mq]	[m]	[-]
00980__05	55	1338.00	3.20	10.91	8.32	11.24	0.001005	2.54	526.15	108.00	0.37
00960__05	54	1338.00	1.56	10.97	7.72	11.06	0.000381	1.29	1034.60	289.17	0.22
00944__05	53	1338.00	1.45	10.86	8.59	10.99	0.000508	1.63	838.33	221.41	0.26
00930__05	52	1338.00	1.36	10.69	7.50	10.87	0.000645	1.90	705.11	161.41	0.29
00900__05	51	1338.00	1.05	10.31	8.35	10.64	0.001312	2.54	526.31	133.19	0.41
00870__05	50	1338.00	0.02	9.95	7.10	10.27	0.001126	2.52	530.96	119.94	0.38
00840__05	49	1338.00	0.35	9.60	6.60	9.89	0.001058	2.38	562.26	132.20	0.37
00810__05	48	1338.00	0.57	9.52	5.62	9.60	0.000300	1.32	1015.21	230.87	0.20
00780__05	47	1338.00	-0.14	9.14	6.27	9.45	0.001057	2.48	539.86	120.23	0.37
00750__05	46	1338.00	-0.62	8.78	6.59	9.07	0.001066	2.37	565.63	135.66	0.37
00720__05	45	1338.00	-1.22	8.48	5.85	8.77	0.001037	2.40	556.35	126.14	0.37
00690__05	44	1338.00	-2.31	8.21	5.09	8.45	0.000769	2.14	623.91	134.40	0.32
00660__05	43	1338.00	-2.20	7.95	4.99	8.22	0.000885	2.32	577.50	123.60	0.34
00630__05	42	1338.00	-2.90	7.72	4.10	7.95	0.000783	2.13	626.73	138.76	0.32
00600__05	41	1338.00	-2.39	7.58	4.48	7.74	0.000496	1.74	770.48	166.91	0.26
00590__05	40	1451.00	-2.17	7.55	3.91	7.69	0.000430	1.70	854.51	170.52	0.24
00580__05	39	1451.00	-2.64	7.43	4.00	7.65	0.000661	2.08	698.76	142.64	0.30
00560__05	38	1451.00	-2.32	7.27	4.54	7.51	0.000773	2.16	672.12	145.20	0.32
00540__05	37	1451.00	-2.19	7.25	4.03	7.41	0.000483	1.78	813.18	164.59	0.26
00531__05	36	1451.00	-2.68	7.23	3.97	7.37	0.000421	1.66	873.83	179.18	0.24
00520__05	35	1451.00	-3.66	7.03	4.15	7.24	0.000679	2.05	706.56	149.12	0.30
00500__05	34	1451.00	-3.16	6.85	3.76	7.10	0.000736	2.23	649.65	127.65	0.32
00492PA05	33	1451.00	-2.83	6.72	3.92	7.01	0.000869	2.35	616.71	126.55	0.34
00492PD05	32	1451.00	-3.23	6.68	3.69	6.95	0.000734	2.27	639.86	123.98	0.32
00480__05	31	1451.00	-2.31	6.54	3.55	6.82	0.000810	2.35	617.74	122.11	0.33
00460__05	30	1451.00	-3.07	6.42	3.25	6.69	0.000773	2.30	632.01	124.55	0.33
00453__05	29	1451.00	-2.22	6.34	3.46	6.60	0.000821	2.29	632.35	131.58	0.33
00440__05	28	1451.00	-2.08	6.25	3.50	6.51	0.000811	2.26	643.17	135.52	0.33
00420__05	27	1451.00	-1.54	6.10	3.33	6.35	0.000780	2.22	653.08	138.12	0.33
00400__05	26	1451.00	-1.83	5.90	3.20	6.16	0.000825	2.26	642.01	137.69	0.33
00380__05	25	1451.00	-1.37	5.72	3.10	5.99	0.000858	2.29	632.97	137.49	0.34
00360__05	24	1451.00	-1.68	5.54	2.99	5.81	0.000881	2.30	630.85	139.11	0.34
00340__05	23	1451.00	-1.67	5.35	2.87	5.62	0.000912	2.31	627.06	140.54	0.35
00320__05	22	1451.00	-1.61	5.21	2.70	5.47	0.000871	2.26	641.11	143.75	0.34
00300__05	21	1451.00	-1.63	5.06	2.50	5.31	0.000620	2.24	648.24	144.32	0.34
00280__05	20	1451.00	-1.64	4.93	2.52	5.20	0.000699	2.33	624.06	143.19	0.36
00260__05	19	1451.00	-1.65	4.79	2.42	5.07	0.000705	2.33	621.67	143.14	0.36
00240__05	18	1451.00	-1.84	4.65	2.34	4.93	0.000738	2.37	612.98	143.01	0.36
00220__05	17	1451.00	-1.92	4.47	2.27	4.77	0.000798	2.42	600.33	143.97	0.38
00200__05	16	1451.00	-1.80	4.31	2.26	4.63	0.000874	2.49	583.89	143.35	0.39
00180__05	15	1451.00	-1.91	4.20	2.07	4.46	0.000725	2.25	645.50	161.13	0.36
00154PA05	14	1451.00	-1.90	4.03	1.58	4.23	0.000507	1.96	741.07	173.81	0.30
00154PD05	13	1451.00	-1.89	3.82	1.66	4.05	0.000673	2.10	689.54	179.53	0.34
00140__05	12	1451.00	-1.15	3.65	1.74	3.92	0.000803	2.27	638.58	169.55	0.37
00120__05	11	1451.00	-1.65	3.49	1.59	3.76	0.000830	2.31	628.48	167.15	0.38
00100__05	10	1451.00	-1.77	3.32	1.54	3.61	0.000910	2.37	612.95	168.26	0.40
00088PA05	9	1451.00	-1.74	3.22	1.47	3.51	0.000936	2.39	607.73	168.18	0.40
00088PD05	8	1451.00	-2.74	3.18	1.04	3.42	0.000677	2.16	672.11	169.37	0.35
00080__05	7	1451.00	-2.55	3.08	1.25	3.35	0.000846	2.28	637.48	175.51	0.38
00060__05	6	1451.00	-2.00	2.85	1.32	3.18	0.001141	2.54	570.35	166.65	0.44
00048__05	5	1451.00	-2.20	2.78	0.93	3.04	0.000816	2.22	654.18	182.71	0.37
00040__05	4	1490.00	-2.14	2.52	1.25	2.93	0.001535	2.82	527.63	165.16	0.50
00032__05	3	1490.00	-2.22	2.20	1.22	2.77	0.002186	3.33	447.86	142.33	0.60
00020__05	2	1490.00	-2.38	1.33	1.33	2.38	0.006915	4.54	327.89	155.61	1.00

HEC-RAS Risultati TR500											
Sezione	River Sta	Q Total	Min Ch El	W.S. Elev	Crit. W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude
		[mc/s]	[m slm]	[m slm]	[m slm]	[m slm]	[m/m]	[m/s]	[mq]	[m]	[-]
00980__05	55	1671.00	3.20	11.60	8.79	11.99	0.001034	2.78	600.74	109.39	0.38
00960__05	54	1671.00	1.56	11.70	8.24	11.79	0.000368	1.33	1255.86	327.92	0.22
00944__05	53	1671.00	1.45	11.59	8.86	11.73	0.000472	1.68	1003.75	233.49	0.25
00930__05	52	1671.00	1.36	11.40	8.31	11.61	0.000625	2.03	822.30	165.80	0.29
00900__05	51	1671.00	1.05	11.03	8.73	11.39	0.001219	2.68	623.74	137.94	0.40
00870__05	50	1671.00	0.02	10.67	8.12	11.04	0.001139	2.69	620.62	128.08	0.39
00840__05	49	1671.00	0.35	10.33	7.79	10.65	0.001044	2.53	660.39	140.36	0.37
00810__05	48	1671.00	0.57	10.26	6.03	10.36	0.000288	1.40	1192.21	239.27	0.20
00780__05	47	1671.00	-0.14	9.85	7.20	10.21	0.001065	2.66	627.33	126.09	0.38
00750__05	46	1671.00	-0.62	9.51	6.96	9.83	0.001014	2.50	667.33	141.48	0.37
00720__05	45	1671.00	-1.22	9.21	6.52	9.55	0.001015	2.56	651.66	132.01	0.37
00690__05	44	1671.00	-2.31	8.95	5.61	9.23	0.000755	2.30	725.25	138.22	0.32
00660__05	43	1671.00	-2.20	8.69	5.70	9.00	0.000881	2.49	670.63	128.03	0.35
00630__05	42	1671.00	-2.90	8.47	5.45	8.73	0.000760	2.28	732.73	143.55	0.32
00600__05	41	1671.00	-2.39	8.35	4.89	8.52	0.000478	1.86	899.25	171.07	0.26
00590__05	40	1813.00	-2.17	8.31	4.40	8.48	0.000428	1.84	985.41	173.59	0.25
00580__05	39	1813.00	-2.64	8.18	4.78	8.43	0.000662	2.25	807.02	146.33	0.31
00560__05	38	1813.00	-2.32	8.02	4.93	8.29	0.000748	2.32	782.12	147.84	0.32
00540__05	37	1813.00	-2.19	8.01	4.38	8.20	0.000478	1.93	939.02	167.41	0.26
00531__05	36	1813.00	-2.68	7.99	4.30	8.15	0.000413	1.79	1011.36	181.92	0.24
00520__05	35	1813.00	-3.66	7.78	4.53	8.03	0.000664	2.21	819.79	152.03	0.30
00500__05	34	1813.00	-3.16	7.58	4.19	7.88	0.000750	2.43	744.67	130.09	0.32
00492PA05	33	1813.00	-2.83	7.46	4.35	7.79	0.000873	2.55	710.68	129.34	0.35
00492PD05	32	1813.00	-3.23	7.38	4.12	7.70	0.000775	2.49	727.35	127.18	0.33
00480__05	31	1813.00	-2.31	7.22	4.00	7.56	0.000850	2.58	702.34	124.62	0.35
00460__05	30	1813.00	-3.07	7.11	3.87	7.43	0.000832	2.52	719.63	130.17	0.34
00453__05	29	1813.00	-2.22	7.01	3.89	7.33	0.000846	2.51	722.37	134.14	0.35
00440__05	28	1813.00	-2.08	6.93	3.90	7.24	0.000832	2.46	735.79	138.16	0.34
00420__05	27	1813.00	-1.54	6.77	3.73	7.07	0.000799	2.43	746.97	140.53	0.34
00400__05	26	1813.00	-1.83	6.56	3.60	6.87	0.000843	2.47	734.82	140.16	0.34
00380__05	25	1813.00	-1.37	6.38	3.50	6.70	0.000875	2.50	725.01	139.96	0.35
00360__05	24	1813.00	-1.68	6.20	3.38	6.52	0.000893	2.51	723.61	141.53	0.35
00340__05	23	1813.00	-1.67	6.01	3.26	6.33	0.000919	2.52	720.59	142.99	0.36
00320__05	22	1813.00	-1.61	5.87	3.09	6.18	0.000876	2.46	736.77	146.02	0.35
00300__05	21	1813.00	-1.63	5.72	2.88	6.02	0.000627	2.44	744.22	146.89	0.35
00280__05	20	1813.00	-1.64	5.58	2.91	5.91	0.000698	2.52	718.91	145.56	0.36
00260__05	19	1813.00	-1.65	5.45	2.81	5.77	0.000703	2.53	716.55	145.53	0.36
00240__05	18	1813.00	-1.84	5.31	2.73	5.64	0.000731	2.56	707.89	145.47	0.37
00220__05	17	1813.00	-1.92	5.14	2.66	5.48	0.000779	2.60	696.46	146.45	0.38
00200__05	16	1813.00	-1.80	4.98	2.66	5.34	0.000839	2.67	680.21	145.57	0.39
00180__05	15	1813.00	-1.91	4.88	2.42	5.17	0.000682	2.40	756.44	163.28	0.36
00154PA05	14	1813.00	-1.90	4.73	1.91	4.96	0.000483	2.10	862.48	173.96	0.30
00154PD05	13	1813.00	-1.89	4.37	1.99	4.64	0.000680	2.30	789.96	181.00	0.35
00140__05	12	1813.00	-1.15	4.20	2.08	4.51	0.000809	2.48	731.72	171.14	0.38
00120__05	11	1813.00	-1.65	4.03	1.94	4.35	0.000840	2.52	719.82	169.30	0.39
00100__05	10	1813.00	-1.77	3.86	1.88	4.20	0.000908	2.57	704.73	170.24	0.40
00088PA05	9	1813.00	-1.74	3.76	1.82	4.10	0.000954	2.59	699.40	173.29	0.41
00088PD05	8	1813.00	-2.74	3.70	1.38	3.99	0.000736	2.38	760.84	175.63	0.37
00080__05	7	1813.00	-2.55	3.59	1.57	3.91	0.000865	2.49	727.69	177.72	0.39
00060__05	6	1813.00	-2.00	3.35	1.66	3.74	0.001149	2.77	653.72	168.49	0.45
00048__05	5	1813.00	-2.20	3.29	1.26	3.59	0.000829	2.43	746.62	183.64	0.38
00040__05	4	1867.00	-2.14	3.00	1.60	3.48	0.001541	3.08	606.33	166.90	0.52
00032__05	3	1867.00	-2.22	2.62	1.61	3.30	0.002488	3.66	510.22	154.85	0.64
00020__05	2	1867.00	-2.38	1.68	1.68	2.90	0.006606	4.88	382.71	157.64	1.00

Controfossa Destra Fiume Albegna

Analisi idrologica

Modello di Infiltrazione:

Metodo dell'Infiltrazione a Soglia

Modello di Formazione dell'Onda di Piena:

Metodo di Nash GIUH

Parametri geomorfologici:

Bacino Controfosca Destra Albegna a monte dell'immissione del Torrente Albegnaccia

A [kmq]	L [km]	la [mm]	Ks [mm/h]	Rb -	RI -	Ra -	n -	k [h]	TI [h]
5.86	8.17	3.30	0.47	4.00	2.78	4.91	3.01	1.94	5.83

Bacino Torrente Albegnaccia

A [kmq]	L [km]	la [mm]	Ks [mm/h]	Rb -	RI -	Ra -	n -	k [h]	TI [h]
22.73	13.22	3.30	0.47	3.51	2.06	4.18	3.02	2.33	7.04

Parametri pluviometrici:

A1	N1	M1	A	N	M
26.138	0.611	0.17	25.389	0.305	0.217

Sintesi dei risultati del modello idrologico:

Durata critica

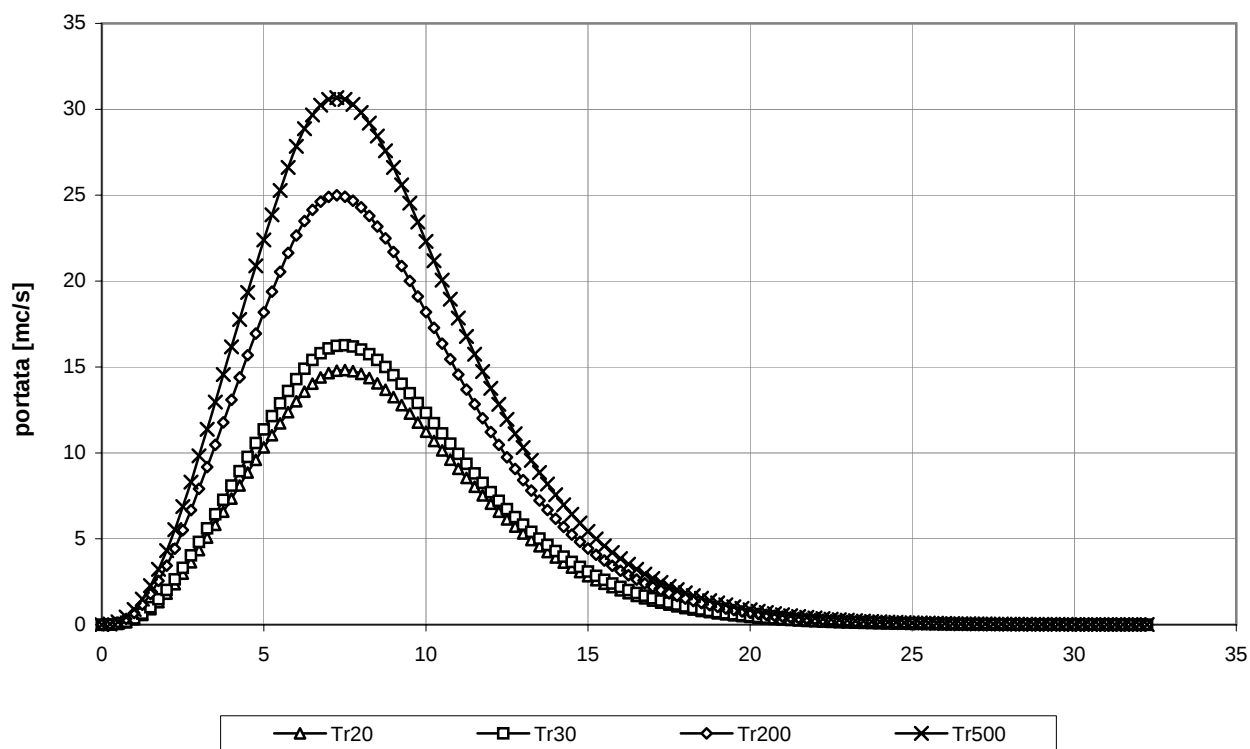
Bacino Controfosca a monte dell'Albegnaccia				Bacino Torrente Albegnaccia			
TR [anni]	d [h]	Qmax [mc/s]	V [mc]	TR [anni]	d [h]	Qmax [mc/s]	V [mc]
20	6	14.82	451410	20	7	48.69	1800076
30	6	16.26	495896	30	7	53.46	1957244
200	6	24.99	755339	200	7	82.21	3052486
500	6	30.68	928464	500	7	100.96	3753042

Durata 13 ore

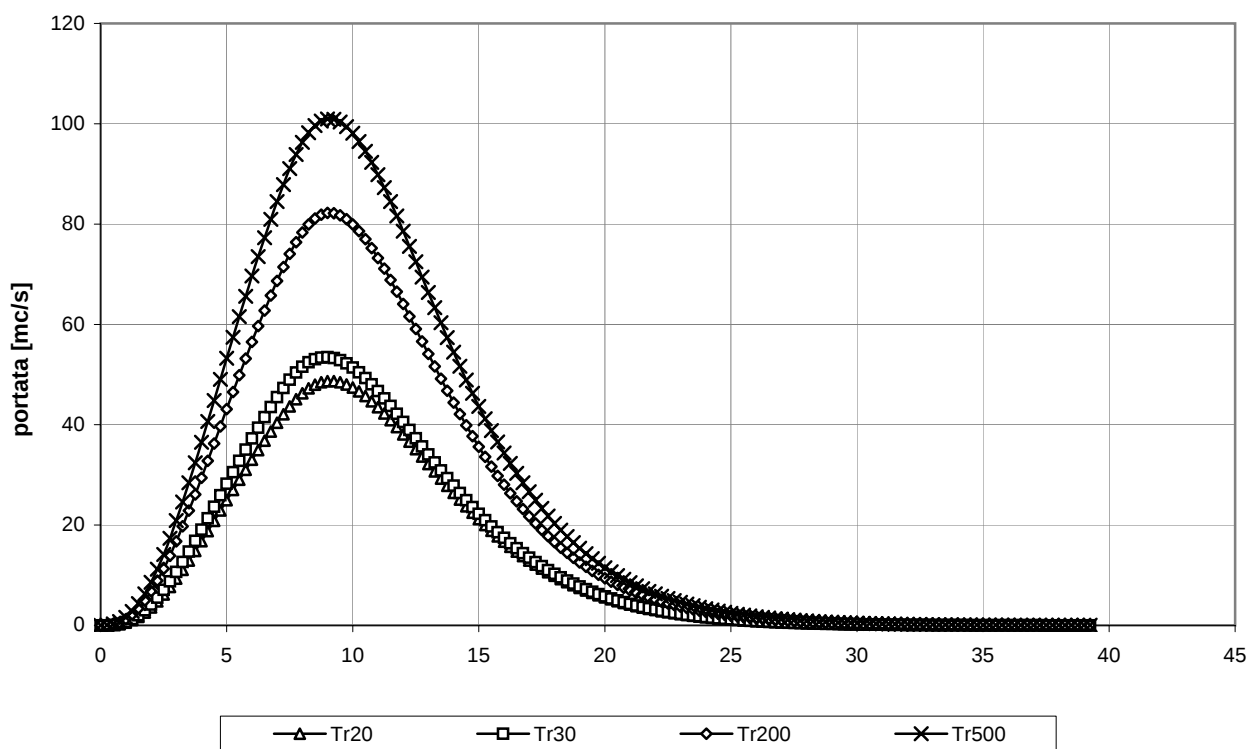
Bacino Controfosca a monte dell'Albegnaccia				Bacino Torrente Albegnaccia			
TR [anni]	d [h]	Qmax [mc/s]	V [mc]	TR [anni]	d [h]	Qmax [mc/s]	V [mc]
20	13	11.93	561303	20	13	43.00	2115432
30	13	12.00	564777	30	13	43.09	2119887
200	13	18.53	880642	200	13	66.67	3309112
500	13	22.78	1086554	500	13	82.05	4084355

Idrogrammi di piena:

Idrogrammi di piena Controfossa Destra Albegna a monte T. Albegnaccia Durata Critica

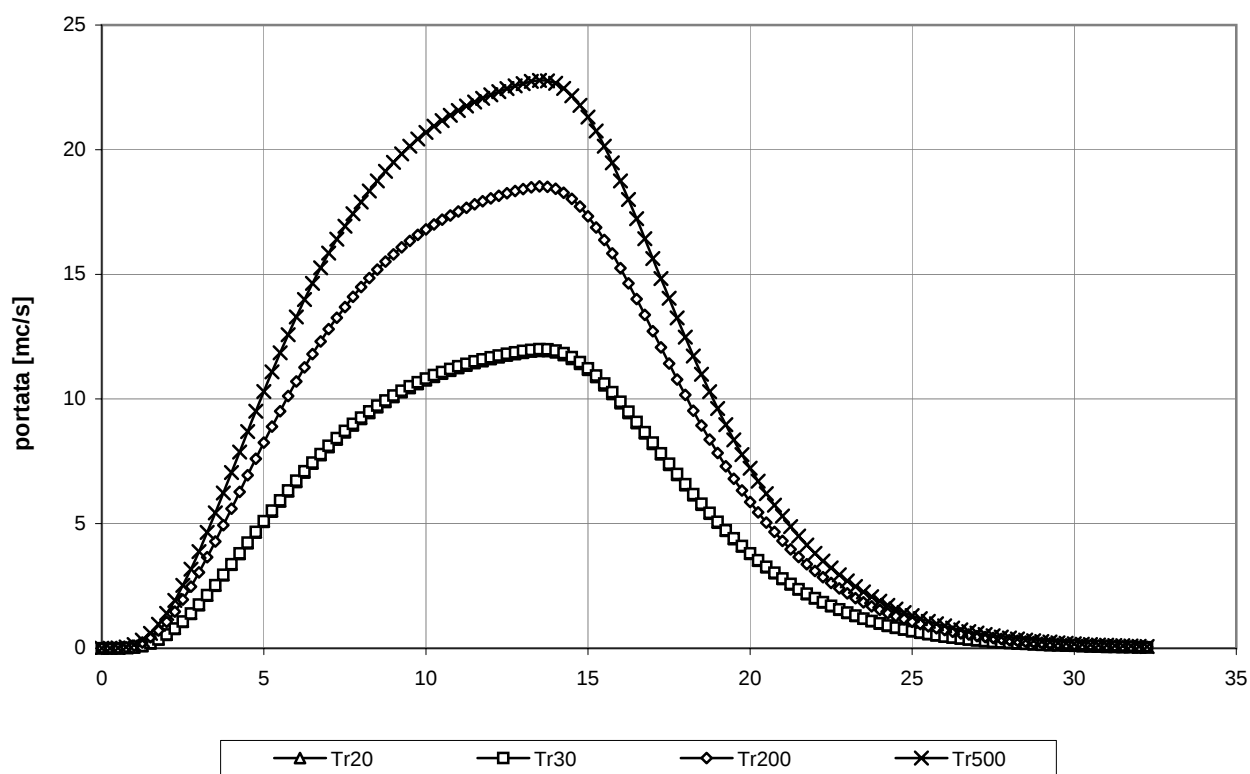


Idrogrammi di piena Torrente Albegnaccia Durata Critica

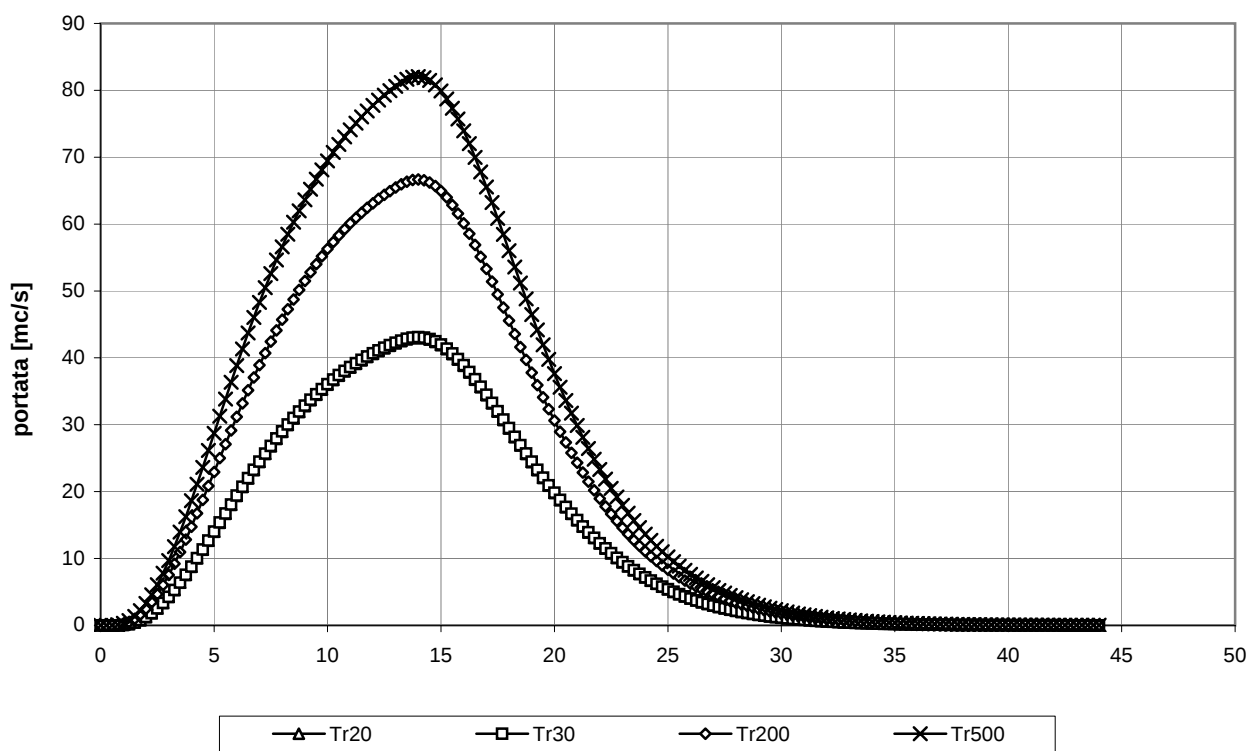


Idrogrammi di piena:

Idrogrammi di piena Controfossa Destra Albegna a monte T. Albegnaccia D=13h

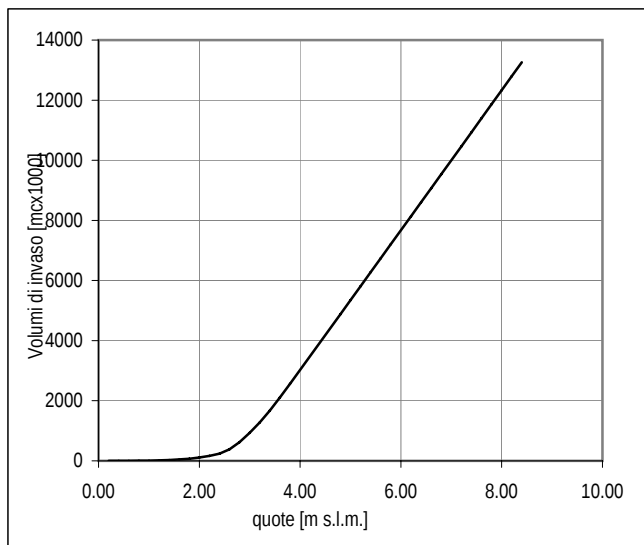


Idrogrammi di piena Torrente Albegnaccia D=13 h

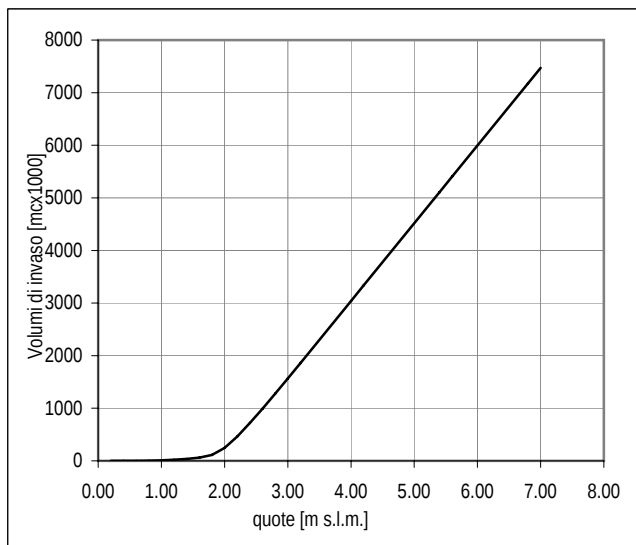


Curve di invaso Aree di Potenziale Esondazione

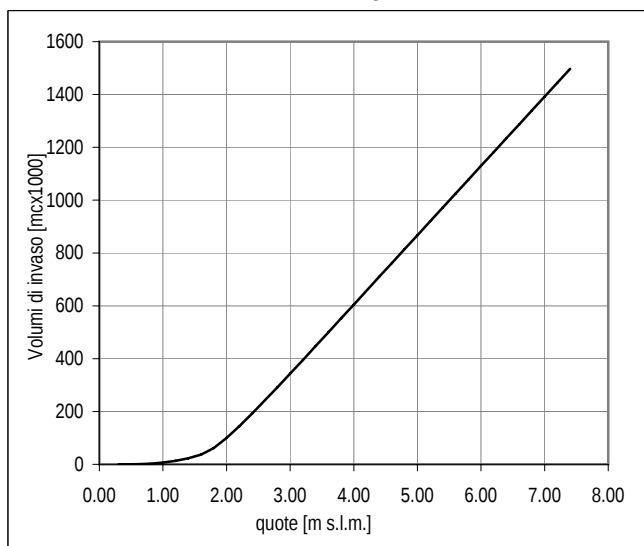
APE DX 1



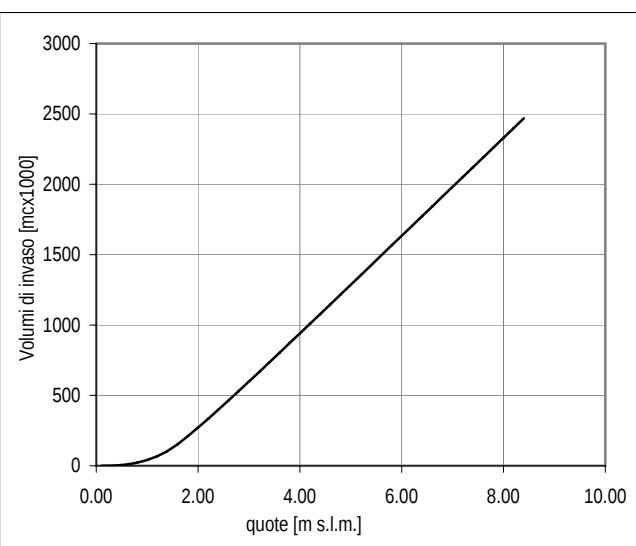
APE DX 2



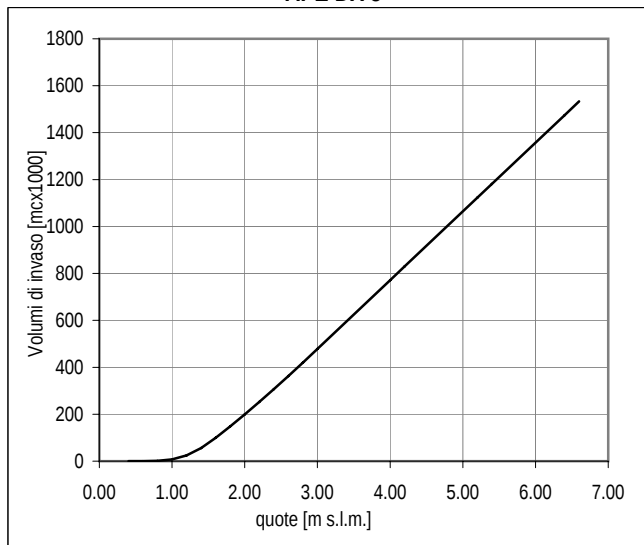
APE DX 3



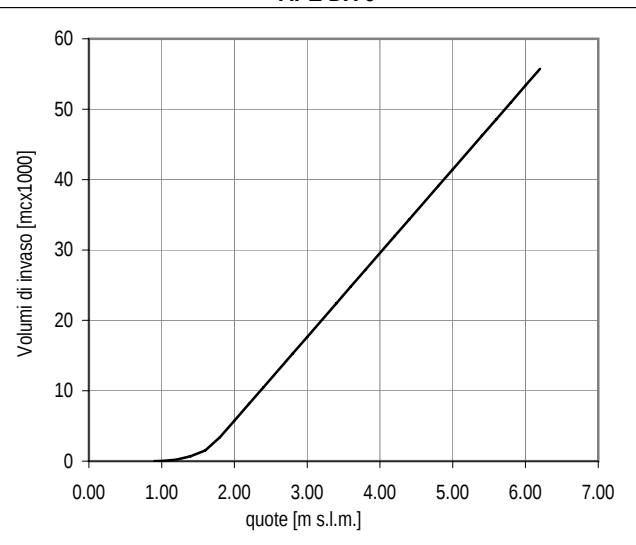
APE DX 4



APE DX 5



APE DX 6



Risultati della modellistica idraulica

HEC-RAS Risultati TR20 Durata Critica											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00480__05	26	14.82	0.22	3.63		3.68	0.000712	1.05	14.96	29.33	0.26
00460__05	25	13.78	0.05	3.57		3.60	0.000423	0.85	20.69	38.05	0.20
00440__05	23	12.56	1.13	3.34		3.43	0.001444	1.37	10.46	21.73	0.37
00420__05	22	12.56	0.82	3.13		3.20	0.000950	1.14	11.04	8.00	0.31
00400__05	21	12.56	0.62	2.97		3.02	0.000582	0.97	13.79	18.02	0.25
00380__05	20	11.84	0.50	2.86		2.91	0.000613	1.02	12.53	10.86	0.25
00360__05	19	11.74	0.43	2.73		2.78	0.000650	0.97	12.07	8.83	0.26
00340__05	18	11.08	0.31	2.56		2.62	0.000970	1.10	10.18	8.93	0.31
00320__05	17	10.30	0.18	2.41		2.47	0.000871	1.08	9.68	8.32	0.29
00300__05	16	8.54	0.26	2.27		2.31	0.000657	0.94	9.39	8.84	0.25
00280__05	15	4.31	0.05	2.27		2.28	0.000118	0.40	10.83	7.99	0.11
00260__05	14	1.18	0.11	2.27		2.27	0.000007	0.10	11.83	8.65	0.03
00240__05	13	-3.59	0.03	2.27		2.27	0.000062	-0.30	12.04	9.89	0.08
00220__05	12	-10.36	-0.07	2.27		2.29	0.000243	-0.66	20.86	28.55	0.16
00200__05	11	11.14	-0.03	2.26		2.28	0.000274	0.71	18.82	20.23	0.18
00180__05	10	10.90	-0.92	2.24		2.25	0.000032	0.30	39.80	23.45	0.06
00154PA05	9	42.18	-1.04	2.08	0.64	2.14	0.000329	1.10	44.54	24.34	0.22
00154PD05	8	42.18	-1.62	2.07		2.12	0.000278	1.03	47.70	25.85	0.20
00140__05	7	42.01	-1.09	2.01		2.06	0.000385	1.14	43.02	26.74	0.23
00120__05	6	41.54	-1.16	1.91		1.98	0.000474	1.22	38.24	24.04	0.26
00100__05	5	40.70	-1.28	1.83		1.90	0.000428	1.19	38.73	23.23	0.25
00088PA05	4	40.69	-1.07	1.78	0.41	1.85	0.000504	1.23	35.08	19.74	0.26
00088PD05	3	40.68	-1.69	1.77		1.83	0.000343	1.12	40.66	22.97	0.22
00080__05	2	40.68	-1.44	1.71		1.79	0.000493	1.26	35.78	22.12	0.26
00060__05	1	40.68	-1.56	1.60		1.69	0.000700	1.36	30.95	19.35	0.30

HEC-RAS Risultati TR20 Durata Critica					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
DX 1	2.27	0.20	55.75	397400	188960
DX 2	2.02	0.20	15.71	1088060	270460
DX 3	0.3	0.30	0.00	160	0
DX 4	0.1	0.10	0.00	760	0
DX 5	0.9	0.90	0.00	120	0
DX 6	0.4	0.40	0.00	870	0

NOTA

Negli output delle simulazioni sviluppate in HEC-RAS vengono riportate le grandezze idrauliche relative al massimo livello idrometrico (colmo di piena) che si instaura in ogni sezione trasversale. Sono pertanto possibili valori negativi di portata, qualora il corso d'acqua sia influenzato da fenomeni di rigurgito in corrispondenza dell'immissione del Torrente Albegnaccia.

