

# Comune di Bientina

Provincia di Pisa



## STUDIO IDROLOGICO-IDRAULICO DI SUPPORTO AL REGOLAMENTO URBANISTICO DEL COMUNE DI BIENTINA, AI SENSI DELLA L.R. 1/05 E DEL D.P.G.R. 26R/07

OGGETTO:

ALLEGATI

DATA: GIUGNO 2009	ELABORATO : <table border="1"><tr><td>A</td><td>L</td><td>L</td><td>0</td><td>1</td></tr></table>	A	L	L	0	1	SCALA: ---
A	L	L	0	1			



Studio di Ingegneria

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Il Progettista

Ing. Alessio Gabrielli

# **ALLEGATO 1**

## **MODELLI IDROLOGICI**

Project: D4 - TR200 Simulation Run: D4 - TR200

Start of Run: 01gen2000, 00:00 Basin Model: CANALE EMISSARIO BIENTINA  
End of Run: 02gen2000, 00:00 Meteorologic Model: D4 - TR200  
Compute Time: 15giu2009, 13:13:41 Control Specifications: EVENTO ESTREMO

Volume Units: 1000 M3

Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (1000 M3)
ABB SX 1	2.671	17.443	01gen2000, 03:18	241.775
ABB SX 2	4.411	29.788	01gen2000, 03:54	390.801
ABB SX 3	4.522	34.033	01gen2000, 03:54	473.494
ABR DX	3.309	26.526	01gen2000, 03:42	361.689
C1	15.476	110.277	01gen2000, 04:12	1521.885
C10	12.500	91.136	01gen2000, 04:18	1188.884
C11	15.106	107.981	01gen2000, 04:12	1440.692
C12	18.079	127.561	01gen2000, 04:18	1742.505
C13	272.235	1294.718	01gen2000, 05:36	24762.374
C14	94.433	472.695	01gen2000, 05:24	9006.234
C15	42.810	250.260	01gen2000, 04:36	3854.817
C16	12.971	85.745	01gen2000, 04:30	1148.839
C17	231.232	1162.484	01gen2000, 05:30	20979.997
C18	242.640	1197.061	01gen2000, 05:30	21926.562

Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (1000 M3)
C19	245.311	1197.523	01gen2000, 05:36	22168.337
C2	21.368	137.743	01gen2000, 04:18	1980.461
C20	276.646	1297.391	01gen2000, 05:42	25153.175
C21	281.521	1298.328	01gen2000, 06:18	25638.608
C22	288.229	1300.511	01gen2000, 06:30	26311.729
C23	12.103	92.060	01gen2000, 04:18	1235.843
C24	13.199	96.608	01gen2000, 04:24	1341.878
C25	21.704	154.389	01gen2000, 04:12	2122.222
C26	309.933	1331.817	01gen2000, 06:54	28433.951
C27	314.455	1331.537	01gen2000, 07:12	28907.445
C28	319.068	1331.599	01gen2000, 07:24	29376.438
C29	12.971	85.755	01gen2000, 04:00	1148.839
C3	8.396	57.567	01gen2000, 04:18	763.607
C30	51.623	273.572	01gen2000, 05:36	5151.417
C31	20.302	121.356	01gen2000, 04:42	1887.933
C32	16.042	108.974	01gen2000, 04:12	1431.721
C4	3.309	26.526	01gen2000, 03:42	361.689
C5	56.195	366.068	01gen2000, 05:06	5295.755
C6	176.259	934.649	01gen2000, 05:12	16679.525
C8	1.975	14.543	01gen2000, 03:30	191.045

Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (1000 M3)
C9	9.988	74.652	01gen2000, 04:18	952.829
CAMPOMAGGIO	2.381	17.922	01gen2000, 03:18	237.326
CANALE EMISSARIO BIENTINA	4.613	33.620	01gen2000, 03:54	468.994
CANALE ROGIO	0.936	7.590	01gen2000, 02:06	106.207
CANALE ROGIO MONTE	21.368	137.743	01gen2000, 04:18	1980.461
CASTELVECCHIO	8.013	60.117	01gen2000, 04:18	761.784
CONFINE	8.845	61.202	01gen2000, 04:00	851.531
FOSSA NUOVA	6.708	50.011	01gen2000, 04:00	673.121
FOSSA NUOVA E RIO CASALE	51.623	273.572	01gen2000, 05:36	5151.417
FOSSO FUNGAIA	4.875	35.908	01gen2000, 03:54	485.433
MASSA MACINAIA	8.396	57.567	01gen2000, 04:18	763.607
PALAIA	1.975	14.543	01gen2000, 03:30	191.045
PIANTONETA	1.096	8.117	01gen2000, 03:30	106.034
R1	8.396	57.551	01gen2000, 04:30	763.607
R10	18.079	127.470	01gen2000, 04:24	1742.505
R11	12.971	85.720	01gen2000, 04:36	1148.839
R12	42.810	250.260	01gen2000, 04:54	3854.817
R13	94.433	472.263	01gen2000, 05:36	9006.234
R14	176.259	934.404	01gen2000, 05:54	16679.525
R15	231.232	1162.415	01gen2000, 05:36	20979.997

Project: D4 - TR20 LAMINATO 50% Simulation Run: D4 - TR20 - LAMINATO 50%

Start of Run: 01gen2000, 00:00 Basin Model: CANALE EMISSARIO BIENTINA  
 End of Run: 02gen2000, 00:00 Meteorologic Model: D4 - TR20  
 Compute Time: 15giu2009, 16:53:36 Control Specifications: EVENTO ESTREMO

Volume Units: 1000 M3

Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (1000 M3)
ABB SX 1	2.671	11.618	01gen2000, 03:24	153.716
ABB SX 2	4.411	19.341	01gen2000, 03:54	240.561
ABB SX 3	4.522	21.965	01gen2000, 03:54	299.750
ABR DX	3.309	17.006	01gen2000, 03:48	224.608
C1	15.476	68.911	01gen2000, 04:12	915.809
C10	12.500	54.823	01gen2000, 04:18	661.349
C11	15.106	64.369	01gen2000, 04:18	805.062
C12	18.079	75.141	01gen2000, 04:24	977.271
C13	241.223	674.618	01gen2000, 05:42	13658.872
C14	94.433	260.833	01gen2000, 05:24	4980.958
C15	42.810	141.456	01gen2000, 04:18	2167.918
C16	12.971	42.000	01gen2000, 02:30	601.560
C17	191.379	603.152	01gen2000, 05:24	11539.147
C18	202.787	616.095	01gen2000, 05:30	12038.107

Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (1000 M3)
C19	205.458	616.292	01gen2000, 05:36	12191.823
C2	21.368	99.425	01gen2000, 04:24	1397.884
C20	245.634	676.024	01gen2000, 05:48	13899.433
C21	250.509	676.523	01gen2000, 06:18	14202.285
C22	257.217	677.939	01gen2000, 06:30	14621.132
C23	12.103	55.743	01gen2000, 04:24	695.572
C24	13.199	58.161	01gen2000, 04:30	761.958
C25	21.704	94.681	01gen2000, 04:18	1230.341
C26	278.921	698.505	01gen2000, 06:48	15851.473
C27	283.443	698.467	01gen2000, 07:06	16151.223
C28	288.056	698.524	01gen2000, 07:18	16450.078
C29	12.971	55.366	01gen2000, 04:00	711.486
C3	8.396	35.672	01gen2000, 04:24	440.677
C30	51.623	161.293	01gen2000, 05:42	2969.736
C31	20.302	75.793	01gen2000, 04:42	1149.262
C32	16.042	68.209	01gen2000, 04:12	834.307
C4	3.309	17.006	01gen2000, 03:48	224.608
C5	16.342	226.000	01gen2000, 05:12	3281.400
C6	136.406	517.518	01gen2000, 05:12	9501.547
C8	1.975	9.326	01gen2000, 03:42	115.912

Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (1000 M3)
C9	9.988	45.497	01gen2000, 04:24	529.903
CAMPOMAGGIO	2.381	11.569	01gen2000, 03:24	145.843
CANALE EMISSARIO BIENTINA	4.613	21.803	01gen2000, 03:54	298.856
CANALE ROGIO	0.936	4.844	01gen2000, 02:06	66.669
CANALE ROGIO MONTE	21.368	99.425	01gen2000, 04:24	1397.884
CASTELVECCHIO	8.013	36.182	01gen2000, 04:24	413.992
CONFINE	8.845	39.915	01gen2000, 04:00	542.929
FOSSA NUOVA	6.708	32.384	01gen2000, 04:00	418.848
FOSSA NUOVA E RIO CASALE	51.623	161.293	01gen2000, 05:42	2969.736
FOSSO FUNGAIA	4.875	23.224	01gen2000, 04:00	302.852
MASSA MACINAIA	8.396	35.672	01gen2000, 04:24	440.677
PALAIA	1.975	9.326	01gen2000, 03:42	115.912
PIANTONETA	1.096	5.364	01gen2000, 03:42	66.387
R1	8.396	35.670	01gen2000, 04:36	440.677
R10	18.079	75.068	01gen2000, 04:30	977.271
R11	12.971	42.000	01gen2000, 02:42	601.560
R12	42.810	141.456	01gen2000, 04:36	2167.918
R13	94.433	260.514	01gen2000, 05:36	4980.958
R14	136.406	517.468	01gen2000, 05:54	9501.547
R15	191.379	603.095	01gen2000, 05:30	11539.147



Project: D4 - TR30 LAMINATO 50% Simulation Run: D4 - TR30 - LAMINATO 50%

Start of Run: 01gen2000, 00:00 Basin Model: CANALE EMISSARIO BIENTINA  
 End of Run: 02gen2000, 00:00 Meteorologic Model: D4 - TR30  
 Compute Time: 15giu2009, 16:49:11 Control Specifications: EVENTO ESTREMO

Volume Units: 1000 M3

Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (1000 M3)
ABB SX 1	2.671	12.348	01gen2000, 03:24	168.411
ABB SX 2	4.411	20.873	01gen2000, 03:54	262.576
ABB SX 3	4.522	23.731	01gen2000, 03:54	325.172
ABR DX	3.309	18.392	01gen2000, 03:48	244.567
C1	15.476	74.960	01gen2000, 04:12	1003.756
C10	12.500	60.162	01gen2000, 04:18	737.355
C11	15.106	70.808	01gen2000, 04:18	896.623
C12	18.079	82.900	01gen2000, 04:24	1087.478
C13	241.223	727.839	01gen2000, 05:36	14700.775
C14	94.433	271.905	01gen2000, 05:06	5331.452
C15	42.810	145.691	01gen2000, 04:06	2305.612
C16	12.971	42.000	01gen2000, 02:18	619.560
C17	191.379	649.028	01gen2000, 05:24	12397.687
C18	202.787	662.739	01gen2000, 05:30	12932.006
C19	205.458	662.429	01gen2000, 05:36	13100.417

Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (1000 M3)
C2	21.368	107.461	01gen2000, 04:24	1520.087
C20	245.634	730.055	01gen2000, 05:36	14963.351
C21	250.509	730.915	01gen2000, 06:12	15292.899
C22	257.217	732.735	01gen2000, 06:24	15749.459
C23	12.103	61.000	01gen2000, 04:24	773.073
C24	13.199	63.754	01gen2000, 04:30	845.299
C25	21.704	103.466	01gen2000, 04:12	1359.488
C26	278.921	754.673	01gen2000, 06:54	17108.946
C27	283.443	754.157	01gen2000, 07:12	17434.119
C28	288.056	754.200	01gen2000, 07:24	17757.868
C29	12.971	59.816	01gen2000, 04:00	775.469
C3	8.396	38.874	01gen2000, 04:18	487.543
C30	51.623	177.436	01gen2000, 05:42	3282.153
C31	20.302	82.441	01gen2000, 04:42	1256.779
C32	16.042	74.512	01gen2000, 04:12	925.172
C4	3.309	18.392	01gen2000, 03:48	244.567
C5	16.342	234.880	01gen2000, 04:54	3574.822
C6	136.406	552.959	01gen2000, 05:00	10204.366
C8	1.975	10.084	01gen2000, 03:42	126.829
C9	9.988	49.738	01gen2000, 04:24	590.833
CAMPOMAGGIO	2.381	12.499	01gen2000, 03:24	159.229

Hydrologic Element	Drainage Area (KM2)	Peak Discharge (M3/S)	Time of Peak	Volume (1000 M3)
CANALE EMISSARIO BIENTINA	4.613	23.532	01gen2000, 03:54	323.750
CANALE ROGIO	0.936	5.244	01gen2000, 02:06	72.422
CANALE ROGIO MONTE	21.368	107.461	01gen2000, 04:24	1520.087
CASTELVECCHIO	8.013	39.662	01gen2000, 04:24	464.005
CONFINE	8.845	43.039	01gen2000, 04:00	588.211
FOSSA NUOVA	6.708	35.000	01gen2000, 04:00	456.560
FOSSA NUOVA E RIO CASALE	51.623	177.436	01gen2000, 05:42	3282.153
FOSSO FUNGAIA	4.875	25.079	01gen2000, 03:54	329.548
MASSA MACINAIA	8.396	38.874	01gen2000, 04:18	487.543
PALAIA	1.975	10.084	01gen2000, 03:42	126.829
PIANTONETA	1.096	5.769	01gen2000, 03:42	72.226
R1	8.396	38.864	01gen2000, 04:36	487.543
R10	18.079	82.765	01gen2000, 04:30	1087.478
R11	12.971	42.000	01gen2000, 02:30	619.560
R12	42.810	145.691	01gen2000, 04:24	2305.612
R13	94.433	271.867	01gen2000, 05:18	5331.452
R14	136.406	552.568	01gen2000, 05:42	10204.366
R15	191.379	648.599	01gen2000, 05:30	12397.687
R16	202.787	661.881	01gen2000, 05:36	12932.006
R17	205.458	662.429	01gen2000, 05:48	13100.417
R18	241.223	727.839	01gen2000, 05:42	14700.775

Project: D4 - TR100 LAMINATO 50% Simulation Run: D4 - TR100 - LAMINATO 50%

Start of Run: 01gen2000, 00:00 Basin Model: CANALE EMISSARIO BIENTINA  
 End of Run: 02gen2000, 00:00 Meteorologic Model: D4 - TR100  
 Compute Time: 15giu2009, 17:27:10 Control Specifications: EVENTO ESTREMO

Volume Units: 1000 M3

ABB SX 1	2.671	15.374	01gen2000, 03:18	211.988
ABB SX 2	4.411	26.160	01gen2000, 03:54	338.602
ABB SX 3	4.522	29.379	01gen2000, 03:54	406.498
ABR DX	3.309	23.201	01gen2000, 03:42	313.821
C1	15.476	95.874	01gen2000, 04:12	1310.027
C10	12.500	78.519	01gen2000, 04:18	1003.548
C11	15.106	92.843	01gen2000, 04:18	1217.399
C12	18.079	109.338	01gen2000, 04:18	1473.569
C13	241.223	837.109	01gen2000, 05:42	16912.449
C14	94.433	293.642	01gen2000, 04:30	6154.359
C15	42.810	157.060	01gen2000, 04:06	2659.691
C16	12.971	42.880	01gen2000, 02:00	685.264
C17	191.379	743.093	01gen2000, 05:18	14174.510
C18	202.787	761.805	01gen2000, 05:24	14767.481

C19	205.458	761.331	01gen2000, 05:36	14979.468
C2	21.368	133.383	01gen2000, 04:18	1914.167
C20	245.634	839.008	01gen2000, 05:48	17251.050
C21	250.509	839.568	01gen2000, 06:24	17672.920
C22	257.217	841.180	01gen2000, 06:36	18259.709
C23	12.103	79.284	01gen2000, 04:18	1045.312
C24	13.199	83.151	01gen2000, 04:30	1137.651
C25	21.704	133.660	01gen2000, 04:12	1809.916
C26	278.921	867.448	01gen2000, 06:54	20069.626
C27	283.443	867.235	01gen2000, 07:12	20476.124
C28	288.056	867.290	01gen2000, 07:24	20886.010
C29	12.971	75.198	01gen2000, 04:00	996.814
C3	8.396	49.954	01gen2000, 04:18	650.776
C30	51.623	233.960	01gen2000, 05:42	4380.792
C31	20.302	105.465	01gen2000, 04:42	1629.925
C32	16.042	95.056	01gen2000, 04:12	1225.871
C4	3.309	23.201	01gen2000, 03:42	313.821
C5	16.342	234.000	01gen2000, 04:06	4066.200
C6	136.406	605.639	01gen2000, 04:42	11642.943
C8	1.975	12.722	01gen2000, 03:36	164.821

C9	9.988	64.475	01gen2000, 04:18	804.206
CAMPOMAGGIO	2.381	15.709	01gen2000, 03:18	205.454
CANALE EMISSARIO BIBBISTINA	29.514	29.514	01gen2000, 03:54	409.888
CANALE ROGIO	0.936	6.630	01gen2000, 02:06	92.390
CANALE ROGIO MONTE TESSALE	133.383	133.383	01gen2000, 04:18	1914.167
CASTELVECCHIO	8.013	51.764	01gen2000, 04:18	639.385
CONFINE	8.845	53.825	01gen2000, 04:00	744.555
FOSSA NUOVA	6.708	44.027	01gen2000, 04:00	586.789
FOSSA NUOVA E RIONE CASSALE	233.960	233.960	01gen2000, 05:42	4380.792
FOSSO FUNGAIA	4.875	31.493	01gen2000, 03:54	421.870
MASSA MACINAIA	8.396	49.954	01gen2000, 04:18	650.776
PALAIA	1.975	12.722	01gen2000, 03:36	164.821
PIANTONETA	1.096	7.166	01gen2000, 03:36	92.339
R1	8.396	49.936	01gen2000, 04:30	650.776
R10	18.079	109.320	01gen2000, 04:24	1473.569
R11	12.971	42.880	01gen2000, 02:12	685.264
R12	42.810	157.060	01gen2000, 04:24	2659.691
R13	94.433	293.396	01gen2000, 04:42	6154.359
R14	136.406	605.135	01gen2000, 05:24	11642.943
R15	191.379	741.945	01gen2000, 05:24	14174.510

Project: D4 - TR200 - LAMINATO 50% Simulation Run: D4 - TR200 - LAMINATO

Start of Run: 01gen2000, 00:00 Basin Model: CANALE EMISSARIO BIENTINA  
 End of Run: 02gen2000, 00:00 Meteorologic Model: D4 - TR200  
 Compute Time: 15giu2009, 16:59:04 Control Specifications: EVENTO ESTREMO

Volume Units: 1000 M3

ABB SX 1	2.671	17.443	01gen2000, 03:18	241.775
ABB SX 2	4.411	29.788	01gen2000, 03:54	390.801
ABB SX 3	4.522	34.033	01gen2000, 03:54	473.494
ABR DX	3.309	26.526	01gen2000, 03:42	361.689
C1	15.476	110.277	01gen2000, 04:12	1521.885
C10	12.500	91.136	01gen2000, 04:18	1188.884
C11	15.106	107.981	01gen2000, 04:12	1440.692
C12	18.079	127.561	01gen2000, 04:18	1742.505
C13	278.064	889.465	01gen2000, 05:12	18045.849
C14	94.433	300.647	01gen2000, 04:24	6590.747
C15	42.810	163.857	01gen2000, 04:06	2852.831
C16	12.971	42.880	01gen2000, 01:18	709.110
C17	228.220	760.587	01gen2000, 04:54	15059.843
C18	239.628	795.303	01gen2000, 05:00	15680.055

C19	242.299	797.431	01gen2000, 05:06	15921.830
C2	21.368	137.743	01gen2000, 04:18	1980.461
C20	282.475	895.607	01gen2000, 05:18	18436.650
C21	287.350	897.709	01gen2000, 05:54	18922.083
C22	294.058	902.299	01gen2000, 06:00	19595.204
C23	12.103	92.060	01gen2000, 04:18	1235.843
C24	13.199	96.608	01gen2000, 04:24	1341.878
C25	21.704	154.389	01gen2000, 04:12	2122.222
C26	315.762	960.661	01gen2000, 06:12	21717.426
C27	320.284	960.709	01gen2000, 06:24	22190.920
C28	324.897	961.200	01gen2000, 06:36	22659.915
C29	12.971	85.755	01gen2000, 04:00	1148.839
C3	8.396	57.567	01gen2000, 04:18	763.607
C30	51.623	273.572	01gen2000, 05:36	5151.417
C31	20.302	121.356	01gen2000, 04:42	1887.933
C32	16.042	108.974	01gen2000, 04:12	1431.721
C4	3.309	26.526	01gen2000, 03:42	361.689
C5	53.183	234.880	01gen2000, 03:54	4293.371
C6	173.247	618.957	01gen2000, 04:12	12372.709
C8	1.975	14.543	01gen2000, 03:30	191.045



C9	9.988	74.652	01gen2000, 04:18	952.829
CAMPOMAGGIO	2.381	17.922	01gen2000, 03:18	237.326
CANALE EMISSARIO BIENTINA	4.613	33.620	01gen2000, 03:54	468.994
CANALE ROGIO	0.936	7.590	01gen2000, 02:06	106.207
CANALE ROGIO MONTE	21.368	137.743	01gen2000, 04:18	1980.461
CASTELVECCHIO	8.013	60.117	01gen2000, 04:18	761.784
CONFINE	8.845	61.202	01gen2000, 04:00	851.531
FOSSA NUOVA	6.708	50.011	01gen2000, 04:00	673.121
FOSSA NUOVA E RIO CASALE	51.623	273.572	01gen2000, 05:36	5151.417
FOSSO FUNGAIA	4.875	35.908	01gen2000, 03:54	485.433
MASSA MACINAIA	8.396	57.567	01gen2000, 04:18	763.607
PALAIA	1.975	14.543	01gen2000, 03:30	191.045
PIANTONETA	1.096	8.117	01gen2000, 03:30	106.034
R1	8.396	57.551	01gen2000, 04:30	763.607
R10	18.079	127.470	01gen2000, 04:24	1742.505
R11	12.971	42.880	01gen2000, 01:30	709.110
R12	42.810	163.857	01gen2000, 04:24	2852.831
R13	94.433	300.647	01gen2000, 04:30	6590.747
R14	173.247	618.957	01gen2000, 04:54	12372.709
R15	228.220	760.463	01gen2000, 05:00	15059.843

Project: D4 - TR500 LAMINATO 50% Simulation Run: D4 - TR500 - LAMINATO 50%

Start of Run: 01gen2000, 00:00 Basin Model: CANALE EMISSARIO BIENTINA  
 End of Run: 02gen2000, 00:00 Meteorologic Model: D4 - TR500  
 Compute Time: 16giu2009, 08:52:43 Control Specifications: EVENTO ESTREMO

Volume Units: 1000 M3

ABB SX 1	2.671	20.605	01gen2000, 03:18	287.322
ABB SX 2	4.411	35.358	01gen2000, 03:54	470.962
ABB SX 3	4.522	40.504	01gen2000, 03:54	566.674
ABR DX	3.309	30.477	01gen2000, 03:36	418.592
C1	15.476	131.358	01gen2000, 04:12	1832.959
C10	12.500	110.641	01gen2000, 04:18	1477.353
C11	15.106	131.458	01gen2000, 04:12	1788.260
C12	18.079	155.632	01gen2000, 04:18	2161.214
C13	241.223	907.344	01gen2000, 05:12	19542.220
C14	94.433	309.582	01gen2000, 04:18	7140.133
C15	42.810	172.792	01gen2000, 04:00	3099.086
C16	12.971	42.880	01gen2000, 01:42	738.839
C17	191.379	770.882	01gen2000, 04:54	16221.108
C18	202.787	806.049	01gen2000, 05:00	16873.989

