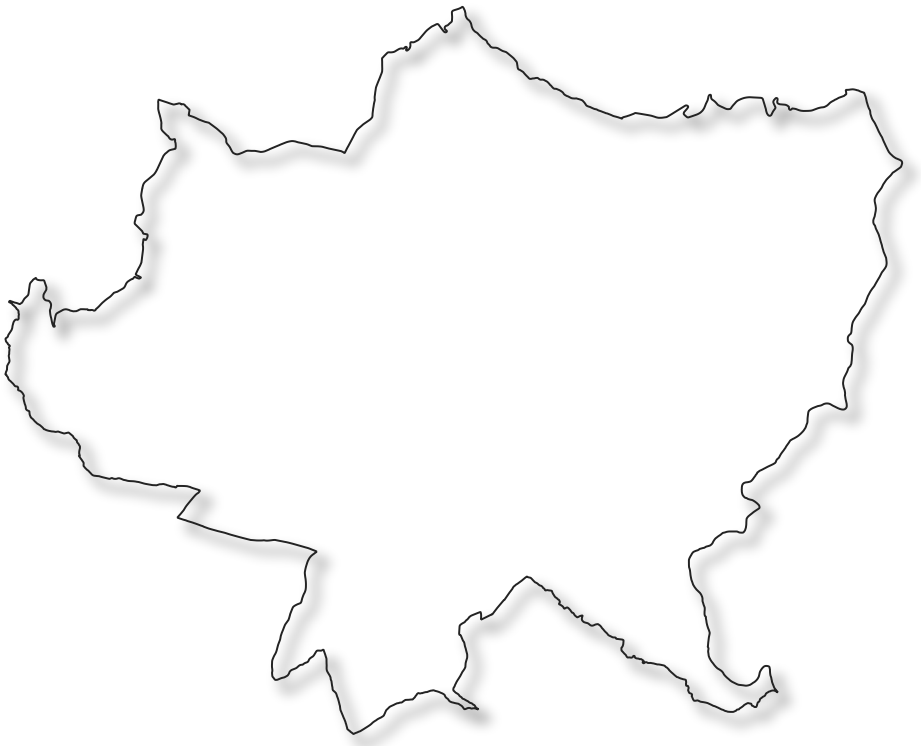
Allegati_R01
Piano Strutturale

COMUNE DI SIENA



Legge Regionale 41/2018
Allegati HEC-RAS alla Relazione idrologico-idraulica.

progetto:
Roberto Vezzosi (capogruppo)

Stefania Rizzotti, ldp studio

Luca Gentili e ldp progetti gis s.r.l., Sistema Informativo Territoriale

Monica Coletta (Studio tecnico Agostoli) e Bianca Borri, aspetti agronomici e paesaggistici

ATS s.r.l. (Cristina Felici), archeologia e beni culturali

Indagini geologiche, idrauliche e sismiche
ProGeo Engineering s.r.l.:
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Davide Giovannuzzi, Gregorio Bartolucci, Mirko Frasconi

Andrea Debernardi ed Emanuele Gianmaria Ferrara, mobilità

Maria Rita Cecchini, edilizia sostenibile ed energia

Gaetano Viciconte, aspetti legali in materia edilizia e urbanistica

Fabrizio Cinquini (Terre.it) e Techland Engeneering studio associato, VAS

Febbraio 2020

Sindaco: Luigi De Mossi

Direzione Urbanistica:
Responsabile Unico del Procedimento
Paolo Giuliani

Ufficio Urbanistica:
Lucia Buracchini, Marco Vannocci
Rossana Papini

MODELLI HEC RAS

INDICE:

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "Bozzone"

TORRENTE BOZZONE

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 6h

Profilo longitudinale

Sezioni Trasversali

Dati idraulici

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ALLEGATI

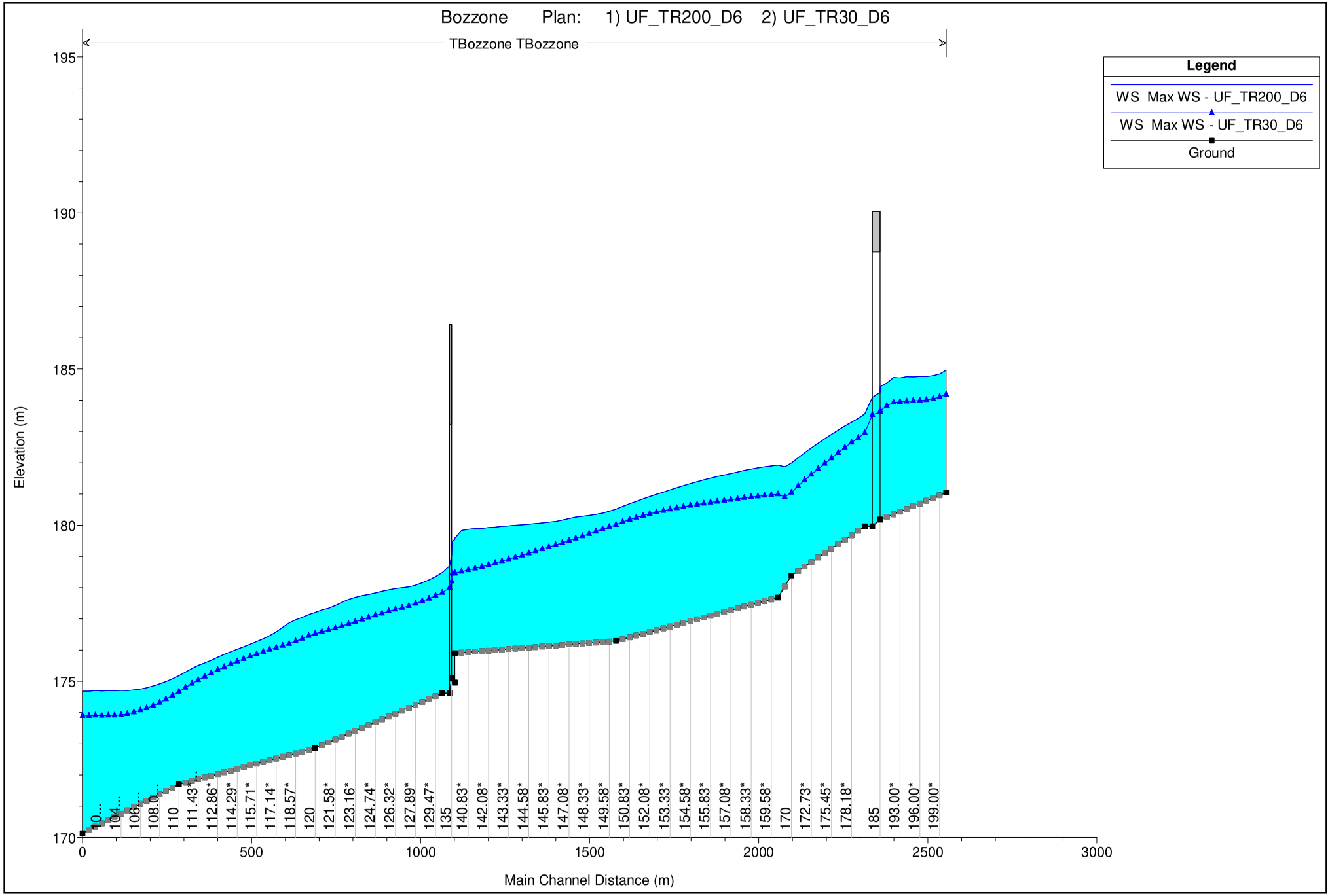
MODELLAZIONE HEC-RAS 5.0.3 "Bozzone"

TORRENTE BOZZONE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 6h

Profilo longitudinale


Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
TBozzone TBozzone
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
Ground
Elevation (m)
Main Channel Distance (m)
195
190
185
180
175
170
0
500
1000
1500
2000
2500
3000
0...
104...
106...
108.0...
110
111.43*
112.86*
114.29*
115.71*
117.14*
118.57*
120
121.58*
123.16*
124.74*
126.32*
127.89*
129.47*
135
140.83*
142.08*
143.33*
144.58*
145.83*
147.08*
148.33*
149.58*
150.83*
152.08*
153.33*
154.58*
155.83*
157.08*
158.33*
159.58*
170
172.73*
175.45*
178.18*
185
193.00*
196.00*
199.00*

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ALLEGATI

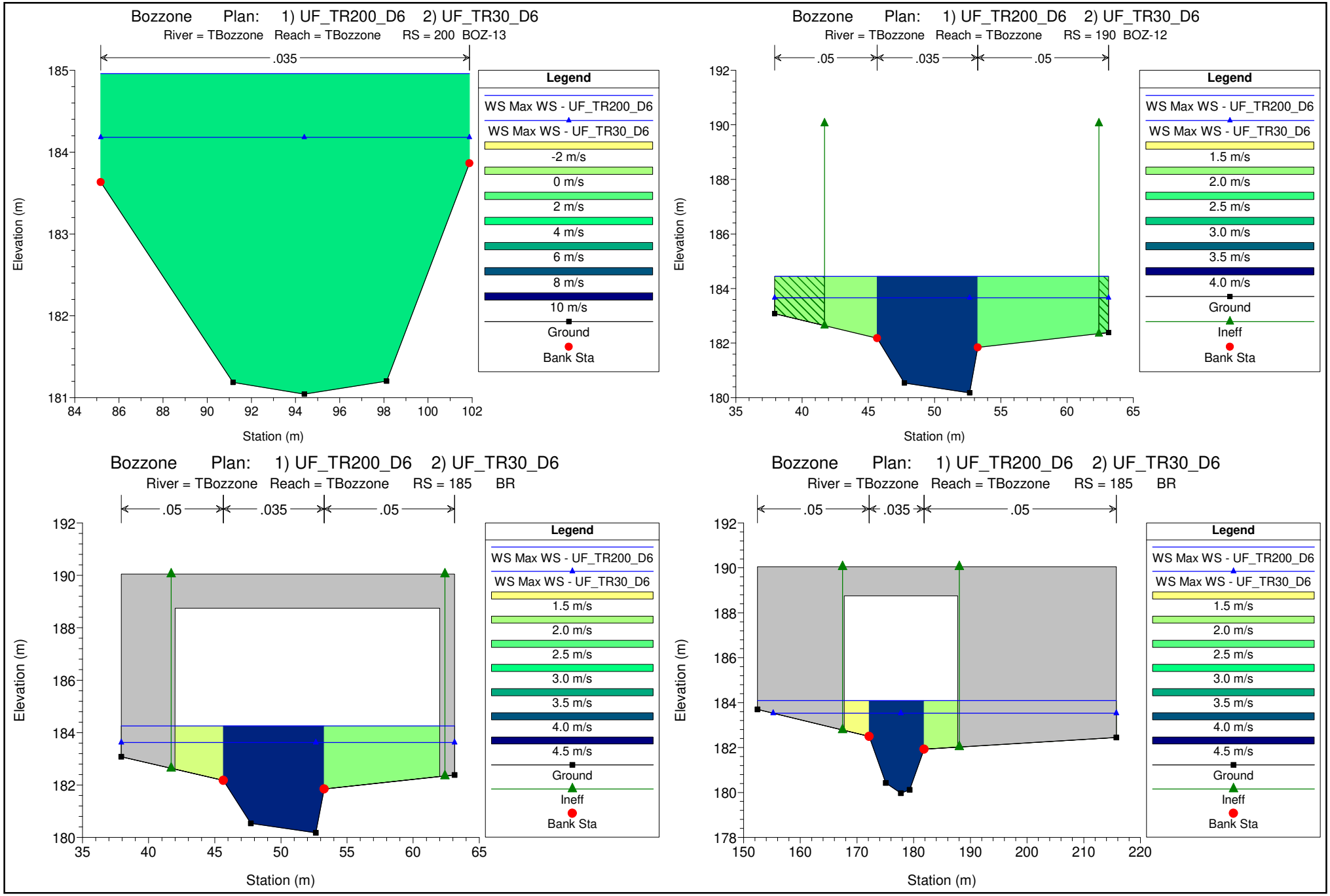
MODELLAZIONE HEC-RAS 5.0.3 "Bozzone"