HEC-RAS Risultati TR30 Durata Critica											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00480__05	26	16.26	0.22	3.64		3.71	0.000825	1.14	15.44	31.52	0.28
00460__05	25	14.67	0.05	3.58		3.61	0.000458	0.88	21.21	38.05	0.21
00440__05	23	12.84	1.13	3.35		3.44	0.001451	1.37	10.72	21.74	0.37
00420__05	22	12.84	0.82	3.14		3.21	0.000980	1.16	11.11	16.41	0.31
00400__05	21	12.83	0.62	2.98		3.03	0.000602	0.99	13.86	18.05	0.25
00380__05	20	11.95	0.50	2.86		2.91	0.000620	1.02	12.57	10.90	0.25
00360__05	19	11.81	0.43	2.73		2.78	0.000655	0.98	12.09	8.85	0.26
00340__05	18	11.13	0.31	2.56		2.62	0.000975	1.10	10.20	8.94	0.31
00320__05	17	10.33	0.18	2.41		2.47	0.000873	1.08	9.69	8.33	0.29
00300__05	16	6.96	0.26	2.32		2.35	0.000385	0.74	9.87	9.18	0.20
00280__05	15	4.04	0.05	2.32		2.33	0.000093	0.36	11.25	8.06	0.10
00260__05	14	-0.14	0.11	2.32		2.32	0.000000	-0.01	12.27	9.34	0.00
00240__05	13	-4.15	0.03	2.32		2.33	0.000073	-0.34	12.56	10.26	0.09
00220__05	12	-11.64	-0.07	2.32		2.34	0.000258	-0.69	22.30	28.94	0.17
00200__05	11	12.39	-0.03	2.31		2.34	0.000295	0.76	19.83	20.32	0.19
00180__05	10	12.18	-0.92	2.29		2.30	0.000037	0.32	40.95	23.54	0.07
00154PA05	9	43.13	-1.04	2.14	0.66	2.19	0.000317	1.09	45.85	24.55	0.21
00154PD05	8	43.11	-1.62	2.13		2.17	0.000268	1.03	49.09	26.08	0.19
00140__05	7	42.32	-1.09	2.06		2.12	0.000353	1.11	44.61	26.94	0.22
00120__05	6	41.83	-1.16	1.98		2.04	0.000428	1.18	39.87	24.31	0.24
00100__05	5	41.40	-1.28	1.91		1.97	0.000391	1.16	40.49	23.56	0.24
00088PA05	4	41.40	-1.07	1.86	0.42	1.93	0.000460	1.21	36.66	20.07	0.25
00088PD05	3	40.33	-1.69	1.85		1.90	0.000298	1.07	42.55	23.30	0.21
00080__05	2	40.33	-1.44	1.80		1.87	0.000418	1.19	37.79	22.45	0.24
00060__05	1	40.34	-1.56	1.71		1.79	0.000572	1.27	33.13	20.36	0.28

HEC-RAS Risultati TR30 Durata Critica					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
DX 1	2.32	0.20	61.50	397400	209310
DX 2	2.11	0.20	20.64	1088060	368630
DX 3	0.3	0.30	0.00	160	0
DX 4	0.1	0.10	0.00	760	0
DX 5	0.4	0.40	0.00	870	0
DX 6	0.9	0.90	0.00	120	0

HEC-RAS Risultati TR200 Durata Critica											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00480__05	26	24.99	0.22	3.71		3.84	0.001623	1.64	17.60	33.79	0.40
00460__05	25	19.70	0.05	3.63		3.69	0.000691	1.11	23.25	38.05	0.26
00440__05	23	14.15	1.13	3.39		3.49	0.001520	1.43	11.82	34.87	0.38
00420__05	22	14.08	0.82	3.16		3.24	0.001131	1.25	11.40	16.44	0.34
00400__05	21	13.44	0.62	2.98		3.04	0.000648	1.03	13.99	18.12	0.26
00380__05	20	12.18	0.50	2.87		2.92	0.000635	1.04	12.65	10.97	0.25
00360__05	19	12.01	0.43	2.74		2.79	0.000670	0.99	12.13	8.89	0.26
00340__05	18	3.61	0.31	2.65		2.66	0.000083	0.33	11.03	9.60	0.09
00320__05	17	2.26	0.18	2.65		2.66	0.000025	0.20	11.86	9.82	0.05
00300__05	16	1.51	0.26	2.65		2.65	0.000009	0.12	13.17	11.26	0.03
00280__05	15	0.76	0.05	2.65		2.65	0.000002	0.05	14.28	10.99	0.01
00260__05	14	0.41	0.11	2.65		2.65	0.000000	0.03	16.02	13.87	0.01
00240__05	13	0.29	0.03	2.65		2.65	0.000000	0.02	16.35	12.59	0.00
00220__05	12	-4.77	-0.07	2.65		2.65	0.000016	-0.20	32.00	29.75	0.04
00200__05	11	4.63	-0.03	2.65		2.65	0.000018	0.21	26.80	20.92	0.05
00180__05	10	3.34	-0.92	2.66		2.66	0.000002	0.07	49.73	24.17	0.01
00154PA05	9	49.19	-1.04	2.53	0.78	2.57	0.000237	1.03	55.75	26.12	0.19
00154PD05	8	47.49	-1.62	2.51		2.55	0.000199	0.96	59.69	30.39	0.17
00140__05	7	46.74	-1.09	2.46		2.50	0.000232	0.99	55.57	28.32	0.19
00120__05	6	43.94	-1.16	2.41		2.45	0.000242	0.99	50.72	26.03	0.19
00100__05	5	41.01	-1.28	2.37		2.41	0.000193	0.92	51.85	25.58	0.17
00088PA05	4	40.92	-1.07	2.34	0.41	2.39	0.000223	0.95	46.95	22.09	0.18
00088PD05	3	40.96	-1.69	2.35		2.38	0.000157	0.86	54.55	25.24	0.15
00080__05	2	40.92	-1.44	2.32		2.36	0.000202	0.94	49.91	24.33	0.17
00060__05	1	40.87	-1.56	2.28		2.33	0.000245	0.97	46.11	24.42	0.19

HEC-RAS Risultati TR200 Durata Critica					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
DX 1	2.65	0.20	232.85	1198380	439650
DX 2	2.58	0.20	73.87	1365410	969140
DX 3	0.3	0.30	0.00	160	0
DX 4	0.1	0.10	0.00	760	0
DX 5	0.4	0.40	0.00	870	0
DX 6	0.9	0.90	0.00	120	0

HEC-RAS Risultati TR500 Durata Critica											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00480__05	26	30.68	0.22	3.75		3.93	0.002169	1.93	19.00	34.95	0.46
00460__05	25	22.72	0.05	3.66		3.73	0.000842	1.23	24.27	38.05	0.28
00440__05	23	14.99	1.13	3.41		3.51	0.001625	1.49	12.28	34.87	0.39
00420__05	22	14.47	0.82	3.16		3.25	0.001183	1.28	11.47	16.45	0.35
00400__05	21	13.58	0.62	2.99		3.04	0.000658	1.04	14.03	18.14	0.26
00380__05	20	9.00	0.50	2.89		2.92	0.000329	0.75	12.93	11.21	0.18
00360__05	19	5.34	0.43	2.86		2.87	0.000102	0.41	13.31	9.90	0.10
00340__05	18	2.80	0.31	2.87		2.87	0.000031	0.22	13.27	11.19	0.06
00320__05	17	1.49	0.18	2.86		2.86	0.000007	0.11	14.02	11.10	0.03
00300__05	16	1.82	0.26	2.86		2.86	0.000008	0.13	15.73	12.40	0.03
00280__05	15	-0.57	0.05	2.86		2.86	0.000001	-0.04	16.80	13.37	0.01
00260__05	14	-1.88	0.11	2.86		2.86	0.000006	-0.11	19.07	14.66	0.02
00240__05	13	-2.66	0.03	2.86		2.86	0.000011	-0.15	19.07	13.84	0.03
00220__05	12	-6.45	-0.07	2.86		2.86	0.000018	-0.22	38.22	30.15	0.05
00200__05	11	-9.06	-0.03	2.86		2.86	0.000044	-0.35	31.21	21.30	0.08
00180__05	10	-10.95	-0.92	2.87		2.87	0.000013	-0.22	54.77	24.53	0.04
00154PA05	9	53.53	-1.04	2.73	0.86	2.78	0.000217	1.03	61.13	26.93	0.18
00154PD05	8	53.53	-1.62	2.70		2.74	0.000194	0.99	65.68	30.98	0.17
00140__05	7	47.00	-1.09	2.67		2.71	0.000177	0.91	61.74	29.95	0.16
00120__05	6	46.42	-1.16	2.63		2.67	0.000204	0.96	56.55	28.89	0.18
00100__05	5	45.34	-1.28	2.60		2.64	0.000179	0.93	57.97	29.94	0.17
00088PA05	4	43.43	-1.07	2.57	0.46	2.61	0.000187	0.92	52.10	23.04	0.17
00088PD05	3	43.49	-1.69	2.57		2.61	0.000134	0.83	60.44	26.14	0.14
00080__05	2	43.43	-1.44	2.55		2.59	0.000168	0.90	55.66	25.18	0.16
00060__05	1	43.38	-1.56	2.52		2.56	0.000198	0.92	52.07	25.19	0.17

HEC-RAS Risultati TR500 Durata Critica					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
DX 1	2.86	0.20	164.03	1632370	717150
DX 2	2.79	0.20	102.58	1418750	1269190
DX 3	1.52	0.30	0.30	69250	31240
DX 4	1.11	0.10	6.63	135520	56630
DX 5	0.4	0.40	0.00	870	0
DX 6	0.9	0.90	0.00	120	0

HEC-RAS Risultati TR20 D=13h											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00480__05	26	11.93	0.22	3.57		3.61	0.000515	0.88	13.85	14.29	0.22
00460__05	25	11.83	0.05	3.52		3.55	0.000363	0.77	18.94	38.05	0.18
00440__05	23	11.71	1.13	3.30		3.39	0.001419	1.33	9.60	21.69	0.36
00420__05	22	11.71	0.82	3.10		3.16	0.000862	1.08	10.82	7.84	0.29
00400__05	21	11.71	0.62	2.96		3.00	0.000524	0.91	13.53	17.38	0.24
00380__05	20	11.47	0.50	2.85		2.89	0.000590	0.99	12.39	10.74	0.25
00360__05	19	11.43	0.43	2.72		2.77	0.000629	0.95	11.99	8.75	0.25
00340__05	18	10.86	0.31	2.55		2.61	0.000949	1.08	10.12	8.87	0.30
00320__05	17	10.19	0.18	2.40		2.46	0.000869	1.08	9.61	8.27	0.29
00300__05	16	8.72	0.26	2.26		2.31	0.000694	0.97	9.34	8.80	0.26
00280__05	15	4.19	0.05	2.27		2.27	0.000113	0.39	10.79	7.98	0.11
00260__05	14	1.35	0.11	2.27		2.27	0.000010	0.11	11.81	8.61	0.03
00240__05	13	-3.95	0.03	2.26		2.27	0.000076	-0.33	11.99	9.86	0.09
00220__05	12	-10.57	-0.07	2.27		2.29	0.000255	-0.67	20.77	28.52	0.17
00200__05	11	11.57	-0.03	2.26		2.28	0.000300	0.75	18.71	20.22	0.19
00180__05	10	11.26	-0.92	2.24		2.24	0.000035	0.31	39.65	23.44	0.07
00154PA05	9	38.39	-1.04	2.11	0.52	2.15	0.000262	0.98	45.18	24.44	0.19
00154PD05	8	38.39	-1.62	2.10		2.14	0.000221	0.93	48.46	25.98	0.18
00140__05	7	38.38	-1.09	2.05		2.10	0.000298	1.02	44.21	26.89	0.21
00120__05	6	38.38	-1.16	1.98		2.03	0.000361	1.08	39.86	24.30	0.22
00100__05	5	38.38	-1.28	1.92		1.97	0.000331	1.07	40.73	23.60	0.22
00088PA05	4	38.38	-1.07	1.87	0.37	1.93	0.000383	1.11	37.05	20.15	0.23
00088PD05	3	38.38	-1.69	1.87		1.92	0.000262	1.00	43.02	23.38	0.19
00080__05	2	38.38	-1.44	1.83		1.89	0.000363	1.12	38.38	22.54	0.23
00060__05	1	38.38	-1.56	1.75		1.82	0.000485	1.18	33.95	20.73	0.25

HEC-RAS Risultati TR20 D=13h					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
DX 1	2.26	0.20	44.50	397400	187510
DX 2	2.14	0.20	15.60	1088060	402120
DX 3	0.3	0.30	0.00	160	0
DX 4	0.1	0.10	0.00	760	0
DX 5	0.4	0.40	0.00	870	0
DX 6	0.9	0.90	0.00	120	0

HEC-RAS Risultati TR30 D=13h											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00480__05	26	12.00	0.22	3.57		3.61	0.000519	0.89	13.88	14.39	0.22
00460__05	25	11.89	0.05	3.52		3.55	0.000364	0.77	19.00	38.05	0.18
00440__05	23	11.74	1.13	3.30		3.39	0.001419	1.34	9.64	21.69	0.36
00420__05	22	11.74	0.82	3.11		3.17	0.000865	1.08	10.83	7.85	0.29
00400__05	21	11.74	0.62	2.96		3.00	0.000527	0.92	13.54	17.41	0.24
00380__05	20	11.48	0.50	2.85		2.89	0.000592	0.99	12.40	10.74	0.25
00360__05	19	11.45	0.43	2.72		2.77	0.000630	0.96	11.99	8.75	0.25
00340__05	18	10.92	0.31	2.55		2.61	0.000962	1.09	10.11	8.86	0.31
00320__05	17	10.17	0.18	2.40		2.46	0.000872	1.08	9.59	8.25	0.29
00300__05	16	4.02	0.26	2.30		2.31	0.000135	0.43	9.66	9.03	0.12
00280__05	15	2.65	0.05	2.30		2.30	0.000042	0.24	11.03	8.02	0.07
00260__05	14	0.43	0.11	2.30		2.30	0.000001	0.04	12.06	9.02	0.01
00240__05	13	-3.11	0.03	2.29		2.30	0.000044	-0.26	12.29	10.07	0.07
00220__05	12	-3.84	-0.07	2.30		2.30	0.000030	-0.23	21.70	28.78	0.06
00200__05	11	6.16	-0.03	2.29		2.30	0.000077	0.38	19.40	20.28	0.09
00180__05	10	6.39	-0.92	2.29		2.29	0.000010	0.17	40.94	23.54	0.04
00154PA05	9	38.08	-1.04	2.19	0.51	2.23	0.000229	0.94	47.06	24.75	0.18
00154PD05	8	38.08	-1.62	2.17		2.20	0.000196	0.89	50.23	26.26	0.17
00140__05	7	37.65	-1.09	2.12		2.16	0.000253	0.95	46.23	27.15	0.19
00120__05	6	37.62	-1.16	2.07		2.11	0.000300	1.01	42.00	24.65	0.21
00100__05	5	37.58	-1.28	2.02		2.06	0.000272	1.00	43.05	24.03	0.20
00088PA05	4	37.56	-1.07	1.98	0.35	2.03	0.000313	1.03	39.19	20.58	0.21
00088PD05	3	37.62	-1.69	1.98		2.02	0.000216	0.94	45.55	23.80	0.18
00080__05	2	37.53	-1.44	1.94		1.99	0.000291	1.03	40.98	22.96	0.20
00060__05	1	37.52	-1.56	1.88		1.94	0.000376	1.08	36.72	21.93	0.23

HEC-RAS Risultati TR30 D=13h					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
DX 1	2.29	0.20	90.83	397400	199380
DX 2	2.23	0.20	21.06	1285520	504740
DX 3	0.3	0.30	0.00	160	0
DX 4	0.1	0.10	0.00	760	0
DX 5	0.4	0.40	0.00	870	0
DX 6	0.9	0.90	0.00	120	0

HEC-RAS Risultati TR200 D=13h											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00480__05	26	18.53	0.22	3.66		3.74	0.001015	1.28	16.08	32.49	0.31
00460__05	25	15.98	0.05	3.60		3.64	0.000514	0.94	21.86	38.05	0.22
00440__05	23	13.21	1.13	3.36		3.46	0.001463	1.39	11.05	21.75	0.37
00420__05	22	12.98	0.82	3.15		3.22	0.000970	1.16	11.33	16.44	0.31
00400__05	21	4.58	0.62	3.13		3.14	0.000051	0.31	16.77	19.55	0.07
00380__05	20	2.65	0.50	3.13		3.14	0.000018	0.19	15.88	12.96	0.04
00360__05	19	1.71	0.43	3.13		3.13	0.000006	0.11	16.27	12.08	0.03
00340__05	18	0.98	0.31	3.13		3.13	0.000002	0.06	16.48	12.41	0.01
00320__05	17	0.24	0.18	3.13		3.13	0.000000	0.02	17.23	12.35	0.00
00300__05	16	-2.10	0.26	3.13		3.13	0.000007	-0.12	19.11	12.86	0.03
00280__05	15	-3.05	0.05	3.13		3.13	0.000011	-0.16	20.60	14.36	0.03
00260__05	14	-5.57	0.11	3.13		3.13	0.000030	-0.26	23.11	15.16	0.06
00240__05	13	-8.60	0.03	3.13		3.14	0.000069	-0.41	22.89	14.32	0.09
00220__05	12	-20.21	-0.07	3.13		3.14	0.000098	-0.55	46.48	30.68	0.11
00200__05	11	-27.57	-0.03	3.13		3.16	0.000250	-0.90	37.04	21.78	0.18
00180__05	10	-27.65	-0.92	3.18		3.19	0.000056	-0.48	62.46	25.06	0.09
00154PA05	9	64.24	-1.04	3.07	1.02	3.12	0.000214	1.10	71.42	31.21	0.18
00154PD05	8	64.06	-1.62	3.03		3.08	0.000184	1.02	76.05	31.45	0.17
00140__05	7	57.22	-1.09	3.02		3.05	0.000168	0.95	72.12	30.48	0.16
00120__05	6	24.05	-1.16	3.05		3.06	0.000032	0.41	69.00	29.65	0.07
00100__05	5	57.20	-1.28	2.97		3.02	0.000175	0.99	69.37	30.52	0.17
00088PA05	4	64.02	-1.07	2.92	0.80	2.98	0.000270	1.19	60.35	24.47	0.21
00088PD05	3	64.02	-1.69	2.93		2.98	0.000195	1.07	69.87	27.51	0.18
00080__05	2	63.82	-1.44	2.90		2.96	0.000249	1.17	65.30	30.69	0.20
00060__05	1	63.47	-1.56	2.85		2.91	0.000280	1.18	60.55	26.26	0.21

HEC-RAS Risultati TR200 D=13h					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
DX 1	3.13	0.20	154.12	1632370	1159970
DX 2	3.13	0.20	8.95	1467530	1752750
DX 3	3.02	0.30	-42.09	259570	349640
DX 4	3.02	0.10	41.70	339420	606890
DX 5	1.24	0.40	0.55	156810	31060
DX 6	1.6	0.90	0.00	9310	1560

HEC-RAS Risultati TR500 D=13h											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00480__05	26	22.78	0.22	3.69		3.80	0.001416	1.52	17.03	33.30	0.37
00460__05	25	13.12	0.05	3.63		3.65	0.000313	0.74	22.99	38.05	0.17
00440__05	23	4.05	1.13	3.62		3.63	0.000049	0.28	19.81	34.87	0.07
00420__05	22	1.41	0.82	3.62		3.62	0.000004	0.08	19.25	17.32	0.02
00400__05	21	0.72	0.62	3.62		3.62	0.000000	0.03	27.44	22.99	0.01
00380__05	20	-0.14	0.50	3.62		3.62	0.000000	-0.01	22.43	13.83	0.00
00360__05	19	-1.15	0.43	3.62		3.62	0.000001	-0.05	22.79	13.80	0.01
00340__05	18	-1.67	0.31	3.62		3.62	0.000003	-0.08	22.76	13.28	0.02
00320__05	17	-2.65	0.18	3.62		3.62	0.000006	-0.12	23.54	13.26	0.02
00300__05	16	-4.44	0.26	3.62		3.62	0.000014	-0.19	25.67	13.71	0.04
00280__05	15	-6.60	0.05	3.62		3.63	0.000025	-0.26	27.91	15.25	0.05
00260__05	14	-10.38	0.11	3.62		3.63	0.000048	-0.37	30.83	16.06	0.07
00240__05	13	-14.83	0.03	3.62		3.64	0.000099	-0.54	30.19	15.21	0.10
00220__05	12	-31.55	-0.07	3.62		3.64	0.000101	-0.63	61.90	31.63	0.12
00200__05	11	-38.70	-0.03	3.62		3.66	0.000230	-0.98	48.02	22.66	0.18
00180__05	10	-38.76	-0.92	3.67		3.69	0.000065	-0.56	75.07	25.91	0.09
00154PA05	9	82.39	-1.04	3.57	1.24	3.62	0.000201	1.16	87.08	31.98	0.18
00154PD05	8	82.14	-1.62	3.50		3.55	0.000181	1.10	90.83	32.10	0.17
00140__05	7	64.51	-1.09	3.49		3.52	0.000124	0.89	86.81	31.23	0.14
00120__05	6	48.51	-1.16	3.50		3.52	0.000078	0.70	82.32	30.44	0.11
00100__05	5	45.45	-1.28	3.49		3.51	0.000062	0.64	85.32	31.30	0.10
00088PA05	4	82.20	-1.07	3.38	1.07	3.45	0.000273	1.30	72.04	26.38	0.21
00088PD05	3	82.20	-1.69	3.39		3.45	0.000205	1.19	83.53	31.92	0.18
00080__05	2	68.11	-1.44	3.40		3.45	0.000158	1.02	81.07	31.69	0.16
00060__05	1	82.16	-1.56	3.35		3.40	0.000211	1.12	92.58	42.22	0.18

HEC-RAS Risultati TR500 D=13h					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
DX 1	3.62	0.20	42.01	2276480	2159740
DX 2	3.62	0.20	11.97	1476580	2483180
DX 3	3.49	0.30	-36.52	261910	472220
DX 4	3.49	0.10	38.94	341990	766960
DX 5	3.38	0.40	-1.02	293100	589380
DX 6	3.38	0.90	1.22	11900	22170

Controfossa Sinistra Fiume Albegna

Analisi idrologica

Modello di Infiltrazione:

Metodo del "Curve Number"

Modello di Formazione dell'Onda di Piena:

Metodo della Corrivazione

Parametri geomorfologici:

Bacino	A [kmq]	Hmax [m slm]	Hmin [m slm]	Hm [m slm]	L [km]	CN [-]	tc [h]
Bacino 1	7.03	21.42	3.83	6.05	4.29	77	8.66
Bacino 8	0.25	9.59	3.58	1.34	0.50	81	2.97
Bacino 9	0.28	5.86	1.00	2.23	0.50	79	2.40

Parametri pluviometrici:

Stazione	Codice	A1	N1	M1	A	N	M
San Donato	3100	26.138	0.611	0.168	25.389	0.305	0.217

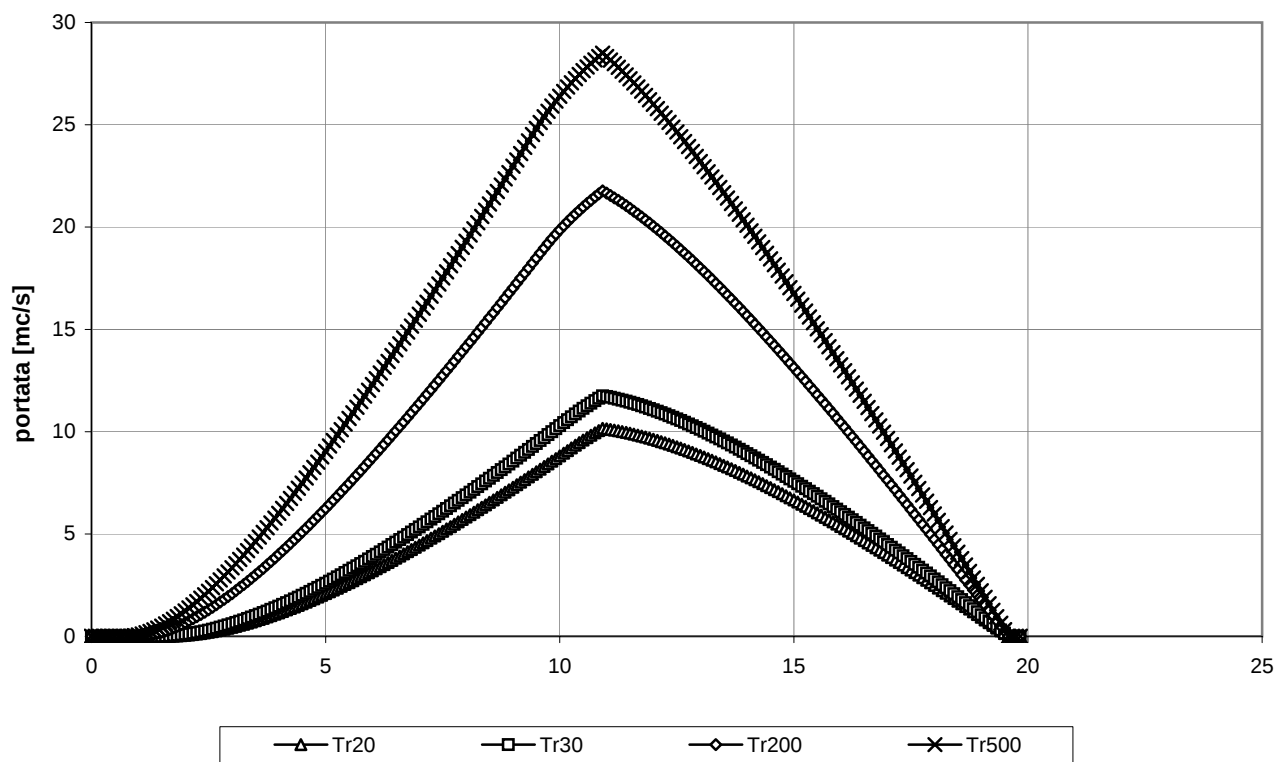
Sintesi dei risultati del modello idrologico:

Bacino 1					
TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	11	101.06	45.60	10.17	320518
30	11	110.36	52.97	11.75	372344
200	11	166.57	100.85	21.77	708971
500	11	203.21	133.98	28.50	941919

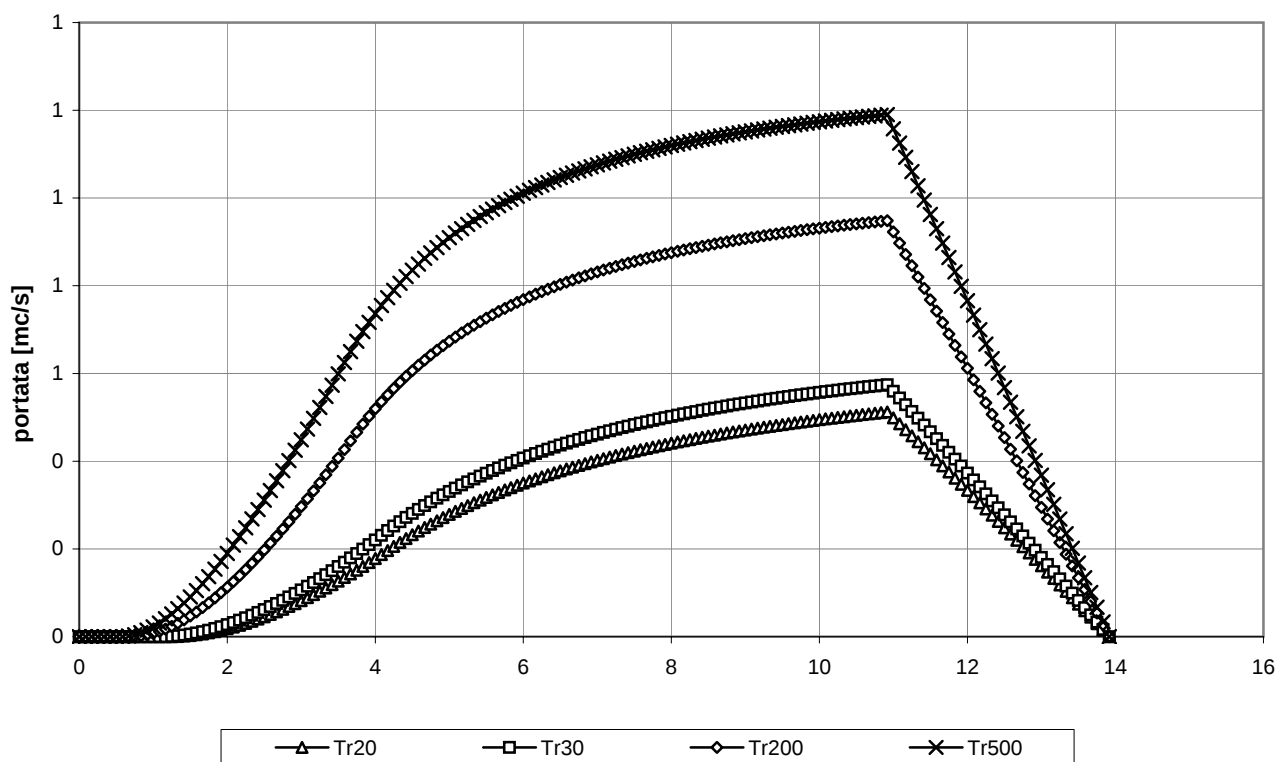
Bacino 8					
TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	11	101.06	53.43	0.51	13356
30	11	110.36	61.33	0.57	15331
200	11	166.57	111.64	0.95	27910
500	11	203.21	145.86	1.19	36468

Bacino 9					
TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	11	101.06	49.44	0.56	13839
30	11	110.36	57.07	0.63	15979
200	11	166.57	106.21	1.05	29739
500	11	203.21	139.91	1.32	39177

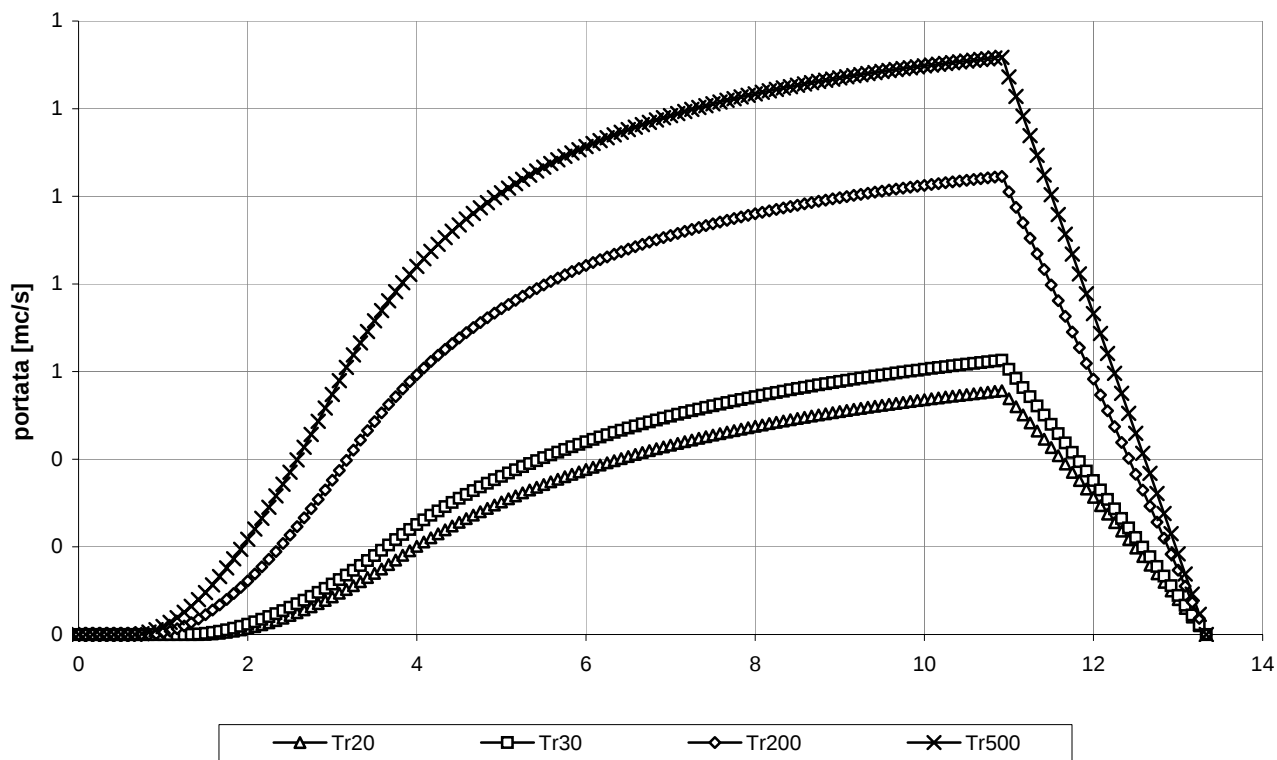
Idrogrammi di piena Controfossa Sinistra Albegna - Bacino 1



Idrogrammi di piena Controfossa Sinistra Albegna - Bacino 8

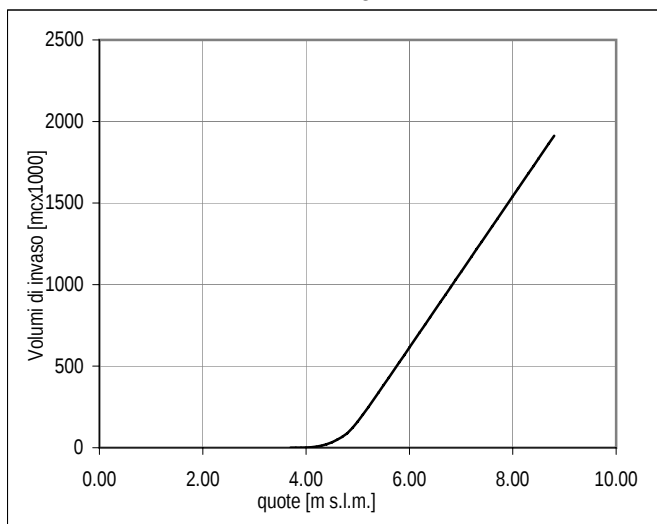


Idrogrammi di piena Controfossa Sinistra Albegna - Bacino 9

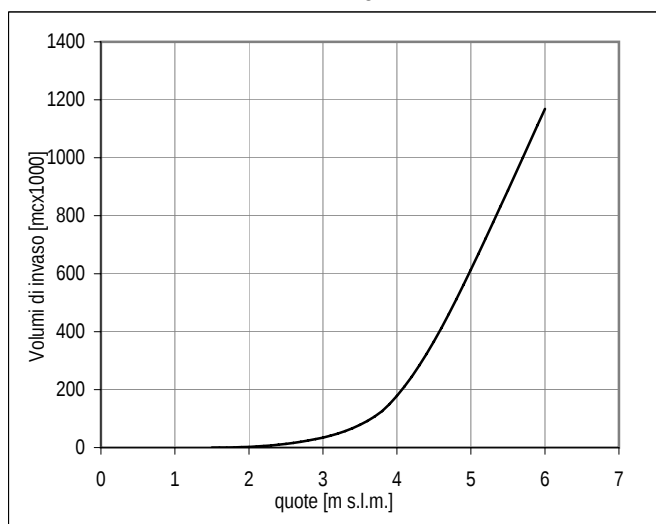


Curve di invaso Aree di Potenziale Esondazione

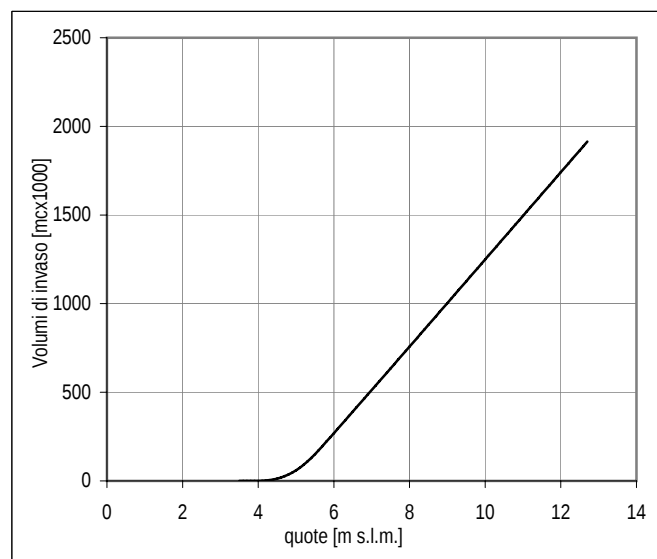
APE 3



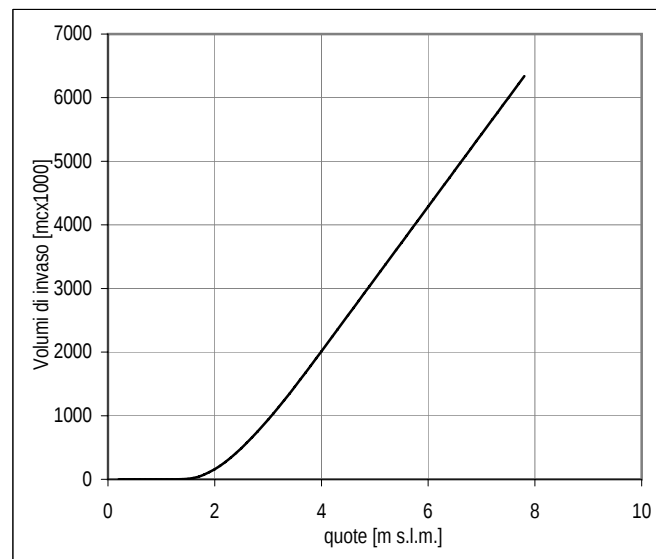
APE 5



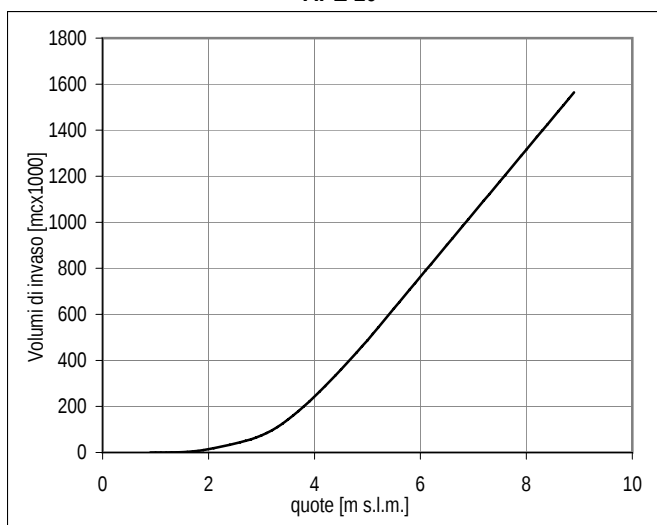
APE 6



APE 9



APE 10



Risultati della modellistica idraulica

HEC-RAS Risultati TR20											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00555PB10	22	10.13	1.75	3.50	2.68	3.54	0.001262	0.92	11.05	9.63	0.27
00555PC10	21	10.12	1.75	3.48		3.53	0.001309	0.93	10.90	9.58	0.28
00520__10	20	10.09	1.15	3.07		3.11	0.001094	0.86	11.71	9.55	0.25
00500__10	19	10.07	0.74	2.85		2.89	0.001102	0.84	11.94	10.58	0.25
00490__10	18	10.06	1.29	2.71		2.75	0.001624	0.97	10.40	10.25	0.31
00484PB10	17	10.51	0.94	2.69	1.37	2.71	0.000266	0.50	21.05	12.01	0.12
00484PC10	16	10.51	0.94	2.69		2.70	0.000267	0.50	21.00	12.01	0.12
00477PB10	15	10.51	0.94	2.67	1.37	2.68	0.000276	0.51	20.77	12.01	0.12
00477PC10	14	10.50	0.94	2.67		2.68	0.000278	0.51	20.72	12.01	0.12
00476__10	13	10.49	0.89	2.62		2.68	0.001665	1.04	10.13	8.91	0.31
00453__05	12	10.45	-0.25	2.44		2.46	0.000276	0.50	20.91	14.72	0.13
00440__05	11	10.44	-0.23	2.36		2.39	0.000602	0.69	15.06	11.30	0.19
00420__05	10	10.43	-0.44	2.27		2.29	0.000337	0.58	18.04	11.34	0.15
00400__05	9	10.43	-0.50	2.21		2.22	0.000328	0.57	18.30	11.52	0.14
00380__05	8	10.43	-0.55	2.14		2.16	0.000413	0.62	16.79	10.91	0.16
00360__05	7	10.43	-0.48	2.04		2.06	0.000588	0.72	15.54	14.21	0.19
00340__05	6	10.43	-0.58	1.96		1.97	0.000277	0.54	19.47	11.99	0.13
00320__05	5	10.42	-0.64	1.90		1.92	0.000349	0.58	18.00	11.77	0.15
00300__05	4	10.41	-0.63	1.81		1.83	0.000446	0.64	16.37	10.72	0.16
00280__05	3	10.35	-0.67	1.72		1.74	0.000504	0.67	15.42	10.37	0.18
00260__05	2	10.26	-0.75	1.63		1.66	0.000454	0.65	15.85	10.33	0.17
00240__05	1	5.36	-0.91	1.57	-0.09	1.58	0.000150	0.37	14.40	8.67	0.09