C19	205.458	808.855	01gen2000, 05:06	17161.311
C2	21.368	170.495	01gen2000, 04:18	2478.474
C20	245.634	914.634	01gen2000, 05:18	20013.183
C21	250.509	917.893	01gen2000, 05:48	20596.496
C22	257.217	924.291	01gen2000, 05:54	21411.304
C23	12.103	111.904	01gen2000, 04:18	1532.809
C24	13.199	117.540	01gen2000, 04:24	1659.800
C25	21.704	186.319	01gen2000, 04:12	2605.768
C26	278.921	991.888	01gen2000, 06:18	24017.072
C27	283.443	991.947	01gen2000, 06:36	24583.746
C28	288.056	992.320	01gen2000, 06:48	25143.831
C29	12.971	101.998	01gen2000, 04:00	1382.831
C3	8.396	69.336	01gen2000, 04:18	938.613
C30	51.623	335.452	01gen2000, 05:36	6356.194
C31	20.302	145.928	01gen2000, 04:42	2287.125
C32	16.042	130.193	01gen2000, 04:12	1747.393
C4	3.309	30.477	01gen2000, 03:36	418.592
C5	16.342	234.880	01gen2000, 03:30	4632.617
C6	136.406	629.805	01gen2000, 04:06	13346.695
C8	1.975	17.357	01gen2000, 03:24	231.565

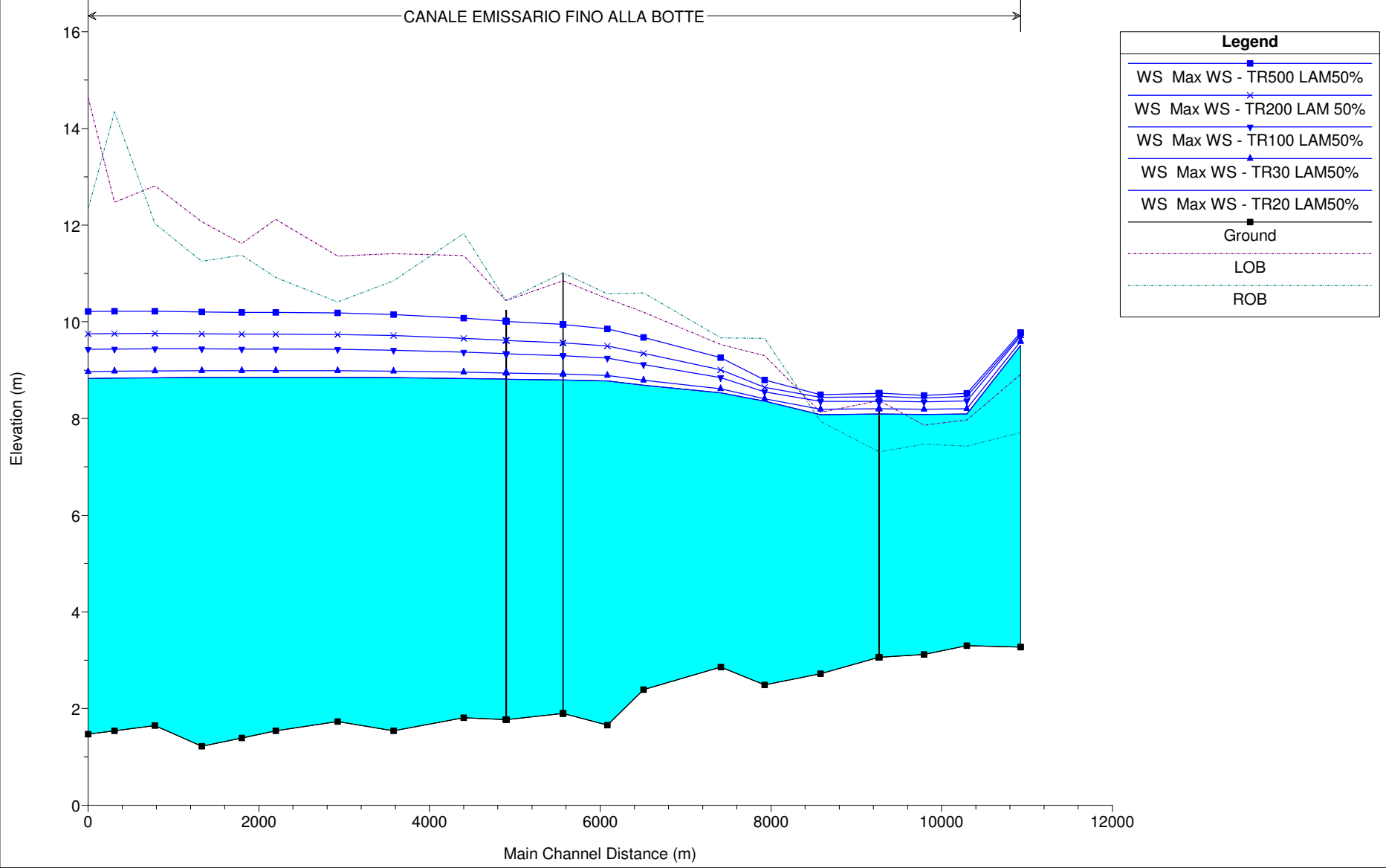
C9	9.988	90.408	01gen2000, 04:18	1184.066
CAMPOMAGGIO	2.381	21.329	01gen2000, 03:12	286.389
CANALE EMISSARIO BIENTINA	4.613	39.946	01gen2000, 03:54	560.087
CANALE ROGIO	0.936	9.076	01gen2000, 02:00	127.606
CANALE ROGIO MONTE	21.368	170.495	01gen2000, 04:18	2478.474
CASTELVECCHIO	8.013	73.057	01gen2000, 04:18	952.501
CONFINE	8.845	72.542	01gen2000, 04:00	1015.991
FOSSA NUOVA	6.708	59.828	01gen2000, 04:00	814.807
FOSSA NUOVA E RIO CASALE	51.623	335.452	01gen2000, 05:36	6356.194
FOSSO FUNGAIA	4.875	42.706	01gen2000, 03:54	583.313
MASSA MACINAIA	8.396	69.336	01gen2000, 04:18	938.613
PALAIA	1.975	17.357	01gen2000, 03:24	231.565
PIANTONETA	1.096	9.572	01gen2000, 03:30	126.991
R1	8.396	69.324	01gen2000, 04:30	938.613
R10	18.079	155.441	01gen2000, 04:24	2161.214
R11	12.971	42.880	01gen2000, 01:54	738.839
R12	42.810	172.792	01gen2000, 04:18	3099.086
R13	94.433	309.578	01gen2000, 04:30	7140.133
R14	136.406	629.252	01gen2000, 04:54	13346.695
R15	191.379	770.859	01gen2000, 05:00	16221.108

# **ALLEGATO 2**

**MODELLO IDRAULICO  
CANALE EMISSARIO BIENTINA**

# BIENTINA

CANALE EMISSARIO FINO ALLA BOTTE



HEC-RAS River: CANALE EMISSARIO Reach: FINO ALLA BOTTE Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
FINO ALLA BOTTE	20	Max WS	TR20 LAM50%	517.45	3.27	9.51		9.89	0.001247	2.73	189.62	49.05	0.44
FINO ALLA BOTTE	20	Max WS	TR30 LAM50%	550.07	3.27	9.59		10.00	0.001322	2.84	193.54	49.05	0.46
FINO ALLA BOTTE	20	Max WS	TR100 LAM50%	603.33	3.27	9.70		10.17	0.001458	3.03	198.98	49.05	0.48
FINO ALLA BOTTE	20	Max WS	TR200 LAM 50%	616.73	3.27	9.73		10.21	0.001491	3.08	200.36	49.05	0.49
FINO ALLA BOTTE	20	Max WS	TR500 LAM50%	626.22	3.27	9.77		10.26	0.001486	3.09	202.51	49.05	0.49
FINO ALLA BOTTE	19.99	Max WS	TR20 LAM50%	517.45	3.27	9.51		9.89	0.001247	2.73	189.62	49.05	0.44
FINO ALLA BOTTE	19.99	Max WS	TR30 LAM50%	550.07	3.27	9.59		10.00	0.001322	2.84	193.54	49.05	0.46
FINO ALLA BOTTE	19.99	Max WS	TR100 LAM50%	603.33	3.27	9.70		10.17	0.001458	3.03	198.98	49.05	0.48
FINO ALLA BOTTE	19.99	Max WS	TR200 LAM 50%	616.73	3.27	9.73		10.21	0.001491	3.08	200.36	49.05	0.49
FINO ALLA BOTTE	19.99	Max WS	TR500 LAM50%	626.22	3.27	9.77		10.26	0.001486	3.09	202.51	49.05	0.49
FINO ALLA BOTTE	19.9		Lat Struct										
FINO ALLA BOTTE	19.8		Lat Struct										
FINO ALLA BOTTE	19	Max WS	TR20 LAM50%	127.98	3.30	8.09		8.14	0.000215	0.94	136.81	49.06	0.18
FINO ALLA BOTTE	19	Max WS	TR30 LAM50%	189.07	3.30	8.20		8.29	0.000417	1.33	142.06	49.06	0.25
FINO ALLA BOTTE	19	Max WS	TR100 LAM50%	314.79	3.30	8.36		8.59	0.000972	2.10	149.97	49.06	0.38
FINO ALLA BOTTE	19	Max WS	TR200 LAM 50%	341.92	3.30	8.46		8.71	0.001042	2.21	154.56	49.06	0.40
FINO ALLA BOTTE	19	Max WS	TR500 LAM50%	366.76	3.30	8.52		8.80	0.001121	2.32	157.85	49.06	0.41
FINO ALLA BOTTE	18.9		Lat Struct										
FINO ALLA BOTTE	18.8		Lat Struct										
FINO ALLA BOTTE	18	Max WS	TR20 LAM50%	72.00	3.12	8.08		8.10	0.000065	0.53	136.79	47.19	0.10
FINO ALLA BOTTE	18	Max WS	TR30 LAM50%	100.22	3.12	8.19		8.22	0.000113	0.71	141.75	47.19	0.13
FINO ALLA BOTTE	18	Max WS	TR100 LAM50%	164.83	3.12	8.34		8.40	0.000262	1.11	148.95	47.19	0.20
FINO ALLA BOTTE	18	Max WS	TR200 LAM 50%	186.96	3.12	8.42		8.50	0.000311	1.22	152.77	47.19	0.22
FINO ALLA BOTTE	18	Max WS	TR500 LAM50%	203.31	3.12	8.48		8.56	0.000349	1.31	155.29	47.19	0.23
FINO ALLA BOTTE	17	Max WS	TR20 LAM50%	19.95	3.06	8.10	3.91	8.10	0.000005	0.14	140.03	46.46	0.03
FINO ALLA BOTTE	17	Max WS	TR30 LAM50%	40.21	3.06	8.20	4.33	8.21	0.000017	0.28	145.03	46.67	0.05
FINO ALLA BOTTE	17	Max WS	TR100 LAM50%	73.86	3.06	8.36	4.88	8.38	0.000052	0.48	152.85	50.14	0.09
FINO ALLA BOTTE	17	Max WS	TR200 LAM 50%	68.29	3.06	8.46	4.80	8.47	0.000040	0.43	157.61	50.25	0.08
FINO ALLA BOTTE	17	Max WS	TR500 LAM50%	59.93	3.06	8.53	4.66	8.53	0.000029	0.37	161.06	50.25	0.07
FINO ALLA BOTTE	16.99		Bridge										
FINO ALLA BOTTE	16.98	Max WS	TR20 LAM50%	19.80	3.06	8.09		8.10	0.000004	0.14	139.99	46.46	0.03
FINO ALLA BOTTE	16.98	Max WS	TR30 LAM50%	39.11	3.06	8.20		8.20	0.000016	0.27	144.87	46.66	0.05
FINO ALLA BOTTE	16.98	Max WS	TR100 LAM50%	72.36	3.06	8.35		8.36	0.000050	0.48	152.28	49.91	0.09
FINO ALLA BOTTE	16.98	Max WS	TR200 LAM 50%	68.19	3.06	8.45		8.46	0.000040	0.43	157.09	50.25	0.08
FINO ALLA BOTTE	16.98	Max WS	TR500 LAM50%	50.39	3.06	8.52		8.53	0.000021	0.31	160.72	50.25	0.06
FINO ALLA BOTTE	16.9		Lat Struct										
FINO ALLA BOTTE	16.8		Lat Struct										
FINO ALLA BOTTE	16.4		Lat Struct										
FINO ALLA BOTTE	16	Max WS	TR20 LAM50%	69.84	2.72	8.08		8.08	0.000016	0.30	232.48	67.49	0.05
FINO ALLA BOTTE	16	Max WS	TR30 LAM50%	60.70	2.72	8.19		8.19	0.000012	0.25	240.08	69.57	0.04
FINO ALLA BOTTE	16	Max WS	TR100 LAM50%	28.73	2.72	8.35		8.35	0.000002	0.11	251.45	69.57	0.02
FINO ALLA BOTTE	16	Max WS	TR200 LAM 50%	-59.66	2.72	8.44		8.44	0.000009	-0.23	257.28	69.57	0.04
FINO ALLA BOTTE	16	Max WS	TR500 LAM50%	-109.65	2.72	8.49		8.50	0.000029	-0.42	261.10	69.57	0.07
FINO ALLA BOTTE	15.9		Lat Struct										
FINO ALLA BOTTE	15	Max WS	TR20 LAM50%	-184.90	2.49	8.36		8.44	0.000296	-1.23	150.81	45.24	0.21
FINO ALLA BOTTE	15	Max WS	TR30 LAM50%	-205.06	2.49	8.41		8.50	0.000349	-1.34	153.14	45.58	0.23
FINO ALLA BOTTE	15	Max WS	TR100 LAM50%	-262.64	2.49	8.55		8.69	0.000512	-1.65	159.58	46.49	0.28
FINO ALLA BOTTE	15	Max WS	TR200 LAM 50%	-301.85	2.49	8.65		8.82	0.000643	-1.84	164.10	48.04	0.32
FINO ALLA BOTTE	15	Max WS	TR500 LAM50%	-361.49	2.49	8.80		9.02	0.000851	-2.11	171.66	50.74	0.37
FINO ALLA BOTTE	14.9		Lat Struct										
FINO ALLA BOTTE	14.8		Lat Struct										
FINO ALLA BOTTE	14.4		Lat Struct										
FINO ALLA BOTTE	14	Max WS	TR20 LAM50%	-150.52	2.86	8.53		8.58	0.000163	-0.95	158.32	44.95	0.16
FINO ALLA BOTTE	14	Max WS	TR30 LAM50%	-170.04	2.86	8.61		8.67	0.000196	-1.05	161.91	45.35	0.18
FINO ALLA BOTTE	14	Max WS	TR100 LAM50%	-227.41	2.86	8.84		8.93	0.000308	-1.32	172.64	48.45	0.22
FINO ALLA BOTTE	14	Max WS	TR200 LAM 50%	-266.66	2.86	9.01		9.12	0.000398	-1.47	180.94	52.10	0.25
FINO ALLA BOTTE	14	Max WS	TR500 LAM50%	-326.30	2.86	9.26		9.40	0.000493	-1.68	194.21	53.93	0.28
FINO ALLA BOTTE	13.9		Lat Struct										
FINO ALLA BOTTE	13.8		Lat Struct										
FINO ALLA BOTTE	13	Max WS	TR20 LAM50%	-145.52	2.39	8.69		8.72	0.000137	-0.86	168.93	48.69	0.15
FINO ALLA BOTTE	13	Max WS	TR30 LAM50%	-162.99	2.39	8.79		8.84	0.000162	-0.94	174.16	50.47	0.16
FINO ALLA BOTTE	13	Max WS	TR100 LAM50%	-217.56	2.39	9.12		9.18	0.000227	-1.14	190.88	52.89	0.19
FINO ALLA BOTTE	13	Max WS	TR200 LAM 50%	-255.07	2.39	9.35		9.43	0.000261	-1.26	203.24	54.03	0.21
FINO ALLA BOTTE	13	Max WS	TR500 LAM50%	-312.30	2.39	9.68		9.78	0.000311	-1.41	221.26	56.22	0.23
FINO ALLA BOTTE	12	Max WS	TR20 LAM50%	-83.09	1.66	8.78		8.79	0.000032	-0.44	188.04	48.84	0.07
FINO ALLA BOTTE	12	Max WS	TR30 LAM50%	-99.27	1.66	8.89		8.90	0.000042	-0.51	193.77	49.50	0.08
FINO ALLA BOTTE	12	Max WS	TR100 LAM50%	-153.89	1.66	9.25		9.28	0.000079	-0.73	211.78	51.10	0.11
FINO ALLA BOTTE	12	Max WS	TR200 LAM 50%	-191.44	1.66	9.50		9.54	0.000103	-0.85	224.61	52.21	0.13
FINO ALLA BOTTE	12	Max WS	TR500 LAM50%	-248.65	1.66	9.85		9.91	0.000139	-1.02	243.45	53.80	0.15
FINO ALLA BOTTE	11	Max WS	TR20 LAM50%	-68.67	1.90	8.80		8.80	0.000020	-0.34	200.04	55.07	0.06
FINO ALLA BOTTE	11	Max WS	TR30 LAM50%	-83.55	1.90	8.92		8.93	0.000027	-0.40	206.76	55.54	0.07
FINO ALLA BOTTE	11	Max WS	TR100 LAM50%	-133.13	1.90	9.30		9.32	0.000052	-0.58	228.22	57.02	0.09
FINO ALLA BOTTE	11	Max WS	TR200 LAM 50%	-167.35	1.90	9.56		9.59	0.000068	-0.69	243.43	58.21	0.11
FINO ALLA BOTTE	11	Max WS	TR500 LAM50%	-219.61	1.90	9.94		9.98	0.000091	-0.83	265.80	59.90	0.13