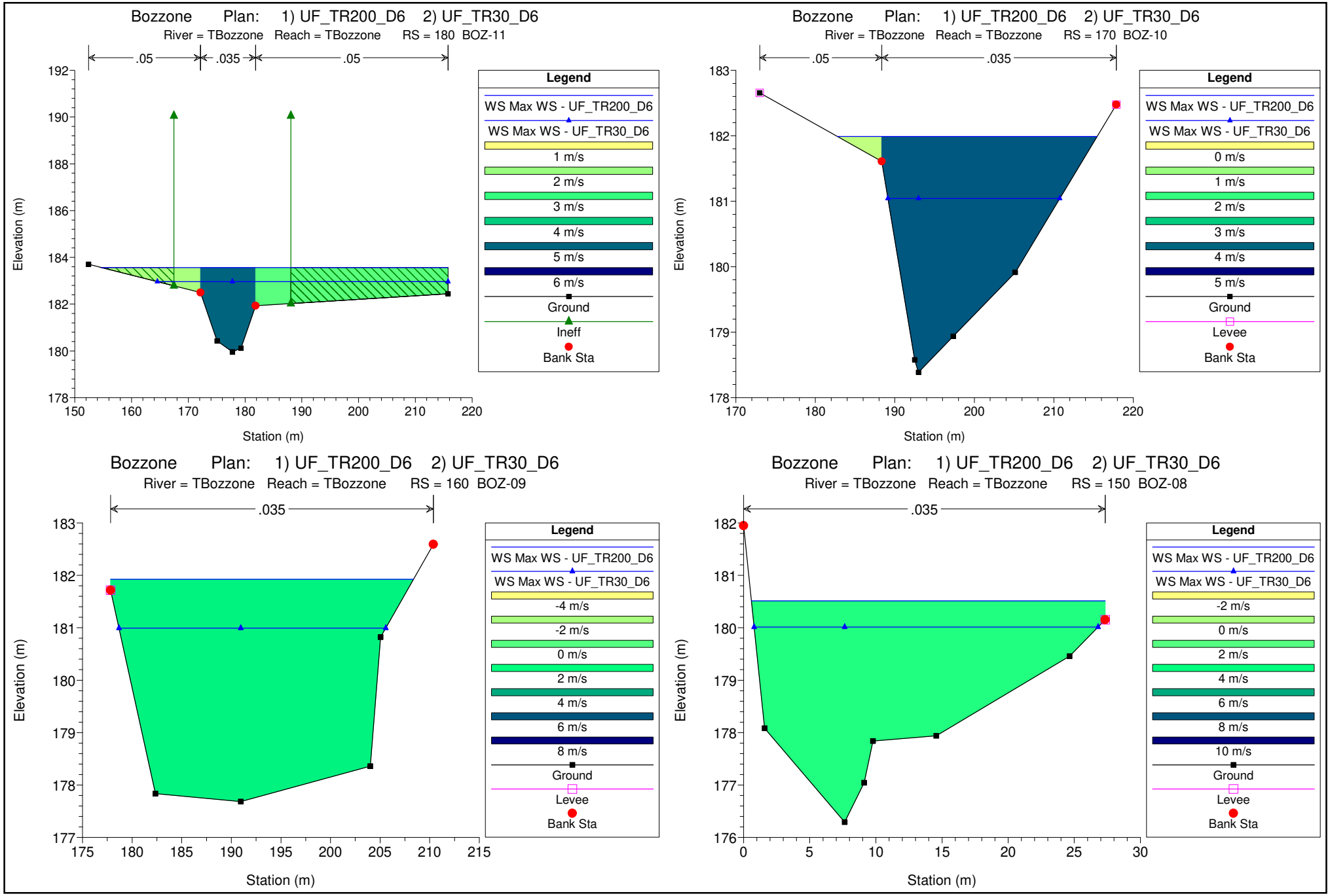
TORRENTE BOZZONE

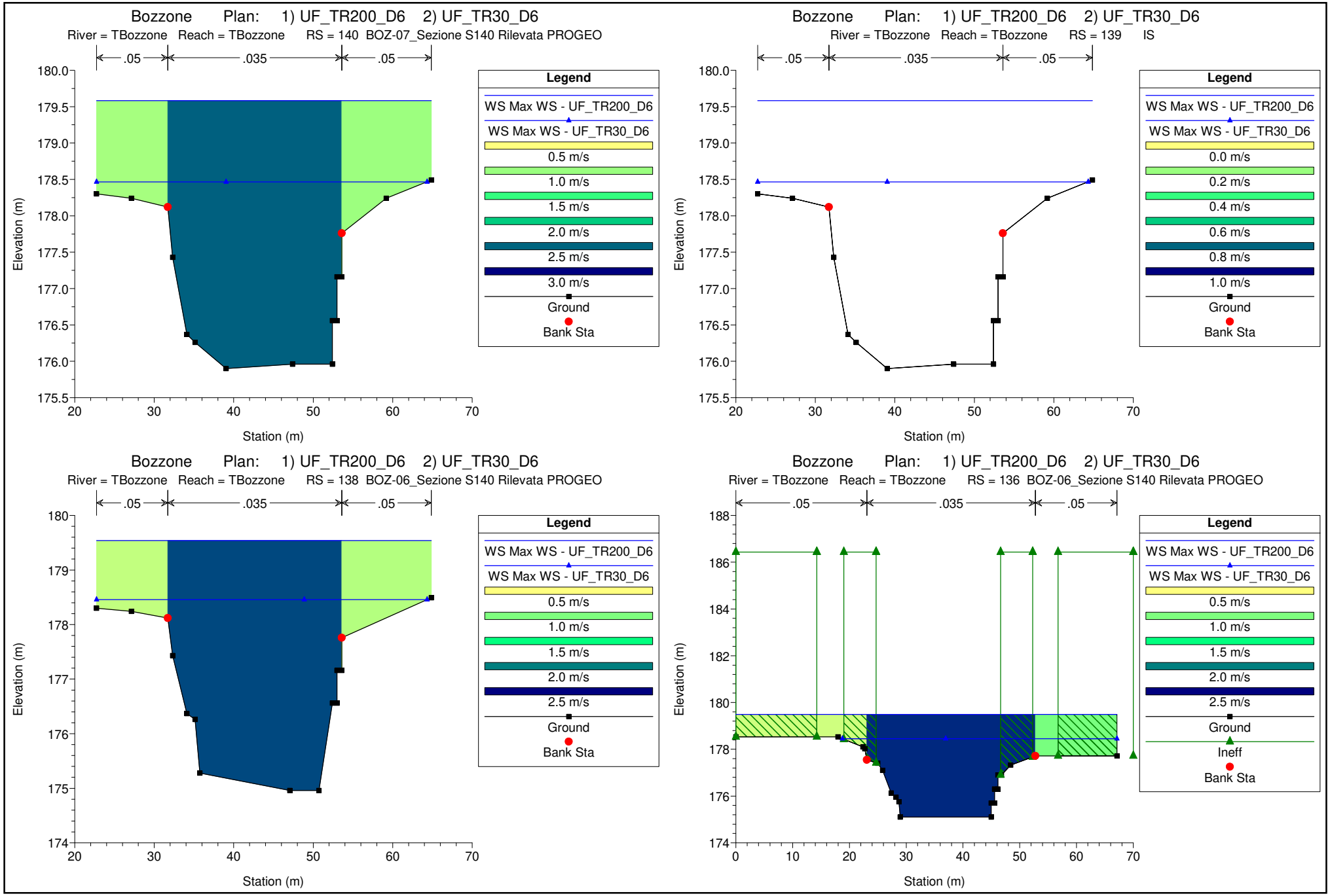
MODELLAZIONE PER TR=30 e 200 anni

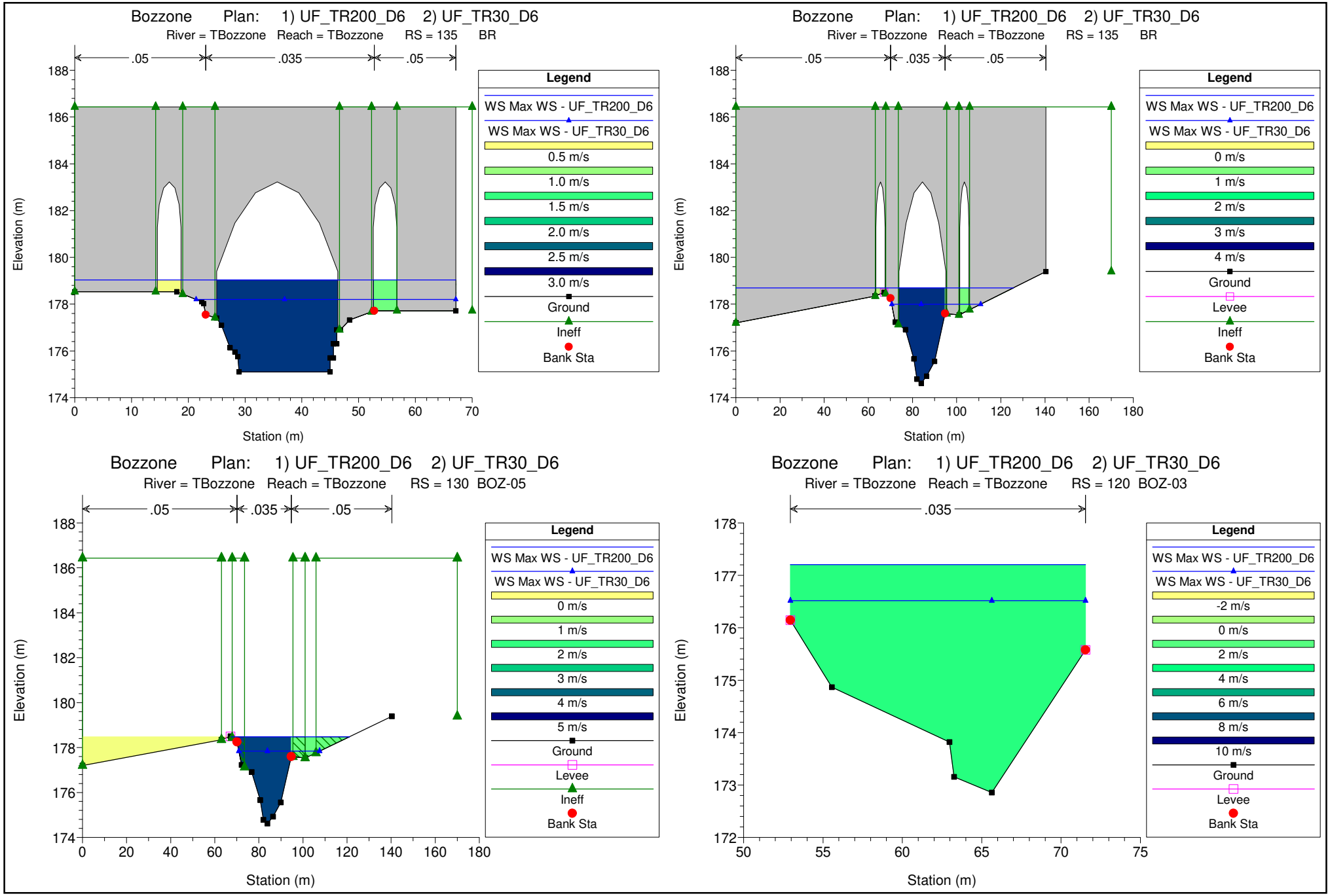
DURATE DI PIOGGIA: 6h

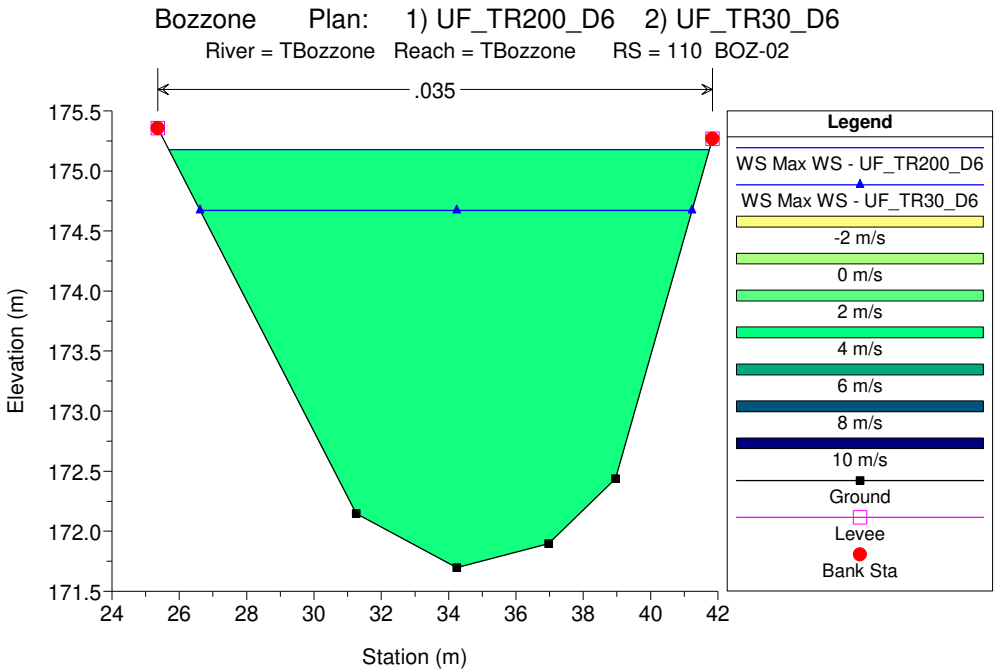
Sezioni Trasversali (da monte verso valle)