HEC-RAS Risultati TR20					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
APE 3	3.7	3.70	0.00	0	0
APE 5	2.52	2.52	0.00	0	0
APE 6	3.58	3.50	-0.07	20	0
APE 9	0.20	0.20	0.00	0	0
APE 10	1.2	0.90	0.07	2690	150

HEC-RAS Risultati TR30											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00555PB10	22	11.71	1.75	3.63	2.75	3.67	0.001241	0.95	12.33	10.03	0.27
00555PC10	21	11.71	1.75	3.61		3.66	0.001290	0.96	12.16	9.98	0.28
00520__10	20	11.67	1.15	3.20		3.24	0.001150	0.90	12.94	10.28	0.26
00500__10	19	11.65	0.74	2.97		3.01	0.001114	0.88	13.22	11.05	0.26
00490__10	18	11.63	1.29	2.83		2.88	0.001576	1.00	11.66	10.72	0.31
00484PB10	17	12.14	0.94	2.82	1.41	2.83	0.000289	0.54	22.52	12.01	0.13
00484PC10	16	12.14	0.94	2.81		2.83	0.000291	0.54	22.47	12.01	0.13
00477PB10	15	12.14	0.94	2.79	1.41	2.81	0.000301	0.55	22.22	12.01	0.13
00477PC10	14	12.13	0.94	2.79		2.80	0.000303	0.55	22.17	12.01	0.13
00476__10	13	12.12	0.89	2.74		2.80	0.001672	1.08	11.19	9.18	0.31
00453__05	12	12.09	-0.25	2.56		2.58	0.000294	0.53	22.65	15.14	0.14
00440__05	11	12.08	-0.23	2.47		2.50	0.000645	0.74	16.34	11.71	0.20
00420__05	10	12.07	-0.44	2.38		2.40	0.000380	0.63	19.23	11.69	0.16
00400__05	9	12.06	-0.50	2.30		2.32	0.000376	0.62	19.39	11.84	0.16
00380__05	8	12.06	-0.55	2.22		2.25	0.000479	0.68	17.71	11.20	0.17
00360__05	7	12.06	-0.48	2.10		2.13	0.000673	0.79	16.51	14.69	0.20
00340__05	6	12.06	-0.58	2.01		2.03	0.000339	0.60	20.09	12.14	0.15
00320__05	5	12.06	-0.64	1.93		1.96	0.000441	0.65	18.44	11.97	0.17
00300__05	4	12.05	-0.63	1.83		1.85	0.000586	0.73	16.50	10.74	0.19
00280__05	3	12.02	-0.67	1.70		1.73	0.000713	0.79	15.18	10.33	0.21
00260__05	2	7.30	-0.75	1.62		1.63	0.000236	0.46	15.71	10.33	0.12
00240__05	1	5.15	-0.91	1.58	-0.11	1.59	0.000136	0.36	14.49	8.67	0.09

HEC-RAS Risultati TR30					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
APE 3	3.7	3.70	0.00	0	0
APE 5	2.52	2.52	0.00	0	0
APE 6	3.58	3.50	-0.07	20	0
APE 9	0.20	0.20	0.00	0	0
APE 10	1.35	0.90	0.14	4460	640

HEC-RAS Risultati TR200											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00555PB10	22	21.77	1.75	4.34	3.09	4.40	0.001118	1.07	20.38	12.77	0.27
00555PC10	21	21.77	1.75	4.31		4.37	0.001180	1.09	19.97	12.63	0.28
00520__10	20	21.36	1.15	3.87		3.92	0.001444	0.97	21.91	19.32	0.29
00500__10	19	21.18	0.74	3.62		3.67	0.001002	1.00	21.12	13.35	0.25
00490__10	18	21.51	1.29	3.49		3.55	0.001270	1.10	19.61	13.15	0.29
00484PB10	17	22.52	0.94	3.48	1.65	3.51	0.000401	0.74	30.55	12.01	0.15
00484PC10	16	22.52	0.94	3.48		3.51	0.000403	0.74	30.49	12.01	0.15
00477PB10	15	22.51	0.94	3.45	1.65	3.48	0.000417	0.75	30.13	12.01	0.15
00477PC10	14	22.51	0.94	3.44		3.47	0.000420	0.75	30.06	12.01	0.15
00476__10	13	22.50	0.89	3.39		3.47	0.002072	1.25	18.07	14.16	0.35
00453__05	12	22.46	-0.25	3.17		3.19	0.000369	0.69	32.47	17.32	0.16
00440__05	11	22.45	-0.23	3.05		3.09	0.000845	0.95	23.71	14.39	0.24
00420__05	10	22.44	-0.44	2.91		2.95	0.000583	0.87	25.88	13.01	0.20
00400__05	9	22.44	-0.50	2.79		2.83	0.000607	0.88	25.39	12.70	0.20
00380__05	8	22.44	-0.55	2.66		2.70	0.000830	0.98	22.85	12.44	0.23
00360__05	7	22.44	-0.48	2.45		2.51	0.001109	1.13	22.09	17.19	0.26
00340__05	6	22.44	-0.58	2.28		2.32	0.000767	0.96	23.39	12.74	0.23
00320__05	5	16.66	-0.64	2.19		2.22	0.000531	0.77	21.57	12.18	0.19
00300__05	4	12.84	-0.63	2.12		2.14	0.000403	0.65	19.75	11.33	0.16
00280__05	3	12.73	-0.67	2.04		2.06	0.000430	0.68	18.76	10.50	0.16
00260__05	2	8.05	-0.75	2.04		2.05	0.000128	-0.38	20.05	10.33	0.09
00240__05	1	8.05	-0.91	1.76	0.07	1.77	0.000248	0.50	16.05	8.67	0.12

HEC-RAS Risultati TR200					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
APE 3	3.7	3.70	0.00	0	0
APE 5	2.52	2.52	0.00	0	0
APE 6	3.65	3.50	0.01	140	10
APE 9	0.20	0.20	0.00	0	0
APE 10	1.9	0.90	32.63	31990	10420

HEC-RAS Risultati TR500											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00555PB10	22	28.50	1.75	4.46	3.28	4.55	0.001607	1.30	21.96	13.50	0.32
00555PC10	21	28.50	1.75	4.40		4.49	0.001735	1.35	21.17	13.03	0.34
00520__10	20	20.46	1.15	4.03		4.07	0.000888	0.81	25.14	20.07	0.23
00500__10	19	13.98	0.74	3.95		3.96	0.000292	0.54	26.06	16.94	0.14
00490__10	18	25.85	1.29	3.80		3.86	0.001043	1.09	23.70	13.38	0.26
00484PB10	17	29.52	0.94	3.77	1.79	3.81	0.000503	0.87	34.03	12.01	0.16
00484PC10	16	29.52	0.94	3.77		3.81	0.000506	0.87	33.95	12.01	0.17
00477PB10	15	29.51	0.94	3.73	1.79	3.77	0.000526	0.88	33.50	12.01	0.17
00477PC10	14	29.51	0.94	3.72		3.76	0.000530	0.88	33.41	12.01	0.17
00476__10	13	29.50	0.89	3.67		3.76	0.001943	1.34	22.02	14.34	0.35
00453__05	12	29.48	-0.25	3.46		3.49	0.000422	0.78	37.65	18.37	0.17
00440__05	11	29.48	-0.23	3.31		3.37	0.001031	1.06	27.84	16.74	0.26
00420__05	10	29.48	-0.44	3.14		3.19	0.000749	1.02	28.84	13.52	0.22
00400__05	9	29.03	-0.50	2.97		3.03	0.000790	1.05	27.77	12.98	0.23
00380__05	8	28.11	-0.55	2.81		2.88	0.001030	1.13	24.81	12.66	0.26
00360__05	7	27.89	-0.48	2.57		2.64	0.001371	1.30	24.07	17.66	0.29
00340__05	6	27.67	-0.58	2.33		2.40	0.001070	1.15	24.07	12.74	0.27
00320__05	5	18.18	-0.64	2.25		2.28	0.000577	0.82	22.24	12.18	0.19
00300__05	4	11.80	-0.63	2.20		2.21	0.000302	0.57	20.63	11.48	0.14
00280__05	3	10.18	-0.67	2.15		2.17	0.000229	0.51	19.97	10.50	0.12
00260__05	2	11.96	-0.75	2.12		2.19	0.001169	-1.18	20.87	10.33	0.27
00240__05	1	11.96	-0.91	1.88	0.27	1.90	0.000456	0.70	17.09	8.67	0.16

HEC-RAS Risultati TR500					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
APE 3	3.7	3.70	0.00	0	0
APE 5	2.52	2.52	0.00	0	0
APE 6	3.99	3.50	0.07	2410	390
APE 9	0.20	0.20	0.00	0	0
APE 10	2.04	0.90	4.21	43910	15970

Canale Principale n. 5

Analisi idrologica

Modello di Infiltrazione:

Metodo del "Curve Number"

Modello di Formazione dell'Onda di Piena:

Metodo della Corrivazione

Parametri geomorfologici:

A [kmq]	Hmax [m slm]	Hmin [m slm]	Hm [m slm]	L [km]	CN [-]	tc [h]
3.39	233.05	0.21	19.72	4.88	69	4.13

Parametri pluviometrici:

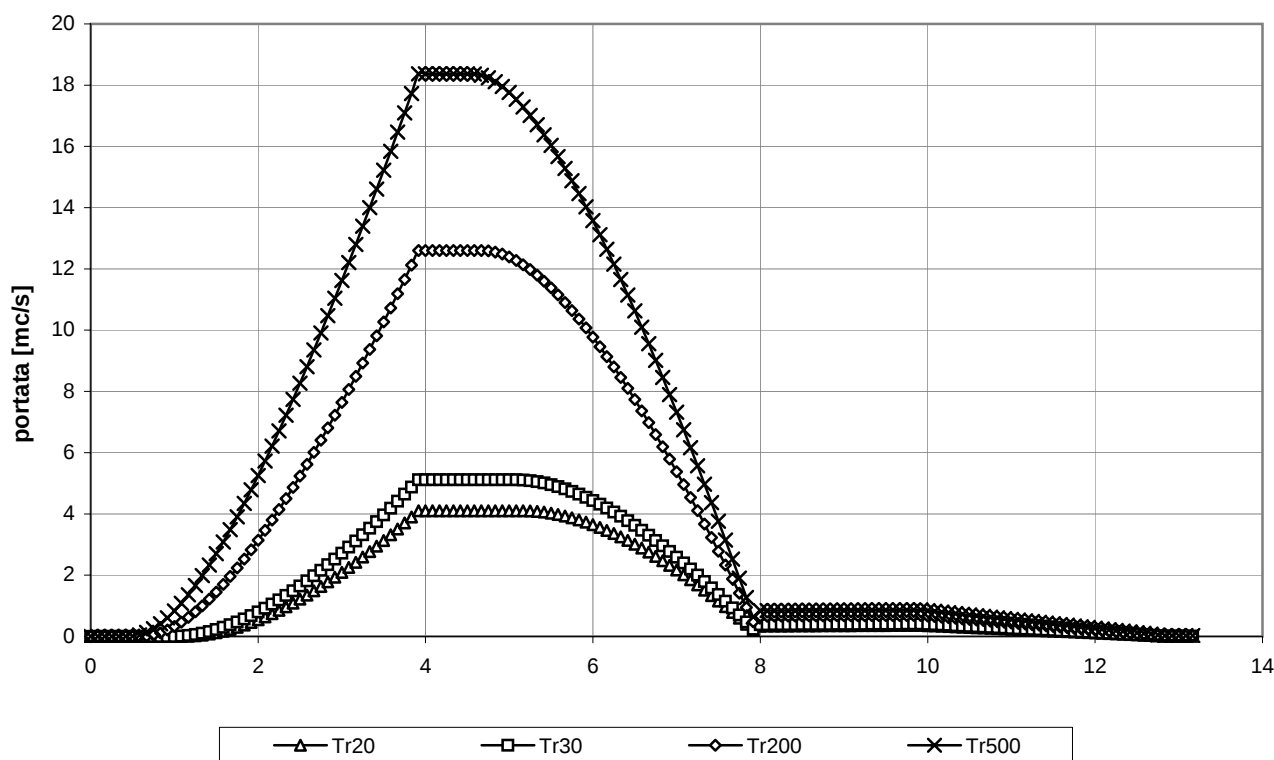
Stazione	Codice	A	N	M
Torre Saline d'Albegna	3102	24.604	0.319	0.236

Sintesi dei risultati del modello idrologico:

TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	4	78.46	18.24	4.10	65147
30	4	86.34	22.71	5.12	80656
200	4	135.11	55.69	12.60	194429
500	4	167.72	81.06	18.37	281667

Idrogrammi di piena:

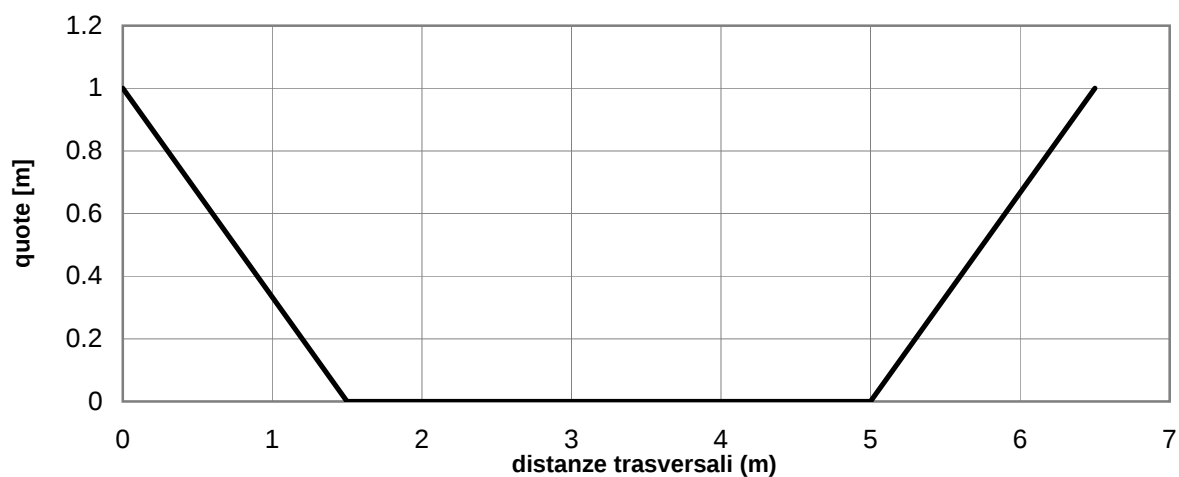
Idrogrammi di piena Canale n. 5



Verifica idraulica in moto uniforme

Larghezza fondo	<i>Bo [m]</i>	3.50
Altezza sponde	<i>H [m]</i>	1.00
Larghezza in sommità	<i>B [m]</i>	6.50
Portata massima smaltibile	<i>Qmax [mc/s]</i>	5.20

Sezione tipo Canale n. 5



Canale Principale n. 6

Analisi idrologica

Modello di Infiltrazione:

Metodo del "Curve Number"

Modello di Formazione dell'Onda di Piena:

Metodo della Corrivazione

Parametri geomorfologici:

Bacino	A [kmq]	Hmax [m slm]	Hmin [m slm]	Hm [m slm]	L [km]	CN [-]	tc [h]
Bacino 12	1.65	6.45	0.43	1.47	1.84	81	8.14
Bacino 11	0.35	3.02	0.88	0.65	0.95	83	5.85
Bacino 10	0.15	3.28	0.65	1.17	0.55	84	2.73

Parametri pluviometrici:

Stazione	Codice	A	N	M
Torre Saline d'Albegna	3102	24.604	0.319	0.236

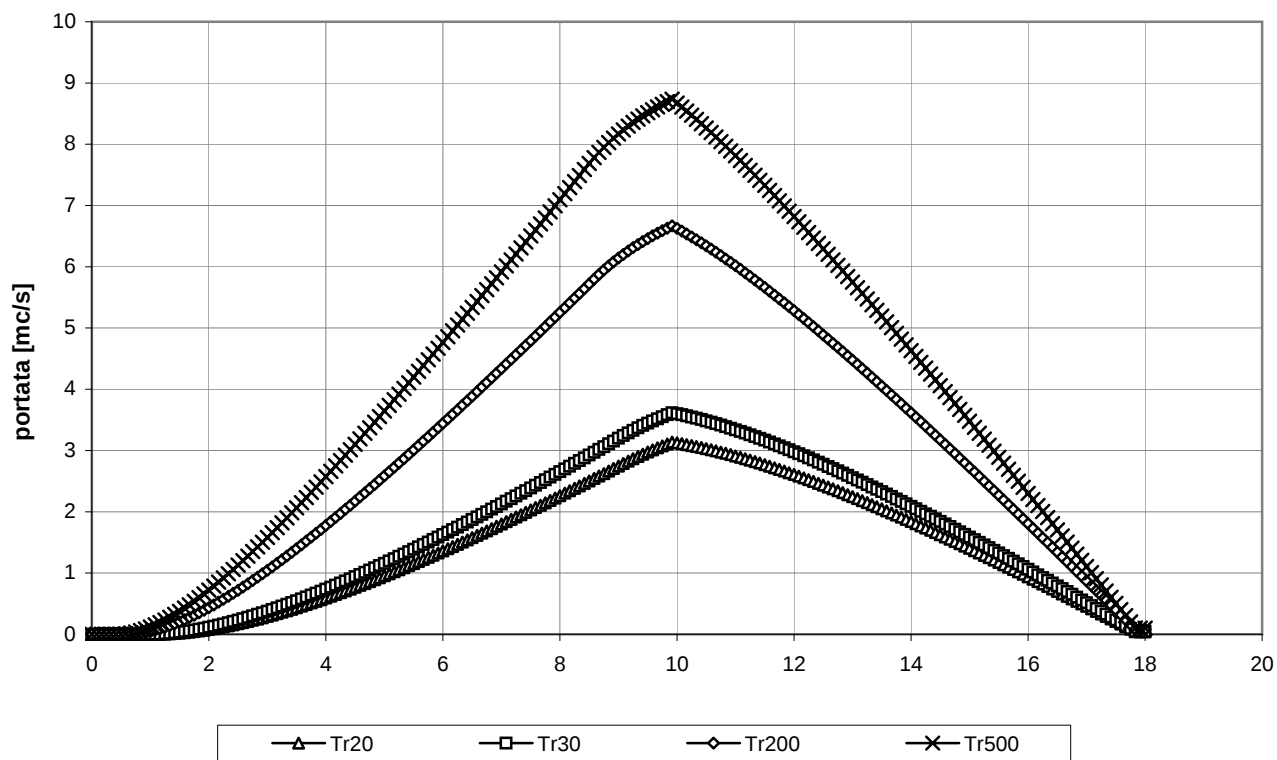
Sintesi dei risultati del modello idrologico:

Bacino 12					
TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	10	104.00	55.91	3.14	93072
30	10	114.45	64.85	3.62	108019
200	10	179.08	123.24	6.67	204969
500	10	222.31	163.96	8.74	272579

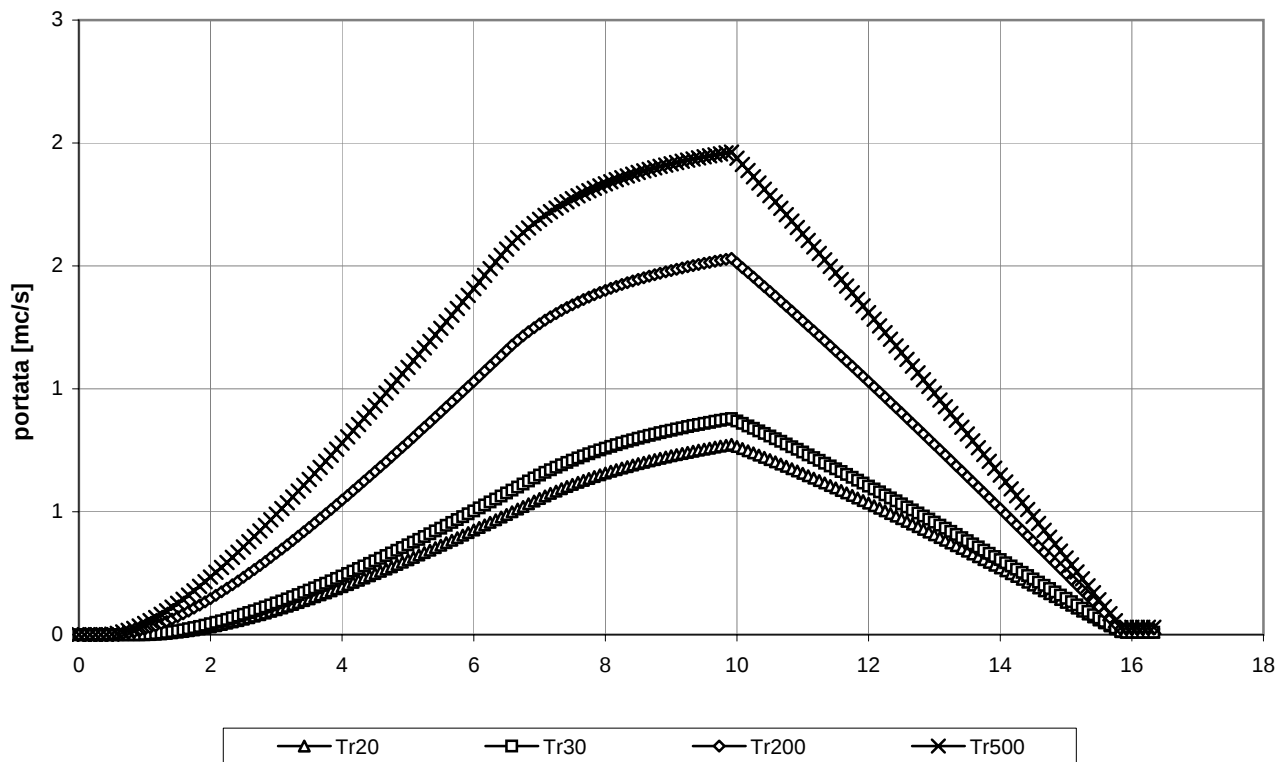
Bacino 11					
TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	10	104.00	60.16	0.77	21031
30	10	114.45	69.36	0.88	24205
200	10	179.08	128.92	1.53	45097
500	10	222.31	170.14	1.96	59525

Bacino 10					
TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	10	104.00	62.35	0.36	9566
30	10	114.45	71.67	0.41	10984
200	10	179.08	131.77	0.68	20138
500	10	222.31	173.22	0.87	26398

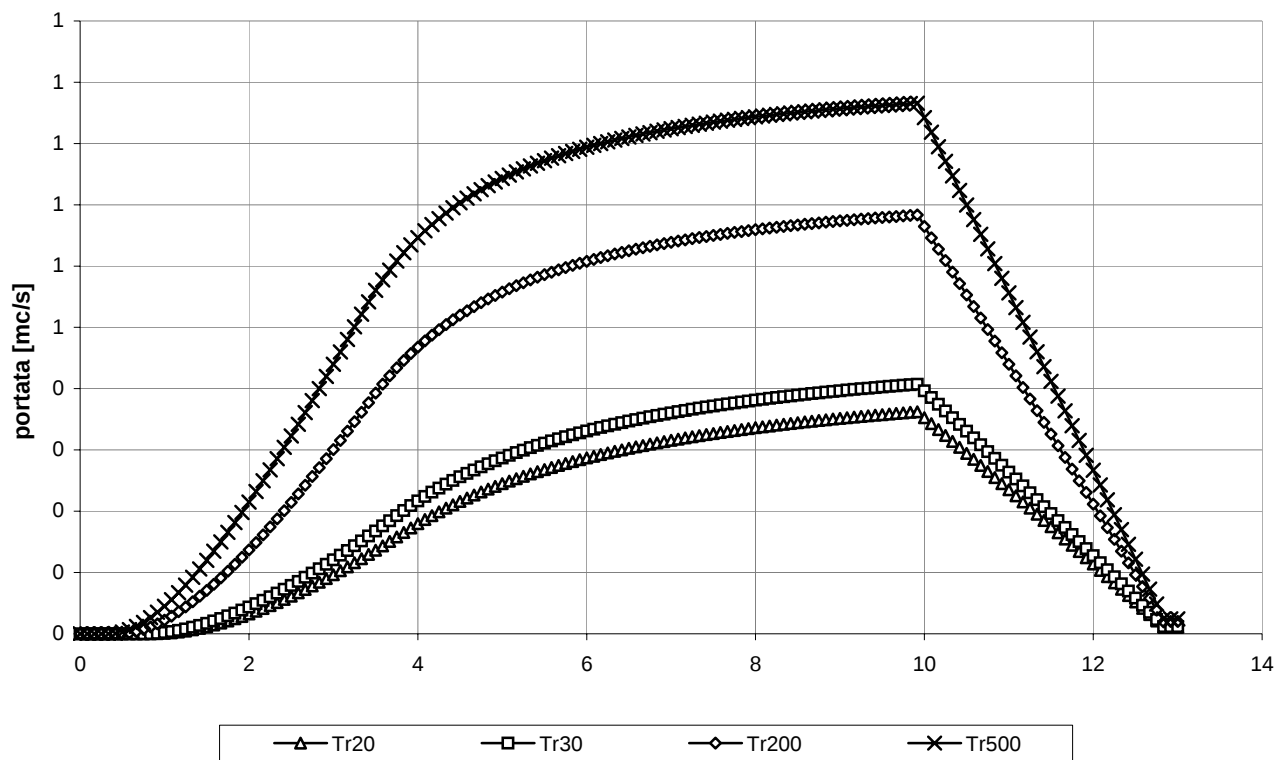
Idrogrammi di piena Canale n. 6 - Bacino 12