Reach	River Sta	Profile	Plan	Q Total (m³/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m²)	Top Width (m)	Froude # Chl
FINO ALLA BOTTE	10.99												
FINO ALLA BOTTE	10.98	Max WS	TR20 LAM50%	-68.67	1.90	8.80		8.80	0.000020	-0.34	200.06	55.07	0.06
FINO ALLA BOTTE	10.98	Max WS	TR30 LAM50%	-83.55	1.90	8.92		8.93	0.000027	-0.40	206.80	55.54	0.07
FINO ALLA BOTTE	10.98	Max WS	TR100 LAM50%	-133.11	1.90	9.30		9.32	0.000052	-0.58	228.27	57.03	0.09
FINO ALLA BOTTE	10.98	Max WS	TR200 LAM 50%	-167.35	1.90	9.57		9.59	0.000068	-0.69	243.52	58.21	0.11
FINO ALLA BOTTE	10.98	Max WS	TR500 LAM50%	-219.61	1.90	9.95		9.98	0.000091	-0.83	265.97	59.91	0.13
FINO ALLA BOTTE	10	Max WS	TR20 LAM50%	-68.80	1.77	8.81		8.82	0.000025	-0.38	182.59	50.15	0.06
FINO ALLA BOTTE	10	Max WS	TR30 LAM50%	-83.53	1.77	8.94		8.95	0.000033	-0.44	188.91	50.53	0.07
FINO ALLA BOTTE	10	Max WS	TR100 LAM50%	-133.10	1.77	9.34		9.36	0.000062	-0.64	209.24	51.73	0.10
FINO ALLA BOTTE	10	Max WS	TR200 LAM 50%	-167.41	1.77	9.61		9.64	0.000081	-0.75	223.58	52.56	0.12
FINO ALLA BOTTE	10	Max WS	TR500 LAM50%	-219.75	1.77	10.01		10.05	0.000107	-0.90	244.53	53.75	0.13
FINO ALLA BOTTE	9.99												
FINO ALLA BOTTE	9.98	Max WS	TR20 LAM50%	-68.77	1.77	8.81		8.82	0.000025	-0.38	182.65	50.15	0.06
FINO ALLA BOTTE	9.98	Max WS	TR30 LAM50%	-83.53	1.77	8.94		8.95	0.000033	-0.44	189.00	50.53	0.07
FINO ALLA BOTTE	9.98	Max WS	TR100 LAM50%	-133.12	1.77	9.34		9.36	0.000062	-0.64	209.48	51.74	0.10
FINO ALLA BOTTE	9.98	Max WS	TR200 LAM 50%	-167.41	1.77	9.62		9.65	0.000081	-0.75	223.95	52.58	0.12
FINO ALLA BOTTE	9.98	Max WS	TR500 LAM50%	-219.75	1.77	10.02		10.06	0.000106	-0.90	245.22	53.79	0.13
FINO ALLA BOTTE	9	Max WS	TR20 LAM50%	-68.85	1.81	8.83		8.83	0.000018	-0.34	202.74	51.84	0.05
FINO ALLA BOTTE	9	Max WS	TR30 LAM50%	-83.50	1.81	8.96		8.97	0.000024	-0.40	209.52	52.33	0.06
FINO ALLA BOTTE	9	Max WS	TR100 LAM50%	-133.12	1.81	9.37		9.39	0.000046	-0.57	231.57	53.96	0.09
FINO ALLA BOTTE	9	Max WS	TR200 LAM 50%	-167.40	1.81	9.66		9.68	0.000061	-0.68	247.22	55.09	0.10
FINO ALLA BOTTE	9	Max WS	TR500 LAM50%	-219.75	1.81	10.07		10.11	0.000086	-0.81	271.06	59.94	0.12
FINO ALLA BOTTE	8	Max WS	TR20 LAM50%	-50.83	1.54	8.84		8.85	0.000007	-0.21	246.53	65.55	0.03
FINO ALLA BOTTE	8	Max WS	TR30 LAM50%	-63.67	1.54	8.98		8.98	0.000010	-0.25	255.46	66.14	0.04
FINO ALLA BOTTE	8	Max WS	TR100 LAM50%	-107.27	1.54	9.41		9.42	0.000020	-0.38	284.60	68.03	0.06
FINO ALLA BOTTE	8	Max WS	TR200 LAM 50%	-137.47	1.54	9.71		9.73	0.000027	-0.45	305.27	69.34	0.07
FINO ALLA BOTTE	8	Max WS	TR500 LAM50%	-183.75	1.54	10.15		10.17	0.000037	-0.55	335.90	71.24	0.08
FINO ALLA BOTTE	7	Max WS	TR20 LAM50%	-22.92	1.73	8.85		8.85	0.000001	-0.08	290.87	77.87	0.01
FINO ALLA BOTTE	7	Max WS	TR30 LAM50%	-33.33	1.73	8.99		8.99	0.000002	-0.11	301.64	78.45	0.02
FINO ALLA BOTTE	7	Max WS	TR100 LAM50%	-68.25	1.73	9.43		9.43	0.000006	-0.20	336.89	80.76	0.03
FINO ALLA BOTTE	7	Max WS	TR200 LAM 50%	-92.82	1.73	9.74		9.74	0.000009	-0.26	361.99	82.77	0.04
FINO ALLA BOTTE	7	Max WS	TR500 LAM50%	-129.91	1.73	10.18		10.19	0.000013	-0.33	399.36	85.52	0.05
FINO ALLA BOTTE	6	Max WS	TR20 LAM50%	-22.94	1.54	8.85		8.85	0.000001	-0.08	279.67	71.28	0.01
FINO ALLA BOTTE	6	Max WS	TR30 LAM50%	-33.34	1.54	8.99		8.99	0.000002	-0.12	289.58	71.89	0.02
FINO ALLA BOTTE	6	Max WS	TR100 LAM50%	-68.26	1.54	9.44		9.44	0.000006	-0.21	322.10	73.85	0.03
FINO ALLA BOTTE	6	Max WS	TR200 LAM 50%	-92.81	1.54	9.75		9.75	0.000009	-0.27	345.13	75.35	0.04
FINO ALLA BOTTE	6	Max WS	TR500 LAM50%	-129.91	1.54	10.19		10.20	0.000014	-0.34	379.36	77.55	0.05
FINO ALLA BOTTE	5	Max WS	TR20 LAM50%	-22.99	1.39	8.85		8.85	0.000001	-0.10	238.92	54.41	0.01
FINO ALLA BOTTE	5	Max WS	TR30 LAM50%	-33.36	1.39	8.99		8.99	0.000002	-0.14	246.50	54.85	0.02
FINO ALLA BOTTE	5	Max WS	TR100 LAM50%	-68.29	1.39	9.44		9.44	0.000008	-0.25	271.36	56.26	0.04
FINO ALLA BOTTE	5	Max WS	TR200 LAM 50%	-92.86	1.39	9.75		9.75	0.000012	-0.32	288.91	57.24	0.05
FINO ALLA BOTTE	5	Max WS	TR500 LAM50%	-130.04	1.39	10.20		10.20	0.000018	-0.41	314.92	58.66	0.06
FINO ALLA BOTTE	4	Max WS	TR20 LAM50%	-23.07	1.22	8.85		8.85	0.000001	-0.10	237.60	53.31	0.01
FINO ALLA BOTTE	4	Max WS	TR30 LAM50%	-33.39	1.22	8.99		8.99	0.000002	-0.14	245.04	53.76	0.02
FINO ALLA BOTTE	4	Max WS	TR100 LAM50%	-68.46	1.22	9.44		9.44	0.000008	-0.25	269.54	55.21	0.04
FINO ALLA BOTTE	4	Max WS	TR200 LAM 50%	-93.04	1.22	9.75		9.76	0.000012	-0.32	286.88	56.21	0.05
FINO ALLA BOTTE	4	Max WS	TR500 LAM50%	-130.16	1.22	10.20		10.21	0.000018	-0.42	312.58	57.67	0.06
FINO ALLA BOTTE	3	Max WS	TR20 LAM50%	67.85	1.65	8.84		8.85	0.000011	0.28	238.98	53.51	0.04
FINO ALLA BOTTE	3	Max WS	TR30 LAM50%	66.05	1.65	8.98		8.99	0.000009	0.27	246.58	53.98	0.04
FINO ALLA BOTTE	3	Max WS	TR100 LAM50%	60.82	1.65	9.44		9.44	0.000006	0.22	271.69	55.51	0.03
FINO ALLA BOTTE	3	Max WS	TR200 LAM 50%	56.67	1.65	9.76		9.76	0.000004	0.20	289.52	56.57	0.03
FINO ALLA BOTTE	3	Max WS	TR500 LAM50%	50.84	1.65	10.22		10.22	0.000003	0.16	316.00	58.12	0.02
FINO ALLA BOTTE	2	Max WS	TR20 LAM50%	67.72	1.54	8.84		8.84	0.000011	0.28	238.48	52.94	0.04
FINO ALLA BOTTE	2	Max WS	TR30 LAM50%	65.97	1.54	8.98		8.98	0.000009	0.27	246.05	53.41	0.04
FINO ALLA BOTTE	2	Max WS	TR100 LAM50%	60.82	1.54	9.44		9.44	0.000006	0.22	271.00	54.92	0.03
FINO ALLA BOTTE	2	Max WS	TR200 LAM 50%	56.68	1.54	9.76		9.76	0.000004	0.20	288.67	55.97	0.03
FINO ALLA BOTTE	2	Max WS	TR500 LAM50%	50.85	1.54	10.22		10.22	0.000003	0.16	314.90	57.48	0.02
FINO ALLA BOTTE	1	Max WS	TR20 LAM50%	85.00	1.47	8.83	3.13	8.83	0.000015	0.34	248.19	54.57	0.05
FINO ALLA BOTTE	1	Max WS	TR30 LAM50%	85.00	1.47	8.97	3.13	8.98	0.000014	0.33	256.00	54.95	0.05
FINO ALLA BOTTE	1	Max WS	TR100 LAM50%	85.00	1.47	9.43	3.13	9.44	0.000010	0.30	281.63	56.21	0.04
FINO ALLA BOTTE	1	Max WS	TR200 LAM 50%	85.00	1.47	9.75	3.13	9.75	0.000009	0.28	299.73	57.07	0.04
FINO ALLA BOTTE	1	Max WS	TR500 LAM50%	85.00	1.47	10.21	3.13	10.22	0.000007	0.26	326.42	58.33	0.04



HEC-RAS Profile: Max WS

Storage Area	Profile	Plan	W.S. Elev (m)	SA Min El (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
D1	Max WS	TR20 LAM50%	8.63	5.10	540.55	337.55	397.25
D1	Max WS	TR30 LAM50%	8.67	5.10	730.11	337.55	408.46
D1	Max WS	TR100 LAM50%	8.72	5.10	907.20	354.50	427.57
D1	Max WS	TR200 LAM 50%	8.74	5.10	981.75	354.50	432.76
D1	Max WS	TR500 LAM50%	8.76	5.10	1043.20	354.50	442.27
D2	Max WS	TR20 LAM50%	8.09	2.90	29.69	1077.08	2898.51
D2	Max WS	TR30 LAM50%	8.20	2.90	16.45	1077.08	3013.09
D2	Max WS	TR100 LAM50%	8.35	2.90	30.32	1080.25	3182.65
D2	Max WS	TR200 LAM 50%	8.44	2.90	-52.19	1080.25	3277.81
D2	Max WS	TR500 LAM50%	8.50	2.90	-31.06	1080.25	3342.34
D3	Max WS	TR20 LAM50%	8.09	2.80	-54.06	922.61	3472.09
D3	Max WS	TR30 LAM50%	8.19	2.80	42.42	922.61	3570.23
D3	Max WS	TR100 LAM50%	8.35	2.80	48.95	923.87	3715.81
D3	Max WS	TR200 LAM 50%	8.44	2.80	174.55	923.87	3797.47
D3	Max WS	TR500 LAM50%	8.50	2.80	374.28	924.87	3852.95
D4	Max WS	TR20 LAM50%	8.09	3.31	4.50	172.21	363.88
D4	Max WS	TR30 LAM50%	8.19	3.31	0.00	172.21	382.25
D4	Max WS	TR100 LAM50%	8.35	3.31	0.00	176.75	410.08
D4	Max WS	TR200 LAM 50%	8.44	3.31	0.00	176.75	425.70
D4	Max WS	TR500 LAM50%	8.50	3.31	0.00	179.91	436.31
D5	Max WS	TR20 LAM50%	8.09	1.90	46.14	1220.58	3635.07
D5	Max WS	TR30 LAM50%	8.19	1.90	0.00	1220.58	3765.29
D5	Max WS	TR100 LAM50%	8.35	1.90	0.00	1256.59	3963.12
D5	Max WS	TR200 LAM 50%	8.44	1.90	0.00	1256.59	4074.19
D5	Max WS	TR500 LAM50%	8.50	1.90	0.00	1288.13	4149.67
D6	Max WS	TR20 LAM50%	7.10	7.10	0.00	0.05	0.00
D6	Max WS	TR30 LAM50%	7.10	7.10	0.00	0.05	0.00
D6	Max WS	TR100 LAM50%	7.10	7.10	0.00	0.05	0.00
D6	Max WS	TR200 LAM 50%	7.10	7.10	0.00	0.05	0.00
D6	Max WS	TR500 LAM50%	7.10	7.10	0.00	0.05	0.00
S0	Max WS	TR20 LAM50%	4.43	2.50	96.93	1060.57	764.13
S0	Max WS	TR30 LAM50%	5.21	2.50	178.51	1547.06	1772.75
S0	Max WS	TR100 LAM50%	6.41	2.50	98.89	1772.45	3756.86
S0	Max WS	TR200 LAM 50%	6.66	2.50	255.66	1772.45	4204.72
S0	Max WS	TR500 LAM50%	6.81	2.50	327.51	1800.17	4475.81
S1	Max WS	TR20 LAM50%	6.67	5.90	21.86	7.56	3.30
S1	Max WS	TR30 LAM50%	6.71	5.90	50.49	41.83	4.60
S1	Max WS	TR100 LAM50%	6.77	5.90	102.16	41.83	7.01
S1	Max WS	TR200 LAM 50%	6.78	5.90	135.55	41.83	7.62
S1	Max WS	TR500 LAM50%	6.81	5.90	256.41	41.83	9.01
S10	Max WS	TR20 LAM50%	5.80	5.80	0.00	0.80	0.00
S10	Max WS	TR30 LAM50%	5.80	5.80	0.00	0.80	0.00
S10	Max WS	TR100 LAM50%	5.80	5.80	0.00	0.80	0.00
S10	Max WS	TR200 LAM 50%	5.80	5.80	0.00	0.80	0.00
S10	Max WS	TR500 LAM50%	5.80	5.80	0.00	0.80	0.00
S11	Max WS	TR20 LAM50%	6.60	6.60	0.00	1.63	0.00
S11	Max WS	TR30 LAM50%	6.60	6.60	0.00	1.63	0.00
S11	Max WS	TR100 LAM50%	6.60	6.60	0.00	1.63	0.00
S11	Max WS	TR200 LAM 50%	6.60	6.60	0.00	1.63	0.00

HEC-RAS Profile: Max WS (Continued)

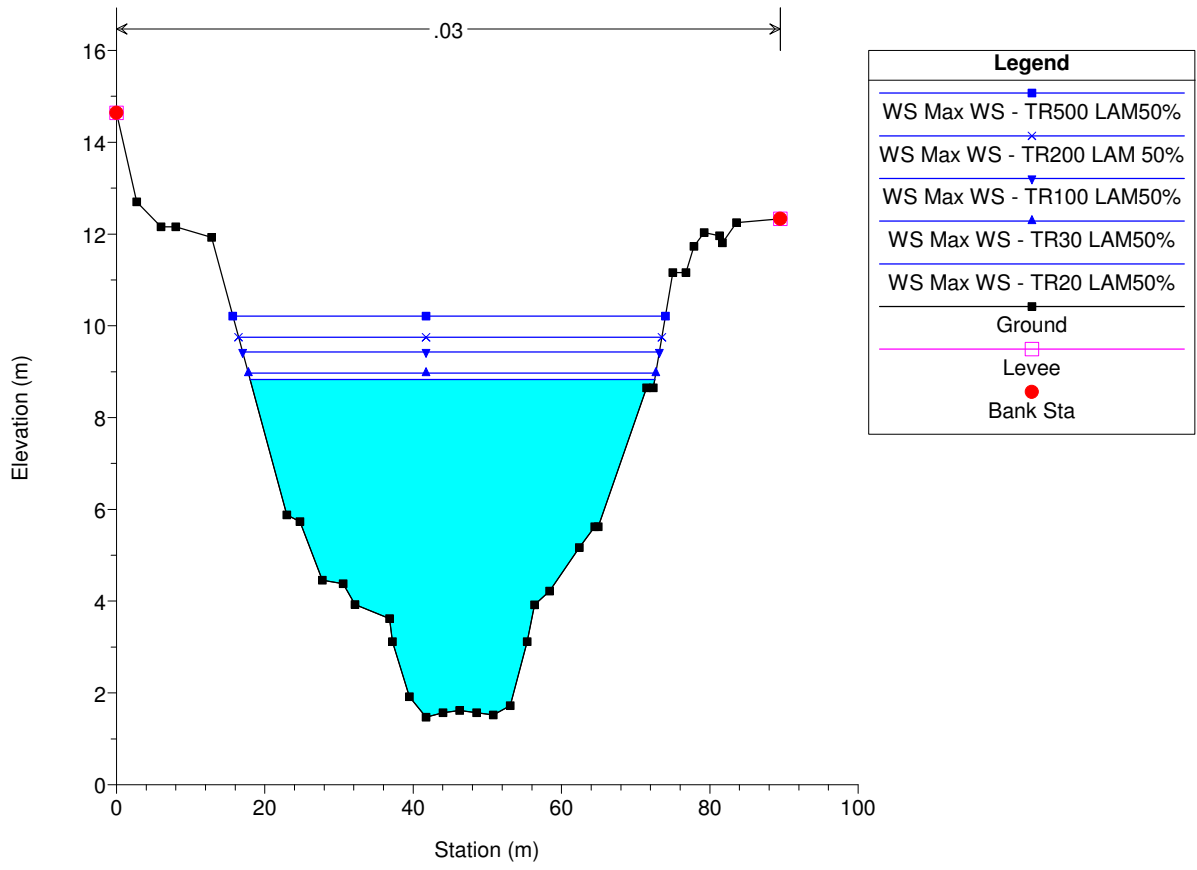
Storage Area	Profile	Plan	W.S. Elev (m)	SA Min El (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
S11	Max WS	TR500 LAM50%	6.60	6.60	0.00	1.63	0.00
S12	Max WS	TR20 LAM50%	6.50	6.50	0.00	5.83	0.00
S12	Max WS	TR30 LAM50%	6.50	6.50	0.00	5.83	0.00
S12	Max WS	TR100 LAM50%	6.50	6.50	0.00	5.83	0.00
S12	Max WS	TR200 LAM 50%	6.50	6.50	0.00	5.83	0.00
S12	Max WS	TR500 LAM50%	6.50	6.50	0.00	5.83	0.00
S13	Max WS	TR20 LAM50%	6.20	6.20	0.00	0.10	0.00
S13	Max WS	TR30 LAM50%	6.20	6.20	0.00	0.10	0.00
S13	Max WS	TR100 LAM50%	6.20	6.20	0.00	0.10	0.00
S13	Max WS	TR200 LAM 50%	6.20	6.20	0.00	0.10	0.00
S13	Max WS	TR500 LAM50%	6.20	6.20	0.00	0.10	0.00
S2	Max WS	TR20 LAM50%	5.52	2.81	7.81	274.16	353.35
S2	Max WS	TR30 LAM50%	5.66	2.81	1.81	311.28	394.34
S2	Max WS	TR100 LAM50%	6.41	2.81	236.09	624.53	724.62
S2	Max WS	TR200 LAM 50%	6.66	2.81	247.37	731.05	900.15
S2	Max WS	TR500 LAM50%	6.81	2.81	213.62	795.90	1012.04
S3	Max WS	TR20 LAM50%	1.60	1.60	0.00	0.10	0.00
S3	Max WS	TR30 LAM50%	1.60	1.60	0.00	0.10	0.00
S3	Max WS	TR100 LAM50%	4.15	1.60	4.44	226.63	151.37
S3	Max WS	TR200 LAM 50%	6.34	1.60	-47.37	662.47	1101.66
S3	Max WS	TR500 LAM50%	6.79	1.60	-80.73	818.38	1439.17
S4	Max WS	TR20 LAM50%	3.50	3.50	0.00	0.67	0.00
S4	Max WS	TR30 LAM50%	4.38	3.50	1.44	13.09	5.14
S4	Max WS	TR100 LAM50%	5.69	3.50	28.96	359.12	205.12
S4	Max WS	TR200 LAM 50%	6.34	3.50	55.70	573.58	497.94
S4	Max WS	TR500 LAM50%	6.79	3.50	80.43	654.97	780.63
S5	Max WS	TR20 LAM50%	4.64	4.64	0.00	0.17	0.00
S5	Max WS	TR30 LAM50%	4.64	4.64	0.00	0.17	0.00
S5	Max WS	TR100 LAM50%	4.64	4.64	0.00	0.17	0.00
S5	Max WS	TR200 LAM 50%	4.64	4.64	0.00	0.17	0.00
S5	Max WS	TR500 LAM50%	4.64	4.64	1.01	0.17	0.00
S6	Max WS	TR20 LAM50%	5.16	5.16	0.00	5.26	0.00
S6	Max WS	TR30 LAM50%	5.16	5.16	0.00	5.26	0.00
S6	Max WS	TR100 LAM50%	5.16	5.16	0.00	5.26	0.00
S6	Max WS	TR200 LAM 50%	5.16	5.16	0.00	5.26	0.00
S6	Max WS	TR500 LAM50%	5.16	5.16	0.00	5.26	0.00
S7	Max WS	TR20 LAM50%	5.20	5.20	0.00	1.39	0.00
S7	Max WS	TR30 LAM50%	5.20	5.20	0.00	1.39	0.00
S7	Max WS	TR100 LAM50%	5.20	5.20	0.00	1.39	0.00
S7	Max WS	TR200 LAM 50%	5.20	5.20	0.00	1.39	0.00
S7	Max WS	TR500 LAM50%	5.20	5.20	0.00	1.39	0.00
S8	Max WS	TR20 LAM50%	4.60	4.60	0.00	0.63	0.00
S8	Max WS	TR30 LAM50%	4.60	4.60	0.00	0.63	0.00
S8	Max WS	TR100 LAM50%	4.60	4.60	0.00	0.63	0.00
S8	Max WS	TR200 LAM 50%	6.34	4.60	-2.29	354.32	188.64
S8	Max WS	TR500 LAM50%	6.79	4.60	0.00	523.23	391.78
S9	Max WS	TR20 LAM50%	4.24	4.24	0.00	0.17	0.00
S9	Max WS	TR30 LAM50%	4.24	4.24	0.00	0.17	0.00

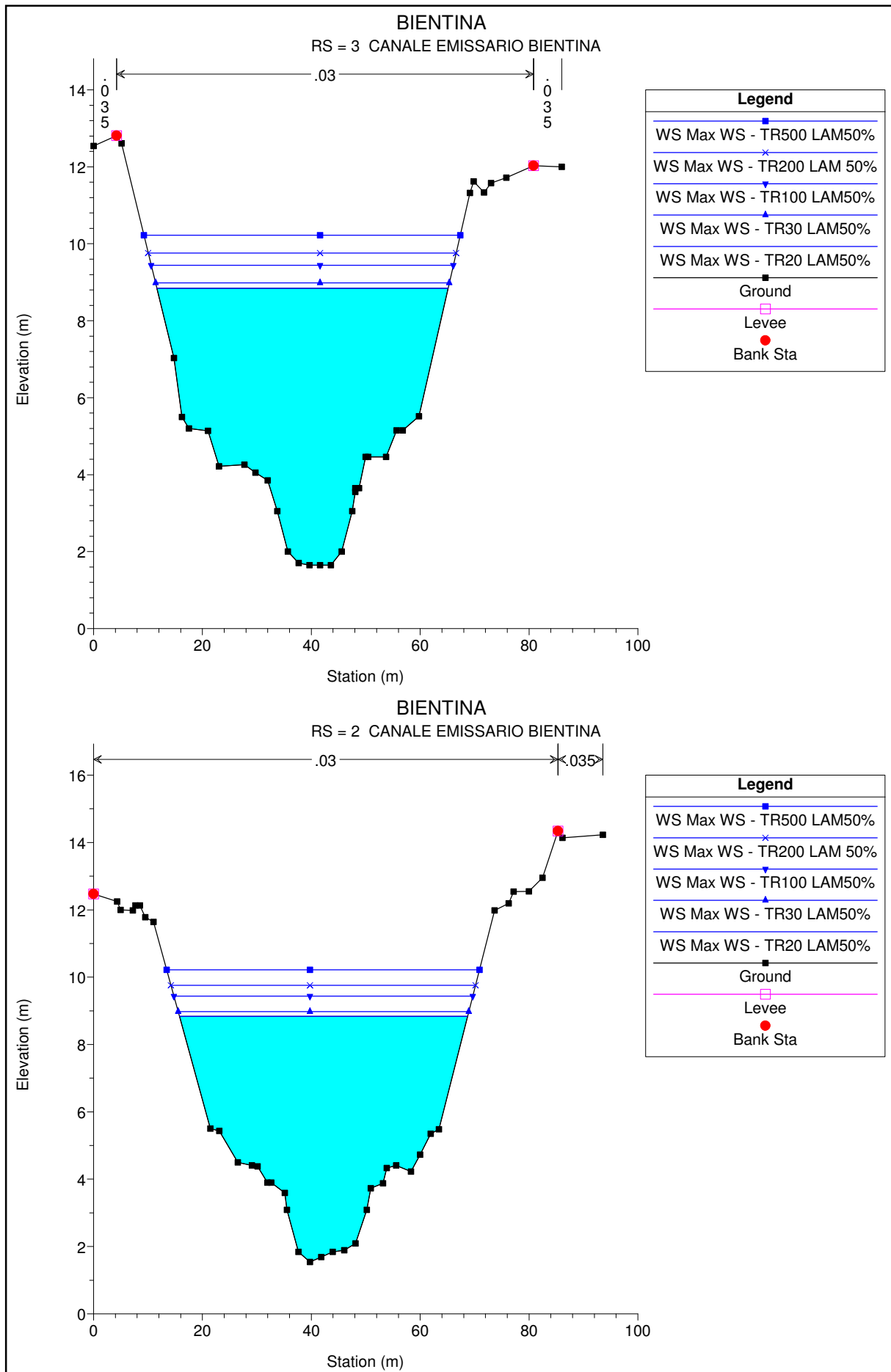
HEC-RAS Profile: Max WS (Continued)