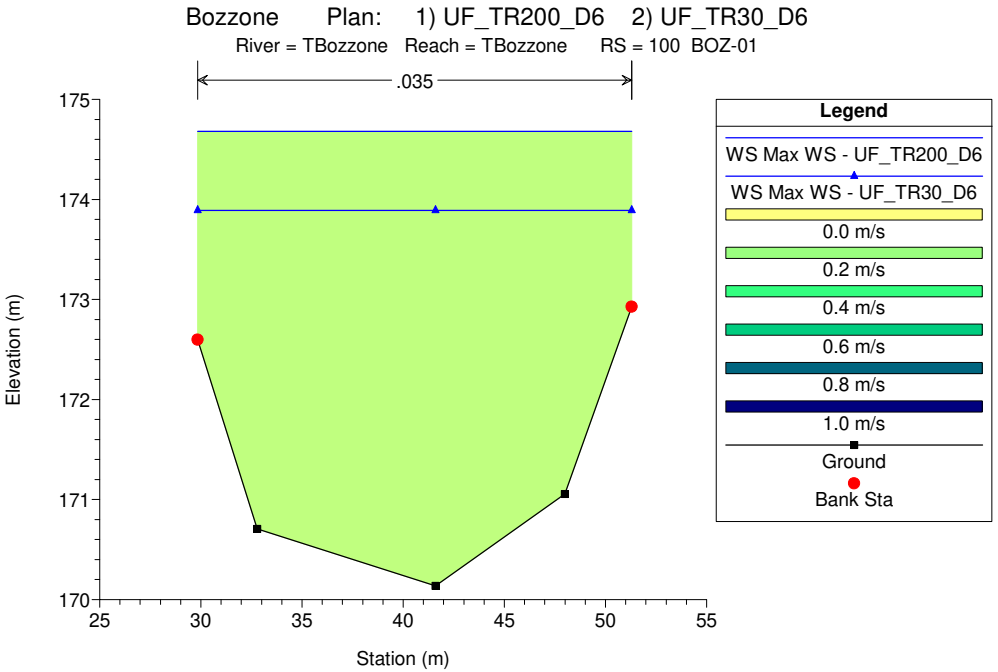

Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 200 BOZ-13
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 190 BOZ-12
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
4.0 m/s
Ground
Ineff
Bank Sta
Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 185 BR
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
4.0 m/s
4.5 m/s
Ground
Ineff
Bank Sta
Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 185 BR
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
4.0 m/s
4.5 m/s
Ground
Ineff
Bank Sta


Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 180 BOZ-11
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
6 m/s
Ground
Ineff
Bank Sta
Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 170 BOZ-10
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
Ground
Levee
Bank Sta
Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 160 BOZ-09
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta
Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 150 BOZ-08
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta


Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 140 BOZ-07_Sezione S140 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 139 IS
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 138 BOZ-06_Sezione S140 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 136 BOZ-06_Sezione S140 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Ineff
Bank Sta


Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 135 BR
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Ineff
Bank Sta
Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 135 BR
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
Ground
Levee
Ineff
Bank Sta
Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 130 BOZ-05
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
Ground
Levee
Ineff
Bank Sta
Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 120 BOZ-03
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta


Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 110 BOZ-02
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta


Bozzone Plan: 1) UF_TR200_D6 2) UF_TR30_D6
River = TBozzone Reach = TBozzone RS = 100 BOZ-01
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D6
WS Max WS - UF_TR30_D6
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "Bozzone"

TORRENTE BOZZONE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 6h

Dati idraulici

HEC-RAS Plan: UF_TR30_D6 River: TBozzone Reach: TBozzone Profile: Max WS

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
TBozzone	200	Max WS	121.59	181.04	184.18		184.70	0.004897	3.19			38.11	16.70	0.67
TBozzone	199.99		Lat Struct											
TBozzone	199.98		Lat Struct											
TBozzone	190	Max WS	104.67	180.18	183.67	183.20	184.08	0.003906	3.23	1.45	1.69	42.02	25.20	0.60
TBozzone	185		Bridge											
TBozzone	180	Max WS	104.67	179.96	182.96	183.05	183.81	0.009455	4.31	0.91	1.92	28.84	51.20	0.93
TBozzone	170	Max WS	119.44	178.39	181.04	181.05	181.77	0.011274	3.78			31.58	21.64	1.00
TBozzone	169.99		Lat Struct											
TBozzone	169.98		Lat Struct											
TBozzone	160	Max WS	119.52	177.68	180.99		181.13	0.000952	1.62			73.90	26.89	0.31
TBozzone	150	Max WS	121.11	176.29	180.01		180.33	0.003709	2.49			48.56	26.01	0.58
TBozzone	140	Max WS	121.09	175.90	178.47	177.60	178.74	0.002571	2.36	0.39	0.45	55.80	41.60	0.50
TBozzone	139		Inl Struct											
TBozzone	138	Max WS	121.09	174.96	178.46		178.63	0.001207	1.86	0.26	0.34	69.81	41.59	0.35
TBozzone	137.99		Lat Struct											
TBozzone	137.98		Lat Struct											
TBozzone	136	Max WS	121.09	175.10	178.45	176.85	178.62	0.001110	1.81	0.04	0.54	68.83	48.36	0.34
TBozzone	135		Bridge											
TBozzone	130	Max WS	121.09	174.61	177.84		178.27	0.004610	2.93		0.46	42.25	36.63	0.67
TBozzone	120	Max WS	107.95	172.86	176.52		176.86	0.003389	2.60			41.58	18.59	0.55
TBozzone	119.99		Lat Struct											
TBozzone	119.98		Lat Struct											
TBozzone	110	Max WS	103.55	171.70	174.67		175.30	0.006888	3.52			29.43	14.62	0.79
TBozzone	100	Max WS	10.00	170.14	173.89	170.82	173.89	0.000008	0.16			64.49	21.47	0.03

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "TBolgione"

TORRENTE BOLGIONE

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 1h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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ALLEGATI

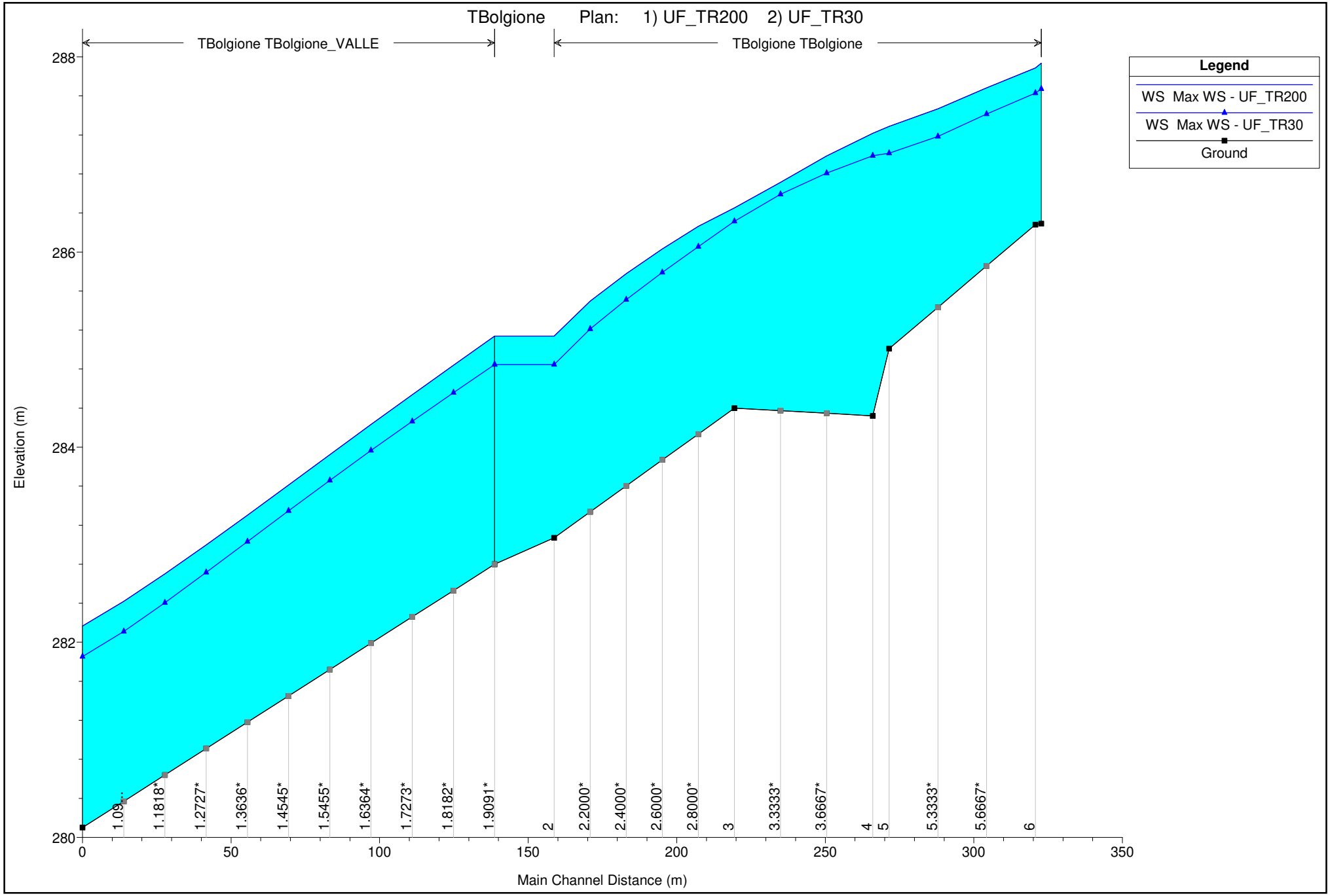
MODELLAZIONE HEC-RAS 5.0.3 "TBolgione"

TORRENTE BOLGIONE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Profilo longitudinale


TBolgione Plan: 1) UF_TR200 2) UF_TR30
TBolgione TBolgione_VALLE
TBolgione TBolgione
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
Ground
Elevation (m)
Main Channel Distance (m)
288
286
284
282
280
0
50
100
150
200
250
300
350
1.09...
1.1818*
1.2727*
1.3636*
1.4545*
1.5455*
1.6364*
1.7273*
1.8182*
1.9091*
2
2.2000*
2.4000*
2.6000*
2.8000*
3
3.3333*
3.6667*
4
5
5.3333*
5.6667*
6