Idrogrammi di piena Canale n. 6 - Bacino 11

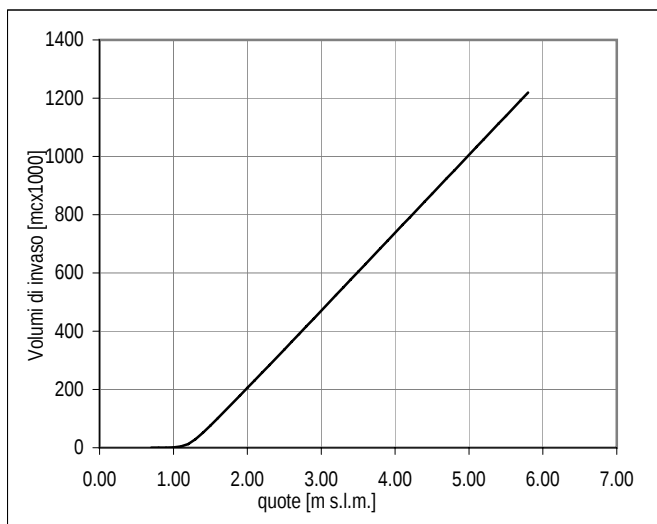


Idrogrammi di piena Canale n. 6 - Bacino 10

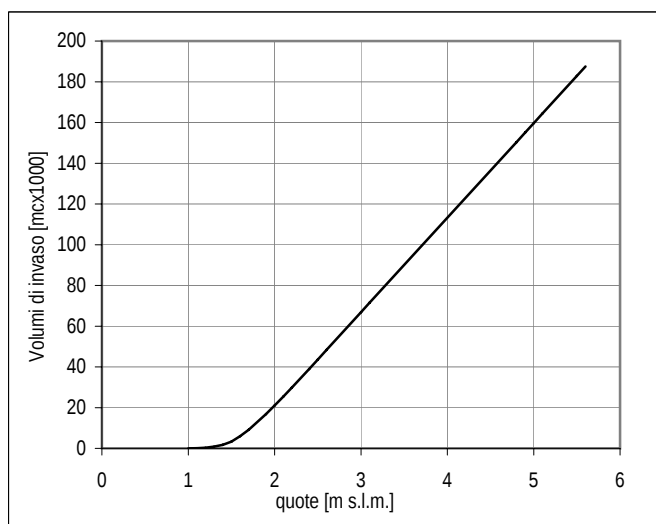


Curve di invaso Aree di Potenziale Esondazione

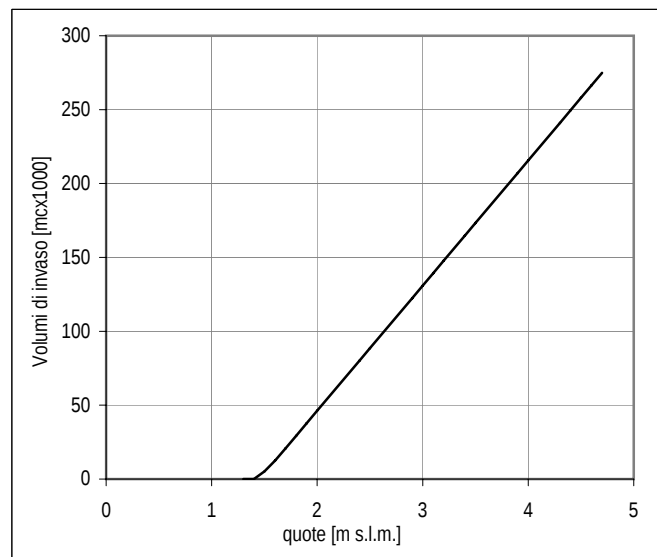
APE DX 1



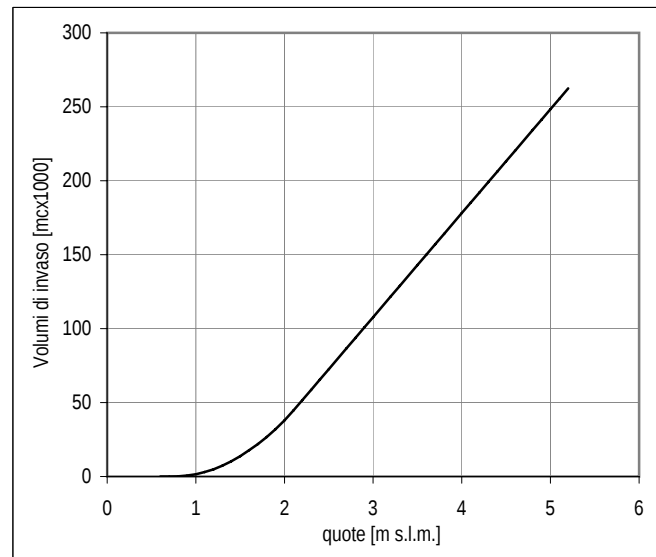
APE DX 2



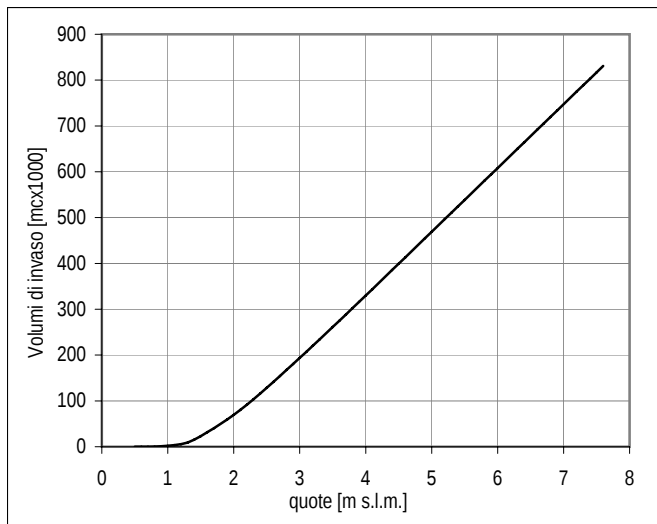
APE DX 3



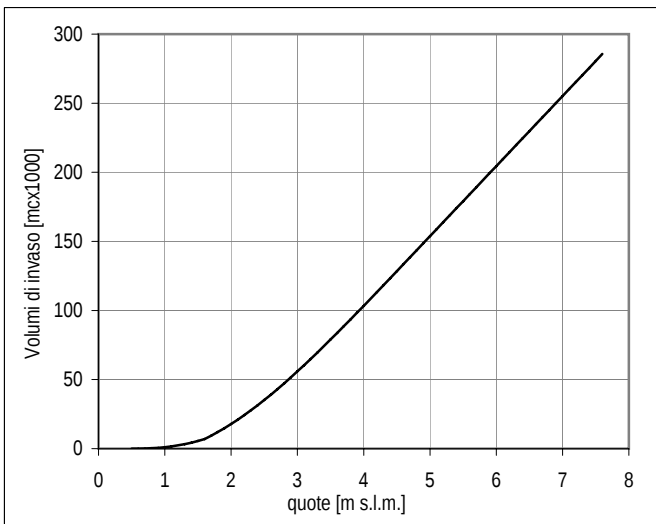
APE DX 4



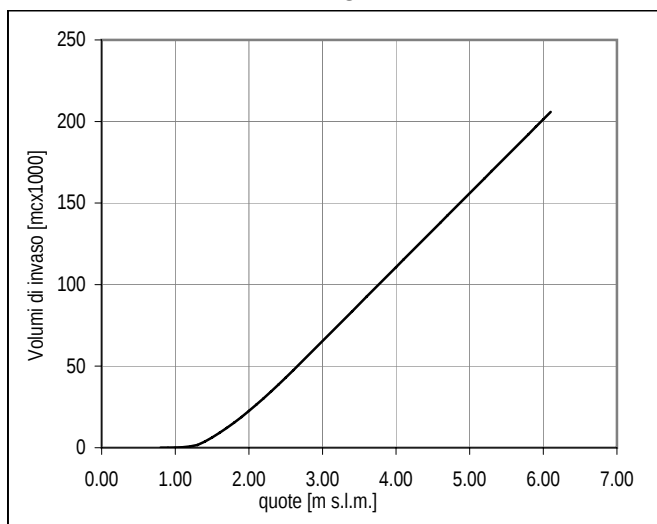
APE DX 5



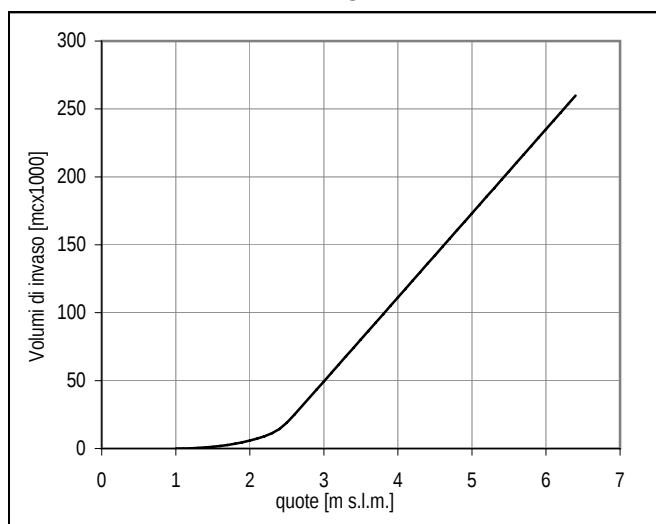
APE DX 6



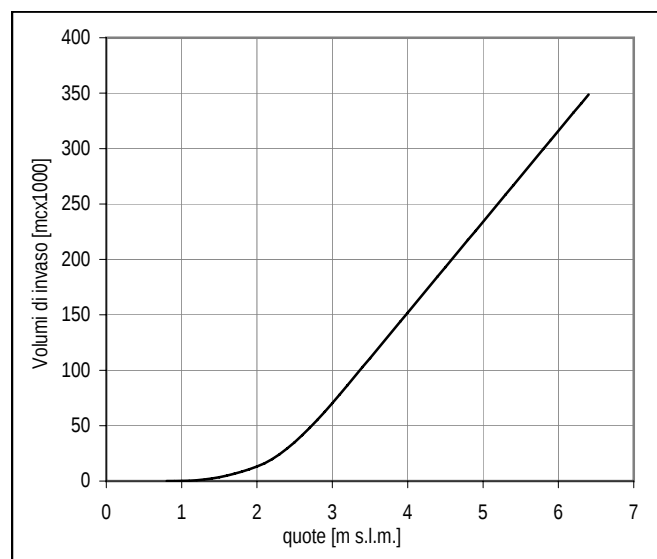
APE SX 1



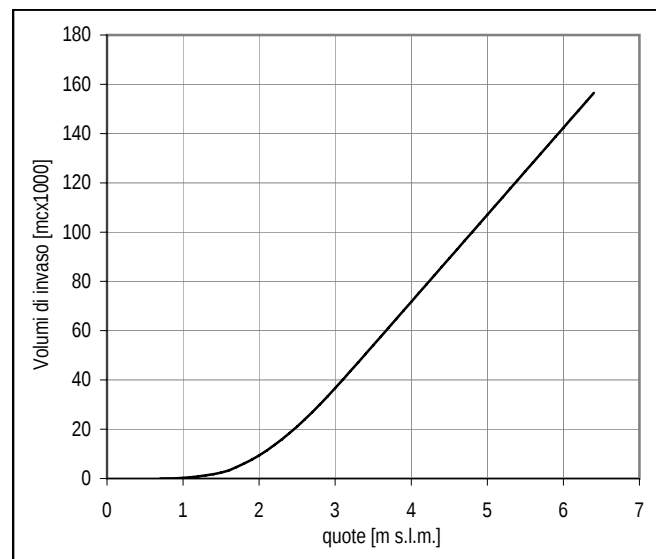
APE SX 2



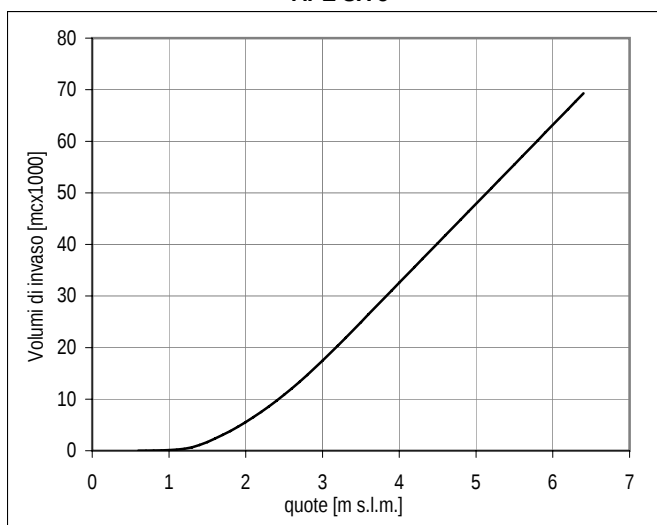
APE SX 3



APE SX 4



APE SX 5



Risultati della modellistica idraulica

HEC-RAS Risultati TR20											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00216__10	26	2.25	-0.89	1.23		1.23	0.000013	0.16	13.73	14.40	0.05
00206__10	25	1.98	-0.94	1.23		1.23	0.000007	0.14	13.78	11.22	0.04
00197PB10	24	1.58	-0.86	1.23	-0.55	1.23	0.000003	0.09	17.91	17.86	0.03
00197PC10	23	1.57	-0.86	1.23		1.23	0.000003	0.09	17.89	17.86	0.03
00187PB10	22	1.58	-0.95	1.23	-0.69	1.23	0.000003	0.10	15.79	9.73	0.03
00187PC10	21	1.58	-0.95	1.23		1.23	0.000003	0.10	15.79	9.73	0.03
00178__10	20	1.96	-0.94	1.23		1.23	0.000008	0.16	12.10	8.85	0.04
00166__10	19	1.96	-0.97	1.23		1.23	0.000008	0.16	12.33	8.81	0.04
00163PB10	18	1.96	-1.08	1.23	-0.67	1.23	0.000007	0.15	12.79	8.87	0.04
00163PC10	17	1.95	-1.08	1.23		1.23	0.000007	0.15	12.77	8.86	0.04
00150__10	16	1.95	-0.96	1.23		1.23	0.000006	0.14	13.43	9.57	0.04
00143__10	15	1.95	-0.94	1.23		1.23	0.000006	0.14	13.82	10.73	0.04
00135__10	14	1.94	-0.89	1.23		1.23	0.000007	0.15	13.23	10.15	0.04
00123__10	13	1.94	-0.93	1.22		1.23	0.000007	0.14	13.49	11.26	0.04
00118__10	12	1.94	-0.95	1.22		1.23	0.000007	0.13	15.07	14.08	0.04
00114__10	11	1.94	-0.98	1.22		1.23	0.000006	0.14	14.31	10.55	0.04
00109PB10	10	1.92	-0.98	1.22		1.22	0.000027	0.24	7.90	6.92	0.07
00109PC10	9	1.90	-0.98	1.22		1.22	0.000027	0.24	7.87	6.90	0.07
00092PB10	8	1.91	-1.55	1.22	-1.17	1.22	0.000003	0.10	18.58	11.16	0.03
00092PC10	7	1.90	-1.55	1.22		1.22	0.000003	0.10	18.57	11.16	0.03
00056__10	6	1.09	-1.78	1.22		1.22	0.000001	0.04	24.38	23.60	0.01
00043PB10	5	1.80	-1.87	1.22	-1.42	1.22	0.000002	0.08	21.40	14.92	0.02
00043PC10	4	1.80	-1.87	1.22		1.22	0.000002	0.08	21.38	14.92	0.02
00029__10	3	1.77	-1.74	1.22		1.22	0.000002	0.08	23.41	16.65	0.02
00022PB10	2	1.47	-1.71	1.22	-1.41	1.22	0.000001	0.06	23.49	16.15	0.02
00022PC10	1	1.47	-1.71	1.22		1.22	0.000001	0.06	23.49	16.14	0.02

HEC-RAS Risultati TR20					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
DX 1	1.14	0.70	0.67	82150	7610
DX 2	1.23	1.00	0.06	5620	510
DX 3	1.30	1.30	0.00	20	0
DX 4	0.60	0.60	0.00	30	0
DX 5	1.22	0.50	-3.18	33930	6120
DX 6	1.22	0.50	0.00	8750	2540
SX 1	1.23	0.80	0.42	8860	1050
SX 2	1.23	1.00	-0.07	2460	250
SX 3	0.80	0.80	0.00	120	0
SX 4	1.20	0.70	0.10	4240	860
SX 5	1.22	0.60	0.51	2820	430

HEC-RAS Risultati TR30											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00216__10	26	2.86	-0.89	1.28		1.28	0.000018	0.20	14.39	14.48	0.06
00206__10	25	2.15	-0.94	1.28		1.28	0.000008	0.15	14.32	11.95	0.04
00197PB10	24	1.24	-0.86	1.28	-0.58	1.28	0.000002	0.07	18.75	17.86	0.02
00197PC10	23	1.24	-0.86	1.28		1.28	0.000002	0.07	18.74	17.86	0.02
00187PB10	22	1.24	-0.95	1.28	-0.72	1.28	0.000001	0.08	16.25	9.83	0.02
00187PC10	21	1.24	-0.95	1.28		1.28	0.000001	0.08	16.25	9.83	0.02
00178__10	20	1.80	-0.94	1.28		1.28	0.000006	0.14	12.52	8.99	0.04
00166__10	19	1.79	-0.97	1.28		1.28	0.000006	0.14	12.76	8.95	0.04
00163PB10	18	1.79	-1.08	1.28	-0.68	1.28	0.000005	0.14	13.21	9.01	0.04
00163PC10	17	1.79	-1.08	1.27		1.28	0.000005	0.14	13.20	9.00	0.04
00150__10	16	1.79	-0.96	1.27		1.28	0.000005	0.13	13.89	9.90	0.03
00143__10	15	1.79	-0.94	1.27		1.28	0.000005	0.12	14.37	11.91	0.04
00135__10	14	1.79	-0.89	1.27		1.27	0.000006	0.13	13.75	11.42	0.04
00123__10	13	1.79	-0.93	1.27		1.27	0.000006	0.13	14.06	12.37	0.04
00118__10	12	1.79	-0.95	1.27		1.27	0.000005	0.11	15.79	15.52	0.04
00114__10	11	1.78	-0.98	1.27		1.27	0.000004	0.12	14.83	10.73	0.03
00109PB10	10	1.78	-0.98	1.27		1.27	0.000021	0.22	8.24	7.09	0.06
00109PC10	9	1.80	-0.98	1.27		1.27	0.000021	0.22	8.21	7.08	0.07
00092PB10	8	1.81	-1.55	1.27	-1.18	1.27	0.000002	0.09	19.13	11.35	0.02
00092PC10	7	1.80	-1.55	1.27		1.27	0.000002	0.09	19.13	11.35	0.02
00056__10	6	1.14	-1.78	1.27		1.27	0.000001	0.04	25.54	23.60	0.01
00043PB10	5	1.80	-1.87	1.27	-1.42	1.27	0.000002	0.08	22.14	15.04	0.02
00043PC10	4	1.80	-1.87	1.27		1.27	0.000002	0.08	22.12	15.04	0.02
00029__10	3	1.75	-1.74	1.27		1.27	0.000001	0.07	24.23	16.80	0.02
00022PB10	2	1.43	-1.71	1.27	-1.41	1.27	0.000001	0.06	24.32	17.42	0.02
00022PC10	1	1.43	-1.71	1.27		1.27	0.000001	0.06	24.31	17.41	0.02

HEC-RAS Risultati TR30					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
DX 1	1.25	0.70	1.62	171950	21510
DX 2	1.28	1.00	0.09	5620	780
DX 3	1.30	1.30	0.00	20	0
DX 4	0.60	0.60	0.00	30	0
DX 5	1.27	0.50	-2.48	33930	7790
DX 6	1.27	0.50	0.00	8750	2980
SX 1	1.28	0.80	0.37	8860	1470
SX 2	1.28	1.00	0.16	2460	370
SX 3	0.80	0.80	0.00	120	0
SX 4	1.27	0.70	-0.06	4240	1140
SX 5	1.27	0.60	-0.48	2820	570

HEC-RAS Risultati TR200											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00216__10	26	2.42	-0.89	1.52		1.52	0.000007	0.13	18.04	16.11	0.04
00206__10	25	1.90	-0.94	1.52		1.52	0.000004	0.11	17.65	14.38	0.03
00197PB10	24	2.40	-0.86	1.52	-0.46	1.52	0.000003	0.10	23.08	17.86	0.03
00197PC10	23	2.39	-0.86	1.52		1.52	0.000003	0.10	23.06	17.86	0.03
00187PB10	22	1.86	-0.95	1.52	-0.66	1.52	0.000002	0.10	18.70	10.36	0.02
00187PC10	21	1.86	-0.95	1.52		1.52	0.000002	0.10	18.70	10.36	0.02
00178__10	20	1.96	-0.94	1.52		1.52	0.000005	0.13	14.80	9.72	0.03
00166__10	19	1.96	-0.97	1.52		1.52	0.000005	0.13	15.05	10.65	0.03
00163PB10	18	1.96	-1.08	1.52	-0.67	1.52	0.000004	0.13	15.49	9.70	0.03
00163PC10	17	1.87	-1.08	1.52		1.52	0.000004	0.12	15.47	9.69	0.03
00150__10	16	1.85	-0.96	1.52		1.52	0.000004	0.11	16.63	12.61	0.03
00143__10	15	1.81	-0.94	1.52		1.52	0.000003	0.10	17.63	13.80	0.03
00135__10	14	1.43	-0.89	1.52		1.52	0.000003	0.08	17.02	14.42	0.02
00123__10	13	1.62	-0.93	1.52		1.52	0.000004	0.09	17.75	17.74	0.03
00118__10	12	1.84	-0.95	1.52		1.52	0.000004	0.09	20.45	22.73	0.03
00114__10	11	1.84	-0.98	1.52		1.52	0.000003	0.10	17.55	11.63	0.03
00109PB10	10	1.85	-0.98	1.52		1.52	0.000013	0.18	10.09	7.98	0.05
00109PC10	9	1.84	-0.98	1.51		1.51	0.000013	0.18	10.06	7.97	0.05
00092PB10	8	1.86	-1.55	1.51	-1.18	1.51	0.000002	0.08	22.04	12.28	0.02
00092PC10	7	1.82	-1.55	1.51		1.51	0.000002	0.08	22.03	12.28	0.02
00056__10	6	1.76	-1.78	1.51		1.51	0.000001	0.06	31.33	23.60	0.02
00043PB10	5	1.81	-1.87	1.51	-1.41	1.51	0.000001	0.07	25.90	15.62	0.02
00043PC10	4	1.82	-1.87	1.51		1.51	0.000001	0.07	25.88	15.62	0.02
00029__10	3	1.63	-1.74	1.51		1.51	0.000001	0.06	28.51	19.32	0.02
00022PB10	2	1.07	-1.71	1.51	-1.45	1.51	0.000000	0.04	29.89	25.33	0.01
00022PC10	1	1.07	-1.71	1.51		1.51	0.000000	0.04	29.87	25.33	0.01

HEC-RAS Risultati TR200					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
DX 1	1.52	0.70	-0.03	255820	81860
DX 2	1.52	1.00	0.42	26750	3870
DX 3	1.52	1.30	0.36	72230	6680
DX 4	1.52	0.60	1.06	39510	14470
DX 5	1.51	0.50	8.92	85460	24220
DX 6	1.51	0.50	-0.14	14010	5660
SX 1	1.52	0.80	-0.42	27990	6940
SX 2	1.52	1.00	0.02	5930	1410
SX 3	1.52	0.80	0.40	13990	3750
SX 4	1.51	0.70	0.46	8740	2500
SX 5	1.51	0.60	-0.18	6590	1750

HEC-RAS Risultati TR500											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00216__10	26	2.03	-0.89	1.66		1.66	0.000004	0.10	20.43	18.57	0.03
00206__10	25	1.92	-0.94	1.66		1.66	0.000003	0.10	19.86	17.31	0.03
00197PB10	24	1.29	-0.86	1.66	-0.57	1.66	0.000001	0.05	25.55	17.86	0.01
00197PC10	23	1.26	-0.86	1.66		1.66	0.000001	0.05	25.54	17.86	0.01
00187PB10	22	1.96	-0.95	1.66	-0.65	1.66	0.000002	0.10	20.16	10.66	0.02
00187PC10	21	1.96	-0.95	1.66		1.66	0.000002	0.10	20.16	10.66	0.02
00178__10	20	1.97	-0.94	1.66		1.66	0.000005	0.12	16.27	12.68	0.03
00166__10	19	1.95	-0.97	1.66		1.66	0.000005	0.12	16.72	14.25	0.03
00163PB10	18	1.95	-1.08	1.66	-0.67	1.66	0.000003	0.12	16.86	10.10	0.03
00163PC10	17	1.86	-1.08	1.66		1.66	0.000003	0.11	16.84	10.09	0.03
00150__10	16	1.82	-0.96	1.66		1.66	0.000003	0.10	18.44	13.13	0.03
00143__10	15	1.69	-0.94	1.66		1.66	0.000002	0.09	19.74	15.65	0.02
00135__10	14	1.49	-0.89	1.66		1.66	0.000002	0.08	19.02	14.42	0.02
00123__10	13	1.25	-0.93	1.66		1.66	0.000001	0.06	20.28	18.21	0.02
00118__10	12	1.77	-0.95	1.66		1.66	0.000002	0.07	23.68	23.24	0.02
00114__10	11	1.83	-0.98	1.66		1.66	0.000002	0.10	19.21	12.14	0.02
00109PB10	10	1.82	-0.98	1.65		1.66	0.000010	0.16	11.23	8.48	0.05
00109PC10	9	1.81	-0.98	1.65		1.65	0.000010	0.16	11.21	8.47	0.04
00092PB10	8	1.73	-1.55	1.65	-1.20	1.65	0.000001	0.07	23.82	13.36	0.02
00092PC10	7	1.73	-1.55	1.65		1.65	0.000001	0.07	23.77	12.69	0.02
00056__10	6	1.71	-1.78	1.65		1.65	0.000001	0.05	34.62	23.60	0.01
00043PB10	5	1.82	-1.87	1.65	-1.41	1.65	0.000001	0.06	28.10	15.95	0.02
00043PC10	4	1.82	-1.87	1.65		1.65	0.000001	0.06	28.08	15.95	0.02
00029__10	3	1.71	-1.74	1.65		1.65	0.000001	0.05	31.21	19.32	0.01
00022PB10	2	1.15	-1.71	1.65	-1.45	1.65	0.000000	0.03	33.42	25.33	0.01
00022PC10	1	1.15	-1.71	1.65		1.65	0.000000	0.03	33.41	25.33	0.01

HEC-RAS Risultati TR500					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
DX 1	1.66	0.70	3.05	258460	117110
DX 2	1.66	1.00	-3.70	31050	7840
DX 3	1.66	1.30	5.78	83660	17470
DX 4	1.66	0.60	-0.30	42510	20130
DX 5	1.65	0.50	-1.32	88950	36350
DX 6	1.65	0.50	-0.32	24610	8150
SX 1	1.66	0.80	2.18	30490	10930
SX 2	1.66	1.00	2.73	7660	2330
SX 3	1.66	0.80	-0.25	16720	5850
SX 4	1.65	0.70	0.67	13150	3940
SX 5	1.65	0.60	-0.48	7140	2700

Canale Principale n. 4

Analisi idrologica

Modello di Infiltrazione:

Metodo del "Curve Number"

Modello di Formazione dell'Onda di Piena:

Metodo di Nash GIUH / Metodo della Corrivazione

Parametri geomorfologici:

Bacino	A [kmq]	L [km]	Rb -	RI -	Ra -	n -	k [h]	Tl [h]
Bacino 2	10.31	5.82	1.53	1.17	1.98	2.71	0.66	1.78
Bacino 3	5.71	4.44	2.24	1.00	2.96	2.64	0.57	1.50
Bacino	A [kmq]	Hmax [m slm]	Hmin [m slm]	Hm [m slm]	L [km]	CN [-]	tc [h]	
Bacino 4	3.13	144.69	1.47	15.29	3.00	67	3.70	
Bacino 5	2.40	9.79	0.58	3.52	2.84	76	6.97	
Bacino 6	1.46	6.04	1.47	2.65	1.20	81	5.09	
Bacino 7	1.14	4.69	0.24	1.99	0.60	81	4.58	
CFsx Alb	7.56	21.42	3.83	6.05	7.79	77	11.53	

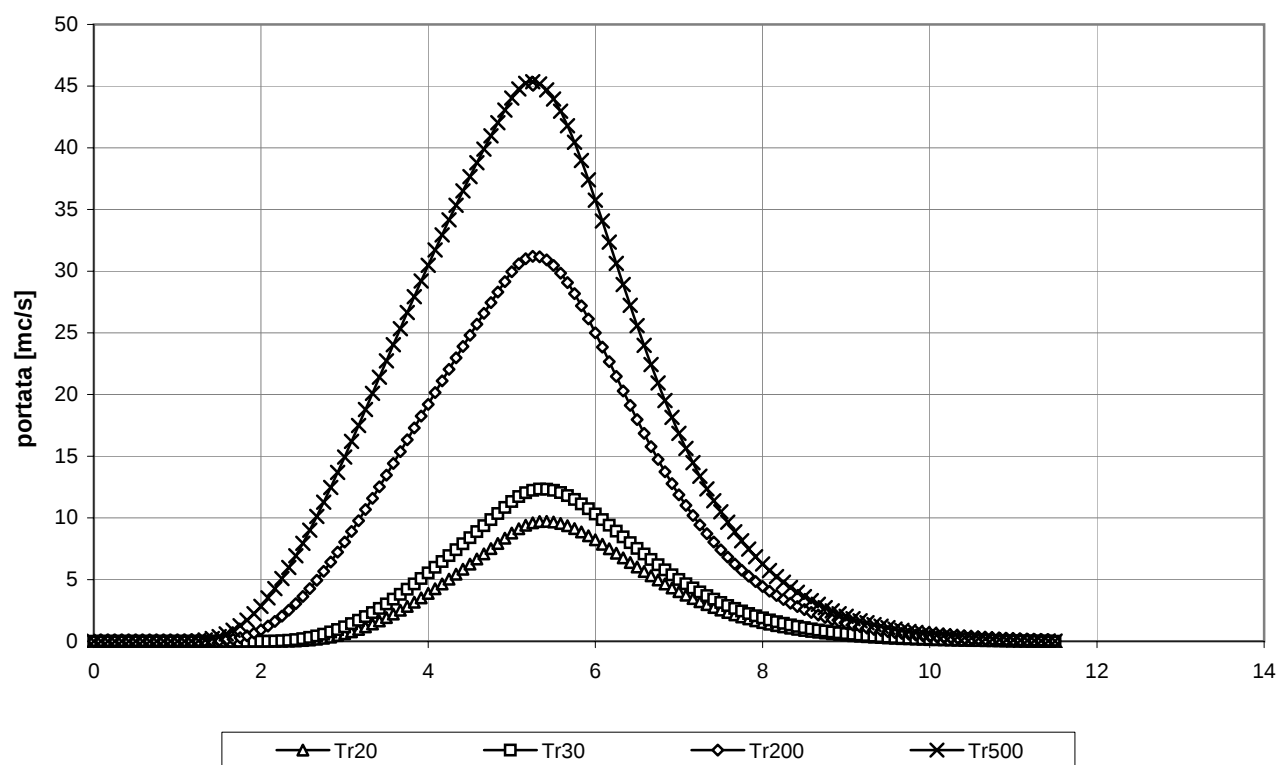
Parametri pluviometrici:

Stazione	Codice	A1	N1	M1	A	N	M
San Donato	3100	26.138	0.611	0.168	25.389	0.305	0.217

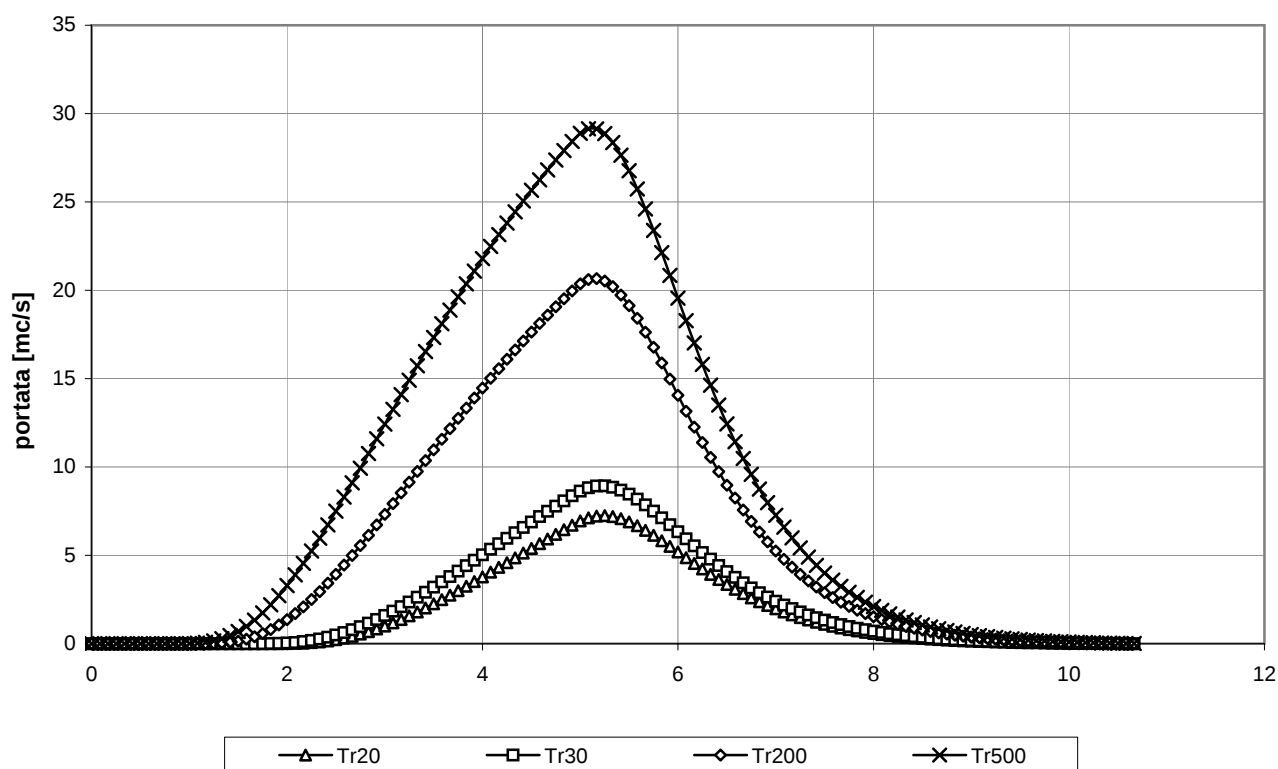
Sintesi dei risultati del modello idrologico:

	Bacino 2			Bacino 3						
TR [anni]	d [h]	Qmax [mc/s]	V [mc]	d [h]	Qmax [mc/s]	V [mc]				
20	5	9.72	99676	5.00	7.24	70583				
30	5	12.33	129834	5.00	8.93	89643				
200	5	31.20	364813	5.00	20.66	232886				
500	5	45.36	553633	5.00	29.14	344833				
	Bacino 4					Bacino 5				
TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	5	79.46	16.51	3.91	51648	5.00	79.46	28.00	2.67	67186
30	5	86.77	20.41	4.84	63869	5.00	86.77	33.14	3.16	79539
200	5	130.96	48.58	11.35	152045	5.00	130.96	67.68	6.45	162433
500	5	159.77	69.88	16.06	218735	5.00	159.77	92.25	8.79	221416
	Bacino 6					Bacino 7				
TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	5	79.46	35.89	2.91	52384	5.00	79.46	35.89	2.52	40902
30	5	86.77	41.68	3.38	60850	5.00	86.77	41.68	2.93	47513
200	5	130.96	79.34	6.44	115834	5.00	130.96	79.34	5.58	90445
500	5	159.77	105.39	8.55	153879	5.00	159.77	105.39	7.40	120152
	Controfossa Sinistra Albegna									
TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]					
20	5	79.46	29.49	2.52	40902					
30	5	86.77	34.76	6.64	262781					
200	5	130.96	69.95	13.35	528833					
500	5	159.77	94.84	18.11	717028					

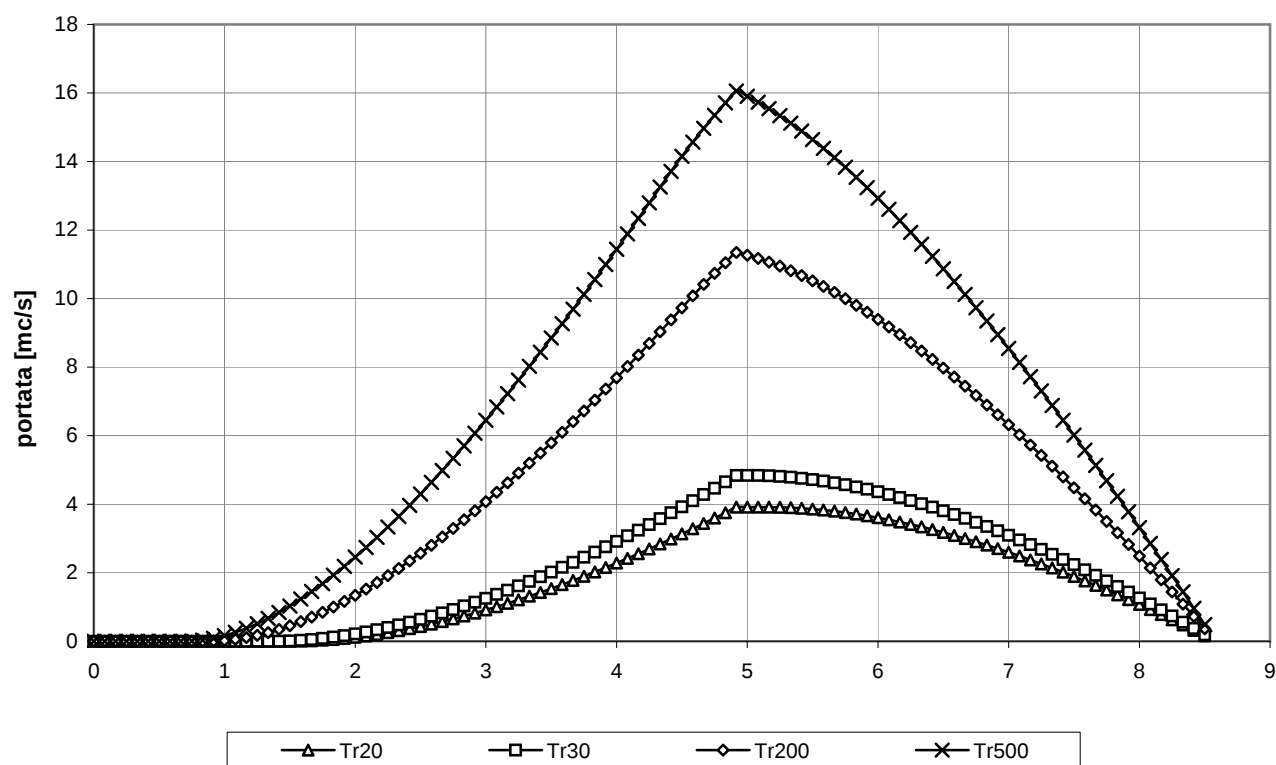
Idrogrammi di piena Canale Principale n. 4 - Bacino 2



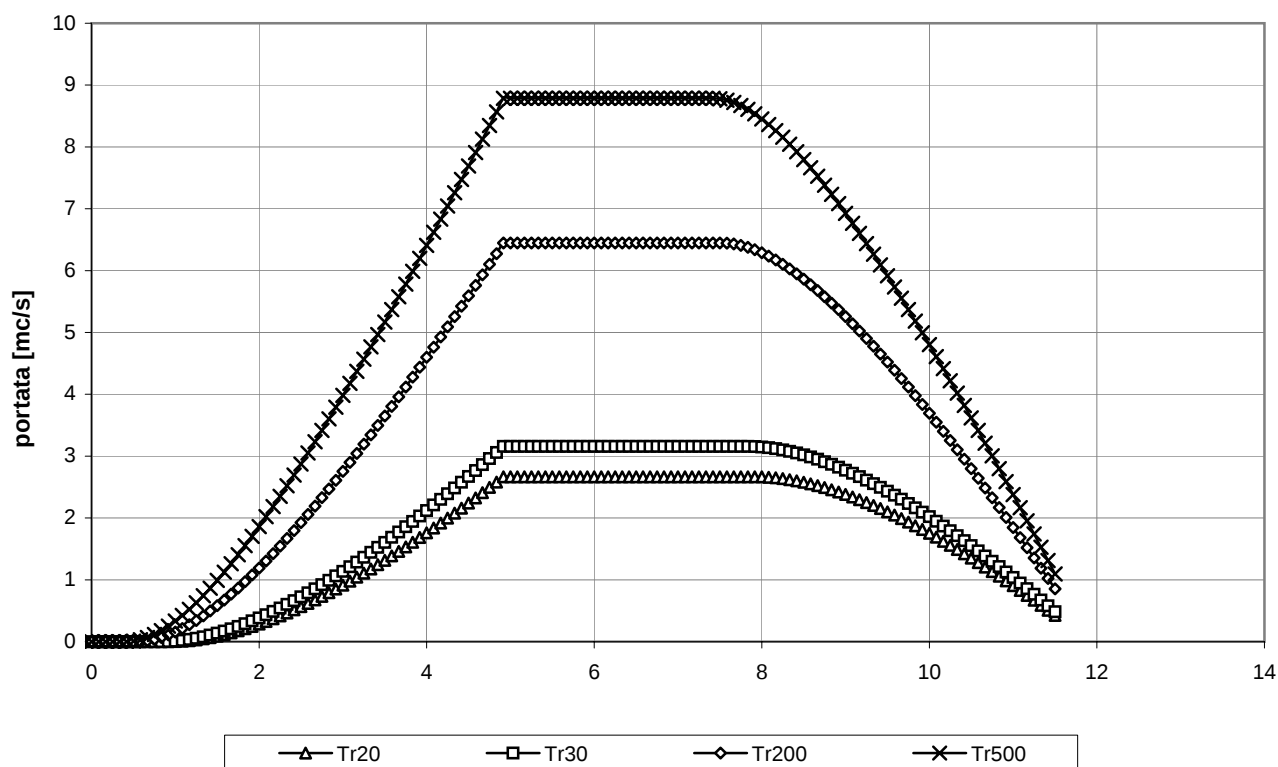
Idrogrammi di piena Canale Principale n. 4 - Bacino 3



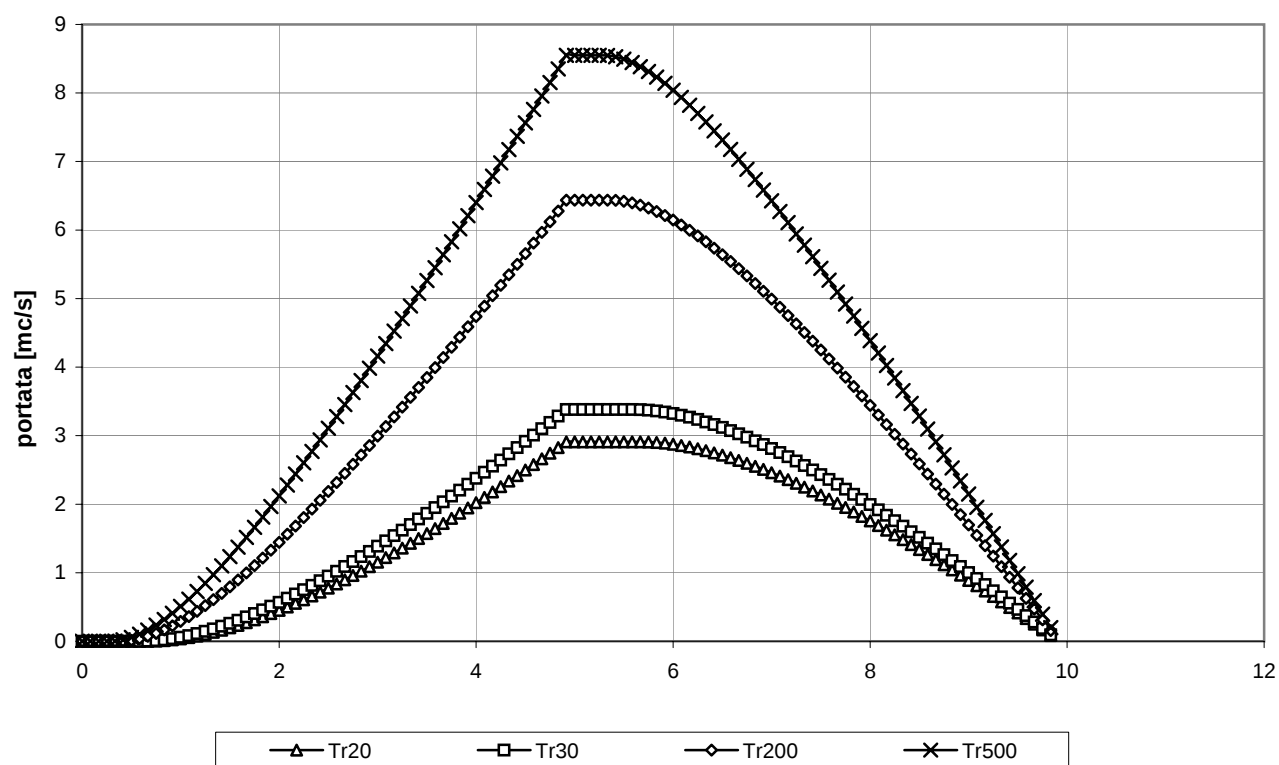
Idrogrammi di piena Canale Principale n. 4 - Bacino 4