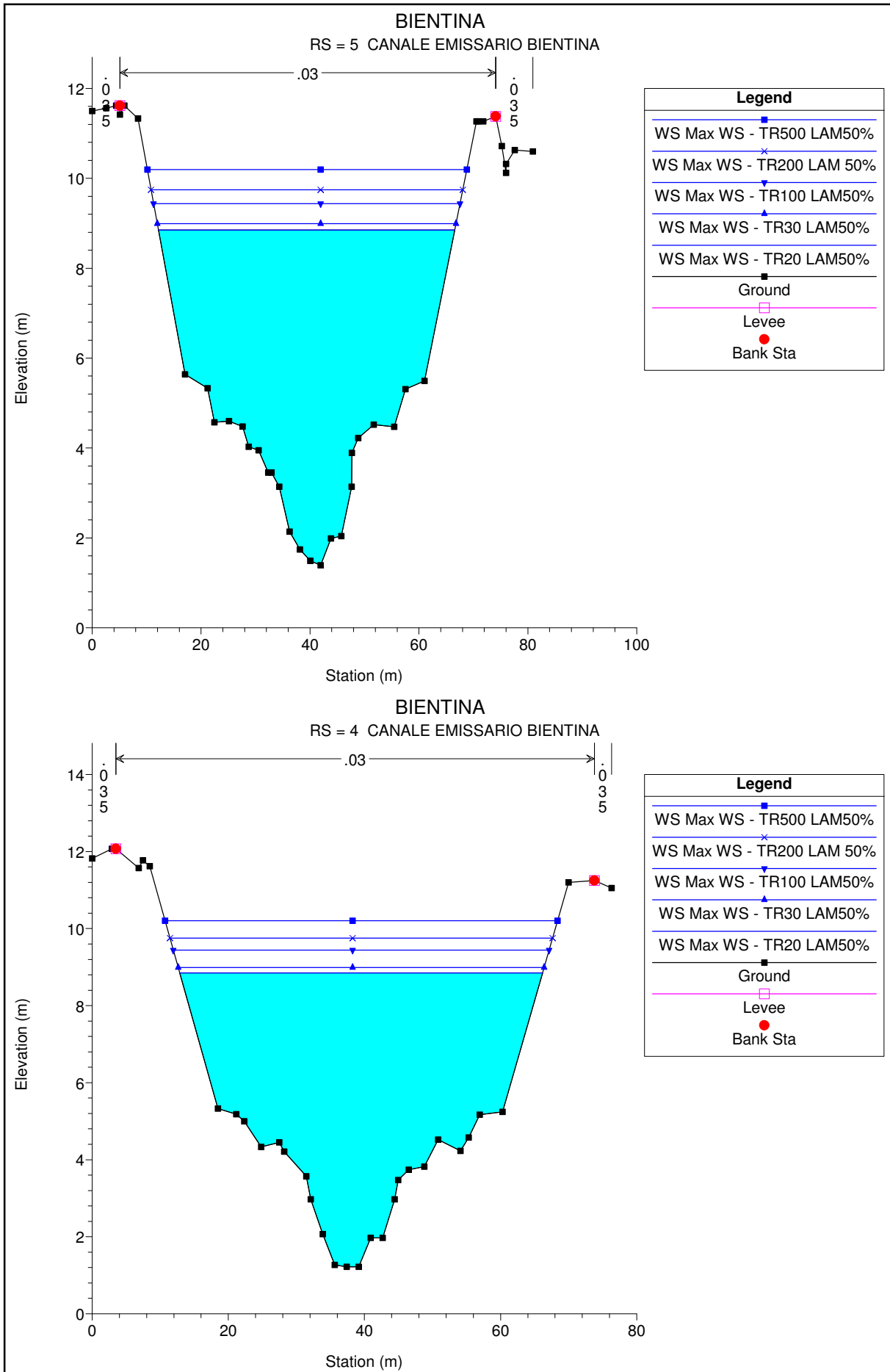
Storage Area	Profile	Plan	W.S. Elev (m)	SA Min El (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
S9	Max WS	TR100 LAM50%	4.24	4.24	0.00	0.17	0.00
S9	Max WS	TR200 LAM 50%	6.34	4.24	2.29	255.63	142.47
S9	Max WS	TR500 LAM50%	6.79	4.24	0.00	567.15	324.57

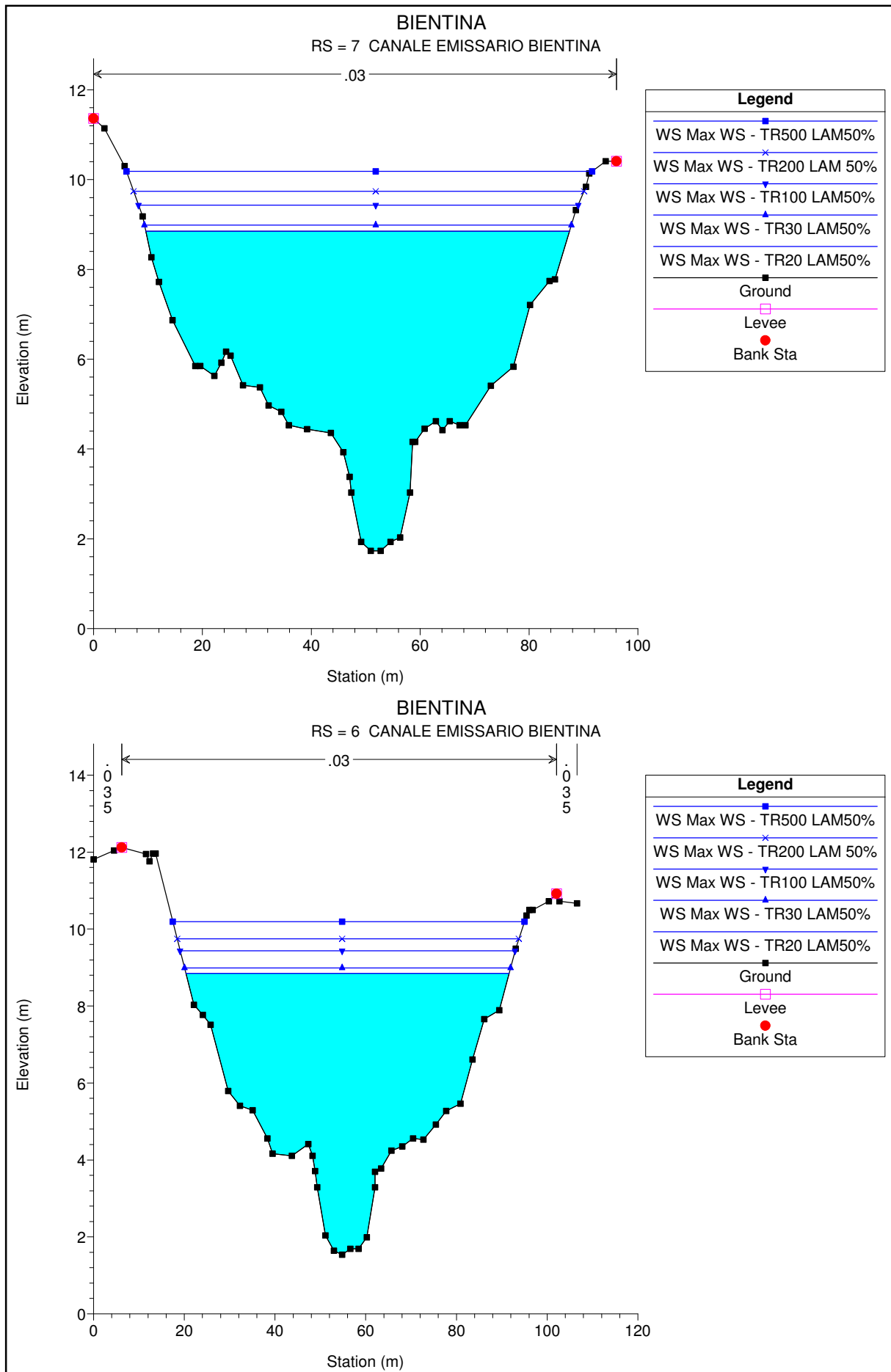
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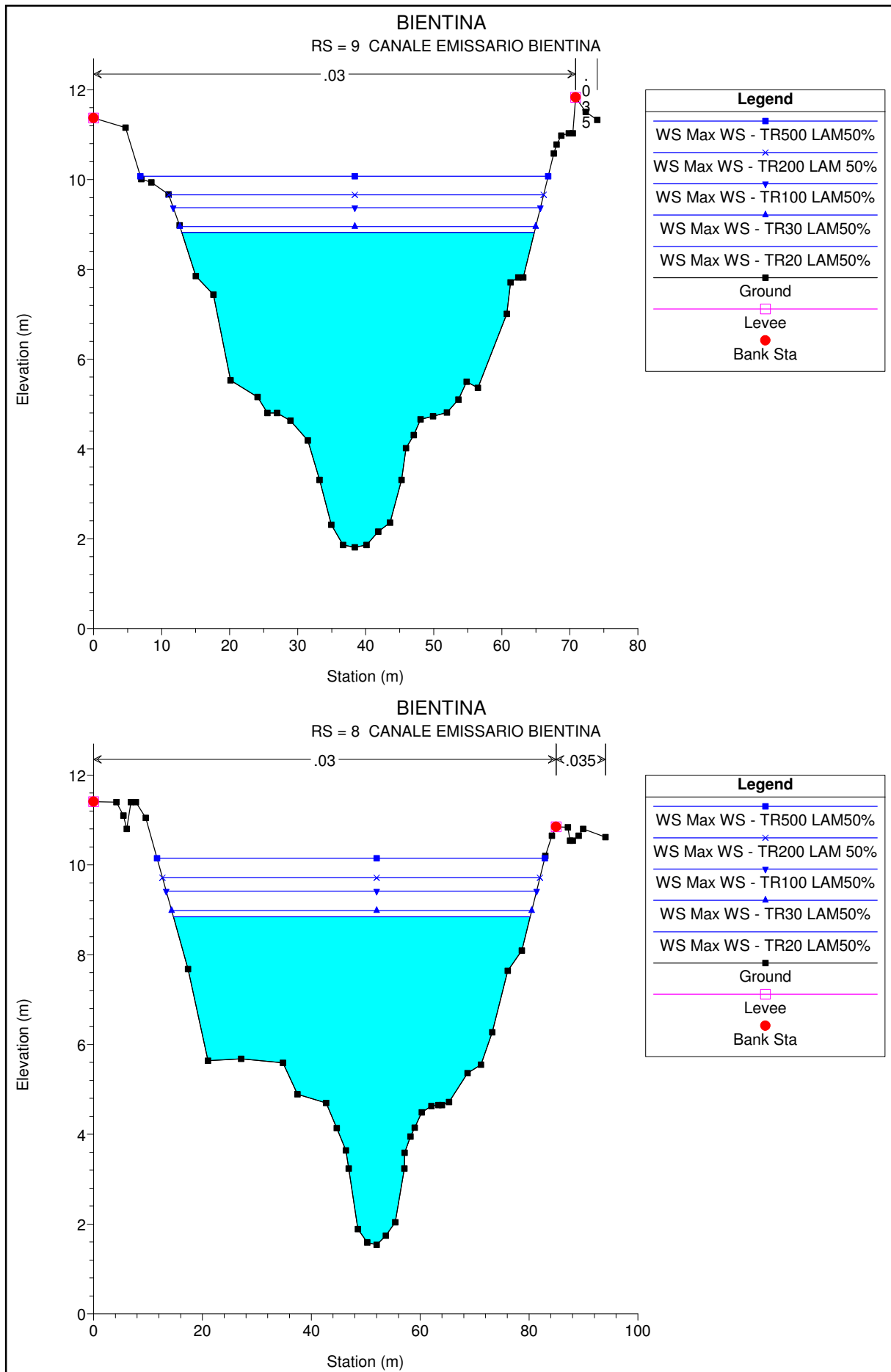
RS = 1 CANALE EMISSARIO BIENTINA