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ALLEGATI

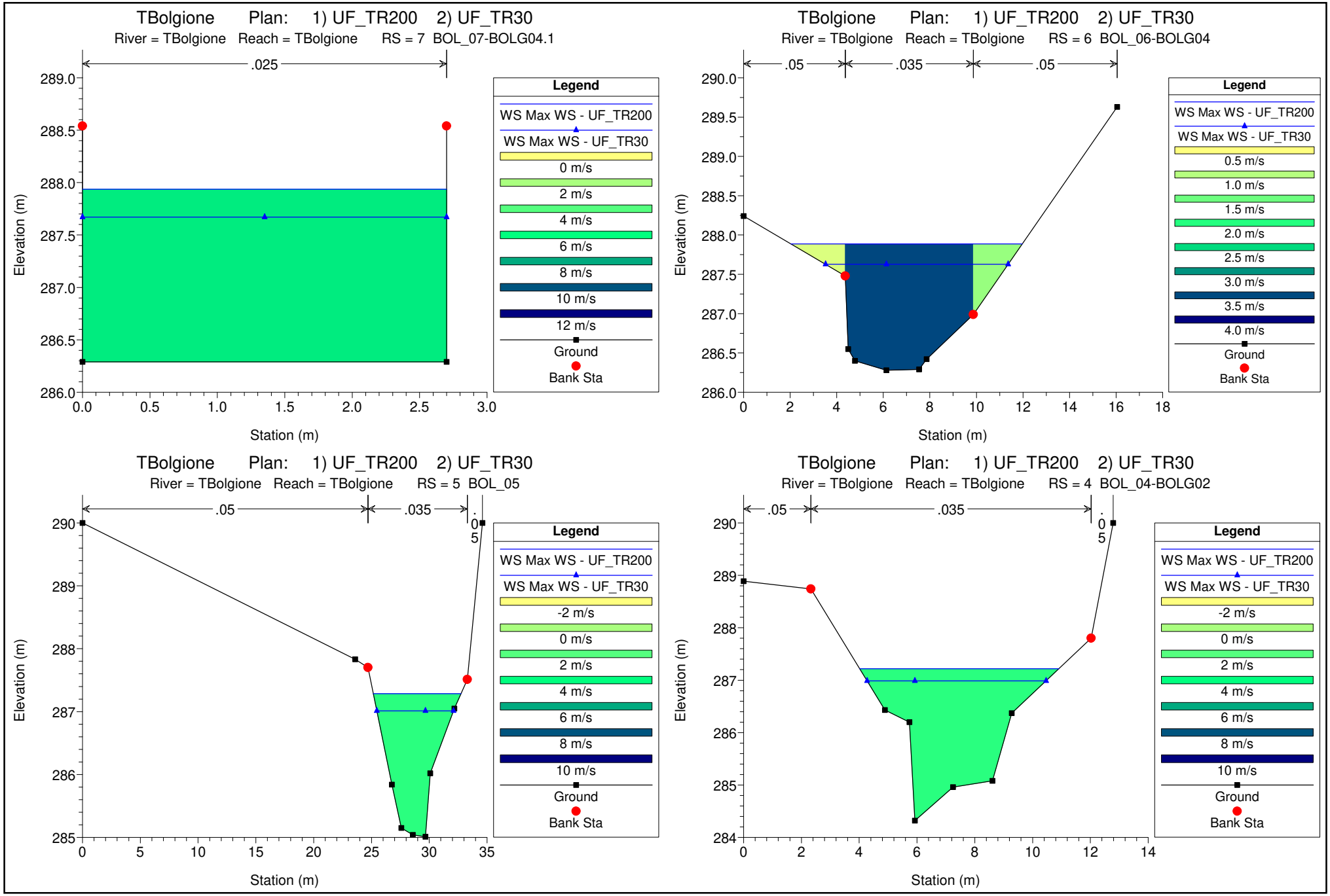
MODELLAZIONE HEC-RAS 5.0.3 "TBolgione"

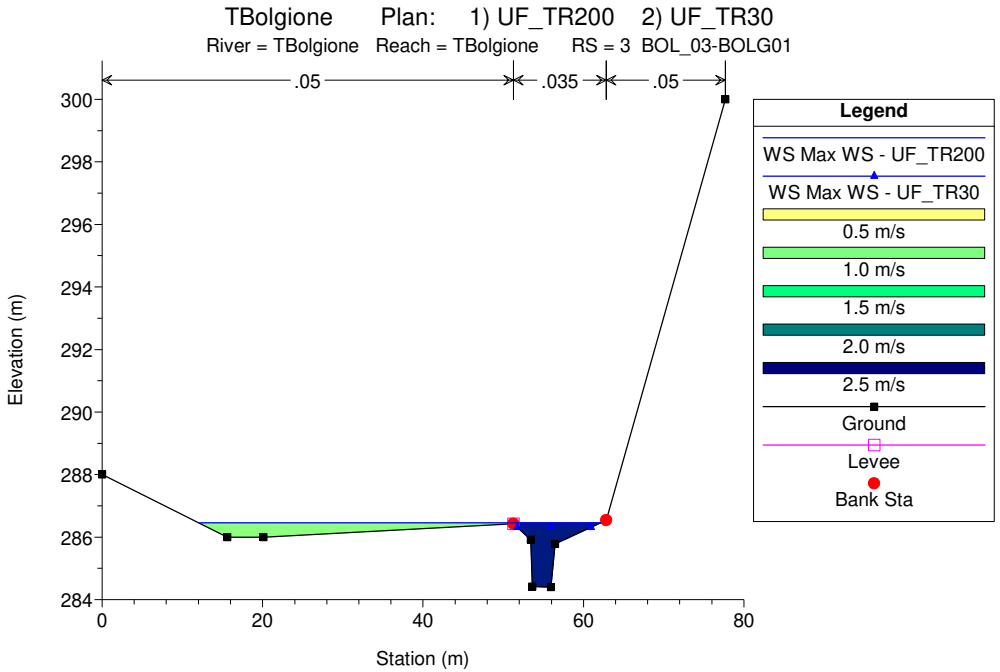
TORRENTE BOLGIONE

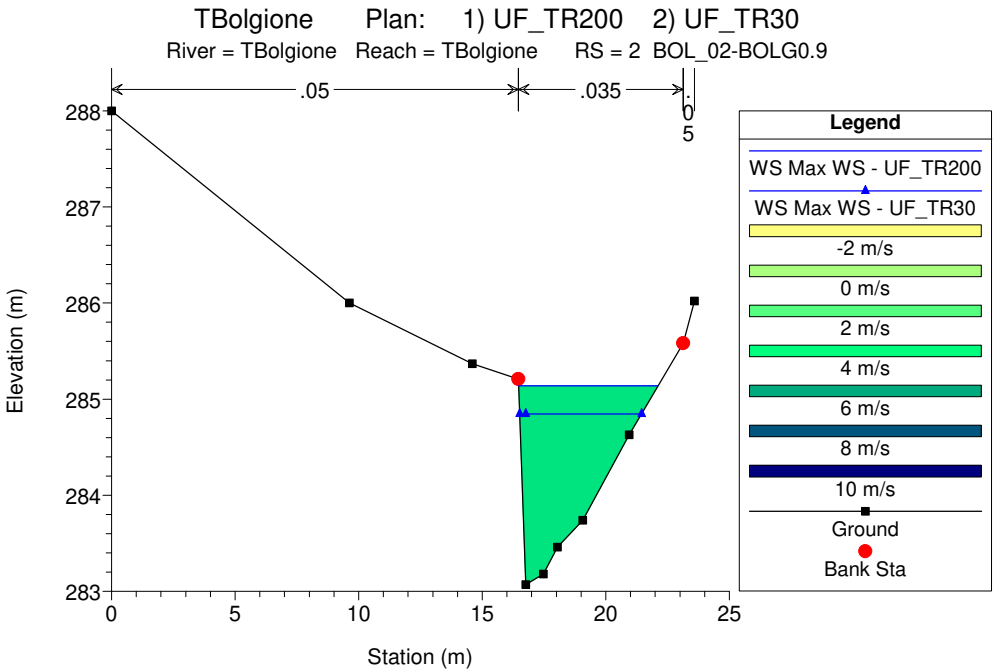
MODELLAZIONE PER TR=30 e 200 anni

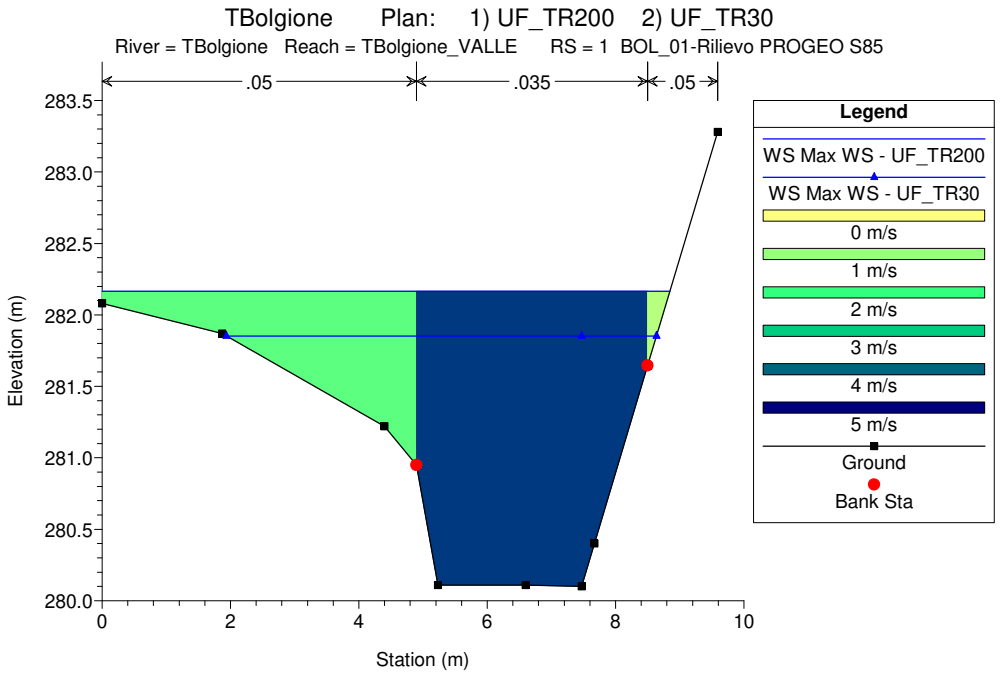
DURATE DI PIOGGIA: 1h

Sezioni Trasversali (da monte verso valle)


TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = TBolgione Reach = TBolgione RS = 7 BOL_07-BOLG04.1
.025
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Bank Sta
TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = TBolgione Reach = TBolgione RS = 6 BOL_06-BOLG04
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
4.0 m/s
Ground
Bank Sta
TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = TBolgione Reach = TBolgione RS = 5 BOL_05
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = TBolgione Reach = TBolgione RS = 4 BOL_04-BOLG02
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta


TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = TBolgione Reach = TBolgione RS = 3 BOL_03-BOLG01
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Levee
Bank Sta


TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = TBolgione Reach = TBolgione RS = 2 BOL_02-BOLG0.9
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta


TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = TBolgione Reach = TBolgione_VALLE RS = 1 BOL_01-Rilievo PROGEO S85
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "TBolgione"

TORRENTE BOLGIONE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Dati idraulici

HEC-RAS Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
TBolgione	7	Max WS	UF_TR200	28.63	286.29	287.94	288.54	290.05	0.038624	6.44			4.44	2.70	1.60
TBolgione	7	Max WS	UF_TR30	20.18	286.29	287.67	288.07	289.16	0.030472	5.41			3.73	2.70	1.47
TBolgione	6	Max WS	UF_TR200	28.63	286.28	287.89	287.92	288.49	0.011946	3.52	0.75	1.21	9.13	9.93	0.95
TBolgione	6	Max WS	UF_TR30	20.18	286.28	287.63	287.61	288.11	0.012366	3.12	0.39	0.98	6.84	7.84	0.93
TBolgione	5	Max WS	UF_TR200	28.99	285.01	287.29	287.12	287.75	0.010680	3.01			9.64	7.60	0.85
TBolgione	5	Max WS	UF_TR30	20.35	285.01	287.01	286.79	287.37	0.009443	2.65			7.68	6.64	0.79
TBolgione	4	Max WS	UF_TR200	29.03	284.32	287.22	287.00	287.69	0.012105	3.04			9.56	6.89	0.82
TBolgione	4	Max WS	UF_TR30	20.37	284.32	286.99	286.62	287.31	0.009370	2.53			8.06	6.20	0.71
TBolgione	3	Max WS	UF_TR200	29.37	284.40	286.45	286.49	286.66	0.013267	2.40	0.94		18.48	50.05	0.88
TBolgione	3	Max WS	UF_TR30	20.54	284.40	286.31	286.43	286.78	0.022364	3.01			6.82	9.20	1.12
TBolgione	2	Max WS	UF_TR200	29.72	283.07	285.14	285.51	286.23	0.034287	4.63			6.43	5.64	1.38
TBolgione	2	Max WS	UF_TR30	20.71	283.07	284.85	285.10	285.76	0.034464	4.24			4.88	4.93	1.36
TBolgione_VALLE	1	Max WS	UF_TR200	32.80	280.10	282.17	282.38	283.06	0.017075	4.44	1.60	0.72	9.04	8.85	1.06
TBolgione_VALLE	1	Max WS	UF_TR30	22.48	280.10	281.85	281.96	282.58	0.017034	3.90	1.35	0.39	6.53	6.70	1.02