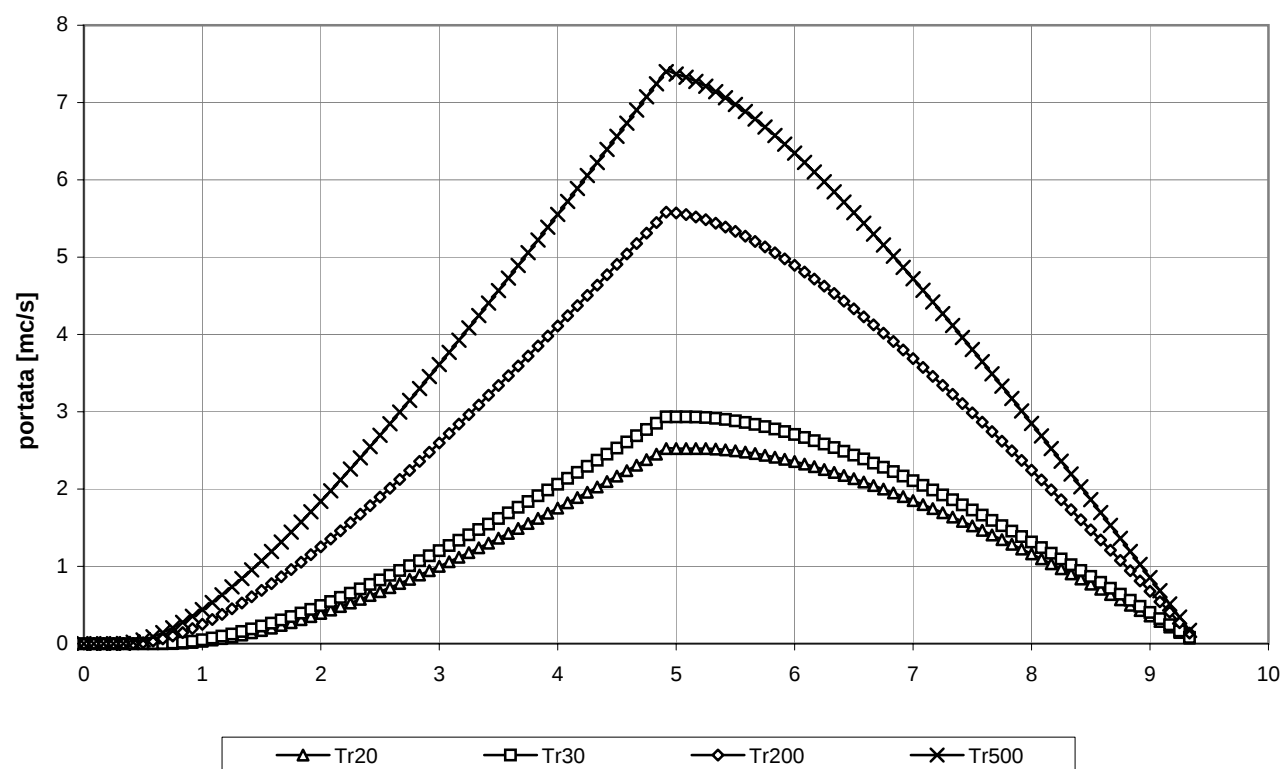
Idrogrammi di piena Canale Principale n. 4 - Bacino 5



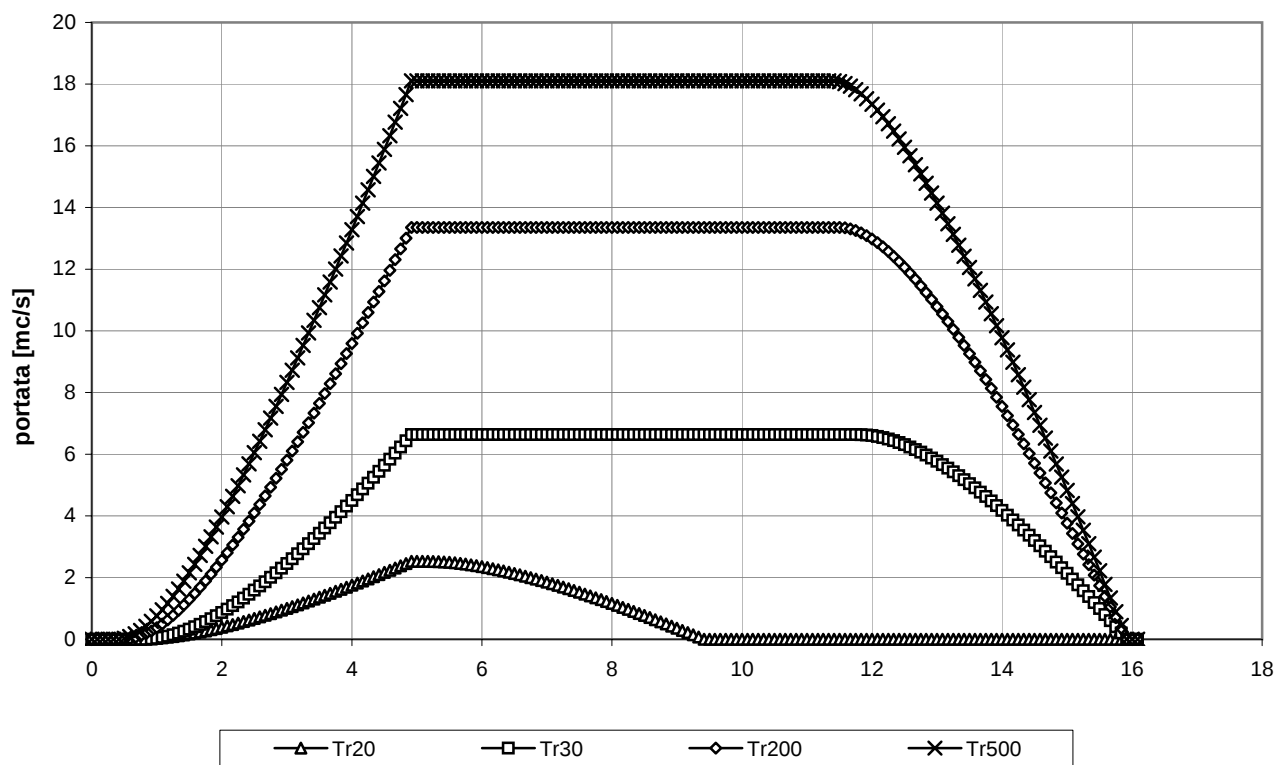
Idrogrammi di piena Canale Principale n. 4 - Bacino 6



Idrogrammi di piena Canale Principale n. 4 - Bacino 7

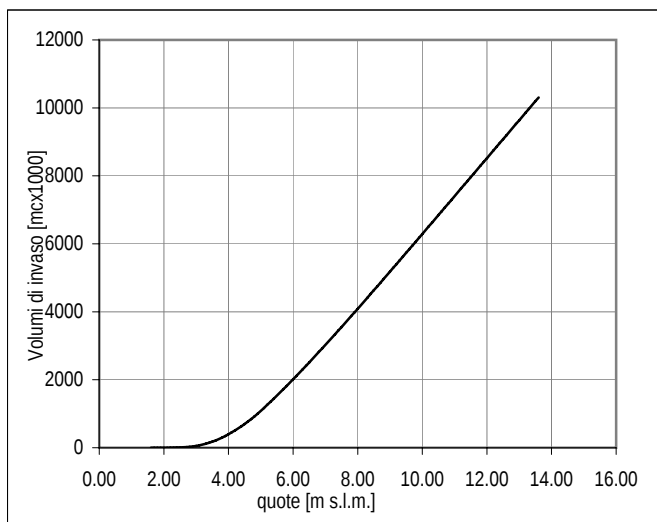


Idrogrammi di piena Canale Principale n. 4 - Controfossa Sinistra Albegna

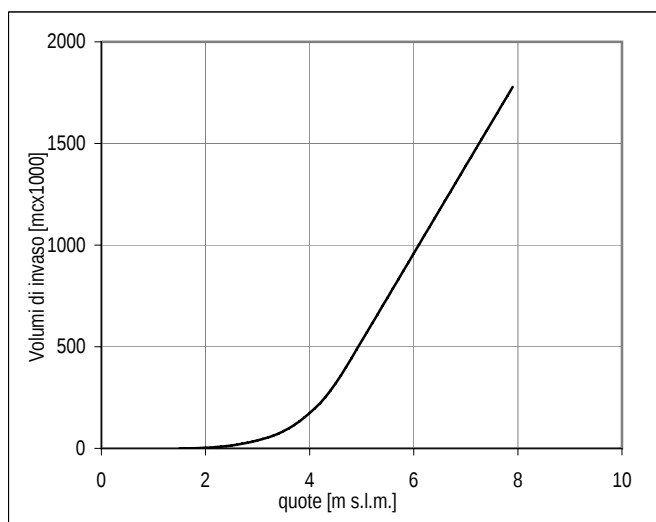


Curve di invaso Aree di Potenziale Esondazione

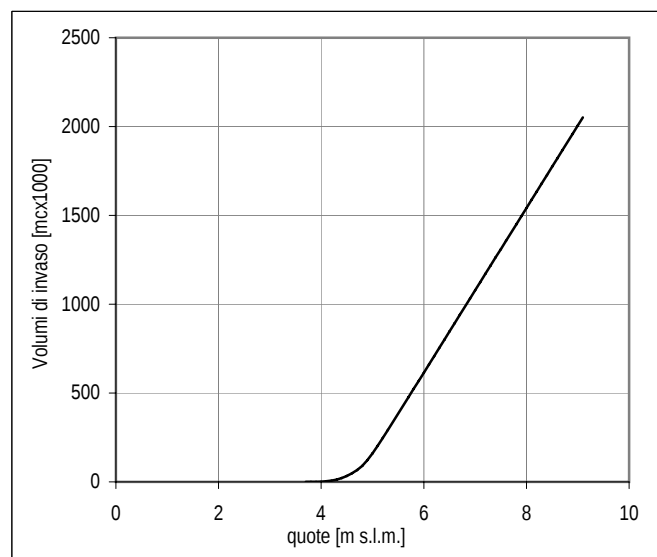
APE 1



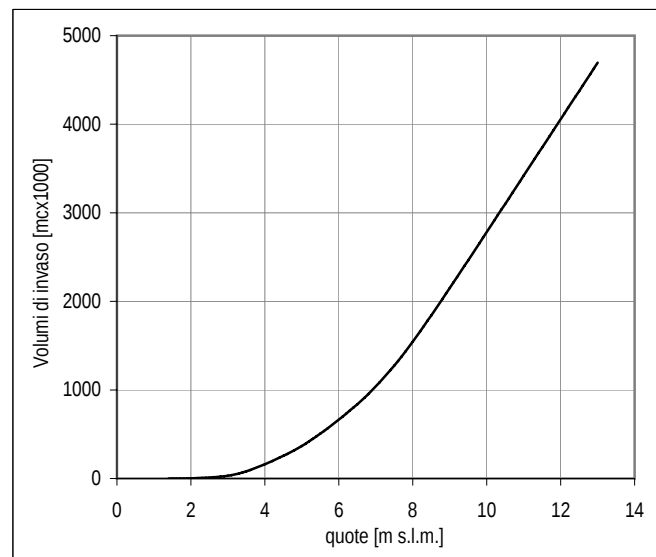
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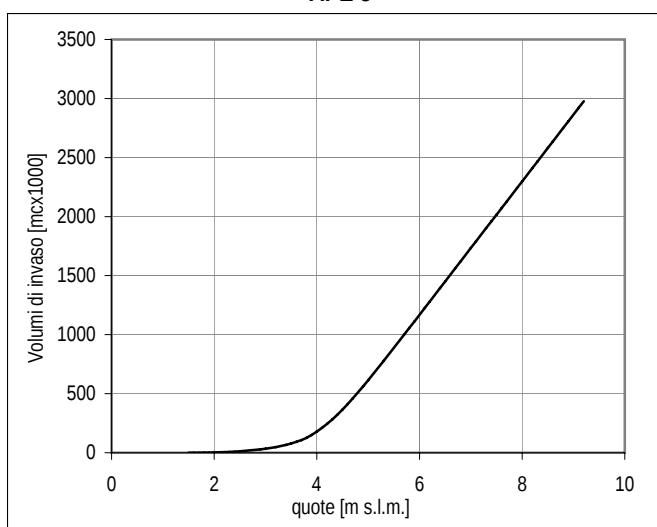
APE 3



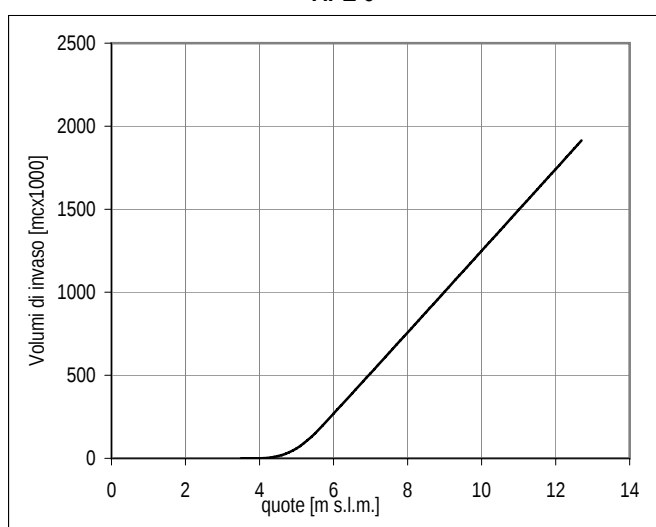
APE 4



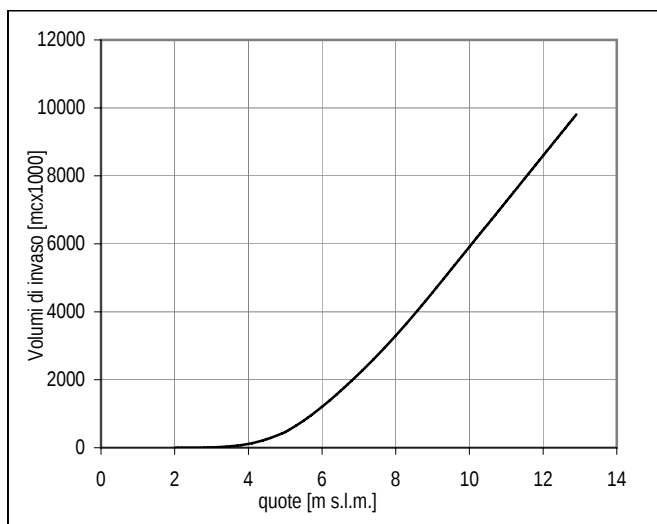
APE 5



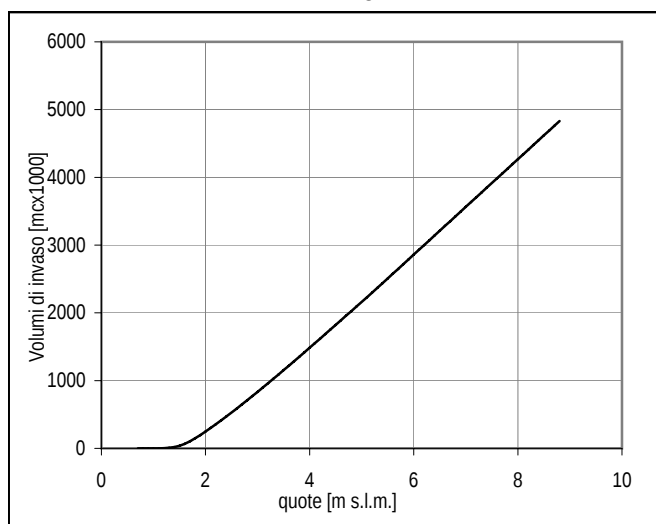
APE 6



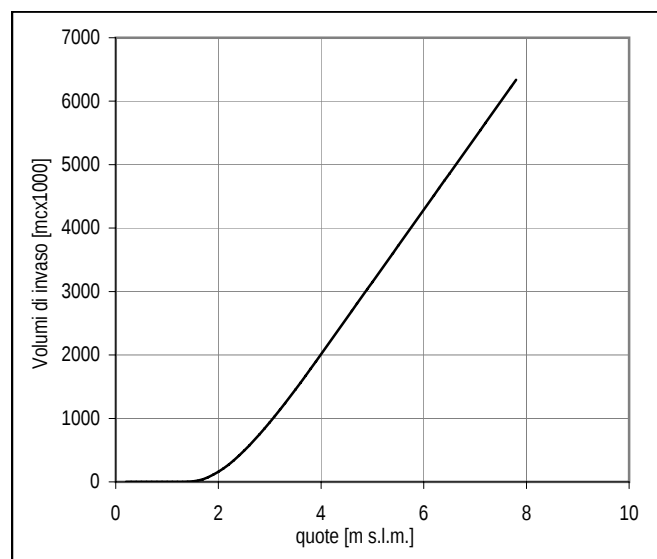
APE 7



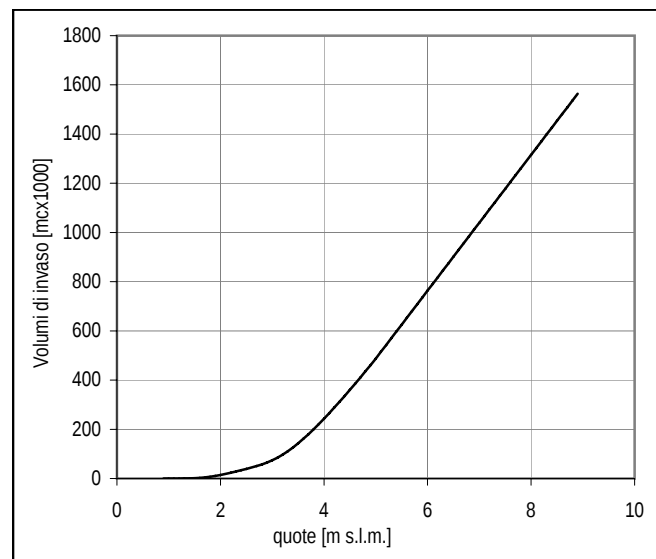
APE 8



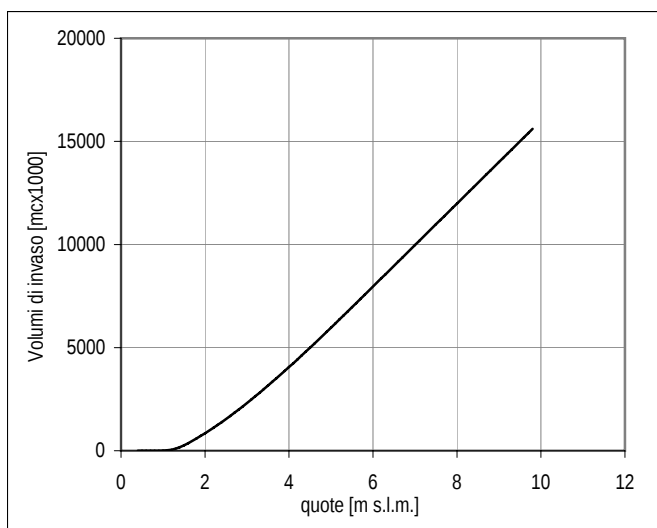
APE 9



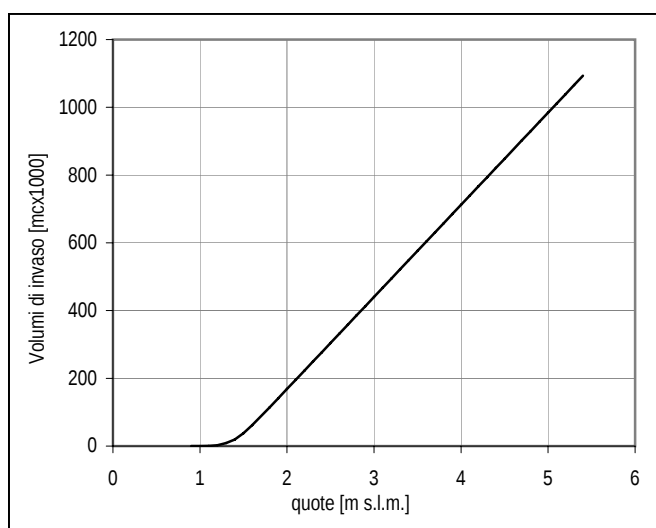
APE 10



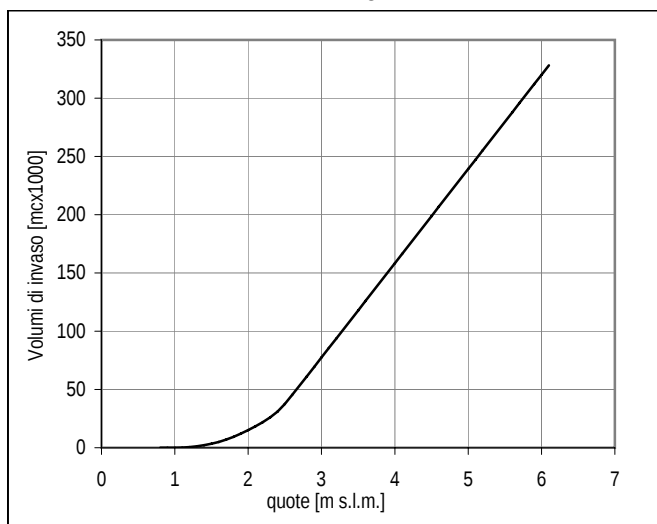
APE 11



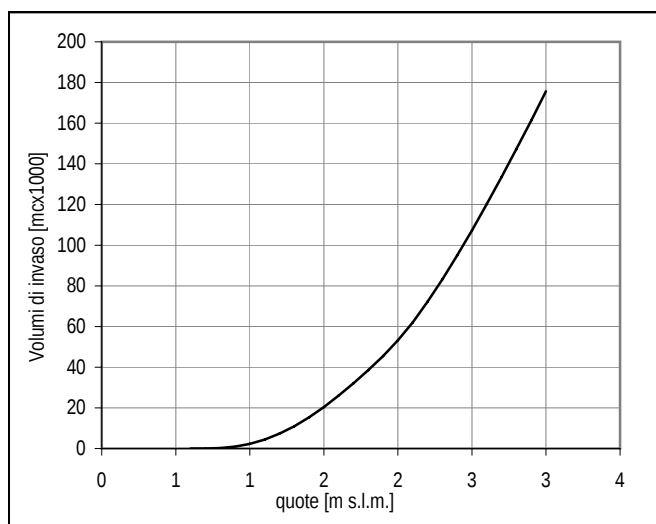
APE 12



APE 13



APE 14



Risultati della modellistica idraulica

HEC-RAS Risultati TR20											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00360PC04	34	9.72	4.80	5.82		6.10	0.009255	2.35	4.14	6.15	0.91
00360PD04	33	9.72	4.80	5.79	5.78	6.10	0.010650	2.47	3.93	6.01	0.97
00353PA04	32	7.74	2.93	4.60	3.79	4.64	0.000717	0.90	8.63	7.24	0.26
00353PB04	31	7.67	2.92	4.10		4.21	0.003194	1.50	5.12	6.60	0.54
00349__04	30	7.73	2.01	3.33		3.52	0.005403	1.91	4.05	5.06	0.68
00344__04	29	7.73	1.60	3.09		3.12	0.000432	0.71	10.93	9.74	0.21
00311__04	28	7.72	1.25	2.97		2.98	0.000131	0.44	17.70	13.68	0.12
00305PC04	27	14.57	0.62	2.83		2.87	0.000443	0.82	17.74	13.02	0.22
00305PD04	26	14.57	0.62	2.83		2.87	0.000445	0.82	17.72	13.01	0.22
00298__04	25	14.56	0.61	2.70		2.74	0.000479	0.86	16.92	12.21	0.23
00292PA04	24	14.55	0.58	2.55		2.60	0.000673	0.98	14.85	11.08	0.27
00292PB04	23	14.55	0.58	2.55	1.56	2.60	0.000675	0.98	14.83	11.08	0.27
00282__04	22	14.55	0.12	2.27		2.31	0.000483	0.88	16.60	11.50	0.23
00276PA04	21	17.46	-0.37	2.19		2.22	0.000317	0.79	22.00	12.87	0.19
00276PB04	20	21.30	-0.36	2.15	0.81	2.20	0.000506	0.99	21.45	12.74	0.24
00254__04	19	16.76	-0.47	1.96		1.98	0.000257	0.72	23.27	13.47	0.17
00209__04	18	12.48	-0.54	1.84		1.86	0.000260	0.68	18.45	11.84	0.17
00195__04	17	9.47	-0.75	1.76		1.77	0.000154	0.52	18.07	11.23	0.13
00190__04	16	6.90	-0.73	1.73		1.74	0.000081	0.38	18.17	11.48	0.10
00175__04	15	10.41	-0.75	1.67		1.69	0.000188	0.58	18.01	11.16	0.15
00166PC04	14	10.95	-0.83	1.59		1.61	0.000198	0.58	18.84	12.62	0.15
00166PD04	13	10.94	-0.83	1.59		1.61	0.000197	0.58	18.87	12.63	0.15
00156__00	12	10.23	-0.87	1.57		1.57	0.000057	0.36	29.82	19.43	0.08
00149__04	11	8.89	-0.69	1.49		1.50	0.000128	0.49	19.90	16.15	0.12
00144__04	10	8.89	-0.73	1.48		1.49	0.000081	0.40	24.09	23.09	0.10
00154PA05	9	8.89	-1.59	1.48	-0.49	1.48	0.000051	0.35	27.32	23.30	0.08
00154PD05	8	8.89	-1.84	1.48		1.48	0.000030	0.29	35.19	32.16	0.06
00140__05	7	8.89	-1.58	1.47		1.48	0.000028	0.28	37.57	30.74	0.06
00120__05	6	8.89	-1.64	1.47		1.47	0.000034	0.30	32.25	23.47	0.06
00100__05	5	8.89	-1.71	1.46		1.46	0.000035	0.31	31.75	22.99	0.07
00088PA05	4	8.89	-1.58	1.46	-0.56	1.46	0.000033	0.31	32.04	21.93	0.07
00088PD05	3	8.89	-1.49	1.46		1.46	0.000029	0.30	33.88	23.67	0.06
00080__05	2	8.90	-2.04	1.45		1.46	0.000019	0.24	39.12	23.90	0.05
00060__05	1	8.73	-1.53	1.45	-0.55	1.45	0.000033	0.30	32.56	23.18	0.06

HEC-RAS Risultati TR20						HEC-RAS Risultati TR20					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]	Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
APE 1	2.38	1.60	1.98	21860	7210	APE 8	1.48	0.70	3.63	182720	33040
APE 2	1.6	1.50	0.00	660	70	APE 9	1.7	0.20	6.78	320650	41790
APE 3	3.8	3.70	0.00	70	10	APE 10	1.1	0.90	0.00	270	30
APE 4	1.6	1.50	0.00	440	40	APE 11	1.22	0.40	-6.91	544430	53840
APE 5	1.6	1.50	0.00	420	40	APE 12	1.47	0.90	15.51	189130	32080
APE 6	3.6	3.50	0.00	20	0	APE 13	1.03	0.80	0.00	1550	80
APE 7	2.16	2.00	-0.54	130	10	APE 14	0.8	0.60	0.00	1910	200

HEC-RAS Risultati TR30											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00360PC04	34	12.33	4.80	5.95		6.27	0.009067	2.48	4.97	6.67	0.92
00360PD04	33	12.33	4.80	5.88	5.90	6.26	0.011823	2.73	4.51	6.39	1.04
00353PA04	32	8.11	2.93	4.67	3.81	4.71	0.000671	0.89	9.11	7.24	0.25
00353PB04	31	7.85	2.92	4.10		4.22	0.003278	1.52	5.16	6.62	0.55
00349__04	30	8.11	2.01	3.40		3.57	0.004682	1.84	4.41	5.18	0.64
00344__04	29	8.11	1.60	3.20		3.23	0.000363	0.67	12.04	10.09	0.20
00311__04	28	8.09	1.25	3.10		3.11	0.000109	0.41	19.56	14.19	0.11
00305PC04	27	16.69	0.62	2.96		3.00	0.000458	0.86	19.39	13.57	0.23
00305PD04	26	16.69	0.62	2.96		3.00	0.000459	0.86	19.37	13.56	0.23
00298__04	25	16.68	0.61	2.82		2.86	0.000500	0.91	18.39	12.65	0.24
00292PA04	24	16.68	0.58	2.66		2.71	0.000711	1.04	16.08	11.44	0.28
00292PB04	23	16.68	0.58	2.66	1.63	2.71	0.000713	1.04	16.06	11.44	0.28
00282__04	22	16.67	0.12	2.35		2.40	0.000547	0.95	17.55	11.82	0.25
00276PA04	21	20.04	-0.37	2.25		2.29	0.000376	0.88	22.86	13.02	0.21
00276PB04	20	24.78	-0.36	2.20	0.91	2.27	0.000628	1.12	22.14	12.91	0.27
00254__04	19	18.42	-0.47	1.97		2.00	0.000302	0.78	23.49	13.49	0.19
00209__04	18	12.61	-0.54	1.85		1.87	0.000260	0.68	18.57	11.87	0.17
00195__04	17	9.29	-0.75	1.77		1.78	0.000144	0.51	18.25	11.25	0.13
00190__04	16	6.28	-0.73	1.75		1.76	0.000065	0.34	18.45	11.51	0.09
00175__04	15	10.50	-0.75	1.70		1.72	0.000183	0.57	18.28	11.16	0.14
00166PC04	14	11.58	-0.83	1.61		1.63	0.000216	0.61	19.03	12.67	0.16
00166PD04	13	11.57	-0.83	1.61		1.63	0.000215	0.61	19.06	12.68	0.16
00156__00	12	11.53	-0.87	1.58		1.58	0.000071	0.40	30.02	19.46	0.09
00149__04	11	18.16	-0.69	1.45		1.50	0.000593	1.04	19.19	15.81	0.26
00144__04	10	18.15	-0.73	1.39		1.42	0.000427	0.88	21.99	20.69	0.23
00154PA05	9	18.12	-1.59	1.36	-0.14	1.39	0.000267	0.78	24.71	20.15	0.18
00154PD05	8	18.13	-1.84	1.36		1.38	0.000157	0.63	31.64	29.86	0.14
00140__05	7	18.13	-1.58	1.34		1.36	0.000153	0.62	33.47	30.31	0.14
00120__05	6	18.12	-1.64	1.30		1.32	0.000190	0.67	28.44	22.88	0.15
00100__05	5	18.12	-1.71	1.27		1.29	0.000211	0.72	27.34	22.33	0.16
00088PA05	4	18.12	-1.58	1.24	-0.22	1.27	0.000206	0.71	27.46	21.23	0.16
00088PD05	3	18.12	-1.49	1.23		1.26	0.000180	0.70	28.74	22.86	0.15
00080__05	2	18.12	-2.04	1.23		1.24	0.000117	0.56	34.03	19.77	0.12
00060__05	1	3.36	-1.53	1.21	-0.86	1.21	0.000008	0.14	27.10	22.20	0.03

HEC-RAS Risultati TR30						HEC-RAS Risultati TR30					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]	Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
APE 1	2.71	1.60	4.22	77380	20260	APE 8	1.52	0.70	3.43	288940	41860
APE 2	1.6	1.50	0.00	660	70	APE 9	1.72	0.20	8.79	320650	49410
APE 3	3.8	3.70	0.00	70	10	APE 10	1.1	0.90	0.00	270	30
APE 4	1.6	1.50	0.00	440	40	APE 11	1.31	0.40	-12.00	743650	104750
APE 5	1.6	1.50	0.00	420	40	APE 12	1.48	0.90	25.00	189130	35130
APE 6	3.6	3.50	0.00	20	0	APE 13	1.31	0.80	0.00	9360	1330
APE 7	2.16	2.00	-0.54	130	10	APE 14	0.8	0.60	0.00	1910	200

HEC-RAS Risultati TR200											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00360PC04	34	31.16	4.80	6.85		7.17	0.004580	2.53	12.32	8.89	0.69
00360PD04	33	31.15	4.80	6.25	6.54	7.21	0.021496	4.34	7.18	7.90	1.45
00353PA04	32	8.80	2.93	4.88	3.85	4.92	0.000498	0.83	10.67	7.24	0.22
00353PB04	31	8.80	2.92	4.15		4.28	0.003461	1.60	5.50	6.82	0.57
00349__04	30	8.80	2.01	3.74		3.84	0.002123	1.41	6.24	5.76	0.43
00344__04	29	8.80	1.60	3.66		3.67	0.000164	0.52	17.00	11.51	0.14
00311__04	28	8.36	1.25	3.62		3.62	0.000045	0.30	27.44	15.93	0.07
00305PC04	27	22.39	0.62	3.42		3.46	0.000352	0.87	25.88	14.13	0.20
00305PD04	26	22.39	0.62	3.42		3.46	0.000353	0.87	25.86	14.12	0.20
00298__04	25	22.88	0.61	3.31		3.35	0.000397	0.92	24.99	13.84	0.22
00292PA04	24	28.83	0.58	3.06		3.15	0.001017	1.38	20.83	12.24	0.34
00292PB04	23	28.83	0.58	3.05	2.00	3.15	0.001021	1.39	20.79	12.24	0.34
00282__04	22	23.65	0.12	2.67		2.73	0.000640	1.10	21.50	13.07	0.27
00276PA04	21	28.23	-0.37	2.53		2.59	0.000483	1.06	26.60	13.40	0.24
00276PB04	20	39.57	-0.36	2.40	1.29	2.53	0.001174	1.60	24.71	13.26	0.37
00254__04	19	23.61	-0.47	2.02		2.07	0.000461	0.98	24.10	13.56	0.23
00209__04	18	13.44	-0.54	1.89		1.91	0.000278	0.71	19.01	11.99	0.18
00195__04	17	4.82	-0.75	1.86		1.87	0.000033	0.25	19.30	11.42	0.06
00190__04	16	0.21	-0.73	1.87		1.87	0.000000	0.01	19.79	11.68	0.00
00175__04	15	3.77	-0.75	1.86		1.86	0.000018	0.19	20.11	11.16	0.04
00166PC04	14	10.90	-0.83	1.78		1.80	0.000141	0.51	21.28	13.27	0.13
00166PD04	13	10.89	-0.83	1.78		1.80	0.000140	0.51	21.32	13.28	0.13
00156__00	12	10.87	-0.87	1.76		1.77	0.000046	0.34	33.70	20.08	0.08
00149__04	11	24.21	-0.69	1.58		1.65	0.000774	1.25	21.40	17.70	0.30
00144__04	10	24.20	-0.73	1.50		1.55	0.000582	1.08	24.45	23.47	0.27
00154PA05	9	24.20	-1.59	1.45	0.03	1.50	0.000393	0.98	26.82	22.73	0.22
00154PD05	8	24.20	-1.84	1.47		1.50	0.000228	0.79	34.83	31.94	0.17
00140__05	7	24.20	-1.58	1.43		1.46	0.000224	0.78	36.28	30.61	0.17
00120__05	6	24.20	-1.64	1.37		1.41	0.000295	0.86	30.10	23.14	0.19
00100__05	5	24.20	-1.71	1.31		1.36	0.000341	0.93	28.44	22.50	0.21
00088PA05	4	24.20	-1.58	1.28	-0.07	1.32	0.000343	0.93	28.20	21.34	0.21
00088PD05	3	24.20	-1.49	1.26		1.30	0.000305	0.92	29.35	22.96	0.20
00080__05	2	24.20	-2.04	1.25		1.28	0.000200	0.74	34.48	20.43	0.16
00060__05	1	7.26	-1.53	1.22	-0.62	1.22	0.000036	0.29	27.32	22.37	0.07

HEC-RAS Risultati TR200						HEC-RAS Risultati TR200					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]	Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
APE 1	3.37	1.60	9.14	276470	136320	APE 8	1.68	0.70	34.65	377430	95690
APE 2	2.96	1.50	6.99	61380	36750	APE 9	1.86	0.20	26.90	389730	97550
APE 3	3.8	3.70	0.00	70	10	APE 10	1.63	0.90	0.50	19090	3270
APE 4	2.22	1.50	0.96	17670	5000	APE 11	1.68	0.40	0.00	1119470	457180
APE 5	2.24	1.50	0.35	19960	6140	APE 12	1.68	0.90	7.44	261420	82610
APE 6	3.6	3.50	0.00	20	0	APE 13	1.68	0.80	0.00	19480	6560
APE 7	2.09	2.00	0.00	10	0	APE 14	0.8	0.60	0.00	1910	200