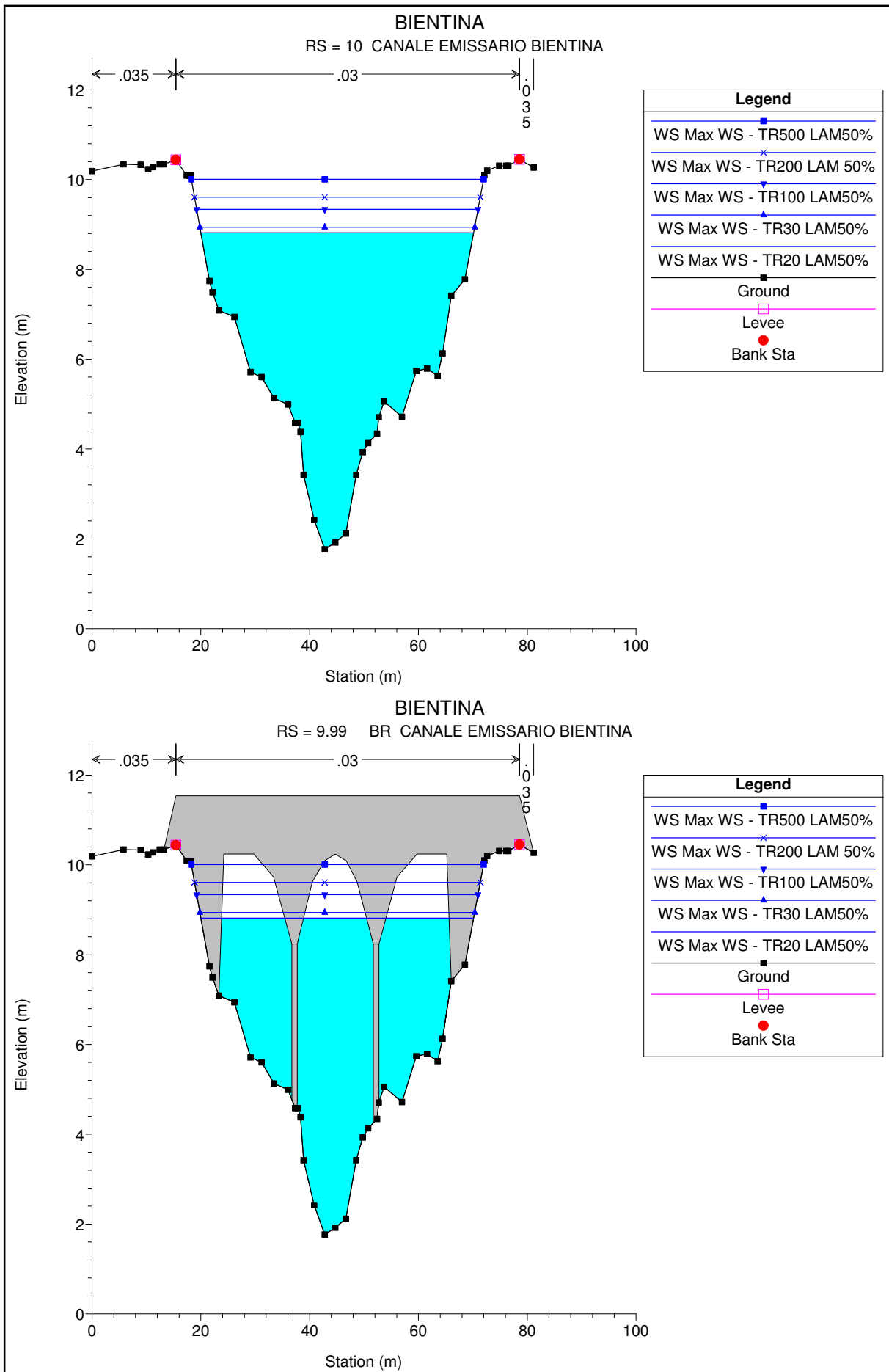


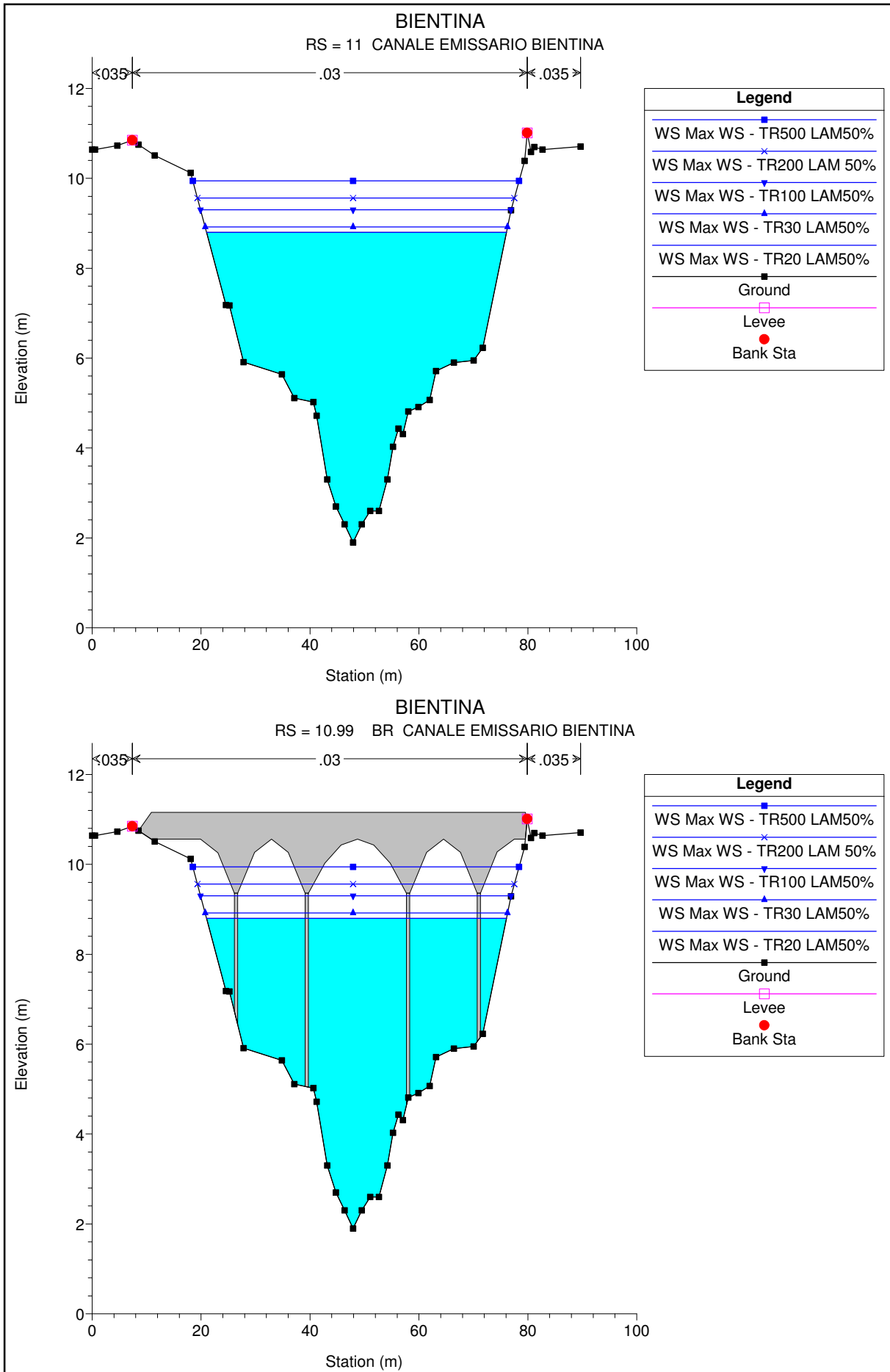


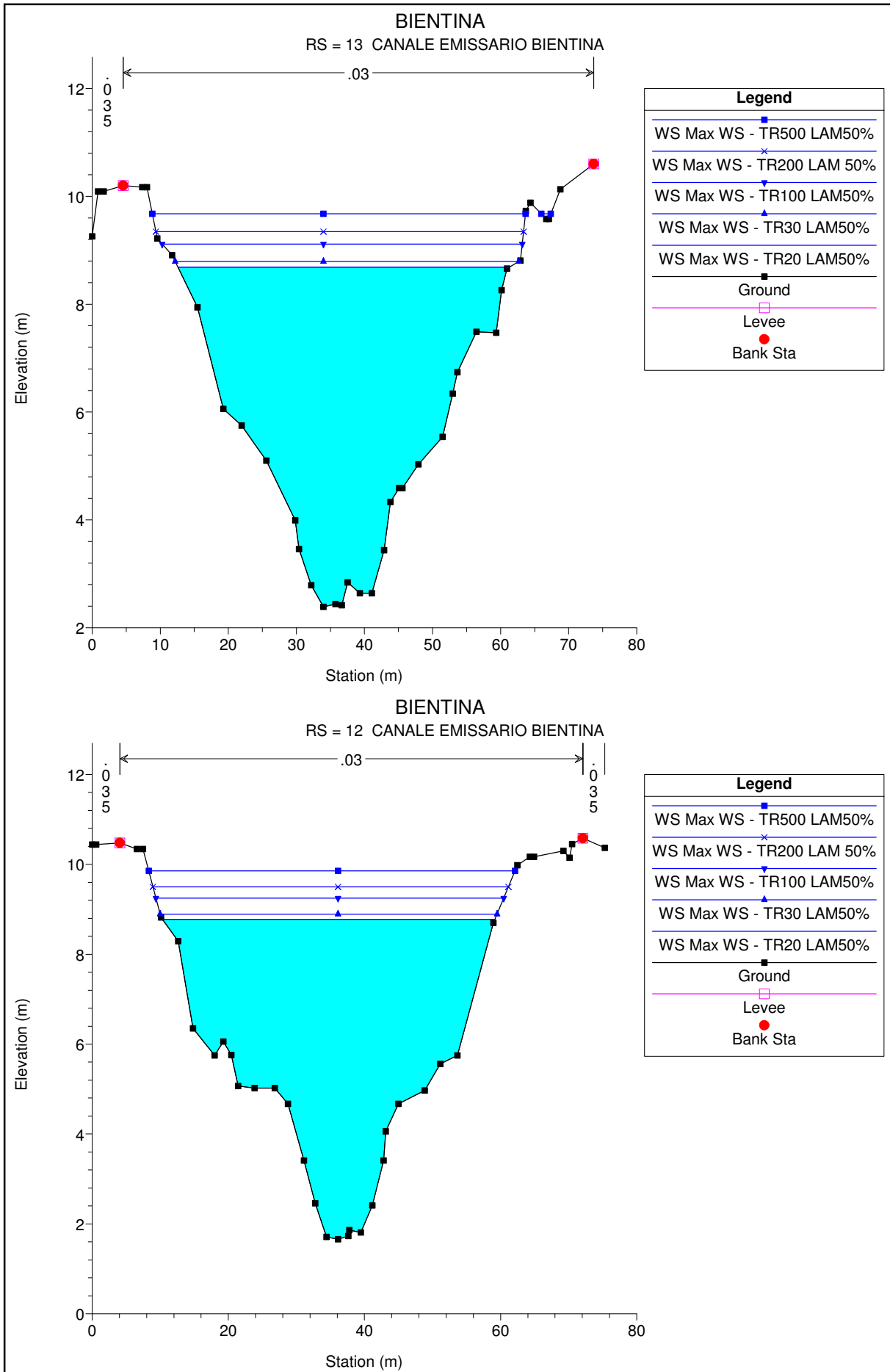


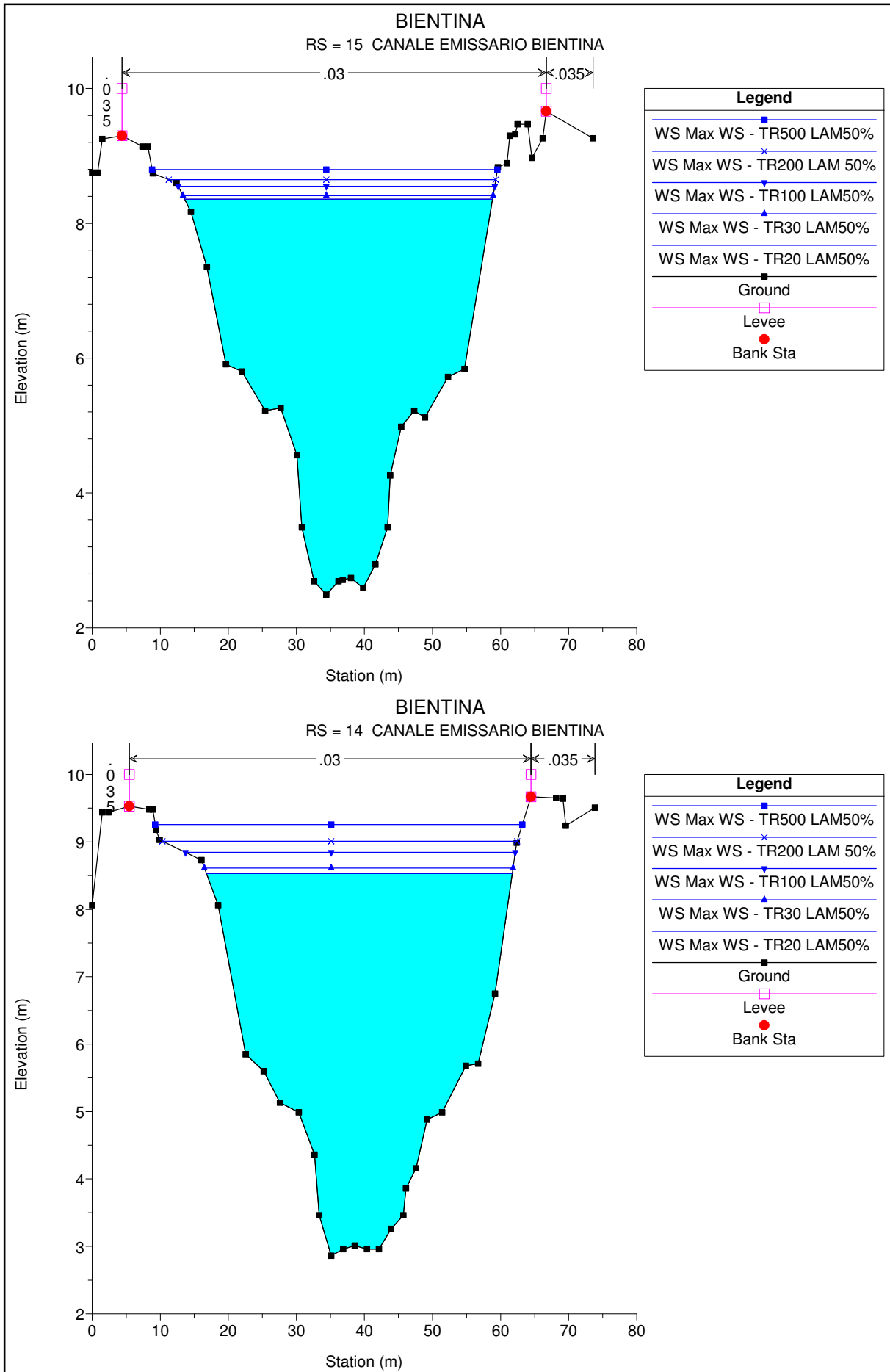


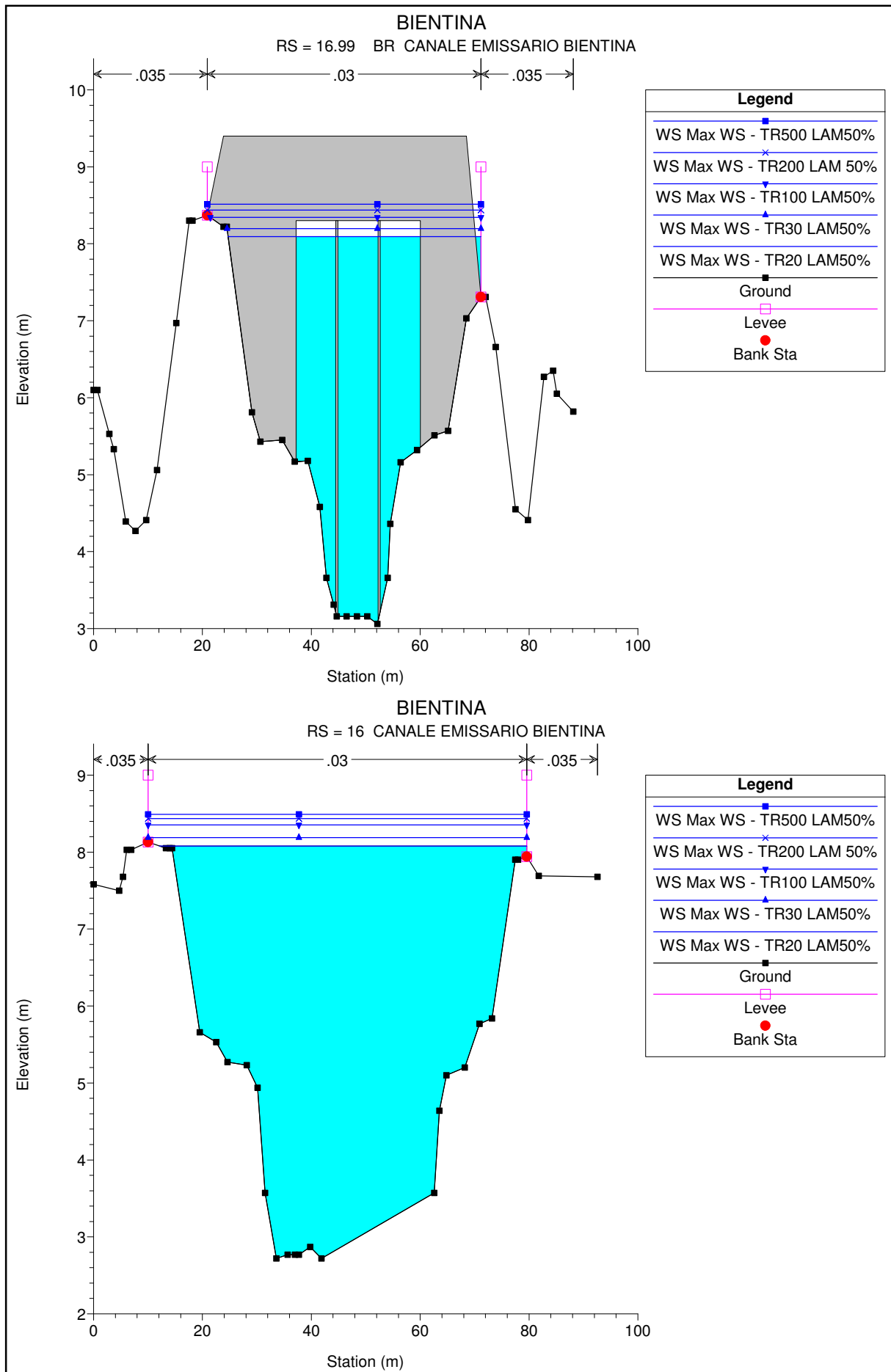


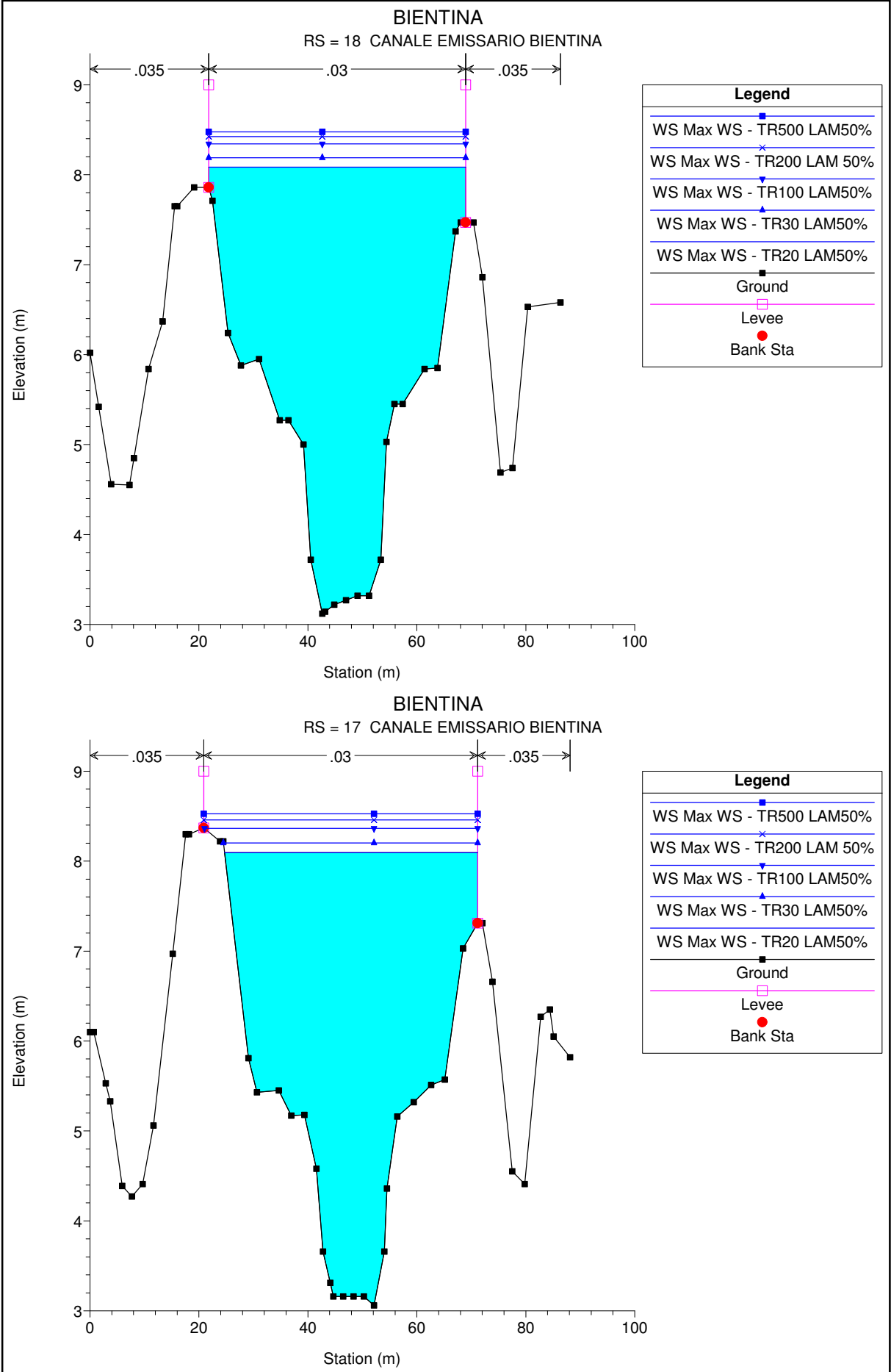


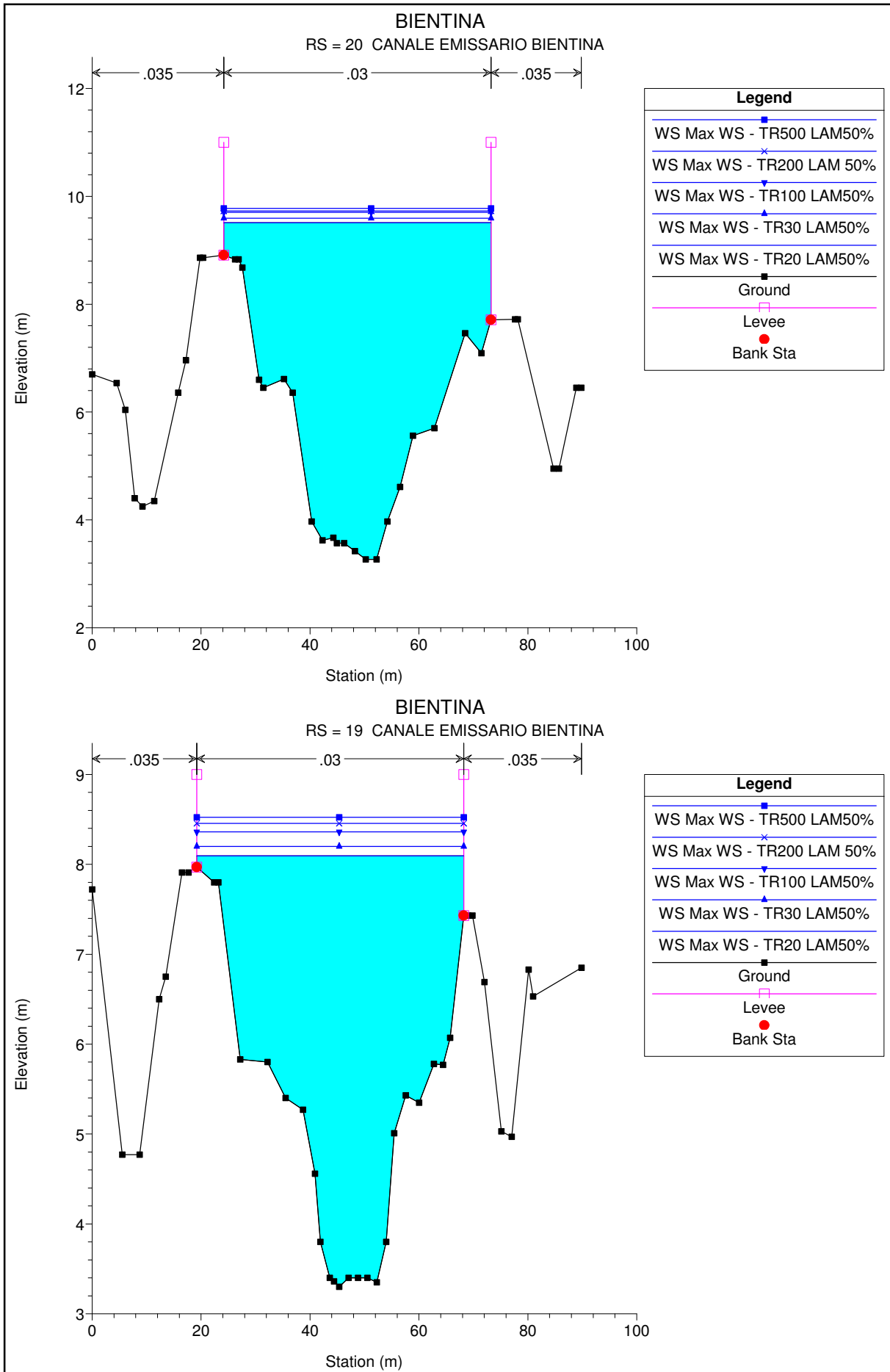












# **ALLEGATO 3**

**MODELLO IDRAULICO  
FOSSO FUNGAIA**





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

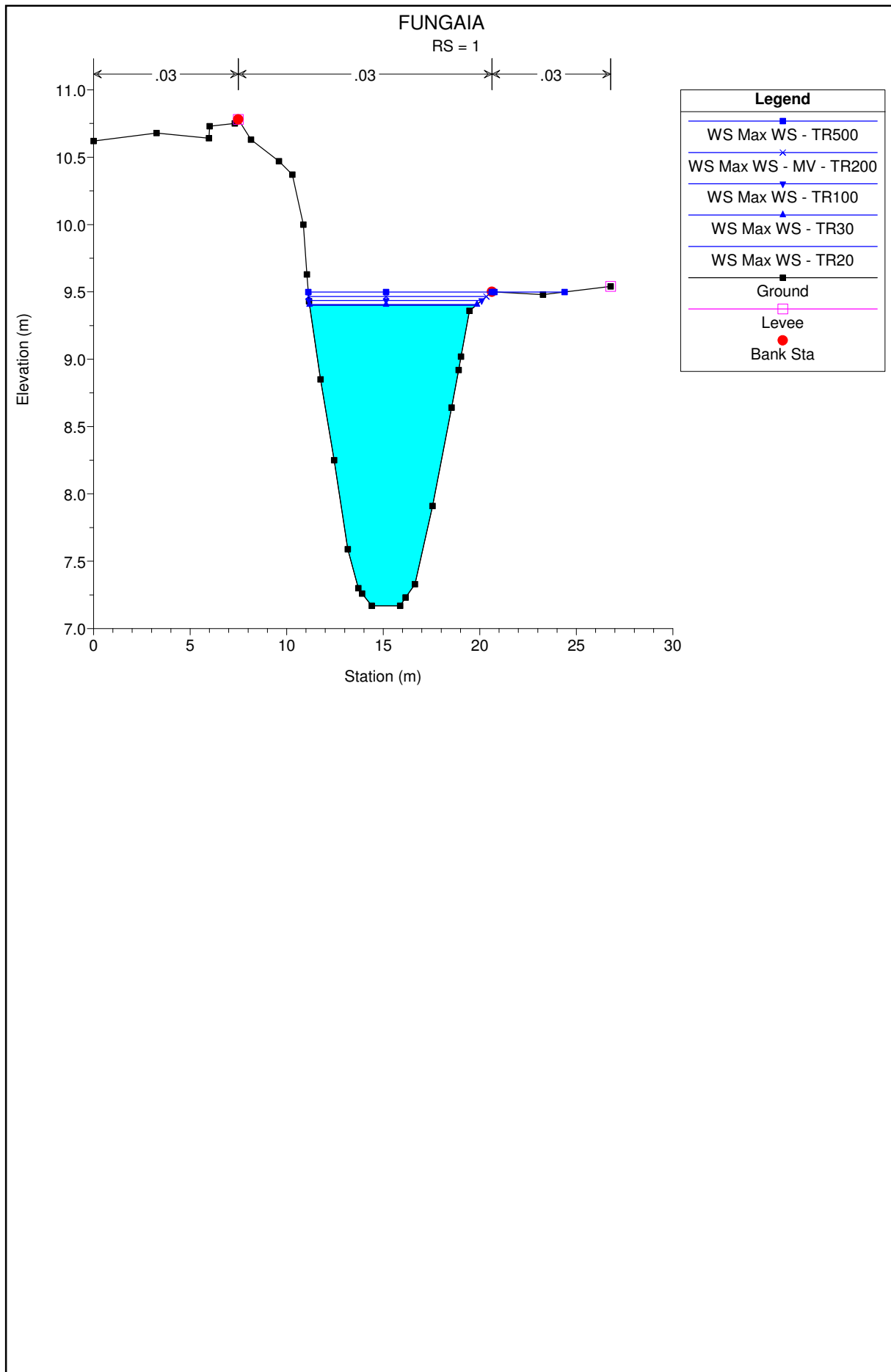
Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
FUNGAIA	15	Max WS	TR20	6.88	7.00	9.50		9.52	0.000407	0.48	14.28	22.07	0.19
FUNGAIA	15	Max WS	TR30	7.34	7.00	9.51		9.53	0.000445	0.51	14.49	22.24	0.20
FUNGAIA	15	Max WS	TR100	8.88	7.00	9.55		9.56	0.000576	0.58	15.18	22.77	0.23
FUNGAIA	15	Max WS	MV - TR200	9.88	7.00	9.57		9.59	0.000656	0.63	15.66	23.13	0.24
FUNGAIA	15	Max WS	TR500	11.41	7.00	9.60		9.62	0.000782	0.70	16.34	23.63	0.27
FUNGAIA	14.99	Max WS	TR20	6.88	7.00	9.50		9.52	0.000407	0.48	14.28	22.07	0.19
FUNGAIA	14.99	Max WS	TR30	7.34	7.00	9.51		9.53	0.000445	0.51	14.49	22.24	0.20
FUNGAIA	14.99	Max WS	TR100	8.88	7.00	9.55		9.56	0.000576	0.58	15.18	22.77	0.23
FUNGAIA	14.99	Max WS	MV - TR200	9.88	7.00	9.57		9.59	0.000656	0.63	15.66	23.13	0.24
FUNGAIA	14.99	Max WS	TR500	11.41	7.00	9.60		9.62	0.000782	0.70	16.34	23.63	0.27
FUNGAIA	14.8			Lat Struct									
FUNGAIA	14	Max WS	TR20	5.24	7.08	9.50	7.87	9.50	0.000117	0.38	15.06	19.43	0.11
FUNGAIA	14	Max WS	TR30	5.48	7.08	9.51	7.89	9.52	0.000124	0.39	15.26	19.45	0.11
FUNGAIA	14	Max WS	TR100	6.27	7.08	9.54	7.95	9.55	0.000152	0.43	15.87	19.77	0.13
FUNGAIA	14	Max WS	MV - TR200	6.64	7.08	9.56	7.97	9.57	0.000164	0.45	16.32	20.14	0.13
FUNGAIA	14	Max WS	TR500	7.19	7.08	9.59	8.01	9.60	0.000180	0.47	16.97	20.59	0.14
FUNGAIA	13.5			Bridge									
FUNGAIA	13	Max WS	TR20	5.24	7.08	9.45		9.46	0.000135	0.40	14.18	19.35	0.12
FUNGAIA	13	Max WS	TR30	5.48	7.08	9.46		9.47	0.000146	0.42	14.27	19.36	0.12
FUNGAIA	13	Max WS	TR100	6.27	7.08	9.47		9.48	0.000183	0.47	14.53	19.38	0.14
FUNGAIA	13	Max WS	MV - TR200	6.60	7.08	9.48		9.49	0.000199	0.49	14.66	19.39	0.14
FUNGAIA	13	Max WS	TR500	7.19	7.08	9.48		9.50	0.000230	0.53	14.80	19.41	0.15
FUNGAIA	12.9			Lat Struct									
FUNGAIA	12.8			Lat Struct									
FUNGAIA	12	Max WS	TR20	2.90	7.35	9.45		9.45	0.000105	0.25	12.28	26.49	0.10
FUNGAIA	12	Max WS	TR30	2.90	7.35	9.45		9.46	0.000102	0.25	12.44	26.60	0.10
FUNGAIA	12	Max WS	TR100	2.90	7.35	9.47		9.47	0.000095	0.24	12.86	26.89	0.09
FUNGAIA	12	Max WS	MV - TR200	2.81	7.35	9.48		9.48	0.000086	0.23	13.08	27.04	0.09
FUNGAIA	12	Max WS	TR500	0.56	7.35	9.49		9.49	0.000003	0.04	13.38	27.24	0.02
FUNGAIA	11	Max WS	TR20	2.87	7.11	9.44		9.45	0.000071	0.28	10.35	9.26	0.08
FUNGAIA	11	Max WS	TR30	2.87	7.11	9.45		9.45	0.000070	0.28	10.40	9.30	0.08
FUNGAIA	11	Max WS	TR100	2.82	7.11	9.46		9.47	0.000069	0.27	10.56	9.76	0.08
FUNGAIA	11	Max WS	MV - TR200	2.70	7.11	9.47		9.48	0.000063	0.25	10.65	10.05	0.08
FUNGAIA	11	Max WS	TR500	0.44	7.11	9.49		9.49	0.000002	0.04	10.83	10.60	0.01
FUNGAIA	10	Max WS	TR20	2.74	7.04	9.44		9.44	0.000042	0.24	12.09	14.99	0.07
FUNGAIA	10	Max WS	TR30	2.72	7.04	9.44		9.45	0.000040	0.23	12.17	15.00	0.06
FUNGAIA	10	Max WS	TR100	2.59	7.04	9.46		9.46	0.000035	0.22	12.42	15.04	0.06
FUNGAIA	10	Max WS	MV - TR200	2.41	7.04	9.47		9.47	0.000030	0.20	12.56	15.05	0.06
FUNGAIA	10	Max WS	TR500	0.85	7.04	9.49		9.49	0.000003	0.07	12.88	15.10	0.02
FUNGAIA	9.8			Lat Struct									
FUNGAIA	9	Max WS	TR20	2.00	7.23	9.44		9.44	0.000034	0.17	12.33	18.85	0.06
FUNGAIA	9	Max WS	TR30	2.01	7.23	9.44		9.45	0.000033	0.16	12.79	24.79	0.06
FUNGAIA	9	Max WS	TR100	2.18	7.23	9.46		9.46	0.000036	0.17	13.19	25.45	0.06
FUNGAIA	9	Max WS	MV - TR200	2.21	7.23	9.47		9.47	0.000036	0.17	13.42	25.82	0.06
FUNGAIA	9	Max WS	TR500	1.20	7.23	9.49		9.49	0.000010	0.09	14.01	26.76	0.03
FUNGAIA	8	Max WS	TR20	2.00	7.16	9.44		9.44	0.000038	0.16	13.49	26.93	0.06
FUNGAIA	8	Max WS	TR30	1.89	7.16	9.44		9.44	0.000033	0.15	13.65	27.03	0.06
FUNGAIA	8	Max WS	TR100	1.30	7.16	9.46		9.46	0.000014	0.10	14.13	27.34	0.04
FUNGAIA	8	Max WS	MV - TR200	0.85	7.16	9.47		9.47	0.000006	0.06	14.41	27.51	0.02
FUNGAIA	8	Max WS	TR500	0.58	7.16	9.49		9.49	0.000002	0.04	15.03	27.90	0.01
FUNGAIA	7	Max WS	TR20	0.57	6.87	9.44		9.44	0.000003	0.04	12.74	15.23	0.02
FUNGAIA	7	Max WS	TR30	0.33	6.87	9.44		9.44	0.000001	0.03	12.83	15.24	0.01
FUNGAIA	7	Max WS	TR100	-0.79	6.87	9.46		9.46	0.000005	-0.06	13.08	15.26	0.02
FUNGAIA	7	Max WS	MV - TR200	-1.55	6.87	9.47		9.47	0.000018	-0.12	13.22	15.27	0.04
FUNGAIA	7	Max WS	TR500	-0.25	6.87	9.49		9.49	0.000000	-0.02	13.58	15.65	0.01
FUNGAIA	6	Max WS	TR20	-0.19	7.07	9.44		9.44	0.000000	-0.02	10.89	10.85	0.01
FUNGAIA	6	Max WS	TR30	-0.59	7.07	9.44		9.44	0.000003	-0.05	10.95	11.14	0.02
FUNGAIA	6	Max WS	TR100	-2.11	7.07	9.46		9.46	0.000043	-0.19	11.13	12.05	0.06
FUNGAIA	6	Max WS	MV - TR200	-3.13	7.07	9.47		9.47	0.000096	-0.28	11.23	12.53	0.09
FUNGAIA	6	Max WS	TR500	0.10	7.07	9.49	7.18	9.49	0.000000	0.01	12.38	18.97	0.00
FUNGAIA	5.5			Bridge									
FUNGAIA	5	Max WS	TR20	-0.19	7.36	9.44		9.44	0.000000	-0.02	11.71	10.98	0.00
FUNGAIA	5	Max WS	TR30	-0.59	7.36	9.44		9.44	0.000002	-0.05	11.77	11.24	0.02
FUNGAIA	5	Max WS	TR100	-2.11	7.36	9.47		9.47	0.000032	-0.18	12.03	12.23	0.06
FUNGAIA	5	Max WS	MV - TR200	-3.15	7.36	9.49		9.49	0.000070	-0.25	12.93	21.76	0.08
FUNGAIA	5	Max WS	TR500	-4.17	7.36	9.51		9.51	0.000113	-0.33	13.45	21.82	0.11
FUNGAIA	4.8			Lat Struct									
FUNGAIA	4	Max WS	TR20	-0.16	6.90	9.44		9.44	0.000000	-0.01	12.66	9.71	0.00
FUNGAIA	4	Max WS	TR30	-0.58	6.90	9.44		9.44	0.000002	-0.05	12.71	11.51	0.01
FUNGAIA	4	Max WS	TR100	-2.11	6.90	9.47		9.47	0.000024	-0.16	13.00	11.60	0.05
FUNGAIA	4	Max WS	MV - TR200	-3.15	6.90	9.49		9.50	0.000051	-0.24	13.27	11.69	0.07
FUNGAIA	4	Max WS	TR500	-4.20	6.90	9.52		9.52	0.000084	-0.31	13.60	11.79	0.09