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MODELLAZIONE HEC-RAS 5.0.3 "TBolgione"

AFFLUENTE BOLGIONE

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 1h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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ALLEGATI

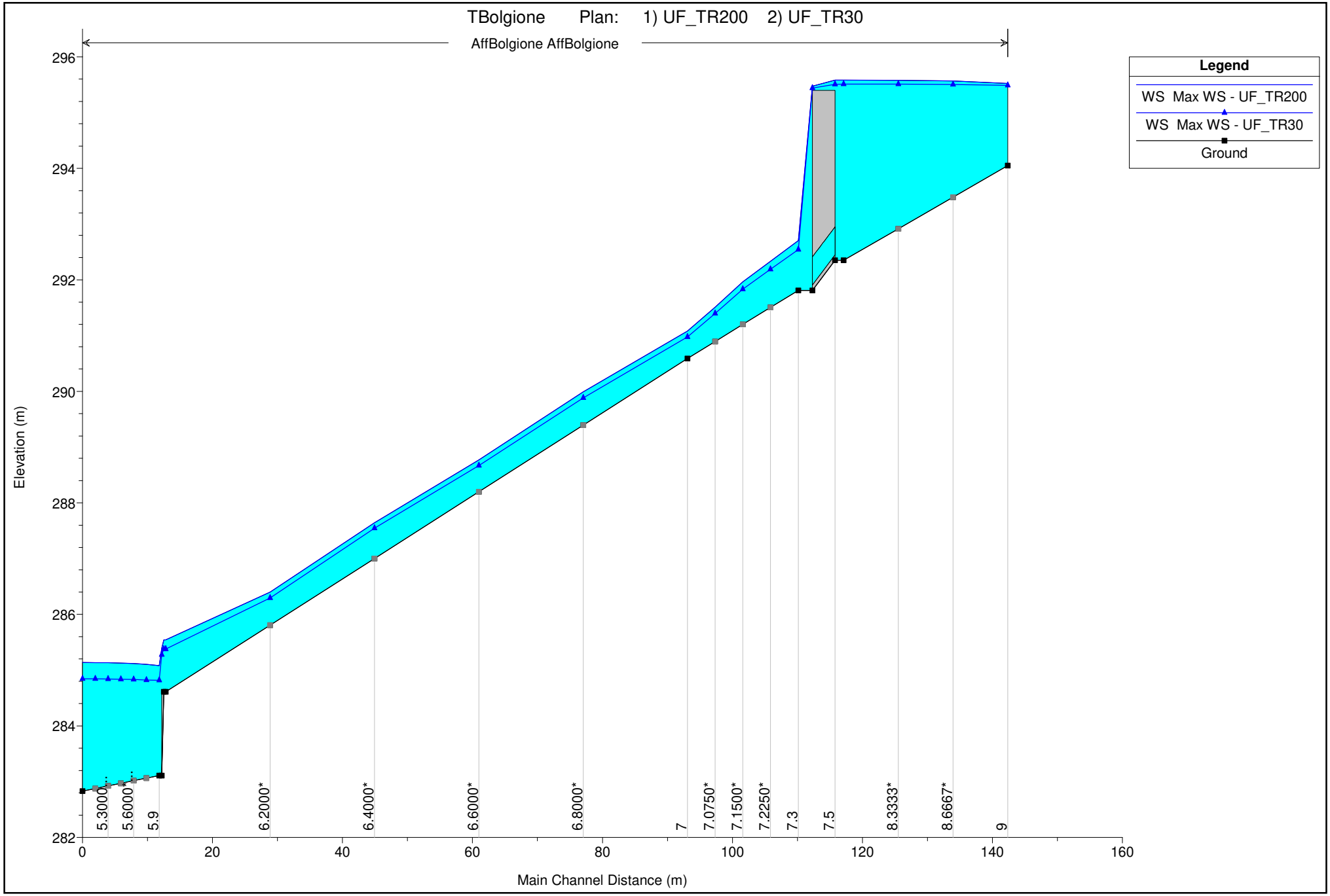
MODELLAZIONE HEC-RAS 5.0.3 "TBolgione"

AFFLUENTE BOLGIONE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Profilo longitudinale


TBolgione Plan: 1) UF_TR200 2) UF_TR30
AffBolgione AffBolgione
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
Ground
Elevation (m)
Main Channel Distance (m)
296
294
292
290
288
286
284
282
0
20
40
60
80
100
120
140
160
5.3000*
5.6000*
5.9
6.2000*
6.4000*
6.6000*
6.8000*
7
7.0750*
7.1500*
7.2250*
7.3
7.5
8.3333*
8.6667*
9

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ALLEGATI

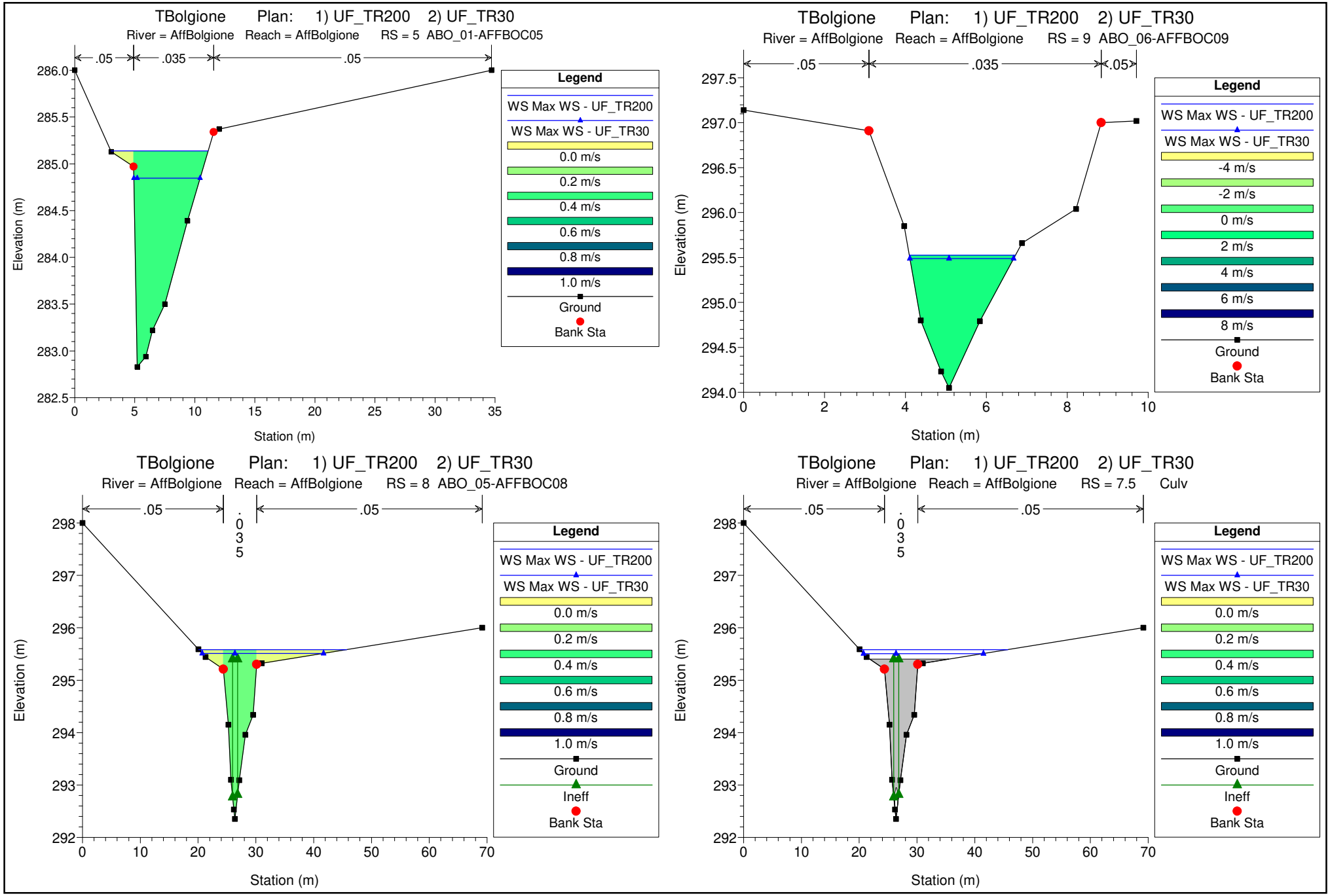
MODELLAZIONE HEC-RAS 5.0.3 "TBolgione"