HEC-RAS Risultati TR500											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00360PC04	34	45.27	4.80	7.40		7.75	0.003619	2.63	17.23	8.89	0.60
00360PD04	33	45.21	4.80	6.40	6.84	7.88	0.029793	5.39	8.38	8.50	1.73
00353PA04	32	9.01	2.93	4.96	3.86	5.00	0.000444	0.80	11.27	7.24	0.20
00353PB04	31	9.00	2.92	4.18		4.31	0.003262	1.57	5.72	6.94	0.55
00349__04	30	8.98	2.01	3.81		3.90	0.001841	1.34	6.68	5.89	0.40
00344__04	29	8.67	1.60	3.75		3.77	0.000134	0.48	18.09	11.80	0.12
00311__04	28	0.71	1.25	3.74		3.74	0.000000	0.02	29.38	16.13	0.01
00305PC04	27	21.58	0.62	3.58		3.61	0.000255	0.77	28.12	14.13	0.17
00305PD04	26	21.56	0.62	3.58		3.61	0.000254	0.77	28.11	14.12	0.17
00298__04	25	7.68	0.61	3.60		3.61	0.000029	0.26	29.03	13.84	0.06
00292PA04	24	38.59	0.58	3.20		3.35	0.001432	1.71	22.57	12.24	0.40
00292PB04	23	38.54	0.58	3.19	2.23	3.34	0.001438	1.71	22.51	12.24	0.40
00282__04	22	24.45	0.12	2.74		2.80	0.000609	1.09	22.46	13.36	0.27
00276PA04	21	27.82	-0.37	2.63		2.68	0.000408	1.00	27.87	13.40	0.22
00276PB04	20	43.56	-0.36	2.45	1.38	2.60	0.001324	1.72	25.35	13.35	0.40
00254__04	19	24.01	-0.47	2.03		2.08	0.000466	0.99	24.29	13.59	0.24
00209__04	18	10.78	-0.54	1.95		1.96	0.000161	0.55	19.76	12.18	0.14
00195__04	17	-7.41	-0.75	1.94		1.95	0.000069	-0.37	20.23	11.56	0.09
00190__04	16	1.14	-0.73	1.97		1.97	0.000001	0.05	20.92	11.82	0.01
00175__04	15	-2.53	-0.75	1.97		1.97	0.000007	-0.12	21.26	11.16	0.03
00166PC04	14	10.29	-0.83	1.90		1.91	0.000103	0.45	22.87	13.67	0.11
00166PD04	13	10.28	-0.83	1.90		1.91	0.000102	0.45	22.91	13.69	0.11
00156__00	12	10.24	-0.87	1.89		1.89	0.000033	0.30	36.21	20.50	0.07
00149__04	11	28.32	-0.69	1.67		1.76	0.000864	1.36	23.10	19.32	0.32
00144__04	10	28.31	-0.73	1.58		1.65	0.000660	1.18	26.43	25.50	0.29
00154PA05	9	28.31	-1.59	1.53	0.13	1.58	0.000467	1.09	28.54	24.63	0.24
00154PD05	8	28.31	-1.84	1.54		1.58	0.000268	0.88	37.33	32.90	0.19
00140__05	7	28.31	-1.58	1.50		1.53	0.000266	0.86	38.41	30.83	0.19
00120__05	6	28.31	-1.64	1.43		1.48	0.000364	0.97	31.40	23.34	0.21
00100__05	5	28.31	-1.71	1.35		1.41	0.000432	1.06	29.34	22.63	0.23
00088PA05	4	28.31	-1.58	1.31	0.02	1.36	0.000444	1.07	28.81	21.44	0.24
00088PD05	3	28.31	-1.49	1.28		1.34	0.000401	1.06	29.87	23.04	0.23
00080__05	2	28.31	-2.04	1.27		1.31	0.000266	0.85	34.88	20.98	0.19
00060__05	1	13.83	-1.53	1.23	-0.36	1.24	0.000126	0.55	27.54	22.41	0.12

HEC-RAS Risultati TR500						HEC-RAS Risultati TR500					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]	Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
APE 1	3.56	1.60	35.68	366140	198110	APE 8	1.89	0.70	49.42	485580	192260
APE 2	3.36	1.50	27.74	103650	69060	APE 9	1.96	0.20	33.40	494670	142670
APE 3	3.8	3.70	0.00	70	10	APE 10	1.96	0.90	1.46	38820	12770
APE 4	2.56	1.50	0.70	28630	12670	APE 11	1.89	0.40	-2.92	1222720	709170
APE 5	2.52	1.50	3.16	33500	13380	APE 12	1.89	0.90	21.64	268770	139140
APE 6	3.6	3.50	0.00	20	0	APE 13	1.89	0.80	10.71	27600	11890
APE 7	2.09	2.00	0.00	10	0	APE 14	0.8	0.60	0.00	1910	200

Collettore Occidentale

Analisi idrologica

Modello di Infiltrazione:

Metodo dell'Infiltrazione a Soglia

Modello di Formazione dell'Onda di Piena:

Metodo di Nash GIUH

Parametri geomorfologici:

A [kmq]	L [km]	la [mm]	Ks [mm/h]	n -	k [h]	Tl [h]
24.82	11.35	13.29	1.43	2.95	0.81	2.39

Parametri pluviometrici:

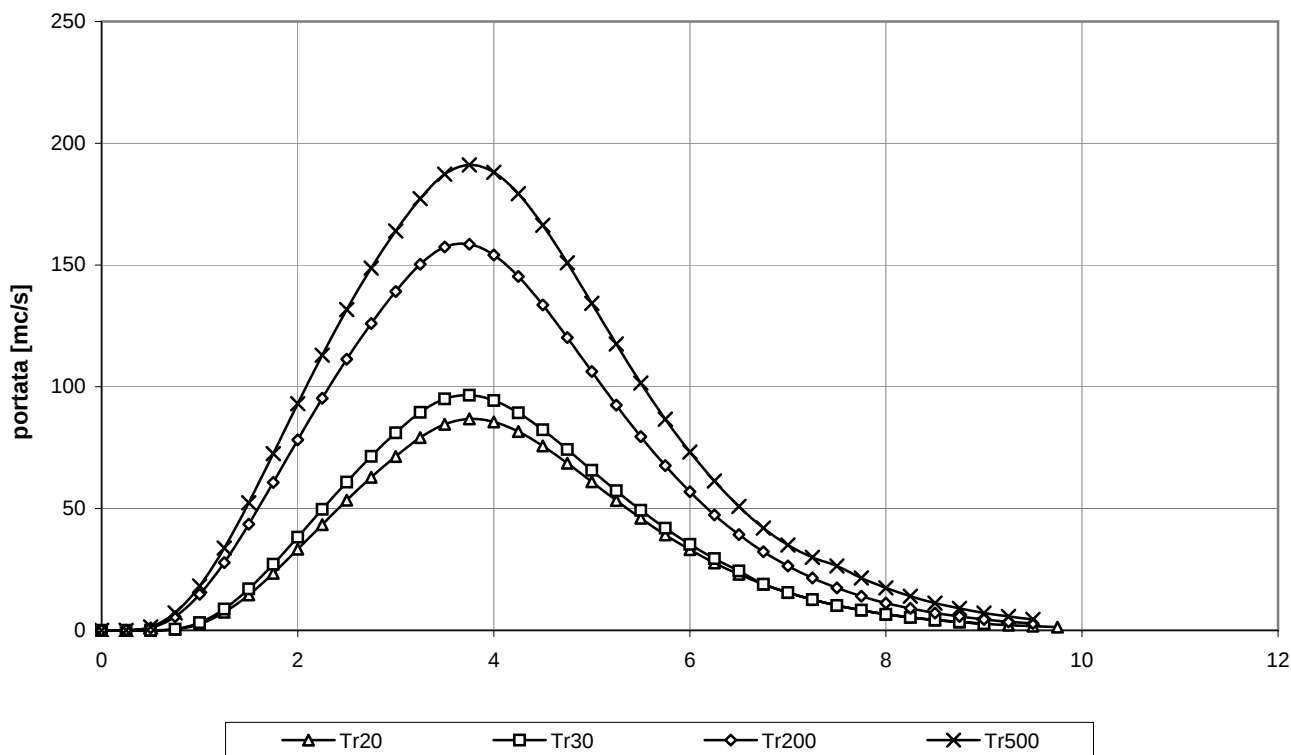
A1	N1	M1	A	N	M
26.116	0.412	0.182	23.258	0.317	0.229

Sintesi dei risultati del modello idrologico:

TR [anni]	d [h]	Qmax [mc/s]	V [mc]
20	3	86.80	1125540
30	3	96.53	1233252
200	3	158.50	2130930
500	3	191.09	2632788

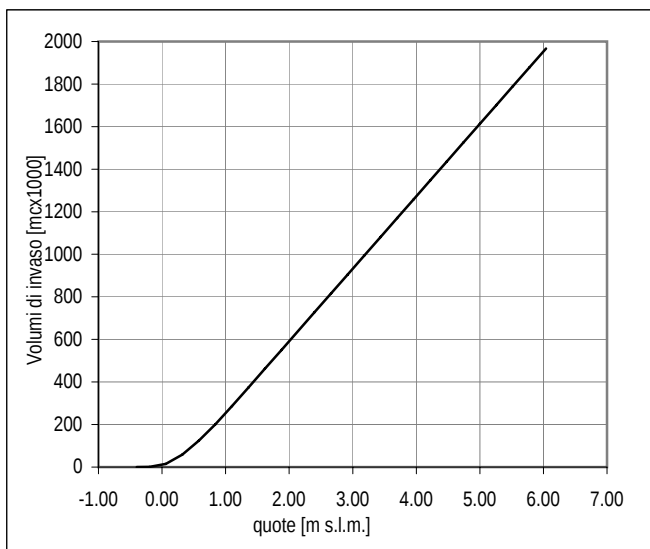
Idrogrammi di piena:

Idrogrammi di piena Collettore Occidentale

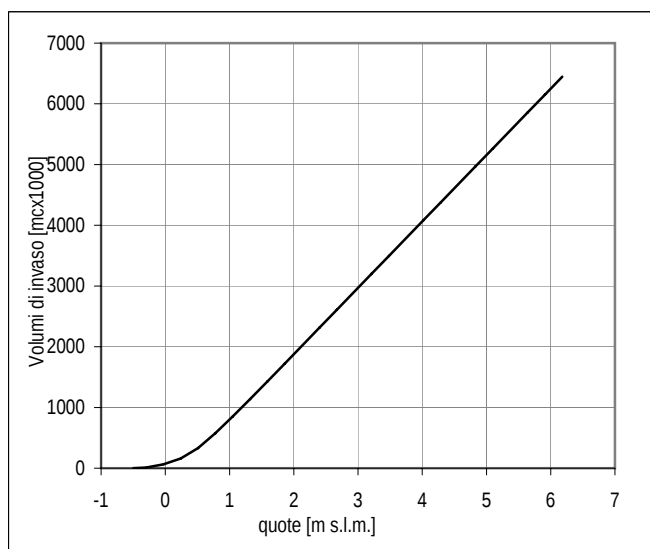


Curve di invaso Aree di Potenziale Esondazione

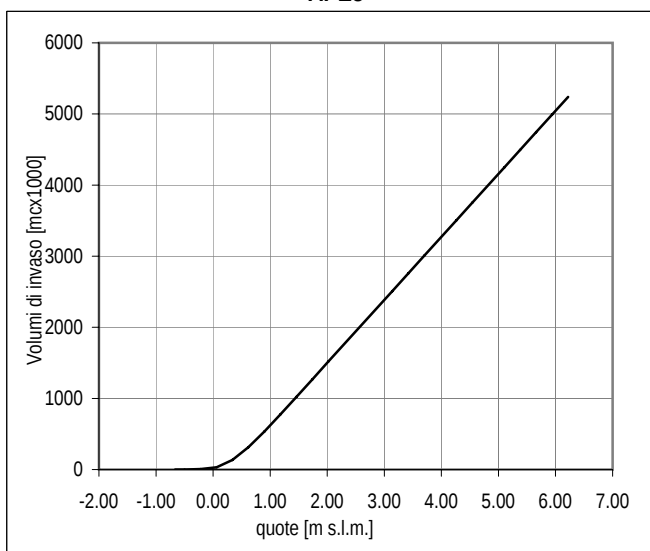
APE1



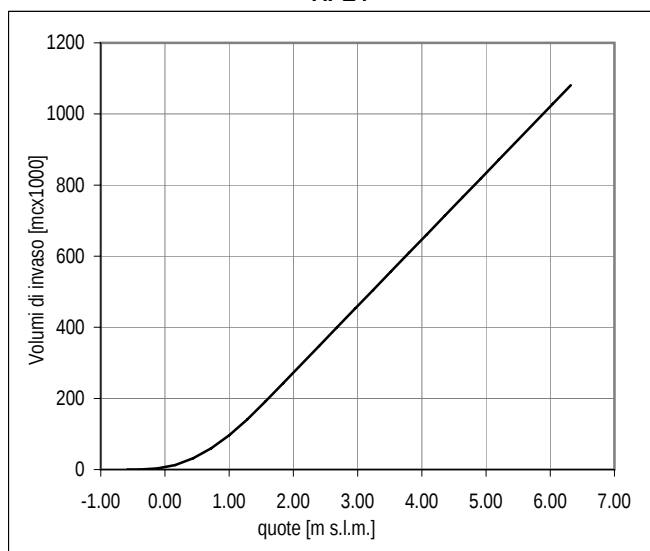
APE2



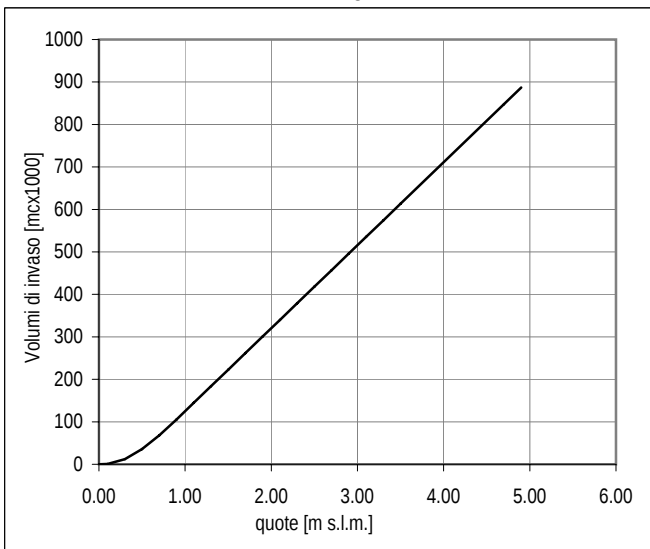
APE3



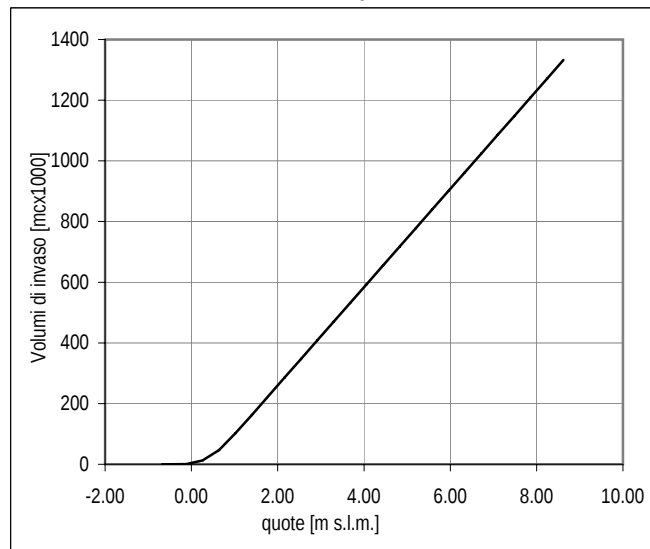
APE4



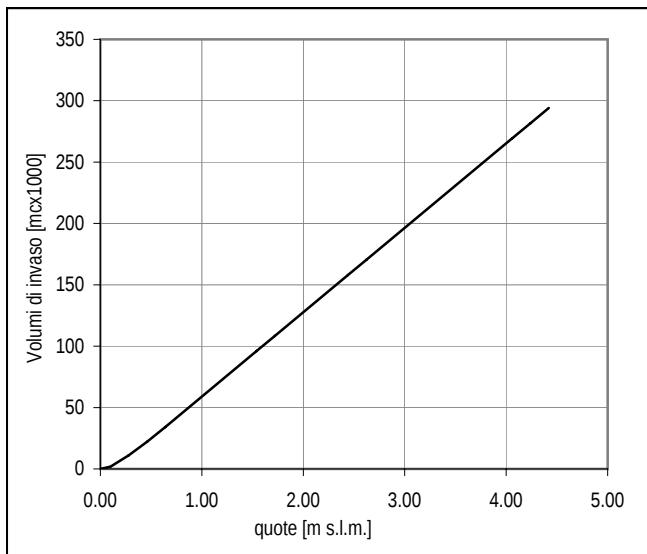
APE5



APE6



APE7



Risultati della modellistica idraulica

HEC-RAS Risultati TR20											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00313__05	28	86.80	0.68	3.49		3.71	0.004079	2.12	41.01	25.40	0.53
00310__05	27	84.82	0.66	3.44		3.64	0.003055	1.98	42.83	23.30	0.47
00291PA05	26	53.25	0.43	3.36		3.44	0.001025	1.24	43.10	20.52	0.27
00291PB05	25	53.24	0.43	3.26	2.14	3.41	0.003872	1.71	31.10	13.59	0.36
00291PC05	24	53.24	0.44	3.24		3.39	0.004027	1.74	30.65	13.60	0.37
00291PD05	23	51.16	0.43	3.20		3.28	0.001209	1.28	39.83	20.53	0.29
00257__05	22	32.15	0.42	2.84		2.89	0.001303	0.96	33.56	29.64	0.29
00228__05	21	32.11	-0.01	2.51		2.57	0.000894	1.06	30.27	16.58	0.25
00217PA05	20	32.04	-0.44	2.47		2.52	0.000677	0.98	32.65	16.04	0.22
00217PB05	19	31.97	-0.27	2.43	0.97	2.51	0.002255	1.22	26.13	11.07	0.25
00217PC05	18	31.94	-0.27	2.42		2.50	0.002269	1.23	26.05	11.07	0.26
00217PD05	17	31.42	-0.45	2.40		2.45	0.000712	0.99	31.61	15.83	0.22
00203__05	16	31.18	-0.24	2.29		2.34	0.000703	0.97	32.21	16.82	0.22
00184__05	15	25.08	-0.56	2.19		2.22	0.000552	0.72	34.70	23.96	0.19
00166__05	14	21.68	-0.56	2.10		2.12	0.000384	0.68	32.03	18.67	0.16
00153__05	13	22.32	-0.41	2.01		2.05	0.000703	0.89	25.00	14.71	0.22
00139BA05	12	20.62	-0.13	1.91	0.78	1.95	0.000826	0.92	22.47	14.12	0.23
00139BB05	11	24.25	-0.66	1.86		1.88	0.000340	0.66	36.54	19.85	0.16
00139__05	10	23.15	-0.66	1.85		1.87	0.000313	0.64	36.40	19.81	0.15
00134PB05	9	21.93	-0.51	1.82	0.56	1.86	0.000861	0.83	26.28	15.56	0.20
00134PC05	8	21.87	-0.41	1.62		1.66	0.001269	0.93	23.42	16.74	0.25
00134PD05	7	21.81	-0.78	1.62		1.64	0.000372	0.67	32.56	18.67	0.16
00117__05	6	21.69	-0.81	1.55		1.58	0.000421	0.70	31.08	18.41	0.17
00102__05	5	21.66	-0.59	1.47		1.50	0.000588	0.78	27.89	18.26	0.20
00082__05	4	21.73	-0.70	1.37		1.39	0.000355	0.64	33.99	20.45	0.16
00043__05	3	16.90	-0.75	1.20		1.23	0.000456	0.66	25.54	16.82	0.17
00030__05	2	5.95	-0.89	1.20		1.21	0.000072	0.21	28.05	26.73	0.07
00017__05	1	2.87	-0.42	1.20		1.20	0.000032	0.15	18.77	14.86	0.04

HEC-RAS Risultati TR20					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
ape1	0.52	-0.40	19.22	250880	108760
ape2	0.46	-0.50	41.19	633070	298060
ape3	0.52	-0.67	-15.16	638430	250900
ape4	0.52	-0.59	21.26	99850	39790
ape5	0.02	0.00	0.00	8400	170
ape6	-0.48	-0.67	-0.05	1840	40
ape7	0	0.00	0.05	19120	0

Risultati della modellistica idraulica

HEC-RAS Risultati TR30											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00313__05	28	96.53	0.68	3.57		3.82	0.004307	2.24	43.11	25.40	0.55
00310__05	27	93.46	0.66	3.49		3.72	0.003453	2.13	43.81	23.30	0.50
00291PA05	26	56.72	0.43	3.39		3.48	0.001103	1.29	43.85	20.52	0.28
00291PB05	25	56.72	0.43	3.29	2.18	3.45	0.004267	1.80	31.45	13.59	0.38
00291PC05	24	56.71	0.44	3.26		3.43	0.004451	1.83	30.96	13.60	0.39
00291PD05	23	54.38	0.43	3.22		3.31	0.001323	1.35	40.24	20.53	0.31
00257__05	22	32.84	0.42	2.85		2.90	0.001319	0.97	33.88	29.66	0.29
00228__05	21	32.84	-0.01	2.52		2.58	0.000933	1.08	30.30	16.59	0.26
00217PA05	20	32.83	-0.44	2.47		2.52	0.000710	1.00	32.67	16.05	0.22
00217PB05	19	32.76	-0.27	2.43	0.99	2.51	0.002371	1.25	26.12	11.07	0.26
00217PC05	18	32.72	-0.27	2.42		2.50	0.002386	1.26	26.03	11.07	0.26
00217PD05	17	32.47	-0.45	2.39		2.45	0.000763	1.03	31.57	15.82	0.23
00203__05	16	32.62	-0.24	2.28		2.34	0.000783	1.02	32.02	16.79	0.24
00184__05	15	26.42	-0.56	2.19		2.22	0.000614	0.76	34.68	23.96	0.20
00166__05	14	23.59	-0.56	2.10		2.13	0.000456	0.74	32.01	18.67	0.18
00153__05	13	23.19	-0.41	2.00		2.04	0.000768	0.93	24.88	14.69	0.23
00139BA05	12	22.64	-0.13	1.89	0.82	1.94	0.001024	1.02	22.26	14.10	0.26
00139BB05	11	24.90	-0.66	1.87		1.89	0.000352	0.68	36.79	19.88	0.16
00139__05	10	23.37	-0.66	1.86		1.88	0.000314	0.64	36.61	19.84	0.15
00134PB05	9	22.38	-0.51	1.83	0.57	1.87	0.000878	0.85	26.45	15.56	0.21
00134PC05	8	22.35	-0.41	1.64		1.68	0.001275	0.94	23.71	16.74	0.25
00134PD05	7	22.32	-0.78	1.64		1.66	0.000378	0.68	32.91	18.73	0.16
00117__05	6	22.30	-0.81	1.57		1.60	0.000432	0.71	31.40	18.46	0.17
00102__05	5	22.30	-0.59	1.49		1.52	0.000605	0.79	28.16	18.31	0.20
00082__05	4	22.31	-0.70	1.38		1.40	0.000367	0.65	34.22	20.49	0.16
00043__05	3	17.29	-0.75	1.20		1.23	0.000477	0.68	25.55	16.82	0.18
00030__05	2	5.24	-0.89	1.20		1.21	0.000056	0.19	28.05	26.73	0.06
00017__05	1	3.09	-0.42	1.20		1.20	0.000037	0.16	18.77	14.86	0.05

HEC-RAS Risultati TR30					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
ape1	0.54	-0.40	9.65	250880	114110
ape2	0.52	-0.50	51.62	908030	337390
ape3	0.54	-0.67	-7.33	638430	264130
ape4	0.54	-0.59	21.41	99850	41860
ape5	0.02	0.00	0.00	8400	170
ape6	-0.67	-0.67	0.00	10	0
ape7	0	0.00	0.00	18190	0

Risultati della modellistica idraulica

HEC-RAS Risultati TR200											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00313__05	28	158.50	0.68	3.78		4.32	0.008058	3.27	48.40	25.40	0.76
00310__05	27	150.20	0.66	3.73		4.20	0.006082	3.03	49.53	23.30	0.66
00291PA05	26	78.27	0.43	3.61		3.74	0.001562	1.62	48.29	20.52	0.34
00291PB05	25	78.24	0.43	3.42	2.48	3.71	0.006991	2.35	33.28	13.59	0.48
00291PC05	24	78.24	0.44	3.37		3.67	0.007473	2.41	32.46	13.60	0.50
00291PD05	23	73.86	0.43	3.32		3.47	0.002095	1.75	42.28	20.53	0.39
00257__05	22	35.93	0.42	2.93		2.98	0.001271	0.99	36.29	29.83	0.29
00228__05	21	35.90	-0.01	2.59		2.65	0.000998	1.14	31.50	16.81	0.27
00217PA05	20	35.86	-0.44	2.54		2.59	0.000922	1.06	33.77	18.80	0.25
00217PB05	19	35.77	-0.27	2.49	1.06	2.58	0.002652	1.34	26.77	11.07	0.27
00217PC05	18	35.72	-0.27	2.48		2.57	0.002672	1.34	26.67	11.07	0.28
00217PD05	17	35.21	-0.45	2.45		2.51	0.000833	1.09	32.43	15.99	0.24
00203__05	16	34.87	-0.24	2.33		2.38	0.000839	1.07	32.74	16.91	0.24
00184__05	15	26.66	-0.56	2.21		2.24	0.000593	0.76	35.28	23.98	0.20
00166__05	14	22.11	-0.56	2.12		2.15	0.000386	0.68	32.44	18.76	0.17
00153__05	13	22.90	-0.41	2.02		2.07	0.000717	0.91	25.28	14.77	0.22
00139BA05	12	21.20	-0.13	1.92	0.79	1.97	0.000848	0.93	22.69	14.14	0.24
00139BB05	11	24.95	-0.66	1.87		1.90	0.000351	0.68	36.88	19.90	0.16
00139__05	10	23.65	-0.66	1.87		1.89	0.000319	0.64	36.72	19.86	0.15
00134PB05	9	22.27	-0.51	1.84	0.57	1.88	0.000861	0.84	26.54	15.56	0.21
00134PC05	8	22.20	-0.41	1.63		1.67	0.001281	0.94	23.57	16.74	0.25
00134PD05	7	22.16	-0.78	1.63		1.65	0.000378	0.68	32.75	18.70	0.16
00117__05	6	22.09	-0.81	1.56		1.59	0.000430	0.71	31.25	18.44	0.17
00102__05	5	22.02	-0.59	1.48		1.51	0.000599	0.79	28.02	18.29	0.20
00082__05	4	22.08	-0.70	1.37		1.40	0.000363	0.65	34.09	20.46	0.16
00043__05	3	16.86	-0.75	1.20		1.23	0.000453	0.66	25.55	16.82	0.17
00030__05	2	5.69	-0.89	1.21		1.21	0.000065	0.20	28.06	26.73	0.06
00017__05	1	3.05	-0.42	1.20		1.20	0.000036	0.16	18.77	14.86	0.05

HEC-RAS Risultati TR200					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
ape1	0.91	-0.40	80.26	327100	223350
ape2	0.91	-0.50	0.00	1019830	706310
ape3	0.91	-0.67	42.39	856800	541610
ape4	0.91	-0.59	15.52	130520	84060
ape5	0.02	0.00	0.00	8400	170
ape6	-0.48	-0.67	-0.05	1840	40
ape7	0	0.00	0.05	19120	0

Risultati della modellistica idraulica

HEC-RAS Risultati TR500											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00313__05	28	191.09	0.68	4.21		4.74	0.006143	3.21	59.48	25.40	0.67
00310__05	27	174.05	0.66	3.87		4.42	0.006712	3.30	52.76	23.30	0.70
00291PA05	26	84.39	0.43	3.67		3.82	0.001674	1.70	49.59	20.52	0.35
00291PB05	25	84.38	0.43	3.46	2.55	3.78	0.007802	2.50	33.81	13.59	0.51
00291PC05	24	84.38	0.44	3.40		3.74	0.008411	2.57	32.86	13.60	0.53
00291PD05	23	79.39	0.43	3.34		3.52	0.002326	1.85	42.82	20.53	0.41
00257__05	22	36.80	0.42	2.94		2.99	0.001293	1.00	36.64	29.85	0.29
00228__05	21	36.80	-0.01	2.59		2.66	0.001045	1.17	31.54	16.82	0.27
00217PA05	20	36.76	-0.44	2.54		2.60	0.000974	1.09	33.81	18.94	0.26
00217PB05	19	36.69	-0.27	2.49	1.08	2.58	0.002794	1.37	26.76	11.07	0.28
00217PC05	18	36.65	-0.27	2.47		2.57	0.002817	1.38	26.65	11.07	0.28
00217PD05	17	36.41	-0.45	2.44		2.51	0.000894	1.12	32.39	15.98	0.25
00203__05	16	36.42	-0.24	2.31		2.38	0.000932	1.12	32.54	16.87	0.26
00184__05	15	28.07	-0.56	2.22		2.25	0.000654	0.79	35.33	23.98	0.21
00166__05	14	24.32	-0.56	2.12		2.15	0.000465	0.75	32.47	18.77	0.18
00153__05	13	24.02	-0.41	2.02		2.07	0.000793	0.95	25.22	14.75	0.23
00139BA05	12	23.66	-0.13	1.91	0.84	1.97	0.001084	1.05	22.49	14.12	0.27
00139BB05	11	25.85	-0.66	1.89		1.91	0.000369	0.70	37.13	19.93	0.16
00139__05	10	24.08	-0.66	1.88		1.90	0.000325	0.65	36.94	19.89	0.15
00134PB05	9	22.94	-0.51	1.85	0.59	1.89	0.000897	0.86	26.70	15.56	0.21
00134PC05	8	22.92	-0.41	1.65		1.70	0.001292	0.96	23.98	16.74	0.25
00134PD05	7	22.91	-0.78	1.66		1.68	0.000388	0.69	33.22	18.79	0.17
00117__05	6	22.93	-0.81	1.59		1.61	0.000445	0.72	31.69	18.51	0.18
00102__05	5	22.90	-0.59	1.50		1.53	0.000623	0.81	28.40	18.36	0.21
00082__05	4	22.89	-0.70	1.39		1.41	0.000380	0.67	34.42	20.52	0.16
00043__05	3	16.85	-0.75	1.20		1.23	0.000453	0.66	25.55	16.82	0.17
00030__05	2	5.60	-0.89	1.21		1.21	0.000063	0.20	28.07	26.73	0.06
00017__05	1	0.00	-0.42	1.20		1.20	0.000007	-0.07	18.77	14.86	0.02

HEC-RAS Risultati TR500					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
ape1	1.1	-0.40	106.69	327100	285460
ape2	1.1	-0.50	0.00	1056660	901660
ape3	1.1	-0.67	47.66	856800	704310
ape4	1.1	-0.59	15.49	159940	111670
ape5	0.02	0.00	0.00	8400	170
ape6	-0.67	-0.67	0.00	10	0
ape7	0	0.00	0.00	18190	0

Fosso delle Giuncaie

Analisi idrologica

Modello di Infiltrazione:

Metodo del "Curve Number"

Modello di Formazione dell'Onda di Piena:

Metodo della Corrivazione

Parametri geomorfologici:

A [kmq]	Hmax [m slm]	Hmin [m slm]	Hm [m slm]	L [km]	CN [-]	tc [h]
0.56	120.97	4.46	53.88	1.06	71	0.78

Parametri pluviometrici:

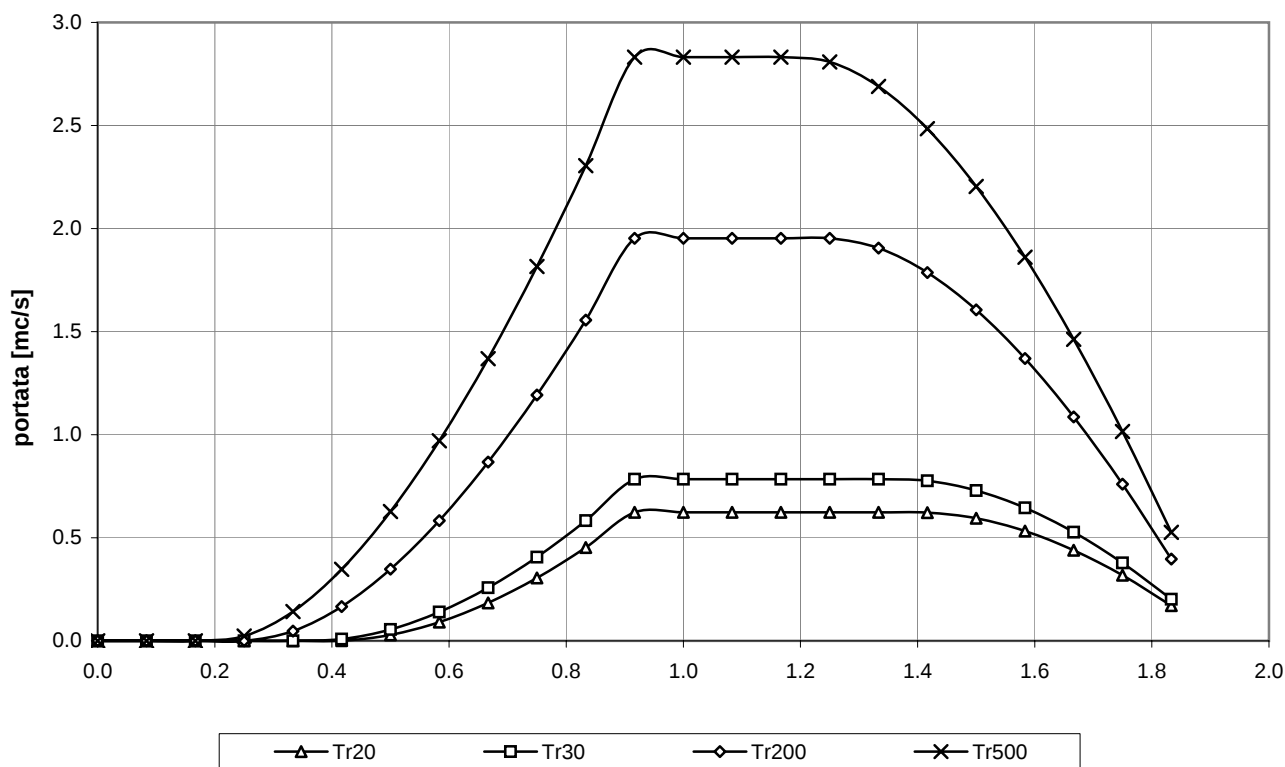
Stazione	Codice	A1	N1	M1	A	N	M
San Donato	3100	26.138	0.611	0.168	25.389	0.305	0.217

Sintesi dei risultati del modello idrologico:

TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	1	43.236	4.006	0.63	2243
30	1	46.284	5.043	0.79	2824
200	1	63.657	12.554	1.96	7030
500	1	74.250	18.203	2.85	10194

Idrogrammi di piena:

Idrogrammi di piena Fosso Giuncaie



Risultati della modellistica idraulica

HEC-RAS Risultati TR20											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00029__10	6	0.63	6.31	6.60	6.63	6.75	0.040043	1.70	0.37	1.64	1.15
00028PB10	5	0.63	5.56	5.87	5.79	5.91	0.010477	0.96	0.66	2.68	0.62
00028PC10	4	0.63	5.56	5.75	5.79	5.90	0.053654	1.68	0.37	2.28	1.33
00025__10	3	0.63	4.41	4.88	4.83	4.98	0.021686	1.44	0.44	1.42	0.83
00019__10	2	0.63	3.40	3.66	3.62	3.72	0.017591	1.12	0.56	2.77	0.79
00017__10	1	0.63	2.85	3.20	3.20	3.29	0.029635	1.35	0.47	2.50	1.00
I0015__10	0.5	0.63	0.89	2.01	1.24	2.01	0.000131	0.21	3.04	4.13	0.08
I0010__10	0.3	0.63	-0.06	2.01	0.29	2.01	0.000009	0.07	8.81	8.21	0.02

HEC-RAS Risultati TR30											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00029__10	6	0.79	6.31	6.64	6.67	6.81	0.040055	1.82	0.43	1.73	1.16
00028PB10	5	0.79	5.56	5.91	5.83	5.96	0.009808	1.00	0.79	2.86	0.61
00028PC10	4	0.79	5.56	5.77	5.82	5.95	0.061952	1.90	0.42	2.35	1.44
00025__10	3	0.79	4.41	4.84	4.88	5.05	0.045327	2.00	0.39	1.36	1.19
00019__10	2	0.79	3.40	3.69	3.65	3.76	0.017478	1.19	0.66	2.92	0.80
00017__10	1	0.79	2.85	3.23	3.23	3.34	0.029545	1.46	0.54	2.59	1.02
I0015__10	0.5	0.79	0.89	2.01	1.28	2.01	0.000206	0.26	3.04	4.13	0.10
I0010__10	0.3	0.79	-0.06	2.01	0.33	2.01	0.000014	0.09	8.81	8.21	0.03

HEC-RAS Risultati TR200											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00029__10	6	1.96	6.31	6.84	6.90	7.12	0.040006	2.32	0.85	2.28	1.21
00028PB10	5	1.96	5.56	6.22	6.01	6.28	0.005595	1.06	1.85	4.00	0.50
00028PC10	4	1.96	5.56	5.90	6.01	6.25	0.071986	2.65	0.74	2.80	1.64
00025__10	3	1.96	4.41	5.08	5.16	5.39	0.047264	2.47	0.79	2.09	1.28
00019__10	2	1.96	3.40	3.87	3.83	3.99	0.018059	1.57	1.25	3.71	0.86
00017__10	1	1.96	2.85	3.42	3.42	3.58	0.024974	1.82	1.08	3.18	1.00
I0015__10	0.5	1.96	0.89	2.01	1.45	2.03	0.001278	0.65	3.03	4.12	0.24
I0010__10	0.3	1.96	-0.06	2.01	0.50	2.01	0.000085	0.23	8.81	8.21	0.07

HEC-RAS Risultati TR500											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00029__10	6	2.85	6.31	6.96	7.03	7.29	0.040008	2.55	1.12	2.59	1.24
00028PB10	5	2.85	5.56	6.42	6.12	6.48	0.004114	1.05	2.72	4.69	0.44
00028PC10	4	2.85	5.56	5.97	6.11	6.43	0.075320	3.00	0.95	3.05	1.72
00025__10	3	2.85	4.41	5.23	5.30	5.55	0.039604	2.51	1.14	2.60	1.21
00019__10	2	2.85	3.40	3.97	3.93	4.12	0.017908	1.74	1.64	4.12	0.88
00017__10	1	2.85	2.85	3.52	3.52	3.72	0.023917	2.00	1.43	3.51	1.00
I0015__10	0.5	2.85	0.89	2.01	1.56	2.05	0.002727	0.94	3.02	4.12	0.35
I0010__10	0.3	2.85	-0.06	2.01	0.61	2.02	0.000181	0.34	8.81	8.21	0.10

Torrente Magione-Radicata

Analisi idrologica

Modello di Infiltrazione:

Metodo dell'Infiltrazione a Soglia

Modello di Formazione dell'Onda di Piena:

Metodo di Nash GIUH

Parametri geomorfologici:

A [kmq]	L [km]	la [mm]	Ks [mm/h]	Rb -	RI -	Ra -	n -	k [h]	Tl [h]
53.56	12.62	15.07	15.07	3.23	1.91	3.87	2.99	2.99	5.01

Parametri pluviometrici:

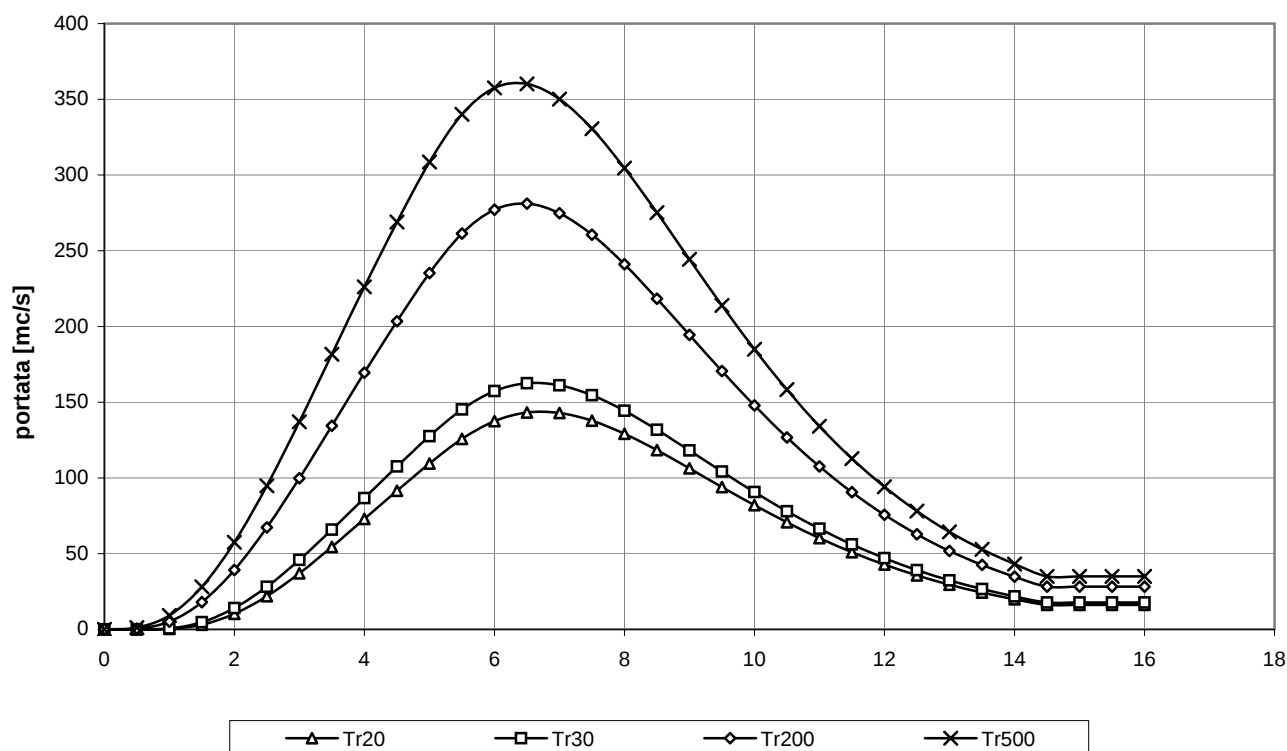
A1	N1	M1	A	N	M
33.866	0.435	0.182	31.165	0.254	0.242

Sintesi dei risultati del modello idrologico:

TR [anni]	d [h]	Qmax [mc/s]	V [mc]
20	5	143.16	3629520
30	5	162.55	4120938
200	5	281.09	7208748
500	5	360.19	9274464

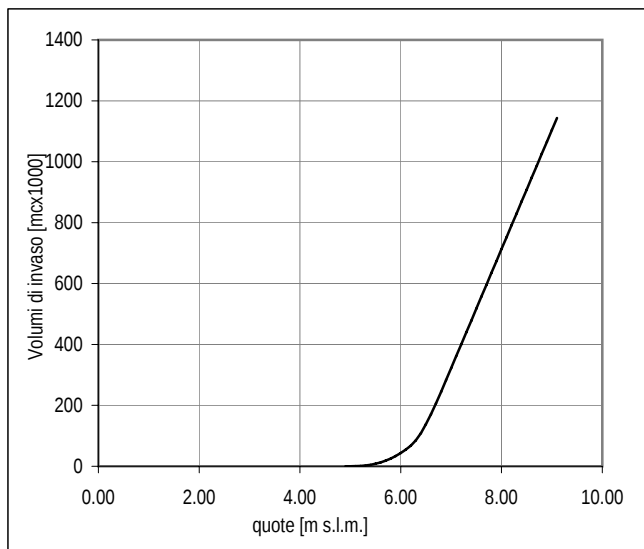
Idrogrammi di piena:

Idrogrammi di piena Torrente Magione-Radicata

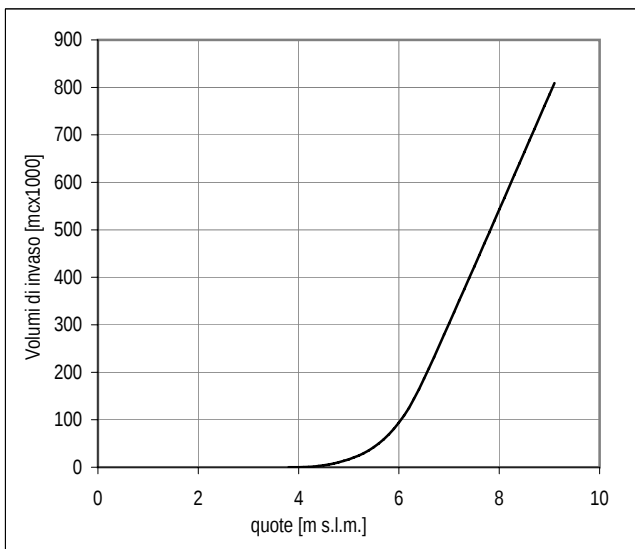


Curve di invaso Aree di Potenziale Esondazione

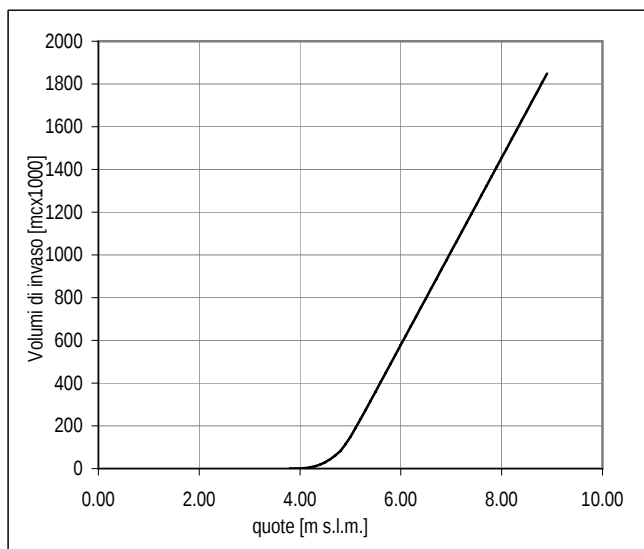
APE DX1



APE DX2



APE SX1



Risultati della modellistica idraulica

HEC-RAS Risultati TR20											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00078__10	6	143.14	2.01	6.51		6.64	0.001346	1.64	87.32	34.45	0.33
00060__10	5	143.13	1.69	6.23		6.38	0.001490	1.71	83.47	32.96	0.34
00046__10	4	143.12	1.36	6.05		6.19	0.001406	1.67	85.83	33.70	0.33
00027PB10	3	143.11	0.93	5.82	3.80	5.93	0.001177	1.52	94.21	36.19	0.30
00027PC10	2	143.11	0.93	5.79		5.91	0.001219	1.54	93.12	36.09	0.31
00021__10	1	4.90	0.87	5.70	1.39	5.70	0.000002	0.06	84.29	31.17	0.01

HEC-RAS Risultati TR20					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
dx1	4.9	4.90	0.00	340	0
dx2	3.8	3.80	0.00	90	0
sx1	3.8	3.80	0.00	800	0

HEC-RAS Risultati TR30											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00078__10	6	162.51	2.01	6.75		6.90	0.001316	1.69	95.90	35.31	0.33
00060__10	5	162.50	1.69	6.48		6.64	0.001450	1.77	91.89	33.88	0.34
00046__10	4	162.49	1.36	6.31		6.46	0.001358	1.72	94.68	34.61	0.33
00027PB10	3	162.47	0.93	6.09	3.98	6.21	0.001126	1.56	104.14	37.13	0.30
00027PC10	2	162.51	0.93	6.06		6.18	0.001164	1.58	103.01	37.02	0.30
00021__10	1	4.87	0.87	5.97	1.39	5.97	0.000001	0.05	92.82	31.97	0.01

HEC-RAS Risultati TR30					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
dx1	4.9	4.90	0.00	340	0
dx2	3.8	3.80	0.00	90	0
sx1	3.8	3.80	0.00	800	0

HEC-RAS Risultati TR200											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00078__10	6	281.09	2.01	8.06		8.25	0.001148	1.93	146.23	43.37	0.32
00060__10	5	259.80	1.69	7.92		8.08	0.000998	1.80	144.85	43.35	0.30
00046__10	4	259.39	1.36	7.81		7.96	0.000904	1.72	150.45	39.91	0.28
00027PB10	3	259.38	0.93	7.67	4.85	7.80	0.000715	1.55	167.32	42.60	0.25
00027PC10	2	259.38	0.93	7.65		7.77	0.000728	1.56	166.32	42.52	0.25
00021__10	1	4.67	0.87	7.58	1.38	7.58	0.000000	0.03	148.15	36.77	0.01

HEC-RAS Risultati TR200					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
dx1	5.71	4.90	0.57	69880	19160
dx2	5.61	3.80	6.53	89390	51250
sx1	4.98	3.80	14.56	360520	141450

HEC-RAS Risultati TR500											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00078__10	6	348.86	2.01	8.73		8.94	0.001026	2.02	175.15	43.37	0.31
00060__10	5	278.91	1.69	8.69		8.82	0.000615	1.58	178.67	43.44	0.24
00046__10	4	224.90	1.36	8.74		8.81	0.000336	1.19	192.02	49.31	0.18
00027PB10	3	345.67	0.93	8.47	5.27	8.62	0.000729	1.71	202.04	44.46	0.26
00027PC10	2	345.67	0.93	8.43		8.58	0.000746	1.72	200.47	44.46	0.26
00021__10	1	4.67	0.87	8.35	4.18	8.40	0.000245	-1.00	177.34	39.06	0.15

HEC-RAS Risultati TR500					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
dx1	8.7	4.90	-31.74	391470	988870
dx2	8.7	3.80	42.71	242260	713370
sx1	8.71	3.80	31.43	437910	1765720

Torrente Osa

Analisi idrologica

Modello di Infiltrazione:

Metodo dell'Infiltrazione a Soglia

Modello di Formazione dell'Onda di Piena:

Metodo di Nash GIUH

Parametri geomorfologici:

<i>A</i> [kmq]	<i>L</i> [km]	<i>la</i> [mm]	<i>Ks</i> [mm/h]	<i>Rb</i> -	<i>RI</i> -	<i>Ra</i> -	<i>n</i> -	<i>k</i> [h]	<i>Tl</i> [h]
78.16	25.48	7.21	1.75	4.54	2.58	5.33	3.10	1.42	4.39

Parametri pluviometrici:

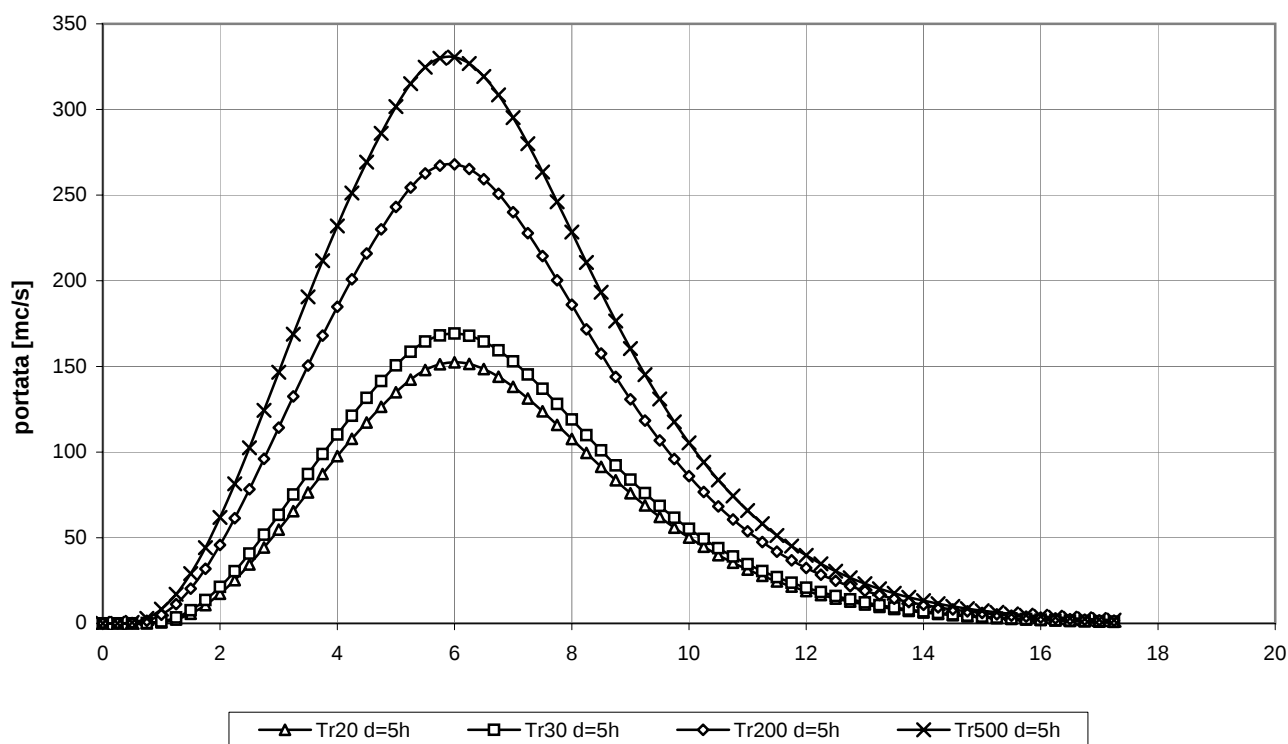
Stazione	Codice	A	N	M
Alberese	2970	24.610	0.294	0.210
Poggio Perotto	3010	22.742	0.280	0.191
San Donato	3100	25.389	0.305	0.217

Sintesi dei risultati del modello idrologico:

TR [anni]	d [h]	Qmax [mc/s]	V [mc]
20	5	152.43	3252934
30	5	169.18	3631751
200	5	268.00	5870754
500	5	330.53	7293488

Idrogrammi di piena:

Idrogrammi di piena Torrente Osa



Risultati della modellistica idraulica

HEC-RAS Risultati TR20											
Sezione	River Sta	Q Total	Min Ch El	W.S. Elev	Crit. W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude
		[mc/s]	[m slm]	[m slm]	[m slm]	[m slm]	[m/m]	[m/s]	[mq]	[m]	[-]
00344__06	28	152.30	1.05	4.47		4.80	0.002323	2.83	66.35	38.43	0.53
00311__06	26	152.05	-0.77	4.01		4.22	0.001063	2.17	85.31	41.17	0.36
00280__05	25	151.94	-0.91	3.72		3.90	0.000978	2.08	91.09	44.13	0.35
00250__05	24	151.80	-1.44	3.48		3.65	0.001015	2.05	91.91	48.15	0.35
00230__05	23	151.50	-1.09	3.10		3.36	0.001824	2.57	75.36	44.91	0.47
00210__09	22	151.43	-1.20	3.00		3.10	0.000499	1.56	116.08	45.92	0.26
00190__09	21	151.36	-1.15	2.86		2.96	0.000539	1.59	113.85	46.61	0.27
00170__09	20	151.35	-1.29	2.79		2.89	0.000501	1.55	116.58	46.60	0.26
00150__09	19	151.28	-1.30	2.63		2.74	0.000596	1.64	110.16	46.44	0.28
00130__09	18	151.23	-1.33	2.56		2.67	0.000643	1.69	107.29	45.76	0.29
00120__09	17	151.23	-1.36	2.49		2.61	0.000645	1.69	107.25	45.70	0.29
00110__09	16	151.18	-1.38	2.44		2.55	0.000646	1.69	107.16	45.64	0.29
00100__09	15	151.18	-1.40	2.39		2.50	0.000644	1.69	107.36	45.64	0.29
00095__09	14	151.18	-1.42	2.34		2.45	0.000642	1.68	107.64	45.77	0.29
00085__09	13	151.17	-1.45	2.29		2.40	0.000646	1.69	107.37	45.63	0.29
00075PA09	12	151.13	-1.47	2.25	0.90	2.36	0.000239	1.69	107.13	45.58	0.29
00075PD09	11	151.13	-1.40	2.23		2.35	0.000262	1.74	104.27	45.75	0.31
00070__09	10	151.13	-1.47	2.20		2.32	0.000730	1.75	103.19	45.34	0.31
00060__09	9	151.13	-1.53	2.17		2.28	0.000675	1.70	106.68	46.12	0.30
00055PA09	8	151.13	-1.59	2.17	0.84	2.25	0.000183	1.47	125.40	55.35	0.26
00055PD09	7	151.13	-1.64	2.17		2.25	0.000176	1.45	128.08	56.70	0.25
00045__09	6	151.12	-1.70	2.08		2.21	0.000792	1.81	101.99	46.81	0.32
00040__09	5	151.12	-1.79	2.01		2.13	0.000768	1.79	102.68	47.11	0.31
00030__09	4	151.11	-2.01	1.96		2.09	0.000763	1.79	102.18	47.18	0.31
00020__09	3	151.10	-2.19	1.79		2.02	0.001122	2.19	77.75	32.85	0.38
00010__09	2	151.10	-2.16	1.41		1.91	0.003373	3.26	51.70	28.08	0.63
00005__09	1	10.04	-1.95	1.20	-1.28	1.20	0.000014	0.21	52.71	29.65	0.04

HEC-RAS Risultati TR30											
Sezione	River Sta	Q Total	Min Ch El	W.S. Elev	Crit. W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude
		[mc/s]	[m slm]	[m slm]	[m slm]	[m slm]	[m/m]	[m/s]	[mq]	[m]	[-]
00344__06	28	169.18	1.05	4.62		4.96	0.002279	2.89	72.04	38.92	0.53
00311__06	26	168.78	-0.77	4.17		4.38	0.001080	2.24	91.68	41.81	0.37
00280__05	25	168.58	-0.91	3.87		4.06	0.000991	2.15	97.74	44.76	0.36
00250__05	24	168.40	-1.44	3.63		3.81	0.001017	2.11	99.13	48.78	0.36
00230__05	23	168.09	-1.09	3.26		3.52	0.001733	2.59	82.78	45.67	0.46
00210__09	22	168.01	-1.20	3.17		3.28	0.000509	1.63	123.84	46.59	0.26
00190__09	21	167.93	-1.15	3.02		3.13	0.000549	1.65	121.58	47.28	0.27
00170__09	20	167.86	-1.29	2.95		3.06	0.000513	1.62	124.22	47.24	0.26
00150__09	19	167.80	-1.30	2.78		2.90	0.000606	1.71	117.58	47.08	0.29
00130__09	18	167.79	-1.33	2.71		2.84	0.000654	1.76	114.53	46.39	0.30
00120__09	17	167.79	-1.36	2.65		2.77	0.000657	1.76	114.41	46.32	0.30
00110__09	16	167.74	-1.38	2.59		2.71	0.000660	1.76	114.26	46.25	0.30
00100__09	15	167.74	-1.40	2.54		2.67	0.000658	1.76	114.40	46.25	0.30
00095__09	14	167.73	-1.42	2.49		2.62	0.000657	1.75	114.66	46.38	0.30
00085__09	13	167.73	-1.45	2.44		2.56	0.000662	1.76	114.31	46.23	0.30
00075PA09	12	167.69	-1.47	2.40	0.99	2.52	0.000245	1.76	114.01	46.18	0.30
00075PD09	11	167.69	-1.40	2.38		2.51	0.000267	1.81	111.17	46.36	0.31
00070__09	10	167.69	-1.47	2.35		2.48	0.000744	1.82	109.98	45.86	0.31
00060__09	9	167.68	-1.53	2.32		2.44	0.000690	1.77	113.56	46.57	0.30
00055PA09	8	167.68	-1.59	2.32	0.92	2.41	0.000186	1.53	133.79	55.87	0.26
00055PD09	7	167.68	-1.64	2.32		2.40	0.000178	1.50	136.66	57.24	0.25
00045__09	6	167.67	-1.70	2.23		2.36	0.000803	1.87	108.87	47.25	0.32
00040__09	5	167.67	-1.79	2.15		2.29	0.000782	1.85	109.54	47.54	0.32
00030__09	4	167.66	-2.01	2.10		2.24	0.000778	1.86	108.99	47.61	0.32
00020__09	3	167.65	-2.19	1.92		2.17	0.001194	2.32	81.94	33.23	0.39
00010__09	2	167.65	-2.16	1.49		2.05	0.003709	3.48	53.90	28.52	0.66
00005__09	1	10.04	-1.95	1.20	-1.28	1.20	0.000014	0.21	52.71	29.65	0.04

HEC-RAS Risultati TR200											
Sezione	River Sta	Q Total	Min Ch El	W.S. Elev	Crit. W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude
		[mc/s]	[m slm]	[m slm]	[m slm]	[m slm]	[m/m]	[m/s]	[mq]	[m]	[-]
00344__06	28	267.45	1.05	5.39		5.79	0.002044	3.19	103.10	41.52	0.52
00311__06	26	265.46	-0.77	4.98		5.25	0.001088	2.56	127.16	45.19	0.38
00280__05	25	265.04	-0.91	4.70		4.93	0.000958	2.42	136.29	48.26	0.36
00250__05	24	264.16	-1.44	4.49		4.69	0.000901	2.30	142.77	52.43	0.35
00230__05	23	262.57	-1.09	4.22		4.46	0.001211	2.57	128.76	50.10	0.40
00210__09	22	262.25	-1.20	4.15		4.29	0.000480	1.84	171.64	50.53	0.27
00190__09	21	261.96	-1.15	4.02		4.16	0.000496	1.84	170.81	51.33	0.27
00170__09	20	261.71	-1.29	3.96		4.09	0.000469	1.81	173.72	51.20	0.26
00150__09	19	261.68	-1.30	3.81		3.95	0.000521	1.87	168.09	51.25	0.28
00130__09	18	261.49	-1.33	3.75		3.89	0.000549	1.91	164.84	50.54	0.28
00120__09	17	261.49	-1.36	3.70		3.84	0.000545	1.90	165.27	50.51	0.28
00110__09	16	261.48	-1.38	3.65		3.79	0.000542	1.90	165.59	50.49	0.28
00100__09	15	261.47	-1.40	3.61		3.75	0.000536	1.89	166.17	50.51	0.28
00095__09	14	261.47	-1.42	3.57		3.71	0.000529	1.88	167.13	50.71	0.28
00085__09	13	261.46	-1.45	3.53		3.67	0.000528	1.88	167.16	50.60	0.28
00075PA09	12	261.45	-1.47	3.50	1.44	3.63	0.000193	1.87	167.31	50.59	0.28
00075PD09	11	261.45	-1.40	3.48		3.63	0.000205	1.91	164.63	50.81	0.29
00070__09	10	261.45	-1.47	3.46		3.60	0.000566	1.92	162.91	49.70	0.29
00060__09	9	261.44	-1.53	3.43		3.57	0.000526	1.86	167.47	49.92	0.28
00055PA09	8	261.44	-1.59	3.45	1.30	3.55	0.000137	1.58	199.10	59.80	0.23
00055PD09	7	261.44	-1.64	3.18		3.29	0.000168	1.69	187.30	60.32	0.26
00045__09	6	261.43	-1.70	3.08		3.25	0.000746	2.10	150.34	49.85	0.32
00040__09	5	261.43	-1.79	3.01		3.18	0.000725	2.07	151.57	50.13	0.32
00030__09	4	261.43	-2.01	2.97		3.14	0.000721	2.08	151.31	50.20	0.32
00020__09	3	261.42	-2.19	2.74		3.07	0.001284	2.75	110.37	37.36	0.42
00010__09	2	261.41	-2.16	2.35		2.97	0.003000	3.75	81.83	35.78	0.62
00005__09	1	10.04	-1.95	1.20	-1.28	1.20	0.000014	0.21	52.71	29.65	0.04

HEC-RAS Risultati TR500											
Sezione	River Sta	Q Total	Min Ch El	W.S. Elev	Crit. W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude
		[mc/s]	[m slm]	[m slm]	[m slm]	[m slm]	[m/m]	[m/s]	[mq]	[m]	[-]
00344__06	28	326.83	1.05	5.90		6.30	0.001755	3.21	124.79	43.25	0.49
00311__06	26	326.26	-0.77	5.57		5.84	0.000954	2.60	154.44	47.62	0.36
00280__05	25	325.09	-0.91	5.35		5.56	0.000786	2.39	168.08	50.16	0.34
00250__05	24	324.34	-1.44	5.19		5.38	0.000689	2.22	180.37	54.35	0.31
00230__05	23	323.52	-1.09	5.00		5.21	0.000823	2.37	169.18	52.03	0.34
00210__09	22	323.40	-1.20	4.95		5.08	0.000386	1.82	213.07	52.27	0.24
00190__09	21	323.18	-1.15	4.85		4.97	0.000386	1.80	213.94	52.66	0.24
00170__09	20	323.14	-1.29	4.79		4.91	0.000366	1.78	217.33	52.53	0.24
00150__09	19	323.02	-1.30	4.68		4.81	0.000389	1.81	213.31	52.42	0.25
00130__09	18	323.02	-1.33	4.63		4.76	0.000404	1.84	210.15	51.69	0.25
00120__09	17	322.99	-1.36	4.59		4.72	0.000398	1.83	211.12	51.68	0.25
00110__09	16	322.98	-1.38	4.55		4.68	0.000393	1.82	211.92	51.60	0.25
00100__09	15	322.98	-1.40	4.52		4.65	0.000388	1.81	212.94	51.61	0.25
00095__09	14	322.96	-1.42	4.49		4.62	0.000380	1.79	214.57	51.78	0.24
00085__09	13	322.96	-1.45	4.46		4.59	0.000377	1.79	214.93	51.63	0.24
00075PA09	12	322.96	-1.47	4.44	1.69	4.56	0.000137	1.78	215.72	51.60	0.24
00075PD09	11	322.89	-1.40	4.15		4.29	0.000177	1.94	198.91	51.77	0.27
00070__09	10	322.88	-1.47	4.12		4.27	0.000490	1.95	196.43	50.40	0.27
00060__09	9	322.88	-1.53	4.10		4.25	0.000459	1.90	201.33	50.66	0.26
00055PA09	8	322.88	-1.59	4.13	1.52	4.23	0.000118	1.61	240.01	60.80	0.22
00055PD09	7	322.82	-1.64	3.79		3.90	0.000149	1.73	224.58	62.36	0.25
00045__09	6	322.82	-1.70	3.69		3.87	0.000648	2.13	181.31	51.16	0.31
00040__09	5	322.82	-1.79	3.63		3.80	0.000627	2.11	183.09	51.41	0.30
00030__09	4	322.82	-2.01	3.59		3.77	0.000621	2.11	183.22	51.50	0.30
00020__09	3	322.81	-2.19	3.37		3.71	0.001133	2.83	134.90	40.65	0.40
00010__09	2	322.81	-2.16	3.12		3.63	0.002053	3.52	111.23	40.32	0.53
00005__09	1	10.01	-1.95	1.20	-1.28	1.20	0.000014	0.20	52.71	29.65	0.04

Controfossa Destra Torrente Osa

Analisi idrologica

Modello di Infiltrazione:

Metodo del "Curve Number"

Modello di Formazione dell'Onda di Piena:

Metodo della Corrivazione

Parametri geomorfologici:

A [kmq]	Hmax [m slm]	Hmin [m slm]	Hm [m slm]	L [km]	CN [-]	tc [h]
2.70	120.97	0.17	31.68	3.33	70	2.57

Parametri pluviometrici:

Stazione	Codice	A1	N1	M1	A	N	M
San Donato	3100	26.138	0.611	0.168	25.389	0.305	0.217

Sintesi dei risultati del modello idrologico:

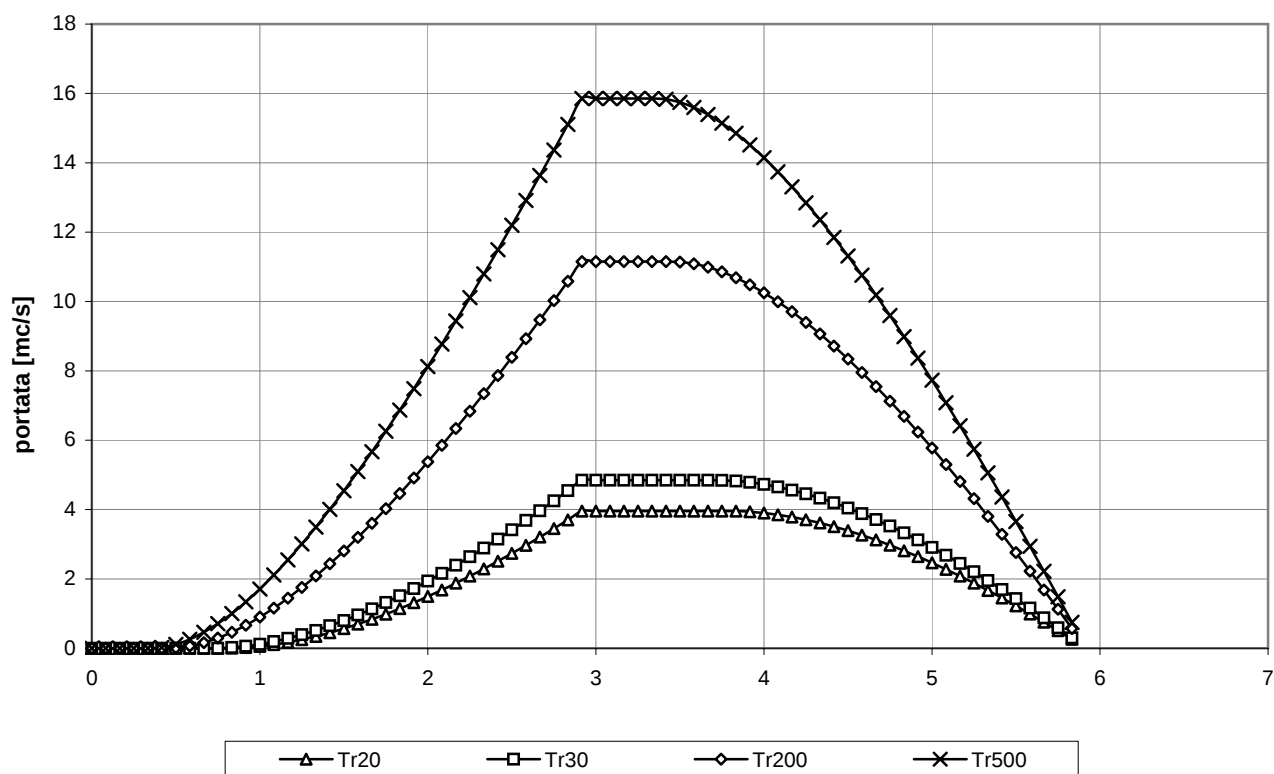
Durata 3 ore

TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	3	67.997	13.779	3.96	42739
30	3	74.251	17.071	4.84	52315
200	3	112.070	40.942	11.15	120410
500	3	136.724	59.041	15.85	171220

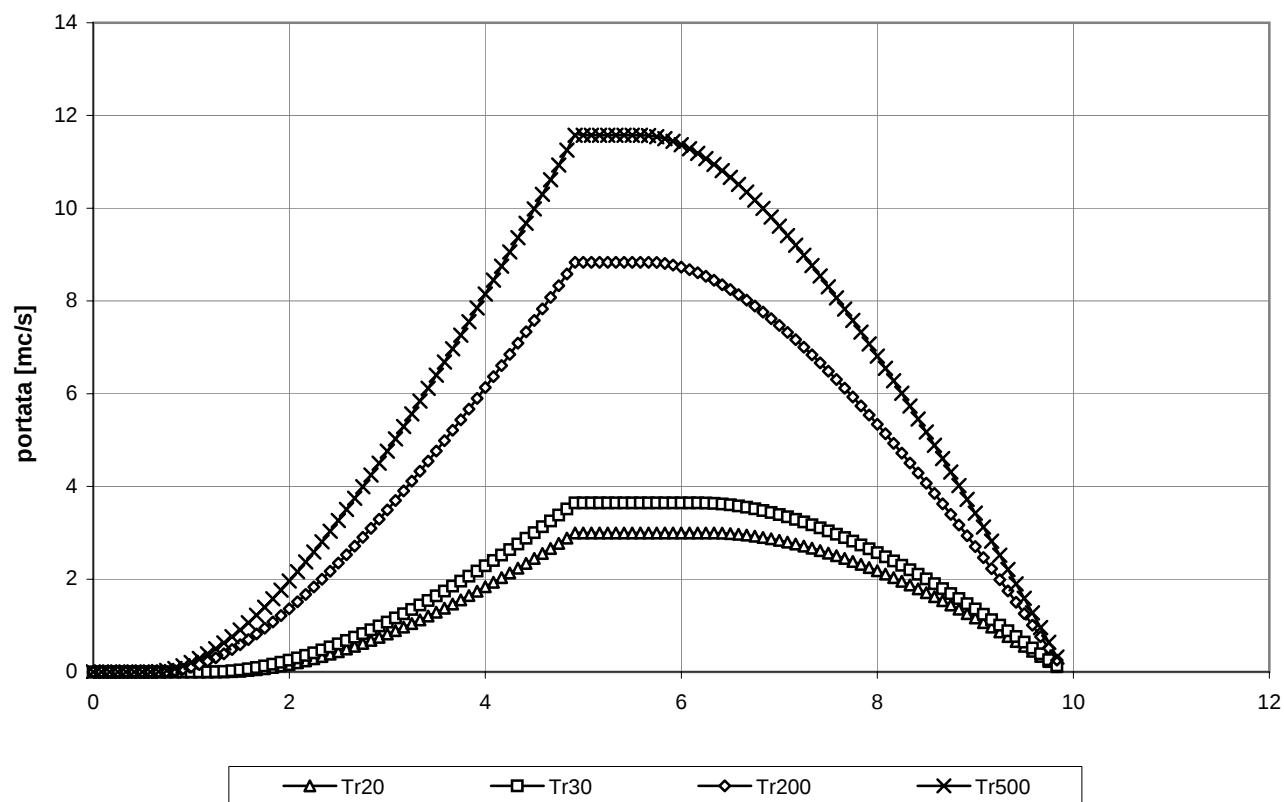
Durata 5 ore

TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	5	79.461	19.983	3.00	53953
30	5	86.769	24.300	3.65	65612
200	5	130.965	54.681	8.83	159020
500	5	159.775	77.148	11.57	208300