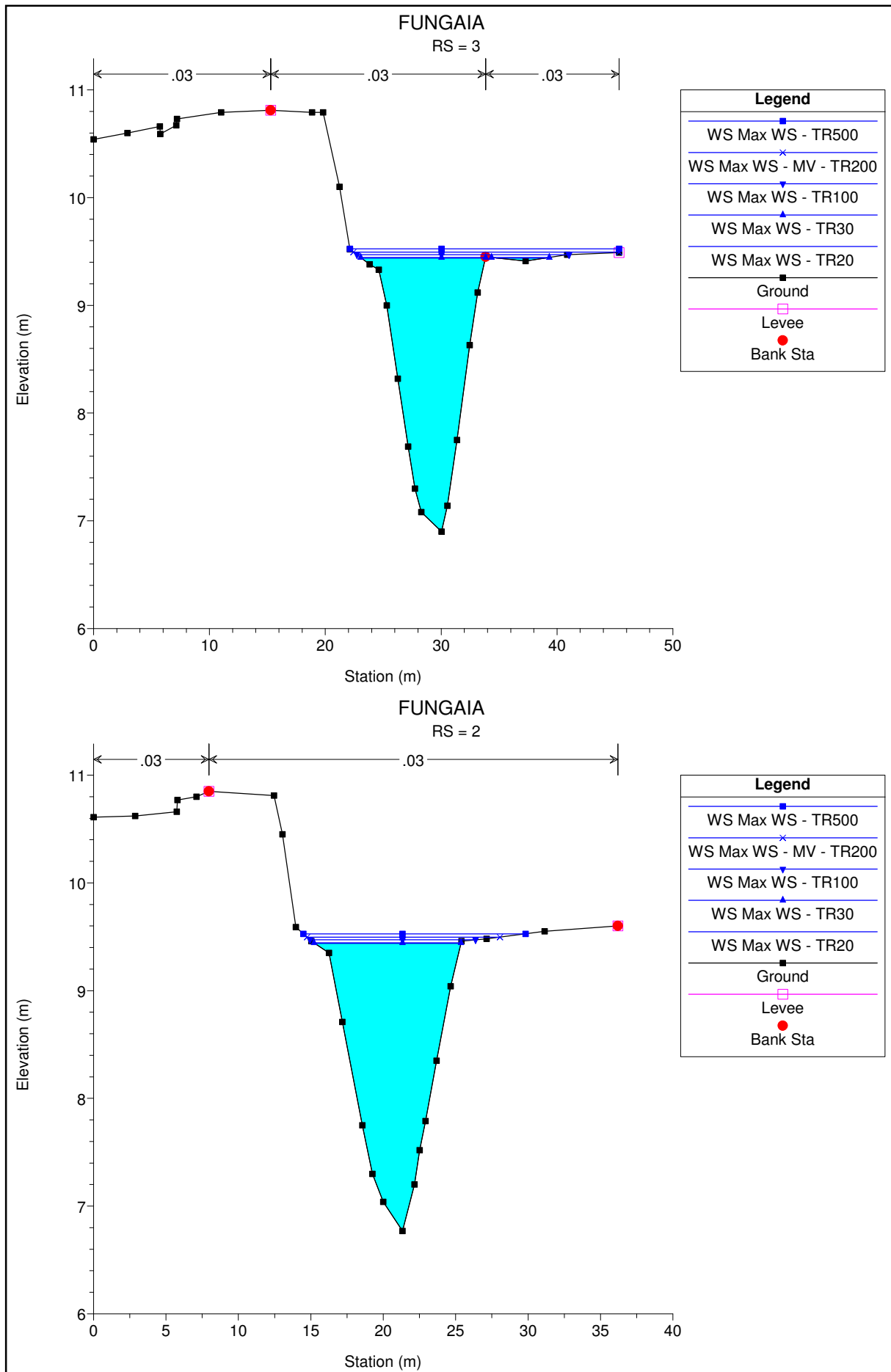
HEC-RAS River: FUNGAIA Reach: FUNGAIA Profile: Max WS (Continued)

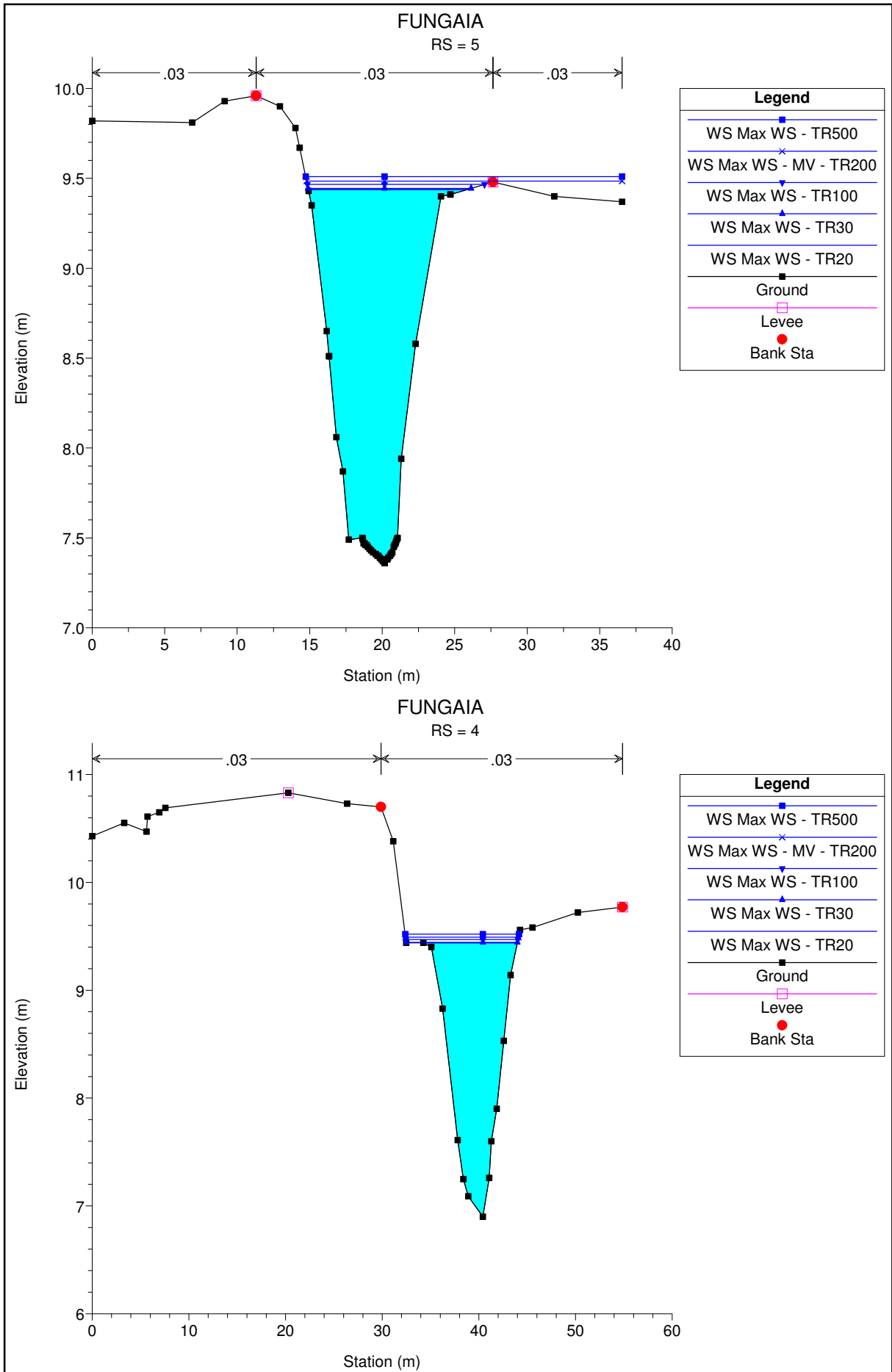
Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
FUNGAIA	3	Max WS	TR20	-0.15	6.90	9.44		9.44	0.000000	-0.01	13.76	15.04	0.00
FUNGAIA	3	Max WS	TR30	-0.58	6.90	9.44		9.44	0.000001	-0.04	13.83	15.77	0.01
FUNGAIA	3	Max WS	TR100	-2.12	6.90	9.47		9.47	0.000018	-0.15	14.29	18.29	0.04
FUNGAIA	3	Max WS	MV - TR200	-3.19	6.90	9.49		9.50	0.000039	-0.22	14.79	22.93	0.06
FUNGAIA	3	Max WS	TR500	-4.32	6.90	9.52		9.53	0.000067	-0.29	15.48	23.25	0.08
FUNGAIA	2	Max WS	TR20	-0.15	6.77	9.44		9.44	0.000000	-0.01	13.89	10.10	0.00
FUNGAIA	2	Max WS	TR30	-0.58	6.77	9.44		9.44	0.000001	-0.04	13.93	10.16	0.01
FUNGAIA	2	Max WS	TR100	-2.13	6.77	9.47		9.47	0.000018	-0.15	14.22	11.44	0.04
FUNGAIA	2	Max WS	MV - TR200	-3.24	6.77	9.50		9.50	0.000046	-0.22	14.53	13.33	0.07
FUNGAIA	2	Max WS	TR500	-4.50	6.77	9.53		9.53	0.000096	-0.30	14.97	15.35	0.10
FUNGAIA	1	Max WS	TR20	7.47	7.17	9.40	7.99	9.42	0.000246	0.60	12.43	8.63	0.16
FUNGAIA	1	Max WS	TR30	7.53	7.17	9.41	8.00	9.42	0.000249	0.60	12.46	8.67	0.16
FUNGAIA	1	Max WS	TR100	7.70	7.17	9.44	8.01	9.45	0.000252	0.60	12.73	8.95	0.16
FUNGAIA	1	Max WS	MV - TR200	7.71	7.17	9.47	8.01	9.48	0.000244	0.59	13.00	9.21	0.16
FUNGAIA	1	Max WS	TR500	8.12	7.17	9.50	8.03	9.52	0.000261	0.61	13.35	13.15	0.16

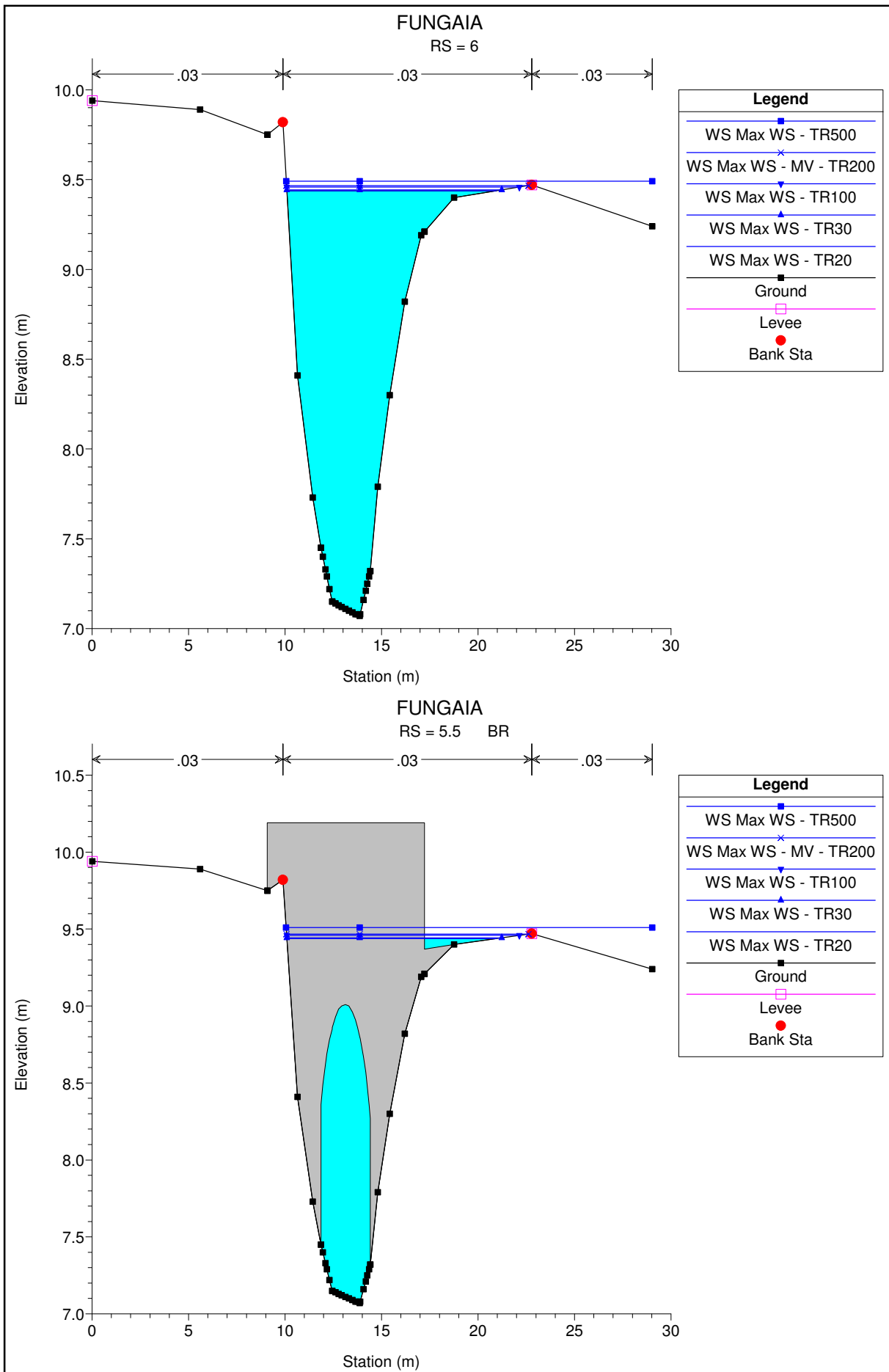
HEC-RAS Profile: Max WS

Storage Area	Profile	Plan	W.S. Elev (m)	SA Min EI (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
D1	Max WS	TR20	9.49	8.40	0.17	1.32	0.71
D1	Max WS	TR30	9.50	8.40	0.08	1.32	0.72
D1	Max WS	TR100	9.53	8.40	0.08	1.32	0.76
D1	Max WS	MV - TR200	9.56	8.40	0.01	1.32	0.79
D1	Max WS	TR500	9.58	8.40	0.03	1.32	0.83
D2	Max WS	TR20	9.14	7.90	3.80	17.56	9.61
D2	Max WS	TR30	9.18	7.90	3.76	35.85	10.83
D2	Max WS	TR100	9.26	7.90	2.89	35.85	13.40
D2	Max WS	MV - TR200	9.29	7.90	7.15	35.85	14.45
D2	Max WS	TR500	9.46	7.90	8.51	35.85	20.56
D3	Max WS	TR20	8.78	7.30	3.01	11.41	6.21
D3	Max WS	TR30	8.91	7.30	3.44	17.76	7.88
D3	Max WS	TR100	9.25	7.30	4.92	17.76	13.77
D3	Max WS	MV - TR200	9.41	7.30	5.92	26.60	17.54
D3	Max WS	TR500	9.49	7.30	4.02	26.60	19.80
D4	Max WS	TR20	8.36	7.70	0.11	2.23	0.78
D4	Max WS	TR30	8.78	7.70	0.68	5.34	2.78
D4	Max WS	TR100	9.20	7.70	3.14	26.97	7.35
D4	Max WS	MV - TR200	9.29	7.70	0.00	26.97	9.63
D4	Max WS	TR500	9.46	7.70	0.00	26.97	14.22
S2	Max WS	TR20	9.44	8.98	3.20	7.91	1.68
S2	Max WS	TR30	9.44	8.98	3.11	7.91	1.72
S2	Max WS	TR100	9.46	8.98	2.90	7.91	1.86
S2	Max WS	MV - TR200	9.47	8.98	2.17	7.91	1.94
S2	Max WS	TR500	9.49	8.98	4.19	7.91	2.11