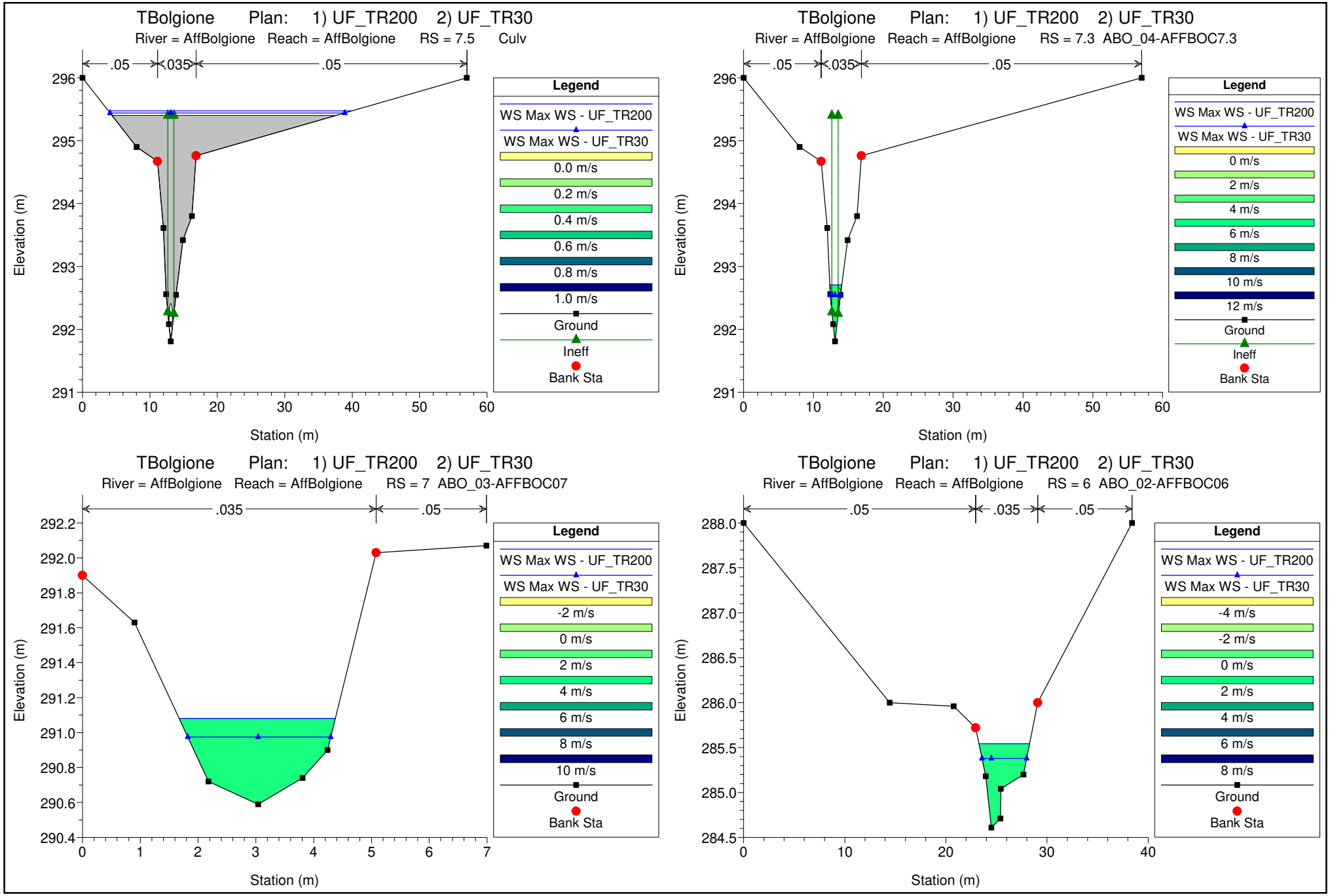
AFFLUENTE BOLGIONE

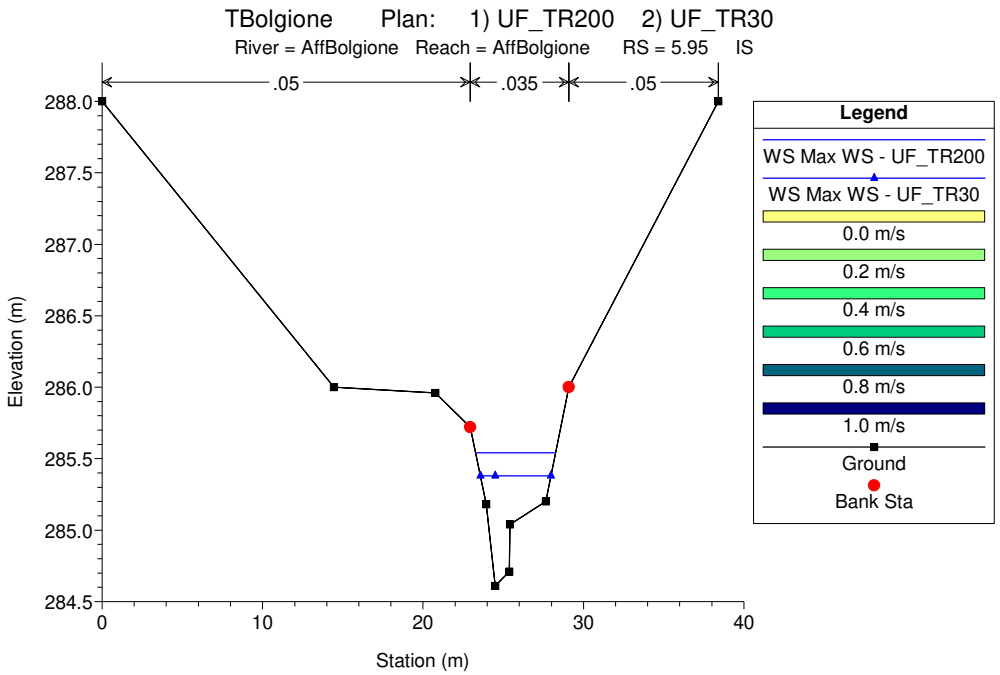
MODELLAZIONE PER TR=30 e 200 anni

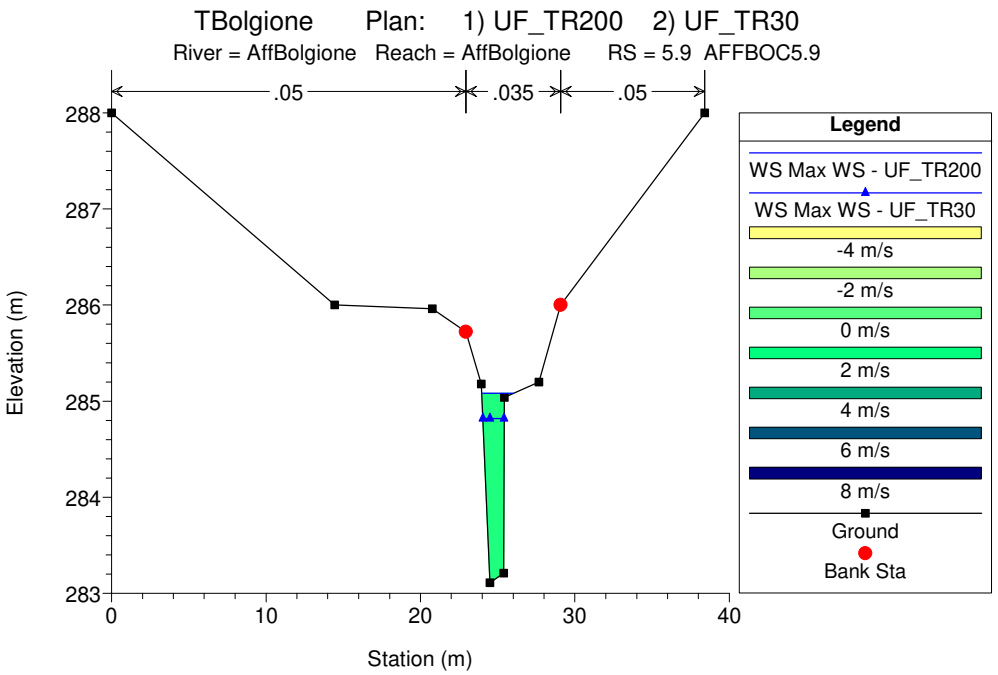
DURATE DI PIOGGIA: 1h

Sezioni Trasversali (da monte verso valle)


TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = AffBolgione Reach = AffBolgione RS = 5 ABO_01-AFFBOC05
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = AffBolgione Reach = AffBolgione RS = 9 ABO_06-AFFBOC09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = AffBolgione Reach = AffBolgione RS = 8 ABO_05-AFFBOC08
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = AffBolgione Reach = AffBolgione RS = 7.5 Culv
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta


TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = AffBolgione Reach = AffBolgione RS = 7.5 Culv
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = AffBolgione Reach = AffBolgione RS = 7.3 ABO_04-AFFBOC7.3
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Ineff
Bank Sta
TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = AffBolgione Reach = AffBolgione RS = 7 ABO_03-AFFBOC07
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = AffBolgione Reach = AffBolgione RS = 6 ABO_02-AFFBOC06
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta


TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = AffBolgione Reach = AffBolgione RS = 5.95 IS
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta


TBolgione Plan: 1) UF_TR200 2) UF_TR30
River = AffBolgione Reach = AffBolgione RS = 5.9 AFFBOC5.9
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200
WS Max WS - UF_TR30
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "TBolgione"

AFFLUENTE BOLGIONE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Dati idraulici

HEC-RAS Plan: UF_TR30 River: AffBolgione Reach: AffBolgione Profile: Max WS

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
AffBolgione	9	Max WS	1.90	294.05	295.49	294.98	295.54	0.002938	0.97			1.95	2.56	0.36
AffBolgione	8	Max WS	1.90	292.35	295.51		295.51	0.000035	0.19	0.03	0.03	11.69	21.01	0.05
AffBolgione	7.5		Culvert											
AffBolgione	7.3	Max WS	1.90	291.81	292.54	292.80	293.41	0.080297	4.11			0.46	1.44	1.83
AffBolgione	7	Max WS	1.90	290.59	290.97	291.12	291.44	0.076164	3.02			0.63	2.47	1.92
AffBolgione	6	Max WS	1.89	284.61	285.38	285.28	285.45	0.008404	1.20			1.57	4.40	0.64
AffBolgione	5.95		Inl Struct											
AffBolgione	5.9	Max WS	1.80	283.11	284.82	283.87	284.87	0.003326	0.96			1.88	1.38	0.26
AffBolgione	5	Max WS	1.80	282.83	284.85	283.53	284.85	0.000142	0.29			6.14	5.51	0.09

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "TCastagno"

TORRENTE CASTAGNO

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 1h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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ALLEGATI

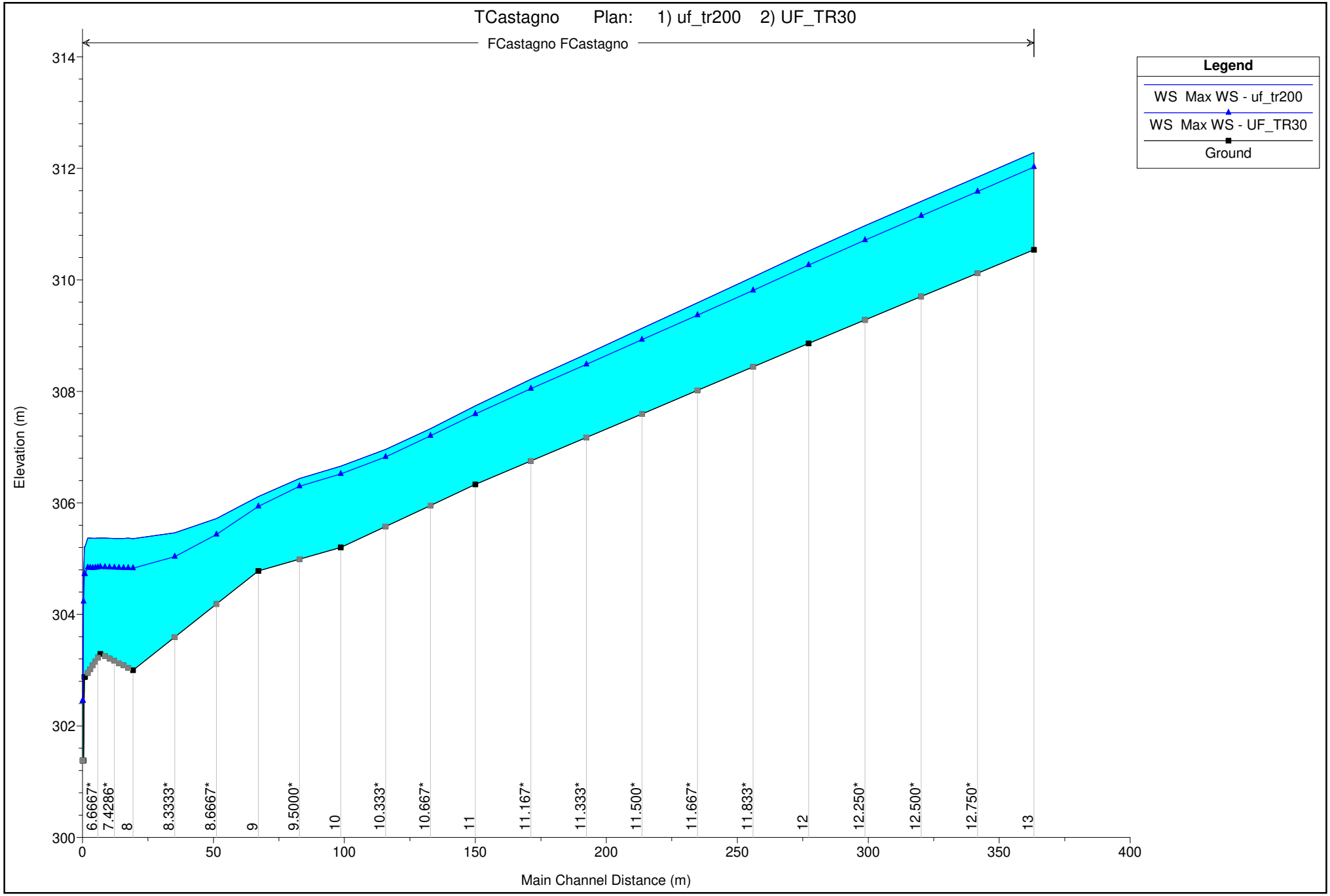
MODELLAZIONE HEC-RAS 5.0.3 "TCastagno"

TORRENTE CASTAGNO

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Profilo longitudinale


TCastagno Plan: 1) uf_tr200 2) UF_TR30
FCastagno FCastagno
Legend
WS Max WS - uf_tr200
WS Max WS - UF_TR30
Ground
Elevation (m)
Main Channel Distance (m)
314
312
310
308
306
304
302
300
0
50
100
150
200
250
300
350
400
6.6667*
7.4286*
8
8.3333*
8.6667*
9
9.5000*
10
10.333*
10.667*
11
11.167*
11.333*
11.500*
11.667*
11.833*
12
12.250*
12.500*
12.750*
13