Idrogrammi di piena Controfossa Destra Osa - D=3h

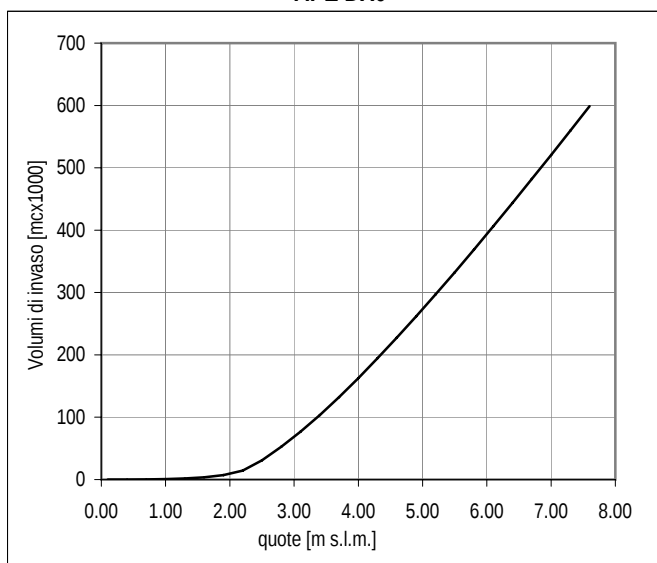


Idrogrammi di piena Controfossa Destra Osa - D=5h

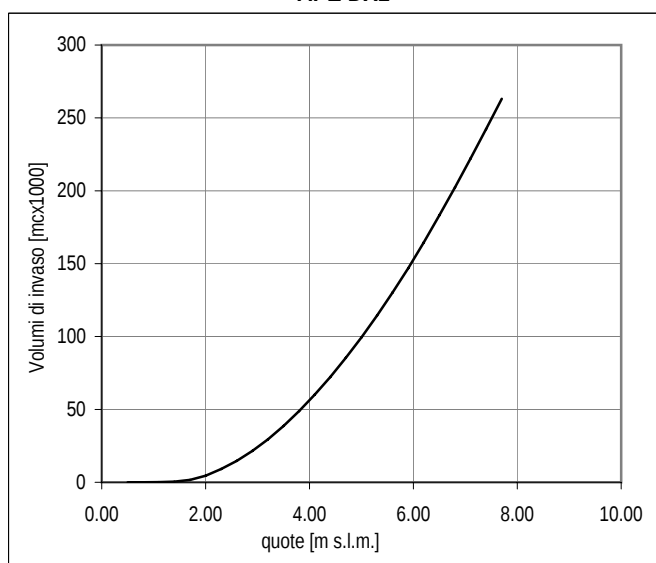


Curve di invaso Aree di Potenziale Esondazione

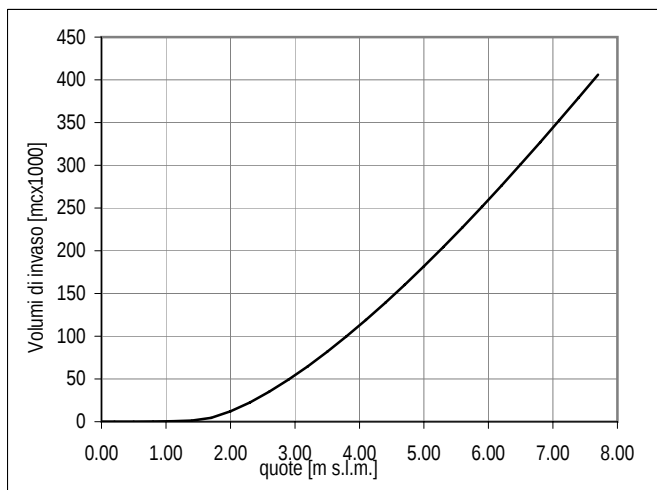
APE DX0



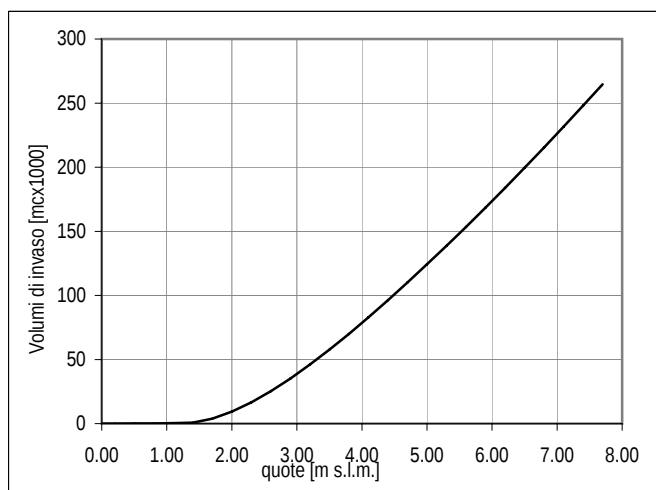
APE DX1



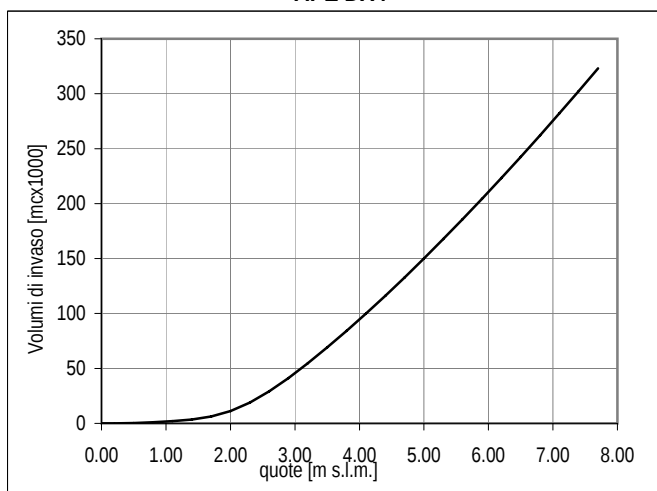
APE DX2



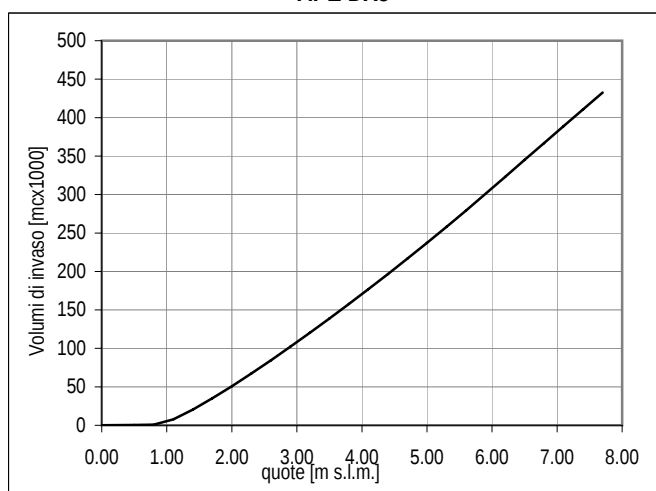
APE DX3



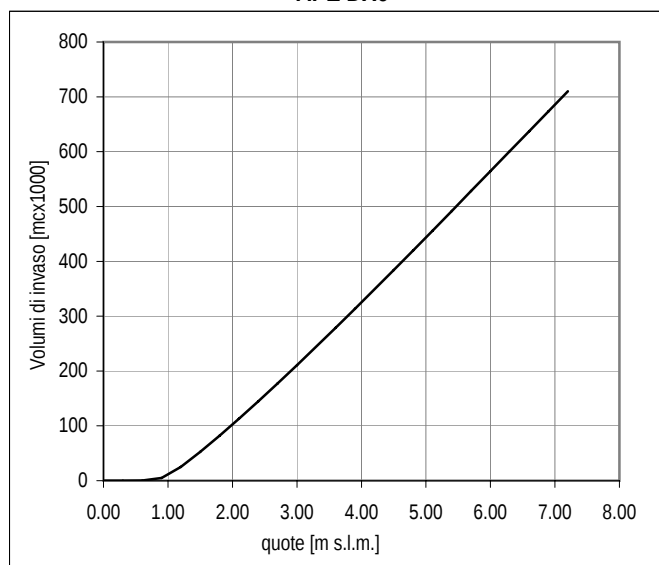
APE DX4



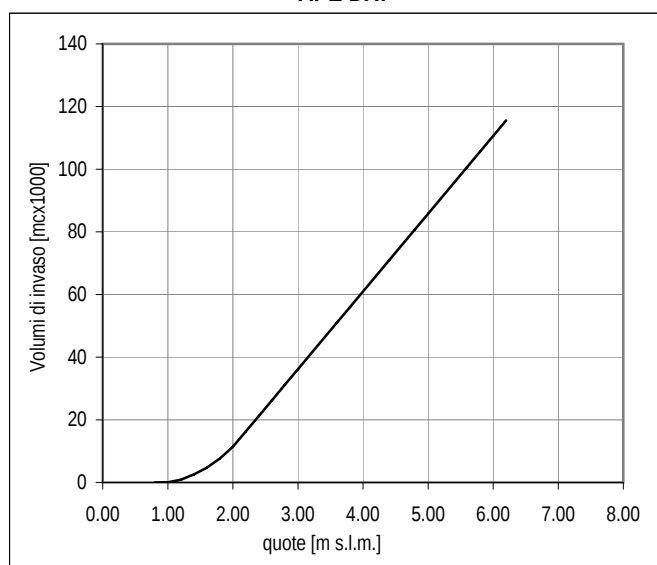
APE DX5



APE DX6



APE DX7



Risultati della modellistica idraulica

HEC-RAS Risultati TR20 D=5h											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00344__06	27	2.91	1.09	2.14		2.15	0.000649	0.59	6.67	17.17	0.21
00311__06	26	2.73	0.28	1.93		1.95	0.000613	0.63	4.35	4.31	0.20
00280__05	25	1.32	-0.24	1.84		1.84	0.000031	0.17	7.53	5.20	0.05
00250__05	24	2.77	-0.18	1.82		1.82	0.000084	0.29	9.57	7.46	0.08
00230__05	23	2.57	-0.29	1.79		1.79	0.000157	0.33	7.78	8.21	0.11
00210__09	22	2.46	-0.34	1.77		1.78	0.000029	0.19	13.03	9.33	0.05
00190__09	21	2.41	-0.56	1.77		1.77	0.000023	0.16	15.29	12.29	0.05
00170__09	20	2.37	-0.56	1.76		1.76	0.000019	0.16	15.05	9.96	0.04
00150__09	19	-0.81	-0.90	1.76		1.76	0.000001	-0.03	23.43	15.44	0.01
00130__09	18	-1.37	-0.91	1.76		1.76	0.000002	-0.05	25.21	17.38	0.01
00120__09	17	-1.36	-0.69	1.76		1.76	0.000002	-0.06	24.77	17.52	0.01
00110__09	16	-1.68	-0.69	1.76		1.76	0.000003	-0.06	25.95	17.64	0.02
00100__09	15	-1.71	-0.76	1.76		1.76	0.000003	-0.06	26.46	17.62	0.02
00095__09	14	-1.50	-0.74	1.76		1.76	0.000004	-0.06	23.20	17.37	0.02
00085__09	13	0.50	-0.69	1.76		1.76	0.000000	0.02	21.93	17.18	0.01
00075PA09	12	0.28	-0.67	1.76	-0.58	1.76	0.000000	0.02	16.66	11.03	0.00
00075PD09	11	-0.72	-0.53	1.76		1.76	0.000001	-0.05	15.94	9.71	0.01
00070__09	10	-3.48	-0.54	1.76		1.76	0.000023	-0.18	18.90	11.16	0.05
00060__09	9	-3.53	-0.59	1.76		1.76	0.000027	-0.20	17.48	9.64	0.05
00055PA09	8	-6.35	-0.60	1.76		1.76	0.000045	-0.28	22.93	11.81	0.06
00055PD09	7	-6.77	-0.61	1.78		1.78	0.000049	-0.27	25.23	15.34	0.07
00045__09	6	-6.90	-0.58	1.78		1.78	0.000071	-0.32	21.36	12.53	0.08
00040__09	5	-6.96	-0.71	1.79		1.79	0.000085	-0.35	20.07	12.14	0.09
00030__09	4	-6.96	-0.62	1.79	-0.12	1.80	0.000089	-0.34	20.20	12.91	0.09

HEC-RAS Risultati TR20 D=5h					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
dx0	1.86	0.10	12.97	11820	6580
dx1	1.83	0.50	0.96	9230	2880
dx2	1.76	-0.10	0.00	25650	5980
dx3	1.76	-0.10	0.00	18620	4970
dx4	1.76	-0.40	4.46	16490	7260
dx5	1.76	-0.70	4.68	52590	38310
dx6	1.76	0.00	-1.90	98790	78270
dx7	1.76	0.80	7.15	14930	7040

NOTA

Negli output delle simulazioni sviluppate in HEC-RAS vengono riportate le grandezze idrauliche relative al massimo livello idrometrico (colmo di piena) che si instaura in ogni sezione trasversale. Sono pertanto possibili valori negativi di portata, qualora il corso d'acqua sia influenzato da fenomeni di rigurgito da parte del reticolo idrografico principale.

HEC-RAS Risultati TR30 D=5h											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00344__06	27	3.60	1.09	2.23		2.24	0.000583	0.58	8.28	19.37	0.20
00311__06	26	2.95	0.28	2.01		2.03	0.000591	0.63	4.68	4.40	0.20
00280__05	25	-0.94	-0.24	1.94		1.95	0.000013	-0.12	8.08	5.27	0.03
00250__05	24	3.12	-0.18	1.93		1.93	0.000085	0.30	10.41	7.74	0.08
00230__05	23	2.94	-0.29	1.90		1.90	0.000152	0.34	8.72	8.76	0.11
00210__09	22	2.83	-0.34	1.88		1.89	0.000032	0.20	14.08	9.66	0.05
00190__09	21	2.25	-0.56	1.88		1.88	0.000017	0.13	16.75	13.32	0.04
00170__09	20	2.15	-0.56	1.88		1.88	0.000013	0.13	16.19	10.40	0.03
00150__09	19	-0.99	-0.90	1.87		1.87	0.000001	-0.04	25.19	15.70	0.01
00130__09	18	-1.72	-0.91	1.87		1.87	0.000003	-0.06	27.19	17.63	0.02
00120__09	17	-1.68	-0.69	1.87		1.88	0.000003	-0.06	26.76	17.77	0.02
00110__09	16	-2.22	-0.69	1.87		1.87	0.000004	-0.08	27.95	17.89	0.02
00100__09	15	-2.16	-0.76	1.87		1.87	0.000004	-0.08	28.47	17.87	0.02
00095__09	14	-2.01	-0.74	1.87		1.87	0.000005	-0.08	25.17	17.65	0.02
00085__09	13	0.25	-0.69	1.87		1.87	0.000000	0.01	23.89	17.47	0.00
00075PA09	12	-0.43	-0.67	1.87		1.87	0.000000	-0.02	17.93	11.57	0.01
00075PD09	11	-2.18	-0.53	1.87		1.87	0.000011	-0.13	17.06	9.90	0.03
00070__09	10	-3.74	-0.54	1.88		1.88	0.000022	-0.18	20.21	11.39	0.04
00060__09	9	-3.55	-0.59	1.87		1.87	0.000023	-0.19	18.59	9.81	0.04
00055PA09	8	-8.01	-0.60	1.87		1.88	0.000061	-0.33	24.30	11.99	0.07
00055PD09	7	-8.99	-0.61	1.90		1.91	0.000070	-0.33	27.15	15.57	0.08
00045__09	6	-9.08	-0.58	1.90		1.91	0.000099	-0.40	22.94	12.74	0.09
00040__09	5	-9.14	-0.71	1.91		1.92	0.000118	-0.42	21.63	12.36	0.10
00030__09	4	-9.15	-0.62	1.92	-0.02	1.93	0.000124	-0.42	21.91	13.40	0.10

HEC-RAS Risultati TR30 D=5h					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
dx0	1.98	0.10	13.53	24610	8950
dx1	1.94	0.50	0.14	9230	3930
dx2	1.87	-0.10	0.00	25650	8890
dx3	1.87	-0.10	0.49	18620	7080
dx4	1.87	-0.40	-2.65	16490	9120
dx5	1.87	-0.70	8.36	52590	44260
dx6	1.87	0.00	-4.66	102830	89740
dx7	1.87	0.80	17.49	18600	9000

HEC-RAS Risultati TR200 D=5h											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00344__06	27	6.04	1.09	2.59		2.60	0.000244	0.44	16.16	22.48	0.14
00311__06	26	-1.20	0.28	2.58		2.58	0.000030	-0.16	7.44	5.61	0.04
00280__05	25	-0.45	-0.24	2.59		2.59	0.000001	-0.04	11.99	6.93	0.01
00250__05	24	5.26	-0.18	2.57		2.58	0.000076	0.33	15.75	8.81	0.08
00230__05	23	3.03	-0.29	2.56		2.56	0.000034	0.19	15.57	11.64	0.05
00210__09	22	-0.08	-0.34	2.56		2.56	0.000000	0.00	21.08	11.08	0.00
00190__09	21	-0.22	-0.56	2.56		2.56	0.000000	-0.01	26.27	14.74	0.00
00170__09	20	-2.01	-0.56	2.56		2.56	0.000004	-0.08	24.24	14.13	0.02
00150__09	19	-3.91	-0.90	2.56		2.56	0.000006	-0.11	36.44	17.26	0.02
00130__09	18	-3.93	-0.91	2.56		2.56	0.000005	-0.10	39.78	19.16	0.02
00120__09	17	-3.95	-0.69	2.56		2.56	0.000005	-0.10	39.41	19.28	0.02
00110__09	16	-5.11	-0.69	2.56		2.56	0.000008	-0.13	40.67	19.40	0.03
00100__09	15	-4.83	-0.76	2.56		2.56	0.000007	-0.12	41.19	19.42	0.03
00095__09	14	-4.08	-0.74	2.56		2.56	0.000006	-0.11	37.79	19.32	0.02
00085__09	13	-2.18	-0.69	2.56		2.56	0.000002	-0.06	36.43	19.24	0.01
00075PA09	12	-0.34	-0.67	2.55		2.55	0.000000	-0.01	26.97	14.87	0.00
00075PD09	11	-13.81	-0.53	2.57		2.58	0.000165	-0.57	24.34	11.05	0.12
00070__09	10	-8.13	-0.54	2.60		2.60	0.000038	-0.28	28.89	12.79	0.06
00060__09	9	-15.39	-0.59	2.57		2.59	0.000174	-0.60	25.84	10.87	0.12
00055PA09	8	-14.85	-0.60	2.59		2.60	0.000087	-0.45	33.31	13.13	0.09
00055PD09	7	-20.25	-0.61	2.71		2.72	0.000113	-0.50	40.33	17.08	0.10
00045__09	6	-20.27	-0.58	2.71		2.73	0.000164	-0.60	33.75	13.96	0.12
00040__09	5	-20.36	-0.71	2.73		2.75	0.000188	-0.63	32.20	13.58	0.13
00030__09	4	-20.37	-0.62	2.74	0.39	2.76	0.000180	-0.61	33.46	14.70	0.13

HEC-RAS Risultati TR200 D=5h					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
dx0	2.58	0.10	20.21	72920	36770
dx1	2.58	0.50	33.14	18870	14390
dx2	2.56	-0.10	4.17	41540	33260
dx3	2.56	-0.10	1.32	28970	24100
dx4	2.56	-0.40	-3.12	34240	27720
dx5	2.56	-0.70	16.50	57180	82060
dx6	2.56	0.00	5.83	108690	161760
dx7	2.58	0.80	23.80	24810	25760

HEC-RAS Risultati TR500 D=5h											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00344__06	27	7.53	1.09	2.99		2.99	0.000094	0.31	25.16	23.09	0.09
00311__06	26	-0.46	0.28	2.98		2.98	0.000002	-0.05	9.98	6.96	0.01
00280__05	25	-1.34	-0.24	2.99		2.99	0.000006	-0.09	14.93	8.04	0.02
00250__05	24	2.99	-0.18	2.98		2.98	0.000014	0.15	19.60	10.20	0.04
00230__05	23	1.37	-0.29	2.99		2.99	0.000003	0.07	20.85	12.62	0.02
00210__09	22	1.36	-0.34	2.97		2.97	0.000001	0.05	25.83	11.98	0.01
00190__09	21	-2.77	-0.56	2.97		2.97	0.000004	-0.09	32.53	15.63	0.02
00170__09	20	-2.62	-0.56	2.97		2.97	0.000004	-0.09	30.44	15.58	0.02
00150__09	19	-5.58	-0.90	2.97		2.97	0.000007	-0.13	43.73	18.20	0.03
00130__09	18	-5.70	-0.91	2.97		2.97	0.000006	-0.12	47.85	20.08	0.02
00120__09	17	-5.81	-0.69	2.97		2.97	0.000006	-0.12	47.51	20.19	0.03
00110__09	16	-7.09	-0.69	2.97		2.97	0.000009	-0.15	48.82	20.30	0.03
00100__09	15	-6.35	-0.76	2.97		2.97	0.000007	-0.13	49.35	20.35	0.03
00095__09	14	-6.32	-0.74	2.97		2.97	0.000008	-0.14	45.93	20.33	0.03
00085__09	13	-4.83	-0.69	2.97		2.97	0.000005	-0.11	44.54	20.30	0.02
00075PA09	12	-3.00	-0.67	2.96		2.96	0.000004	-0.09	33.48	16.85	0.02
00075PD09	11	-23.63	-0.53	2.99		3.02	0.000297	-0.81	29.14	11.74	0.16
00070__09	10	-15.71	-0.54	3.05		3.06	0.000086	-0.45	34.89	13.68	0.09
00060__09	9	-26.62	-0.59	3.00		3.04	0.000330	-0.87	30.59	11.50	0.17
00055PA09	8	-27.66	-0.60	3.04		3.07	0.000190	-0.70	39.39	13.84	0.13
00055PD09	7	-29.87	-0.61	3.34		3.35	0.000124	-0.58	51.43	18.25	0.11
00045__09	6	-30.04	-0.58	3.34		3.37	0.000186	-0.70	42.80	14.90	0.13
00040__09	5	-30.33	-0.71	3.36		3.39	0.000211	-0.74	41.07	14.53	0.14
00030__09	4	-30.42	-0.62	3.37	0.69	3.40	0.000196	-0.71	43.02	15.64	0.14

HEC-RAS Risultati TR500 D=5h					
Storage Area	W.S. Elev [m slm]	SA Min El [m slm]	Net Flux [mc/s]	SA Area [mq]	Volume [mc]
dx0	2.98	0.10	149.86	81	67
dx1	2.98	0.50	68.34	27	24
dx2	2.97	-0.10	99.45	52	53
dx3	2.97	-0.10	43.02	36	38
dx4	2.97	-0.40	44.63	45	44
dx5	2.97	-0.70	46.99	60	106
dx6	2.97	0.00	27.52	111	207
dx7	3.02	0.80	59.84	25	37

Controfossa Sinistra Torrente Osa

Analisi idrologica

Modello di Infiltrazione:

Metodo del "Curve Number"

Modello di Formazione dell'Onda di Piena:

Metodo della Corrivazione

Parametri geomorfologici:

A [kmq]	Hmax [m slm]	Hmin [m slm]	Hm [m slm]	L [km]	CN [-]	tc [h]
4.91	18.52	-1.04	7.75	3.79	74	6.53

Parametri pluviometrici:

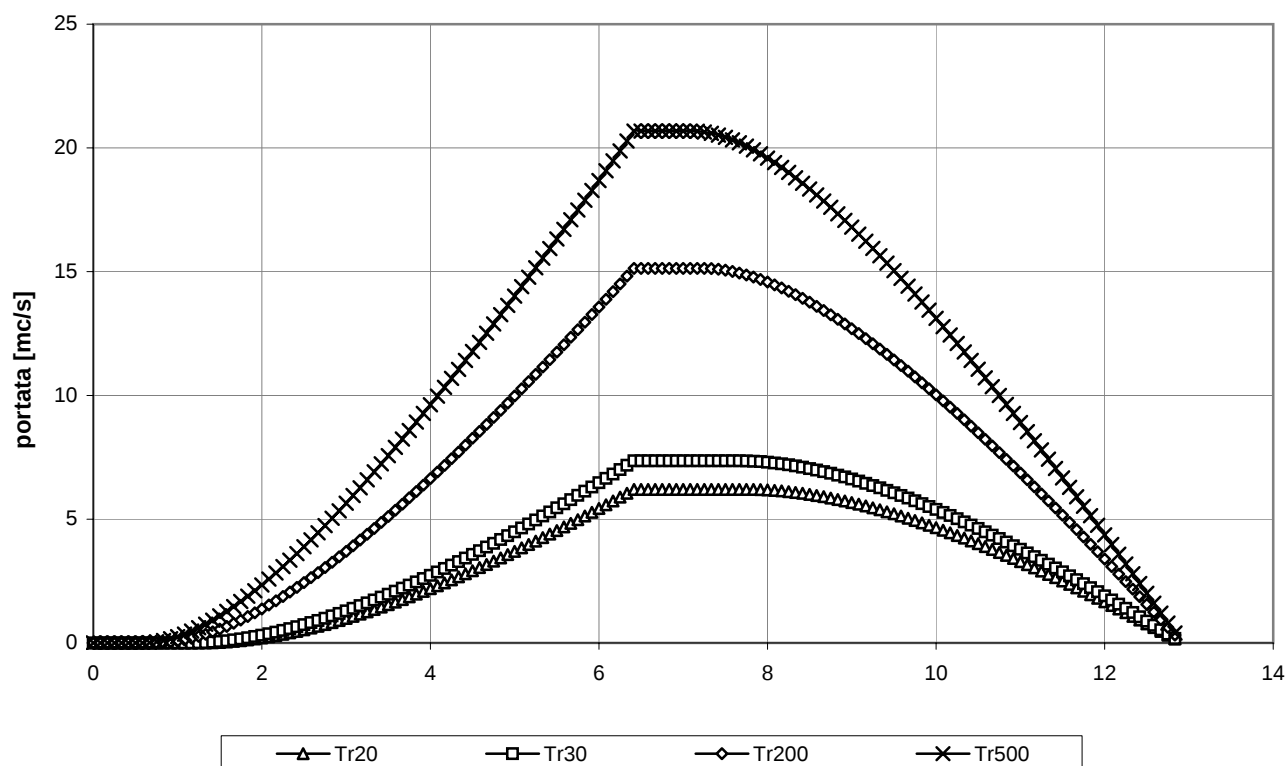
Stazione	Codice	A1	N1	M1	A	N	M
San Donato	3100	26.138	0.611	0.168	25.389	0.305	0.217

Sintesi dei risultati del modello idrologico:

TR [anni]	d [h]	P [mm]	Pe [mm]	Qmax [mc/s]	V [mc]
20	6.5	86.081	29.564	6.20	145159
30	6.5	93.998	35.060	7.36	172150
200	6.5	141.876	72.128	15.13	354146
500	6.5	173.085	98.570	20.68	483979

Idrogrammi di piena:

Idrogrammi di piena Controfossa Sinistra Osa



Risultati della modellistica idraulica

HEC-RAS Risultati TR20											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00210__09	22	6.20	-0.30	1.85	0.55	1.85	0.000072	0.30	27.43	34.97	0.08
00190__09	21	6.20	-0.87	1.84	-0.30	1.84	0.000023	0.20	35.62	30.28	0.05
00170__09	20	6.20	-0.96	1.84	-0.38	1.84	0.000014	0.16	47.03	39.91	0.04
00150__09	19	6.20	-0.96	1.83	-0.38	1.84	0.000016	0.17	43.71	37.24	0.04
00130__09	18	6.20	-1.10	1.83	-0.52	1.83	0.000019	0.19	37.77	32.91	0.04
00120__09	17	6.20	-1.08	1.83	-0.50	1.83	0.000013	0.15	47.33	37.28	0.04
00110__09	16	6.20	-1.13	1.83	-0.54	1.83	0.000018	0.18	38.73	28.61	0.04
00100__09	15	6.20	-1.26	1.83	-0.68	1.83	0.000011	0.15	47.32	32.69	0.03
00095__09	14	6.20	-1.27	1.83	-0.69	1.83	0.000014	0.17	39.79	26.12	0.04
00085__09	13	6.20	-1.23	1.83	-0.65	1.83	0.000018	0.18	36.07	24.59	0.04
00075PA09	12	6.20	-1.27	1.82	-0.69	1.83	0.000044	0.26	23.96	14.15	0.06
00075PD09	11	6.20	-1.22	1.81	-0.75	1.82	0.000033	0.24	26.25	13.10	0.05
00070__09	10	6.20	-1.06	1.81	-0.61	1.81	0.000027	0.22	27.97	14.79	0.05
00060__09	9	6.20	-1.07	1.81	-0.63	1.81	0.000025	0.21	29.18	14.78	0.05
00055PA09	8	6.20	-0.87	1.81	-0.42	1.81	0.000022	0.20	31.69	17.73	0.05
00055PD09	7	6.20	-0.89	1.80	-0.42	1.80	0.000030	0.22	27.74	15.63	0.05
00045__09	6	6.20	-0.90	1.80	-0.41	1.80	0.000035	0.24	26.19	14.67	0.06
00040__09	5	6.20	-0.90	1.79	-0.46	1.80	0.000033	0.23	26.53	14.30	0.05
00030__09	4	6.20	-0.89	1.79	-0.44	1.79	0.000038	0.24	25.41	14.09	0.06

HEC-RAS Risultati TR30											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00210__09	22	7.36	-0.30	1.99	0.63	1.99	0.000062	0.29	32.35	35.25	0.07
00190__09	21	7.36	-0.87	1.98	-0.23	1.98	0.000024	0.21	39.88	30.54	0.05
00170__09	20	7.36	-0.96	1.98	-0.32	1.98	0.000014	0.17	52.64	40.17	0.04
00150__09	19	7.36	-0.96	1.97	-0.32	1.98	0.000016	0.18	48.93	37.52	0.04
00130__09	18	7.36	-1.10	1.97	-0.46	1.97	0.000020	0.20	42.38	33.19	0.05
00120__09	17	7.36	-1.08	1.97	-0.44	1.97	0.000013	0.16	52.55	37.56	0.04
00110__09	16	7.36	-1.13	1.97	-0.48	1.97	0.000019	0.19	42.74	28.90	0.04
00100__09	15	7.36	-1.26	1.97	-0.61	1.97	0.000012	0.16	51.89	32.97	0.04
00095__09	14	7.36	-1.27	1.97	-0.63	1.97	0.000016	0.19	43.45	26.41	0.04
00085__09	13	7.36	-1.23	1.96	-0.58	1.97	0.000019	0.20	39.51	24.88	0.04
00075PA09	12	7.36	-1.27	1.96	-0.62	1.96	0.000050	0.28	25.98	14.93	0.07
00075PD09	11	7.36	-1.22	1.95	-0.69	1.95	0.000039	0.26	28.04	13.35	0.06
00070__09	10	7.36	-1.06	1.95	-0.56	1.95	0.000032	0.25	29.99	14.99	0.05
00060__09	9	7.36	-1.07	1.94	-0.58	1.95	0.000029	0.24	31.20	15.04	0.05
00055PA09	8	7.36	-0.87	1.94	-0.37	1.95	0.000025	0.22	34.12	18.26	0.05
00055PD09	7	7.36	-0.89	1.93	-0.37	1.93	0.000034	0.25	29.83	16.12	0.06
00045__09	6	7.36	-0.90	1.93	-0.36	1.93	0.000040	0.26	28.12	14.86	0.06
00040__09	5	7.36	-0.90	1.92	-0.41	1.93	0.000039	0.26	28.40	14.49	0.06
00030__09	4	7.36	-0.89	1.92	-0.39	1.92	0.000043	0.27	27.25	14.28	0.06

HEC-RAS Risultati TR200											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00210__09	22	15.13	-0.30	2.88	1.03	2.88	0.000032	0.25	64.44	37.02	0.06
00190__09	21	15.13	-0.87	2.87	0.11	2.87	0.000022	0.25	67.82	32.21	0.05
00170__09	20	15.13	-0.96	2.87	0.03	2.87	0.000012	0.19	89.16	41.83	0.04
00150__09	19	15.13	-0.96	2.87	0.03	2.87	0.000014	0.20	83.20	39.36	0.04
00130__09	18	15.13	-1.10	2.86	-0.11	2.87	0.000019	0.23	72.76	34.98	0.05
00120__09	17	15.13	-1.08	2.86	-0.09	2.86	0.000013	0.19	86.86	39.39	0.04
00110__09	16	15.13	-1.13	2.86	-0.13	2.86	0.000020	0.24	69.32	30.74	0.05
00100__09	15	15.13	-1.26	2.86	-0.26	2.86	0.000013	0.20	82.07	34.75	0.04
00095__09	14	15.13	-1.27	2.86	-0.28	2.86	0.000019	0.24	67.77	28.21	0.05
00085__09	13	15.13	-1.23	2.86	-0.23	2.86	0.000023	0.26	62.48	26.73	0.05
00075PA09	12	15.13	-1.27	2.85	-0.25	2.86	0.000045	0.32	52.46	31.02	0.07
00075PD09	11	15.13	-1.22	2.82	-0.37	2.82	0.000012	0.17	91.92	40.43	0.03
00070__09	10	15.13	-1.06	2.81	-0.25	2.82	0.000045	0.35	43.55	16.29	0.07
00060__09	9	15.13	-1.07	2.81	-0.29	2.82	0.000041	0.33	46.01	18.62	0.06
00055PA09	8	15.13	-0.87	2.81	-0.07	2.81	0.000033	0.29	53.17	28.49	0.06
00055PD09	7	15.13	-0.89	2.76	-0.06	2.76	0.000048	0.34	44.40	19.19	0.07
00045__09	6	15.13	-0.90	2.75	-0.04	2.76	0.000057	0.37	40.85	16.06	0.07
00040__09	5	15.13	-0.90	2.74	-0.11	2.75	0.000057	0.37	40.81	15.71	0.07
00030__09	4	15.13	-0.89	2.74	-0.08	2.75	0.000063	0.38	39.47	15.51	0.08

HEC-RAS Risultati TR500											
Sezione	River Sta	Q Total [mc/s]	Min Ch El [m slm]	W.S. Elev [m slm]	Crit. W.S. [m slm]	E.G. Elev [m slm]	E.G. Slope [m/m]	Vel Chnl [m/s]	Flow Area [mq]	Top Width [m]	Froude [-]
00210__09	22	20.68	-0.30	3.56	1.45	3.56	0.000021	0.23	90.22	38.38	0.05
00190__09	21	20.68	-0.87	3.56	0.31	3.56	0.000017	0.25	90.34	33.49	0.05
00170__09	20	20.68	-0.96	3.56	0.32	3.56	0.000010	0.19	118.30	43.11	0.03
00150__09	19	20.68	-0.96	3.55	0.28	3.55	0.000011	0.20	110.72	40.78	0.04
00130__09	18	20.68	-1.10	3.55	0.09	3.55	0.000015	0.23	97.28	36.36	0.04
00120__09	17	20.68	-1.08	3.55	0.11	3.55	0.000010	0.19	114.42	40.80	0.04
00110__09	16	20.68	-1.13	3.55	0.07	3.55	0.000016	0.24	90.95	32.16	0.04
00100__09	15	20.68	-1.26	3.55	-0.06	3.55	0.000011	0.21	106.44	36.12	0.04
00095__09	14	20.68	-1.27	3.55	-0.08	3.55	0.000017	0.25	87.66	29.60	0.05
00085__09	13	20.68	-1.23	3.54	-0.04	3.55	0.000020	0.27	81.36	28.16	0.05
00075PA09	12	20.68	-1.27	3.54	-0.03	3.54	0.000031	0.30	74.36	32.61	0.06
00075PD09	11	20.68	-1.22	3.50	-0.18	3.50	0.000010	0.18	119.63	41.51	0.03
00070__09	10	20.68	-1.06	3.49	-0.07	3.50	0.000043	0.39	54.89	17.31	0.07
00060__09	9	20.68	-1.07	3.49	-0.11	3.49	0.000038	0.36	58.93	19.63	0.06
00055PA09	8	20.68	-0.87	3.49	0.10	3.49	0.000026	0.30	72.80	29.55	0.06
00055PD09	7	20.68	-0.89	3.39	0.12	3.39	0.000044	0.36	56.91	20.39	0.07
00045__09	6	20.68	-0.90	3.38	0.15	3.39	0.000056	0.40	51.25	16.97	0.07
00040__09	5	20.68	-0.90	3.37	0.06	3.38	0.000057	0.41	51.00	16.65	0.07
00030__09	4	20.68	-0.89	3.37	0.10	3.38	0.000062	0.42	49.53	16.45	0.08

Elaborazione valori di Curve Number			
Tipologia di uso del suolo	Tipo idrologico di suolo		
	Alta	Media	Bassa
Arbusteto della macchia mediterranea	30	58	71
Arbusteti radi con roccia affiorante	30	30	58
Area in fase di rinaturalizzazione	39	61	74
Area in fase di rinaturalizzazione percorsa recentemente dal fuoco	49	69	79
Argini inerbiti	39	61	74
Boschi a dominanza di latifoglie decidue	25	55	70
Boschi a dominanza di sclerofille sempreverdi con penetrazione di specie decidue	45	66	77
Boschi sempreverdi	45	66	77
Boschi artificiali	25	55	70
Colture ad alta frammentazione	62	71	78
Formazioni lineari	39	61	74
Frutteti	39	61	74
Impianti sportivi	61	75	83
Incolti e terreni a riposo	39	61	74
Macchia mediterranea arborea da 3 a 6 metri	30	58	71
Macchia mediterranea con prevalenza di leccio a portamento arboreo	39	61	74
Macchia mediterranea su substrato sabbioso di paleodune con Frassino nelle aree umide	30	58	71
Oliveti	72	81	88
Oliveti in fase di rinaturalizzazione	72	81	88
Pascolo arborato	39	61	74
Pinete litoranee	45	66	77
Seminativi	72	81	88
Seminativo arborato con prevalenza di olivi	72	81	88
Specchi e corpi d'acqua	1	1	1
Strade aree urbanizzate e da urbanizzare	77	85	90
Verde urbano	39	61	74
Vigneti	72	81	88

Analisi idrologica

A	[kmq]	superficie del bacino idrografico
Hmax	[m slm]	altezza massima del bacino idrografico
Hmin	[m slm]	altezza minima del bacino idrografico
Hm	[m slm]	altezza media del bacino idrografico
L	[km]	lunghezza dell'asta principale
Rb	[-]	rapporto delle larghezze
RI	[-]	rapporto delle lunghezze
Ra	[-]	rapporto delle aree
CN	[-]	Curve Number
tc	[h]	tempo di corrivazione
A1	[-]	parametro linee segnalatrici di probabilità pluviometrica durate < 1 ora
N1	[-]	parametro linee segnalatrici di probabilità pluviometrica durate < 1 ora
M1	[-]	parametro linee segnalatrici di probabilità pluviometrica durate < 1 ora
A	[-]	parametro linee segnalatrici di probabilità pluviometrica durate > 1 ora
N	[-]	parametro linee segnalatrici di probabilità pluviometrica durate > 1 ora
M	[-]	parametro linee segnalatrici di probabilità pluviometrica durate > 1 ora
n	[-]	parametro di forma dell'IUH di Nash
TI	[h]	tempo di ritardo
k	[h]	parametro di scala dell'IUH di Nash
TR	[anni]	tempo di ritorno
d	[h]	durata dell'evento
P	[mm]	precipitazione lorda
Pe	[mm]	precipitazione efficace
Qmax	[mc/s]	portata di picco dell'idrogramma di piena
V	[mc]	volume dell'idrogramma di piena

Modellistica idraulica

Sezione		
River Sta		
Q Total	[mc/s]	portata al colmo di piena (ossia portata relativa al massimo livello idrometrico)
Min Ch El	[m slm]	quota del thalweg
W.S. Elev	[m slm]	massimo livello idrometrico
Crit. W.S.	[m slm]	altezza idrometrica critica
E.G. Elev	[m slm]	altezza della linea dei carichi totali
E.G. Slope	[m/m]	pendenza della linea dei carichi totali
Vel Chnl	[m/s]	velocità della corrente liquida
Flow Area	[mq]	superficie bagnata
Top Width	[m]	larghezza in sommità della superficie bagnata
Froude	[-]	numero di Froude
Storage Area		codice dell'area di potenziale espansione
SA W.S. El	[m]	livello idrometrico massimo nell'area di potenziale espansione
SA Min El	[m]	quota minima dell'area di potenziale espansione
Net Flux	[mc/s]	flusso netto
SA Area	[mq]	superficie bagnata nell'area di potenziale espansione
Volume	[mc]	volume idrico nell'area di potenziale espansione