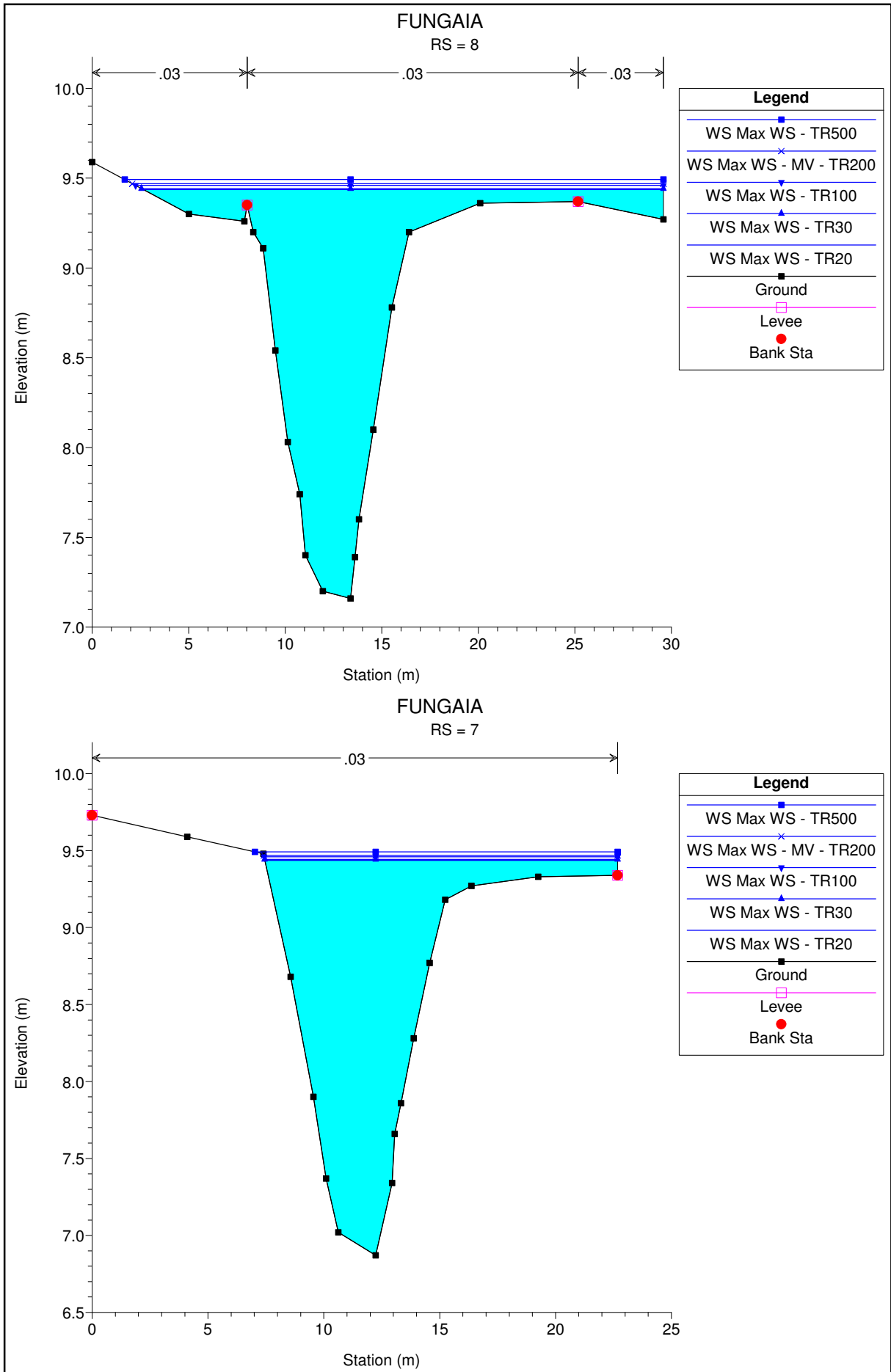


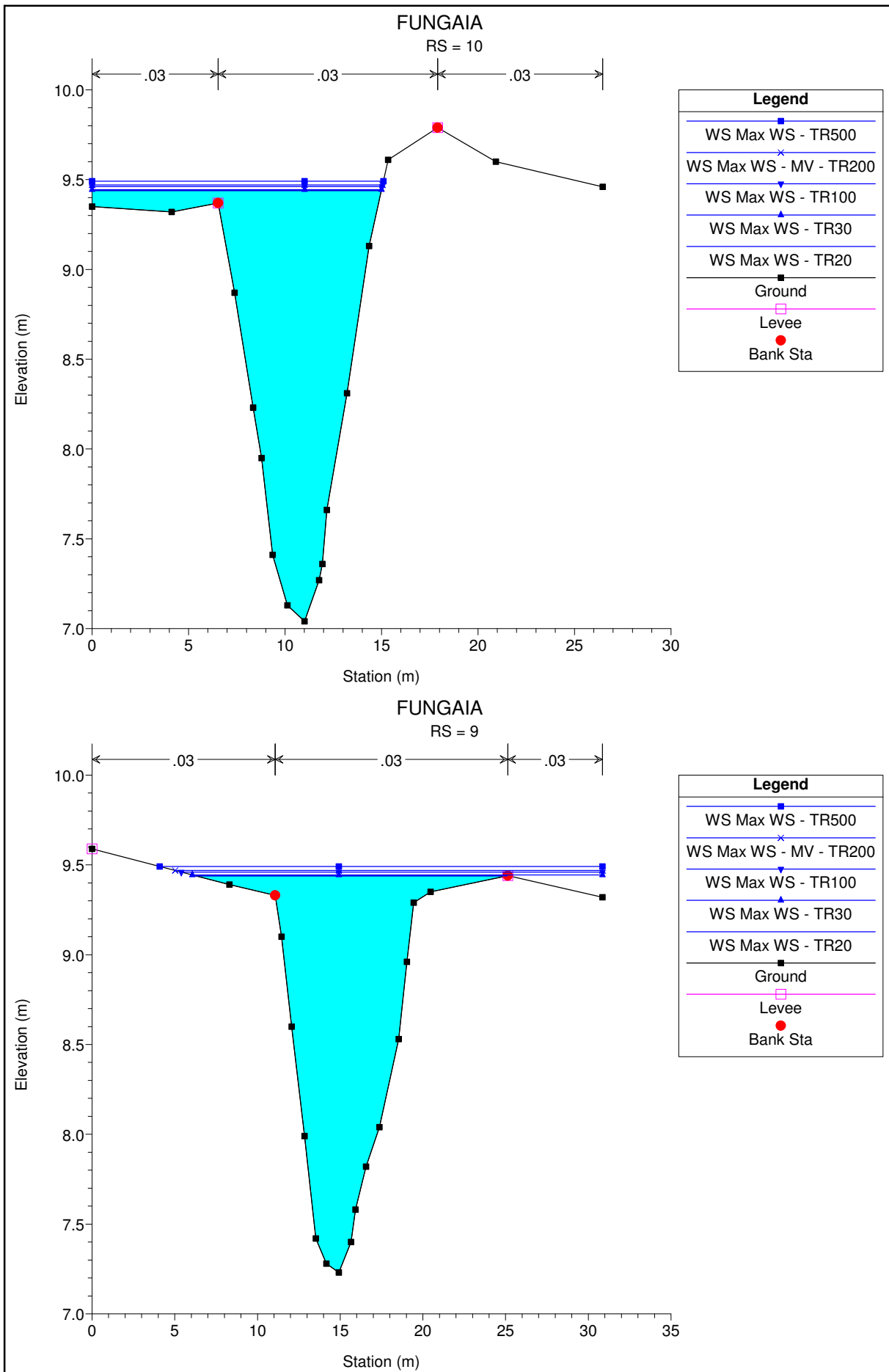


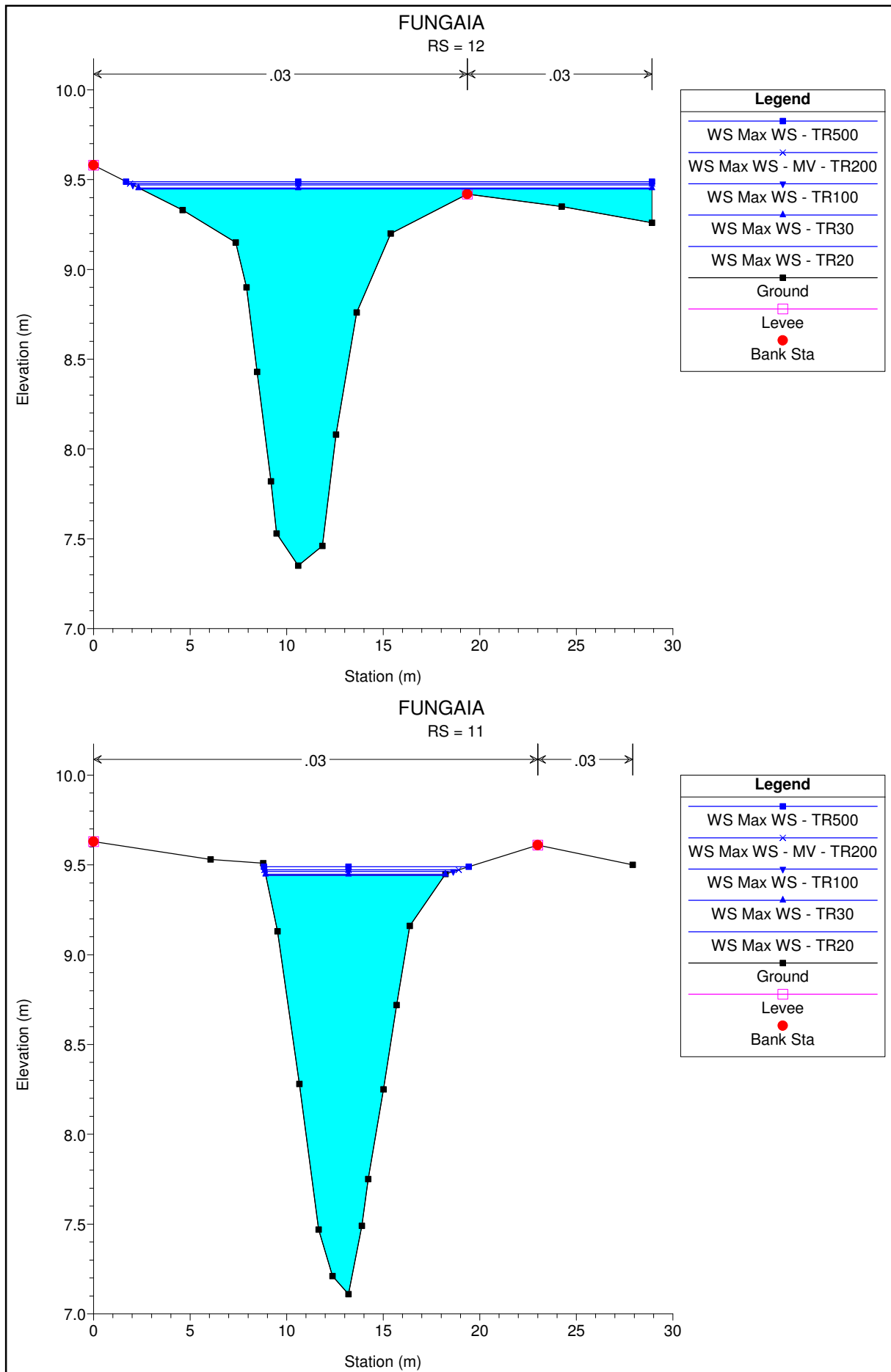


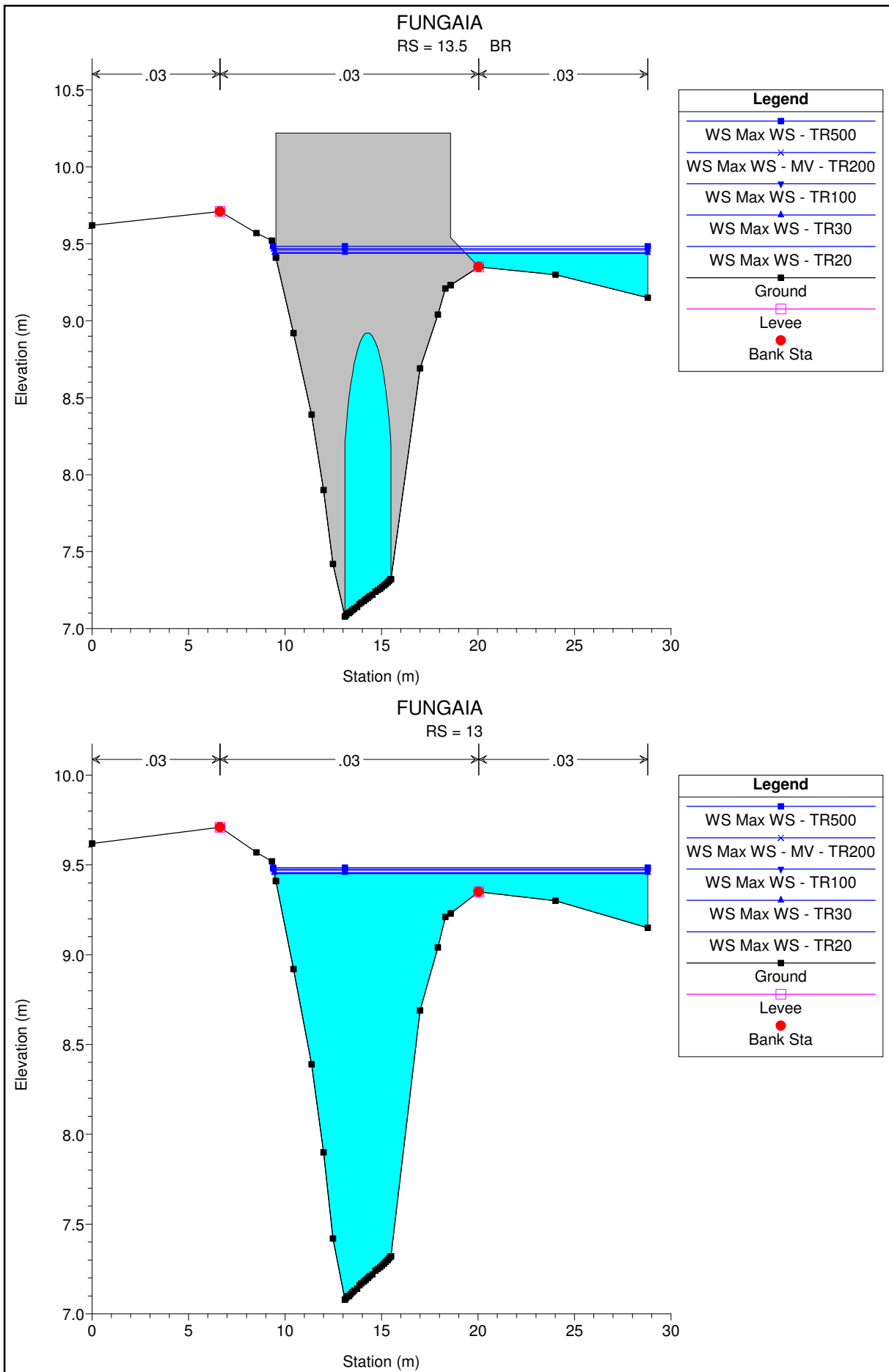


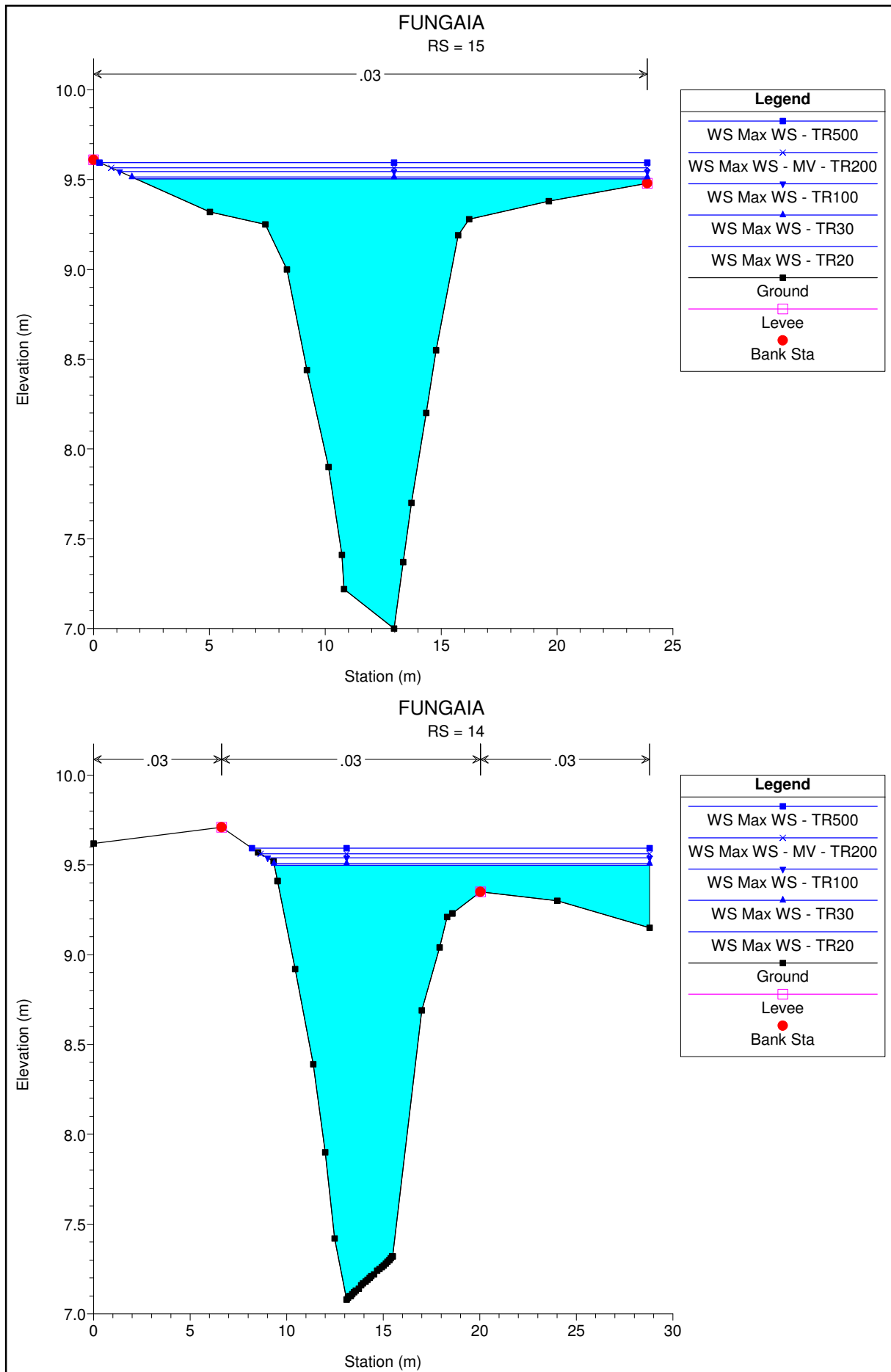










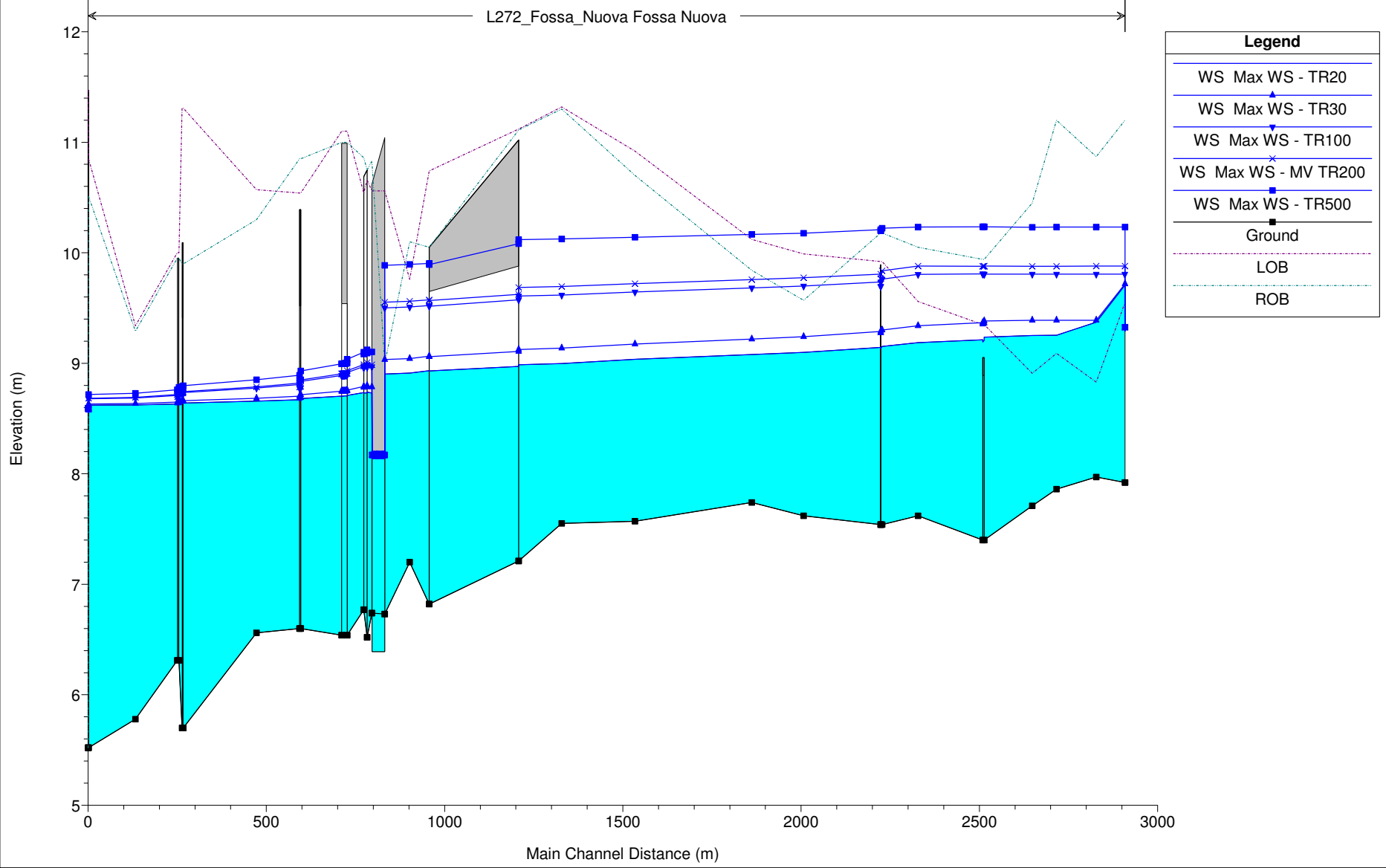


# **ALLEGATO 4**

**MODELLO IDRAULICO  
FOSSA NUOVA**

# FOSSA NUOVA

L272\_Fossa\_Nuova Fossa Nuova



**Legend**

- WS Max WS - TR20
- WS Max WS - TR30
- WS Max WS - TR100
- WS Max WS - MV TR200
- WS Max WS - TR500
- Ground
- LOB
- ROB

HEC-RAS River: L272\_Fossa\_Nuova Reach: Fossa Nuova Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Fossa Nuova	32	Max WS	TR20	12.54	7.92	9.32	9.33	9.76	0.012181	2.91	4.31	5.15	1.02
Fossa Nuova	32	Max WS	TR30	12.55	7.92	9.32	9.33	9.76	0.012177	2.91	4.31	5.15	1.02
Fossa Nuova	32	Max WS	TR100	12.57	7.92	9.32	9.34	9.76	0.012204	2.92	4.31	5.15	1.02
Fossa Nuova	32	Max WS	MV TR200	12.61	7.92	9.33	9.34	9.76	0.012223	2.92	4.32	5.16	1.02
Fossa Nuova	32	Max WS	TR500	12.66	7.92	9.33	9.34	9.76	0.012328	2.93	4.32	5.16	1.02
Fossa Nuova	31.99	Max WS	TR20	51.34	7.92	9.71	10.26	11.85	0.057682	6.74	8.41	13.34	2.29
Fossa Nuova	31.99	Max WS	TR30	54.74	7.92	9.72	10.31	12.06	0.062206	7.05	8.57	13.36	2.38
Fossa Nuova	31.99	Max WS	TR100	6.72	7.92	9.81		9.83	0.000652	0.76	9.76	13.45	0.25
Fossa Nuova	31.99	Max WS	MV TR200	6.94	7.92	9.88		9.90	0.000531	0.72	10.72	13.52	0.22
Fossa Nuova	31.99	Max WS	TR500	8.06	7.92	10.23		10.25	0.000238	0.56	15.57	13.90	0.16
Fossa Nuova	31.9		Lat Struct										
Fossa Nuova	31	Max WS	TR20	32.35	7.97	9.37	9.37	9.72	0.010230	2.69	12.56	18.01	1.00
Fossa Nuova	31	Max WS	TR30	34.62	7.97	9.39	9.40	9.77	0.010882	2.81	12.85	18.03	1.03
Fossa Nuova	31	Max WS	TR100	4.40	7.97	9.81		9.81	0.000040	0.22	20.57	18.75	0.07
Fossa Nuova	31	Max WS	MV TR200	5.16	7.97	9.88		9.88	0.000045	0.24	21.91	18.87	0.07
Fossa Nuova	31	Max WS	TR500	7.99	7.97	10.23		10.24	0.000047	0.29	28.69	19.48	0.08
Fossa Nuova	30	Max WS	TR20	-0.81	7.86	9.25		9.25	0.000042	-0.14	6.35	14.74	0.06
Fossa Nuova	30	Max WS	TR30	-1.98	7.86	9.39		9.39	0.000113	-0.26	8.41	15.35	0.10
Fossa Nuova	30	Max WS	TR100	2.69	7.86	9.81		9.81	0.000036	0.18	15.58	17.97	0.06
Fossa Nuova	30	Max WS	MV TR200	3.17	7.86	9.88		9.88	0.000039	0.20	16.87	18.06	0.06
Fossa Nuova	30	Max WS	TR500	5.26	7.86	10.23		10.24	0.000039	0.23	23.37	18.54	0.07
Fossa Nuova	29	Max WS	TR20	-3.02	7.71	9.25		9.25	0.000098	-0.24	12.66	19.59	0.09
Fossa Nuova	29	Max WS	TR30	-5.06	7.71	9.39		9.39	0.000148	-0.33	15.36	19.86	0.12
Fossa Nuova	29	Max WS	TR100	2.16	7.71	9.81		9.81	0.000007	0.09	23.86	20.70	0.03
Fossa Nuova	29	Max WS	MV TR200	2.92	7.71	9.88		9.88	0.000010	0.12	25.35	20.84	0.03
Fossa Nuova	29	Max WS	TR500	6.51	7.71	10.23		10.23	0.000023	0.20	32.84	21.91	0.05
Fossa Nuova	28	Max WS	TR20	3.81	7.40	9.24	8.07	9.25	0.000199	0.43	8.87	9.19	0.14
Fossa Nuova	28	Max WS	TR30	4.50	7.40	9.38	8.12	9.39	0.000220	0.43	10.61	16.57	0.15
Fossa Nuova	28	Max WS	TR100	-1.78	7.40	9.81		9.81	0.000010	-0.10	18.35	20.55	0.03
Fossa Nuova	28	Max WS	MV TR200	1.78	7.40	9.88	7.85	9.88	0.000008	0.09	19.86	21.60	0.03
Fossa Nuova	28	Max WS	TR500	1.42	7.40	10.23	7.80	10.23	0.000002	0.05	27.83	22.50	0.01
Fossa Nuova	27.5		Bridge										
Fossa Nuova	27	Max WS	TR20	3.78	7.40	9.21		9.22	0.000197	0.44	8.67	8.68	0.14
Fossa Nuova	27	Max WS	TR30	4.47	7.40	9.37		9.38	0.000229	0.44	10.37	16.48	0.15
Fossa Nuova	27	Max WS	TR100	-1.78	7.40	9.81		9.81	0.000010	-0.10	18.36	20.55	0.03
Fossa Nuova	27	Max WS	MV TR200	1.78	7.40	9.88		9.88	0.000008	0.09	19.85	21.59	0.03
Fossa Nuova	27	Max WS	TR500	1.40	7.40	10.23		10.23	0.000002	0.05	27.83	22.50	0.01
Fossa Nuova	26.9		Lat Struct										
Fossa Nuova	26	Max WS	TR20	3.76	7.62	9.19		9.19	0.000113	0.36	10.55	9.49	0.11
Fossa Nuova	26	Max WS	TR30	4.54	7.62	9.34		9.35	0.000114	0.38	12.01	9.95	0.11
Fossa Nuova	26	Max WS	TR100	2.98	7.62	9.80		9.81	0.000024	0.16	18.74	18.32	0.05
Fossa Nuova	26	Max WS	MV TR200	0.08	7.62	9.88		9.88	0.000000	0.00	20.12	18.72	0.00
Fossa Nuova	26	Max WS	TR500	-9.61	7.62	10.23		10.24	0.000090	-0.34	28.84	27.41	0.10
Fossa Nuova	25	Max WS	TR20	3.73	7.54	9.15	8.22	9.17	0.000374	0.60	6.26	5.80	0.18
Fossa Nuova	25	Max WS	TR30	4.51	7.54	9.30	8.29	9.32	0.000402	0.63	7.17	6.53	0.19
Fossa Nuova	25	Max WS	TR100	6.59	7.54	9.76	8.44	9.78	0.000319	0.63	10.54	8.15	0.18
Fossa Nuova	25	Max WS	MV TR200	6.80	7.54	9.84	8.45	9.85	0.000317	0.61	11.18	9.10	0.18
Fossa Nuova	25	Max WS	TR500	8.02	7.54	10.22	8.53	10.23	0.000290	0.45	18.92	29.22	0.16
Fossa Nuova	24.5		Bridge										
Fossa Nuova	24	Max WS	TR20	3.72	7.54	9.14		9.16	0.000380	0.60	6.21	5.78	0.18
Fossa Nuova	24	Max WS	TR30	4.49	7.54	9.29		9.31	0.000409	0.63	7.09	6.46	0.19
Fossa Nuova	24	Max WS	TR100	6.56	7.54	9.74		9.76	0.000332	0.63	10.33	8.05	0.18
Fossa Nuova	24	Max WS	MV TR200	6.75	7.54	9.81		9.83	0.000320	0.62	10.92	8.69	0.18
Fossa Nuova	24	Max WS	TR500	7.98	7.54	10.21		10.22	0.000304	0.45	18.59	29.22	0.17
Fossa Nuova	23	Max WS	TR20	3.70	7.62	9.10		9.11	0.000144	0.38	9.80	9.63	0.12
Fossa Nuova	23	Max WS	TR30	4.45	7.62	9.24		9.25	0.000159	0.39	11.28	11.28	0.13
Fossa Nuova	23	Max WS	TR100	6.52	7.62	9.70		9.71	0.000117	0.37	17.58	15.36	0.11
Fossa Nuova	23	Max WS	MV TR200	6.72	7.62	9.77		9.78	0.000104	0.36	18.74	15.73	0.10
Fossa Nuova	23	Max WS	TR500	7.92	7.62	10.18		10.18	0.000062	0.30	27.54	24.89	0.08
Fossa Nuova	22	Max WS	TR20	3.70	7.74	9.08		9.09	0.000124	0.36	10.13	9.46	0.11
Fossa Nuova	22	Max WS	TR30	4.44	7.74	9.22		9.23	0.000126	0.39	11.49	9.92	0.11
Fossa Nuova	22	Max WS	TR100	6.51	7.74	9.68		9.69	0.000107	0.39	16.47	12.17	0.11
Fossa Nuova	22	Max WS	MV TR200	6.70	7.74	9.76		9.76	0.000116	0.38	17.46	14.49	0.11
Fossa Nuova	22	Max WS	TR500	7.91	7.74	10.17		10.17	0.000075	0.32	25.35	23.30	0.09
Fossa Nuova	21	Max WS	TR20	3.69	7.57	9.04		9.04	0.000141	0.38	9.61	8.88	0.12
Fossa Nuova	21	Max WS	TR30	4.43	7.57	9.17		9.18	0.000144	0.41	10.89	9.35	0.12
Fossa Nuova	21	Max WS	TR100	6.50	7.57	9.65		9.65	0.000113	0.42	15.59	10.64	0.11
Fossa Nuova	21	Max WS	MV TR200	6.69	7.57	9.72		9.73	0.000104	0.41	16.40	10.84	0.11
Fossa Nuova	21	Max WS	TR500	7.90	7.57	10.14		10.15	0.000072	0.37	21.21	12.14	0.09
Fossa Nuova	20	Max WS	TR20	3.69	7.55	9.00		9.01	0.000207	0.44	8.33	8.46	0.14
Fossa Nuova	20	Max WS	TR30	4.43	7.55	9.14		9.15	0.000207	0.46	9.55	9.04	0.14
Fossa Nuova	20	Max WS	TR100	6.50	7.55	9.62		9.63	0.000148	0.45	14.37	10.99	0.13
Fossa Nuova	20	Max WS	MV TR200	6.69	7.55	9.69		9.70	0.000133	0.44	15.23	11.22	0.12
Fossa Nuova	20	Max WS	TR500	7.90	7.55	10.12		10.13	0.000083	0.39	20.35	12.55	0.10
Fossa Nuova	19	Max WS	TR20	3.69	7.21	8.99	7.66	8.99	0.000070	0.31	12.06	9.15	0.09
Fossa Nuova	19	Max WS	TR30	4.43	7.21	9.12	7.71	9.13	0.000076	0.33	13.36	9.50	0.09
Fossa Nuova	19	Max WS	TR100	6.50	7.21	9.61	7.83	9.61	0.000069	0.36	18.26	10.75	0.09
Fossa Nuova	19	Max WS	MV TR200	6.69	7.21	9.69	7.84	9.69	0.000065	0.35	19.10	10.94	0.08
Fossa Nuova	19	Max WS	TR500	7.90	7.21	10.12	7.90	10.12	0.000048	0.33	24.07	11.98	0.07



HEC-RAS River: L272\_Fossa\_Nuova Reach: Fossa Nuova Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Fossa Nuova	18.5			Bridge									
Fossa Nuova	18	Max WS	TR20	3.69	6.82	8.93		8.94	0.000135	0.38	9.64	8.30	0.11
Fossa Nuova	18	Max WS	TR30	4.43	6.82	9.06		9.07	0.000147	0.41	10.76	8.91	0.12
Fossa Nuova	18	Max WS	TR100	6.49	6.82	9.52		9.53	0.000128	0.42	15.37	11.23	0.12
Fossa Nuova	18	Max WS	MV TR200	6.69	6.82	9.57		9.58	0.000124	0.42	15.94	11.51	0.11
Fossa Nuova	18	Max WS	TR500	7.90	6.82	9.90		9.91	0.000109	0.39	20.08	14.80	0.11
Fossa Nuova	17	Max WS	TR20	3.69	7.20	8.91		8.93	0.000365	0.52	7.05	8.28	0.18
Fossa Nuova	17	Max WS	TR30	4.43	7.20	9.04		9.06	0.000352	0.54	8.17	8.92	0.18
Fossa Nuova	17	Max WS	TR100	6.49	7.20	9.51		9.52	0.000223	0.50	12.87	11.24	0.15
Fossa Nuova	17	Max WS	MV TR200	6.69	7.20	9.56		9.57	0.000210	0.50	13.46	11.48	0.15
Fossa Nuova	17	Max WS	TR500	7.90	7.20	9.89		9.90	0.000158	0.44	18.12	15.47	0.13
Fossa Nuova	16	Max WS	TR20	3.69	6.73	8.90		8.91	0.000114	0.36	10.21	8.51	0.11
Fossa Nuova	16	Max WS	TR30	4.43	6.73	9.03		9.04	0.000123	0.39	11.36	8.91	0.11
Fossa Nuova	16	Max WS	TR100	6.49	6.73	9.50		9.51	0.000104	0.42	15.60	9.19	0.10
Fossa Nuova	16	Max WS	MV TR200	6.69	6.73	9.55		9.56	0.000101	0.42	16.07	9.22	0.10
Fossa Nuova	16	Max WS	TR500	7.90	6.73	9.89		9.90	0.000085	0.41	19.19	9.52	0.09
Fossa Nuova	15.5			Culvert									
Fossa Nuova	15	Max WS	TR20	3.69	6.74	8.73		8.75	0.000469	0.61	6.07	6.29	0.20
Fossa Nuova	15	Max WS	TR30	4.43	6.74	8.79		8.81	0.000581	0.69	6.42	6.47	0.22
Fossa Nuova	15	Max WS	TR100	6.49	6.74	8.97		9.01	0.000777	0.85	7.66	7.09	0.26
Fossa Nuova	15	Max WS	MV TR200	6.69	6.74	8.99		9.02	0.000788	0.86	7.79	7.15	0.26
Fossa Nuova	15	Max WS	TR500	7.90	6.74	9.10		9.14	0.000880	0.91	8.67	8.04	0.28
Fossa Nuova	14	Max WS	TR20	3.69	6.52	8.74	7.36	8.74	0.000068	0.30	12.30	9.51	0.08
Fossa Nuova	14	Max WS	TR30	4.43	6.52	8.80	7.41	8.80	0.000086	0.34	12.85	9.62	0.10
Fossa Nuova	14	Max WS	TR100	6.49	6.52	8.99	7.54	9.00	0.000127	0.44	14.71	10.04	0.12
Fossa Nuova	14	Max WS	MV TR200	6.69	6.52	9.01	7.55	9.02	0.000130	0.45	14.89	10.08	0.12
Fossa Nuova	14	Max WS	TR500	7.90	6.52	9.12	7.62	9.13	0.000146	0.49	16.09	10.37	0.13
Fossa Nuova	13.5			Bridge									
Fossa Nuova	13	Max WS	TR20	3.69	6.77	8.73		8.74	0.000057	0.29	12.84	9.01	0.08
Fossa Nuova	13	Max WS	TR30	4.43	6.77	8.79		8.80	0.000073	0.33	13.35	9.10	0.09
Fossa Nuova	13	Max WS	TR100	6.49	6.77	8.97		8.98	0.000113	0.43	15.02	9.38	0.11
Fossa Nuova	13	Max WS	MV TR200	6.69	6.77	8.99		9.00	0.000116	0.44	15.19	9.41	0.11
Fossa Nuova	13	Max WS	TR500	7.90	6.77	9.10		9.11	0.000133	0.49	16.25	9.58	0.12
Fossa Nuova	12	Max WS	TR20	3.69	6.54	8.71		8.73	0.000475	0.62	5.92	4.90	0.18
Fossa Nuova	12	Max WS	TR30	4.43	6.54	8.76		8.78	0.000646	0.72	6.17	5.32	0.21
Fossa Nuova	12	Max WS	TR100	6.49	6.54	8.92		8.96	0.001035	0.91	7.12	6.45	0.28
Fossa Nuova	12	Max WS	MV TR200	6.69	6.54	8.93		8.98	0.001061	0.93	7.22	6.55	0.28
Fossa Nuova	12	Max WS	TR500	7.90	6.54	9.04		9.09	0.001163	0.99	7.94	7.02	0.30
Fossa Nuova	11.5			Culvert									
Fossa Nuova	11	Max WS	TR20	3.69	6.54	8.70		8.72	0.000478	0.63	5.90	4.84	0.18
Fossa Nuova	11	Max WS	TR30	4.43	6.54	8.75		8.77	0.000654	0.72	6.12	5.24	0.21
Fossa Nuova	11	Max WS	TR100	6.49	6.54	8.89		8.93	0.001092	0.93	6.95	6.29	0.28
Fossa Nuova	11	Max WS	MV TR200	6.69	6.54	8.90		8.95	0.001125	0.95	7.04	6.38	0.29
Fossa Nuova	11	Max WS	TR500	7.90	6.54	8.99		9.05	0.001288	1.03	7.64	6.86	0.31
Fossa Nuova	10	Max WS	TR20	3.69	6.60	8.68	7.32	8.69	0.000133	0.39	9.49	7.94	0.11
Fossa Nuova	10	Max WS	TR30	4.43	6.60	8.72	7.38	8.73	0.000177	0.45	9.78	8.05	0.13
Fossa Nuova	10	Max WS	TR100	6.49	6.60	8.84	7.54	8.85	0.000293	0.60	10.77	8.40	0.17
Fossa Nuova	10	Max WS	MV TR200	6.69	6.60	8.85	7.56	8.87	0.000302	0.61	10.88	8.44	0.17
Fossa Nuova	10	Max WS	TR500	7.89	6.60	8.93	7.64	8.95	0.000355	0.68	11.58	8.69	0.19
Fossa Nuova	9.5			Bridge									
Fossa Nuova	9	Max WS	TR20	3.69	6.60	8.67		8.68	0.000136	0.39	9.42	7.92	0.11
Fossa Nuova	9	Max WS	TR30	4.43	6.60	8.70		8.71	0.000183	0.46	9.67	8.01	0.13
Fossa Nuova	9	Max WS	TR100	6.49	6.60	8.81		8.83	0.000310	0.62	10.54	8.32	0.17
Fossa Nuova	9	Max WS	MV TR200	6.69	6.60	8.82		8.84	0.000321	0.63	10.64	8.36	0.18
Fossa Nuova	9	Max WS	TR500	7.89	6.60	8.89		8.92	0.000385	0.70	11.25	8.57	0.20
Fossa Nuova	8	Max WS	TR20	3.69	6.56	8.66		8.66	0.000118	0.37	10.11	8.82	0.11
Fossa Nuova	8	Max WS	TR30	4.43	6.56	8.68		8.69	0.000160	0.43	10.35	8.93	0.13
Fossa Nuova	8	Max WS	TR100	6.49	6.56	8.78		8.79	0.000279	0.58	11.19	9.31	0.17
Fossa Nuova	8	Max WS	MV TR200	6.69	6.56	8.79		8.80	0.000290	0.59	11.29	9.35	0.17
Fossa Nuova	8	Max WS	TR500	7.89	6.56	8.85		8.87	0.000351	0.66	11.90	9.62	0.19
Fossa Nuova	7	Max WS	TR20	3.69	5.70	8.64	6.57	8.64	0.000067	0.29	12.56	8.86	0.08
Fossa Nuova	7	Max WS	TR30	4.43	5.70	8.66	6.65	8.67	0.000093	0.35	12.74	8.95	0.09
Fossa Nuova	7	Max WS	TR100	6.49	5.70	8.73	6.84	8.75	0.000176	0.48	13.41	9.27	0.13
Fossa Nuova	7	Max WS	MV TR200	6.69	5.70	8.74	6.86	8.76	0.000184	0.50	13.49	9.31	0.13
Fossa Nuova	7	Max WS	TR500	7.89	5.70	8.80	6.95	8.81	0.000233	0.56	14.00	9.55	0.15
Fossa Nuova	6.5			Bridge									
Fossa Nuova	6	Max WS	TR20	3.69	5.70	8.64		8.64	0.000067	0.29	12.54	8.85	0.08
Fossa Nuova	6	Max WS	TR30	4.43	5.70	8.66		8.66	0.000094	0.35	12.72	8.94	0.09
Fossa Nuova	6	Max WS	TR100	6.49	5.70	8.73		8.74	0.000178	0.49	13.36	9.25	0.13
Fossa Nuova	6	Max WS	MV TR200	6.69	5.70	8.74		8.75	0.000186	0.50	13.44	9.28	0.13
Fossa Nuova	6	Max WS	TR500	7.89	5.70	8.79		8.81	0.000236	0.57	13.93	9.51	0.15
Fossa Nuova	5	Max WS	TR20	3.69	6.31	8.64	6.94	8.64	0.000092	0.34	10.99	8.44	0.09
Fossa Nuova	5	Max WS	TR30	4.43	6.31	8.66	7.01	8.66	0.000128	0.40	11.16	8.53	0.11
Fossa Nuova	5	Max WS	TR100	6.49	6.31	8.72	7.18	8.74	0.000241	0.55	11.75	8.84	0.15
Fossa Nuova	5	Max WS	MV TR200	6.69	6.31	8.73	7.20	8.75	0.000252	0.57	11.82	8.88	0.16
Fossa Nuova	5	Max WS	TR500	7.89	6.31	8.78	7.29	8.80	0.000319	0.64	12.27	9.11	0.18
Fossa Nuova	4.5			Bridge									

HEC-RAS River: L272\_Fossa\_Nuova Reach: Fossa Nuova Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
Fossa Nuova	4	Max WS	TR20	3.69	6.31	8.63		8.64	0.000093	0.34	10.95	8.42	0.09
Fossa Nuova	4	Max WS	TR30	4.43	6.31	8.65		8.66	0.000129	0.40	11.10	8.50	0.11
Fossa Nuova	4	Max WS	TR100	6.49	6.31	8.71		8.73	0.000247	0.56	11.62	8.78	0.15
Fossa Nuova	4	Max WS	MV TR200	6.69	6.31	8.72		8.73	0.000259	0.57	11.68	8.81	0.16
Fossa Nuova	4	Max WS	TR500	7.89	6.31	8.76		8.78	0.000332	0.65	12.08	9.01	0.18
Fossa Nuova	3	Max WS	TR20	3.69	5.78	8.62		8.63	0.000074	0.30	12.21	8.98	0.08
Fossa Nuova	3	Max WS	TR30	4.43	5.78	8.64		8.64	0.000104	0.36	12.34	9.03	0.10
Fossa Nuova	3	Max WS	TR100	6.49	5.78	8.69		8.70	0.000202	0.51	12.78	9.19	0.14
Fossa Nuova	3	Max WS	MV TR200	6.69	5.78	8.69		8.71	0.000212	0.52	12.84	9.21	0.14
Fossa Nuova	3	Max WS	TR500	7.89	5.78	8.73		8.75	0.000274	0.60	13.19	9.33	0.16
Fossa Nuova	2	Max WS	TR20	3.69	5.52	8.62	6.33	8.62	0.000016	0.17	21.28	12.66	0.04
Fossa Nuova	2	Max WS	TR30	4.43	5.52	8.63	6.39	8.63	0.000023	0.21	21.44	12.71	0.05
Fossa Nuova	2	Max WS	TR100	6.49	5.52	8.68	6.55	8.68	0.000045	0.29	22.02	12.87	0.07
Fossa Nuova	2	Max WS	MV TR200	6.69	5.52	8.68	6.56	8.69	0.000048	0.30	22.09	12.89	0.07
Fossa Nuova	2	Max WS	TR500	7.89	5.52	8.72	6.63	8.72	0.000063	0.35	22.54	13.02	0.08
Fossa Nuova	1.5			Bridge									
Fossa Nuova	1.01	Max WS	TR20	3.69	5.52	8.59		8.61	0.000206	0.56	6.60	2.15	0.10
Fossa Nuova	1.01	Max WS	TR30	4.40	5.52	8.59		8.61	0.000292	0.67	6.60	2.15	0.12
Fossa Nuova	1.01	Max WS	TR100	6.48	5.52	8.59		8.64	0.000635	0.98	6.60	2.15	0.18
Fossa Nuova	1.01	Max WS	MV TR200	6.67	5.52	8.59		8.64	0.000673	1.01	6.60	2.15	0.18
Fossa Nuova	1.01	Max WS	TR500	7.88	5.52	8.59		8.66	0.000939	1.19	6.60	2.15	0.22
Fossa Nuova	1	Max WS	TR20	2.81	5.52	8.59	6.08	8.60	0.000221	0.43	6.60	2.15	0.08
Fossa Nuova	1	Max WS	TR30	2.81	5.52	8.59	6.08	8.60	0.000221	0.43	6.60	2.15	0.08
Fossa Nuova	1	Max WS	TR100	2.81	5.52	8.59	6.08	8.60	0.000221	0.43	6.60	2.15	0.08
Fossa Nuova	1	Max WS	MV TR200	2.81	5.52	8.59	6.08	8.60	0.000221	0.43	6.60	2.15	0.08
Fossa Nuova	1	Max WS	TR500	2.81	5.52	8.59	6.08	8.60	0.000221	0.43	6.60	2.15	0.08

HEC-RAS Profile: Max WS

Storage Area	Profile	Plan	W.S. Elev (m)	SA Min El (m)	Net Flux (m3/s)	SA Area (1000 m2)	SA Volume (1000 m3)
S1	Max WS	TR20	9.25	6.05	40.72	124.00	279.48
S1	Max WS	TR30	9.39	6.05	23.27	124.00	296.41
S1	Max WS	TR100	9.81	6.05	1.37	134.97	351.11
S1	Max WS	MV TR200	9.88	6.05	0.25	134.97	360.78
S1	Max WS	TR500	10.23	6.05	3.31	145.12	410.90
S2	Max WS	TR20	5.80	5.80	0.00	0.17	0.00
S2	Max WS	TR30	5.80	5.80	0.00	0.17	0.00
S2	Max WS	TR100	5.80	5.80	0.00	0.17	0.00
S2	Max WS	MV TR200	5.80	5.80	0.00	0.17	0.00
S2	Max WS	TR500	5.80	5.80	0.00	0.17	0.00
S3	Max WS	TR20	7.00	7.00	0.00	0.01	0.00
S3	Max WS	TR30	7.00	7.00	0.00	0.01	0.00
S3	Max WS	TR100	7.00	7.00	0.00	0.01	0.00
S3	Max WS	MV TR200	7.00	7.00	0.00	0.01	0.00
S3	Max WS	TR500	7.00	7.00	0.00	0.01	0.00