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ALLEGATI

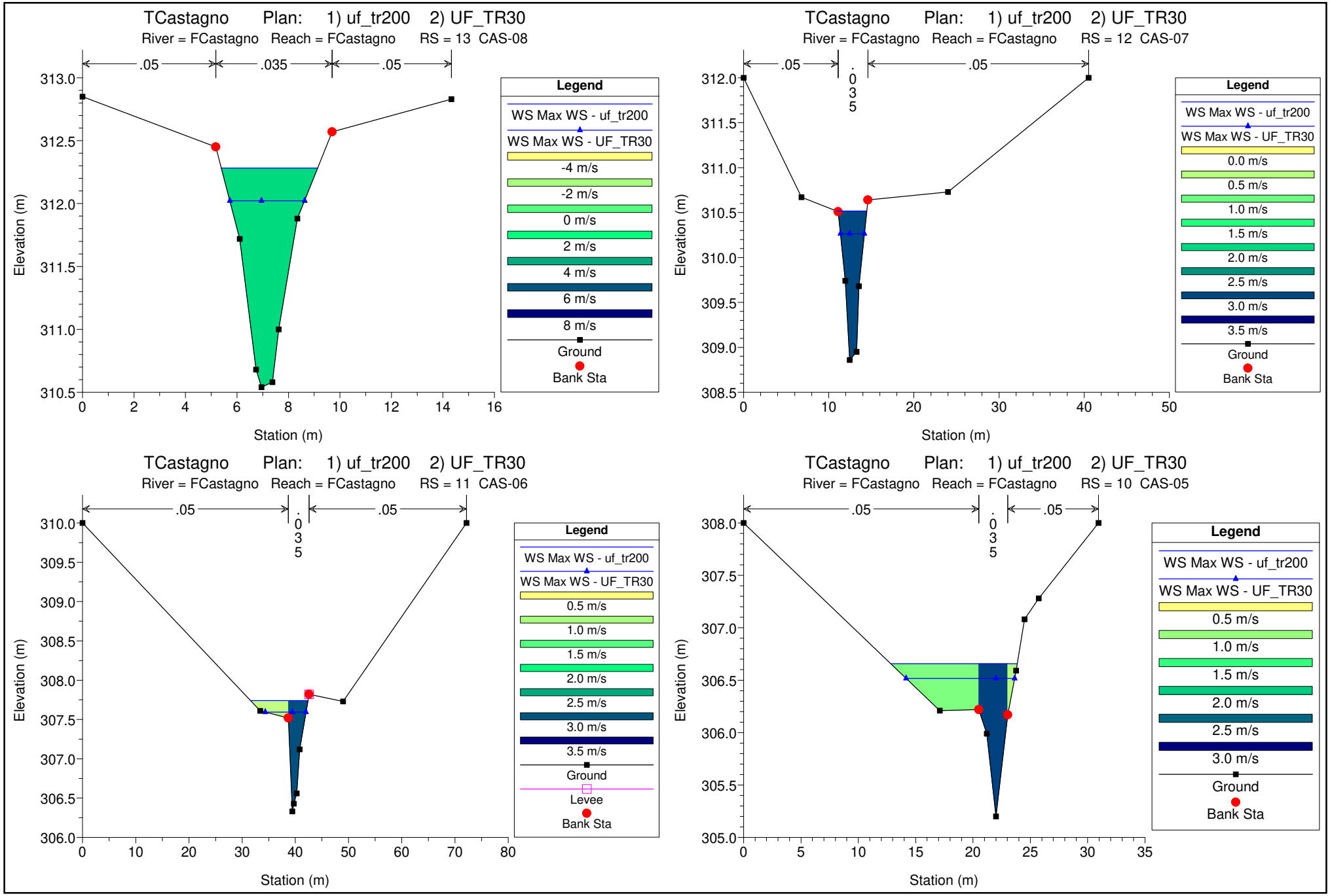
MODELLAZIONE HEC-RAS 5.0.3 "TCastagno"

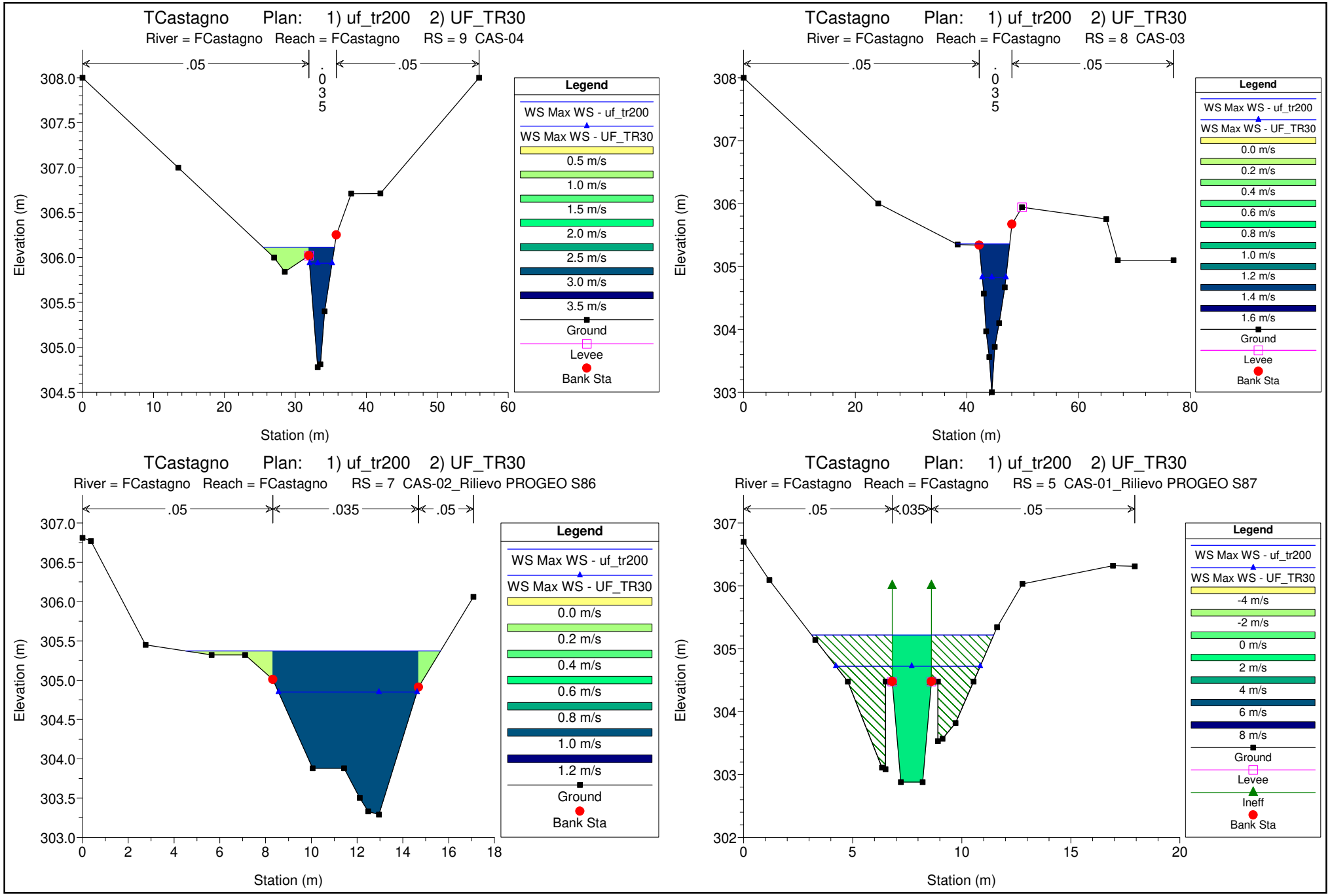
TORRENTE CASTAGNO

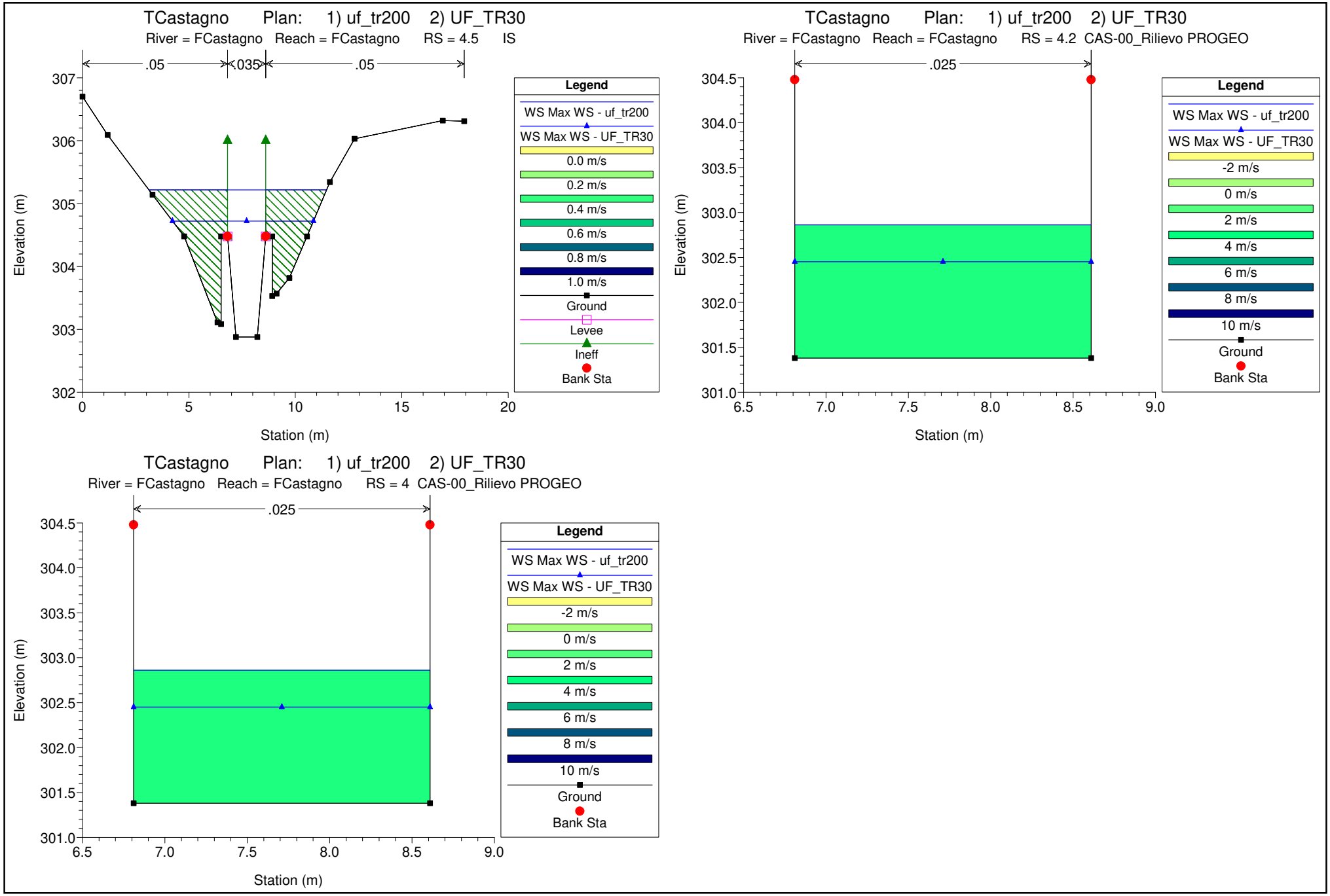
MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Sezioni Trasversali (da monte verso valle)


TCastagno Plan: 1) uf_tr200 2) UF_TR30
River = FCastagno Reach = FCastagno RS = 13 CAS-08
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - uf_tr200
WS Max WS - UF_TR30
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
TCastagno Plan: 1) uf_tr200 2) UF_TR30
River = FCastagno Reach = FCastagno RS = 12 CAS-07
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - uf_tr200
WS Max WS - UF_TR30
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
TCastagno Plan: 1) uf_tr200 2) UF_TR30
River = FCastagno Reach = FCastagno RS = 11 CAS-06
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - uf_tr200
WS Max WS - UF_TR30
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Levee
Bank Sta
TCastagno Plan: 1) uf_tr200 2) UF_TR30
River = FCastagno Reach = FCastagno RS = 10 CAS-05
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - uf_tr200
WS Max WS - UF_TR30
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta


TCastagno Plan: 1) uf_tr200 2) UF_TR30
River = FCastagno Reach = FCastagno RS = 9 CAS-04
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - uf_tr200
WS Max WS - UF_TR30
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Levee
Bank Sta
TCastagno Plan: 1) uf_tr200 2) UF_TR30
River = FCastagno Reach = FCastagno RS = 8 CAS-03
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - uf_tr200
WS Max WS - UF_TR30
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Levee
Bank Sta
TCastagno Plan: 1) uf_tr200 2) UF_TR30
River = FCastagno Reach = FCastagno RS = 7 CAS-02_Rilievo PROGEO S86
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - uf_tr200
WS Max WS - UF_TR30
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
Ground
Bank Sta
TCastagno Plan: 1) uf_tr200 2) UF_TR30
River = FCastagno Reach = FCastagno RS = 5 CAS-01_Rilievo PROGEO S87
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - uf_tr200
WS Max WS - UF_TR30
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Ineff
Bank Sta


TCastagno Plan: 1) uf_tr200 2) UF_TR30
River = FCastagno Reach = FCastagno RS = 4.5 IS
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - uf_tr200
WS Max WS - UF_TR30
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Ineff
Bank Sta
TCastagno Plan: 1) uf_tr200 2) UF_TR30
River = FCastagno Reach = FCastagno RS = 4.2 CAS-00_Rilievo PROGEO
.025
Elevation (m)
Station (m)
Legend
WS Max WS - uf_tr200
WS Max WS - UF_TR30
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
TCastagno Plan: 1) uf_tr200 2) UF_TR30
River = FCastagno Reach = FCastagno RS = 4 CAS-00_Rilievo PROGEO
.025
Elevation (m)
Station (m)
Legend
WS Max WS - uf_tr200
WS Max WS - UF_TR30
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "TCastagno"

TORRENTE CASTAGNO

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Dati idraulici

HEC-RAS Plan: uf_tr200 River: FCastagno Reach: FCastagno Profile: Max WS

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
FCastagno	13	Max WS	8.90	310.54	312.28	312.28	312.70	0.020633	2.87			3.11	3.74	1.00
FCastagno	12	Max WS	8.90	308.86	310.52	310.52	310.98	0.022263	3.00	0.07		2.96	3.54	1.02
FCastagno	11	Max WS	8.90	306.33	307.74	307.90	308.16	0.024416	3.03	0.87		3.68	10.79	1.14
FCastagno	10	Max WS	8.90	305.20	306.66	306.68	306.92	0.014630	2.67	1.13	0.87	4.88	11.02	0.91
FCastagno	9	Max WS	8.90	304.78	306.11	306.27	306.58	0.027499	3.18	0.96		3.50	10.05	1.22
FCastagno	8	Max WS	8.89	303.00	305.36		305.47	0.003298	1.46	0.07		6.17	9.54	0.44
FCastagno	7	Max WS	8.89	303.29	305.37		305.42	0.001030	1.01	0.13	0.23	9.25	11.12	0.28
FCastagno	5	Max WS	8.89	302.88	305.22	304.59	305.53	0.009773	2.49			3.57	8.35	0.57
FCastagno	4.5		Inl Struct											
FCastagno	4.2	Max WS	8.89	301.38	302.86		303.43	0.015029	3.33			2.67	1.80	0.87
FCastagno	4	Max WS	8.89	301.38	302.86	302.74	303.43	0.015106	3.34			2.66	1.80	0.88

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

FOSSO DEL FOSSATONE

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 1h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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ALLEGATI

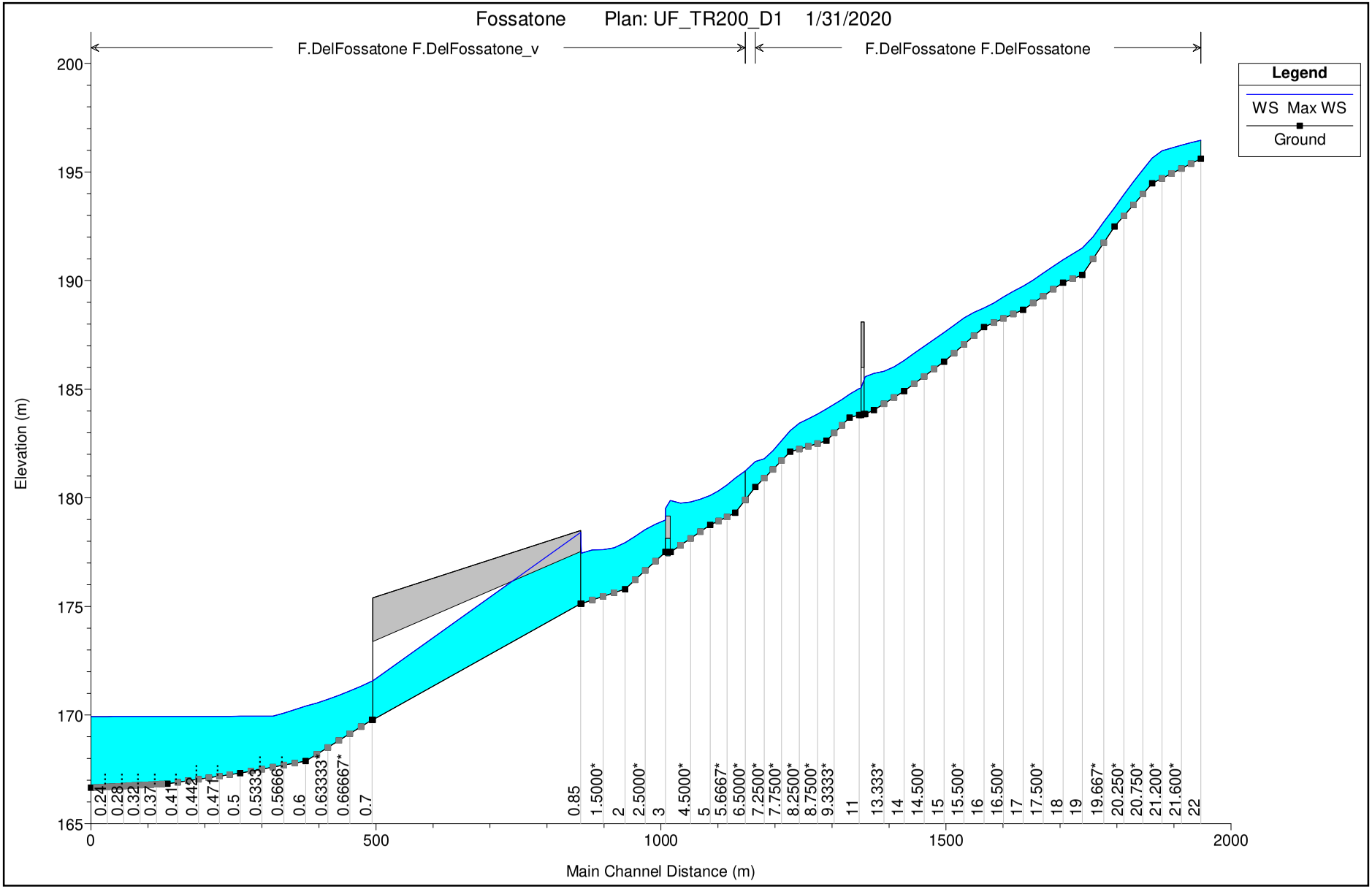
MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

FOSSO DEL FOSSATONE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Profilo longitudinale


Fossatone Plan: UF_TR200_D1 1/31/2020
F.DelFossatone F.DelFossatone_v
F.DelFossatone F.DelFossatone
Legend
WS Max WS
Ground
Elevation (m)
Main Channel Distance (m)
200
195
190
185
180
175
170
165
0
500
1000
1500
2000
0.24...
0.28...
0.32...
0.37...
0.41...
0.442...
0.471...
0.5
0.5333...
0.5666...
0.6
0.63333*
0.66667*
0.7
0.85
1.5000*
2
2.5000*
3
4.5000*
5
5.6667*
6.5000*
7.2500*
7.7500*
8.2500*
8.7500*
9.3333*
11
13.333*
14
14.500*
15
15.500*
16
16.500*
17
17.500*
18
19
19.667*
20.250*
20.750*
21.200*
21.600*
22

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ALLEGATI

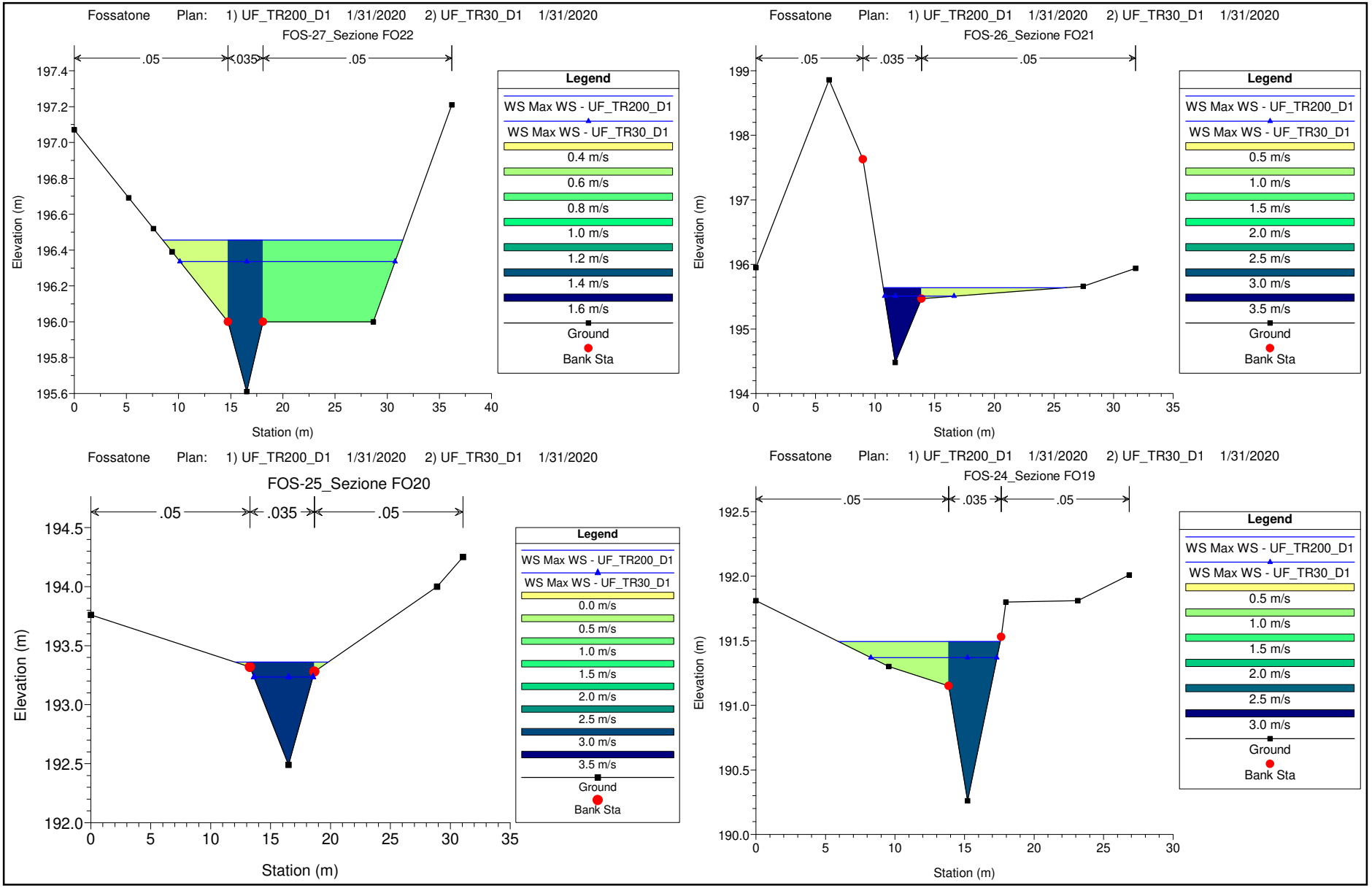
MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

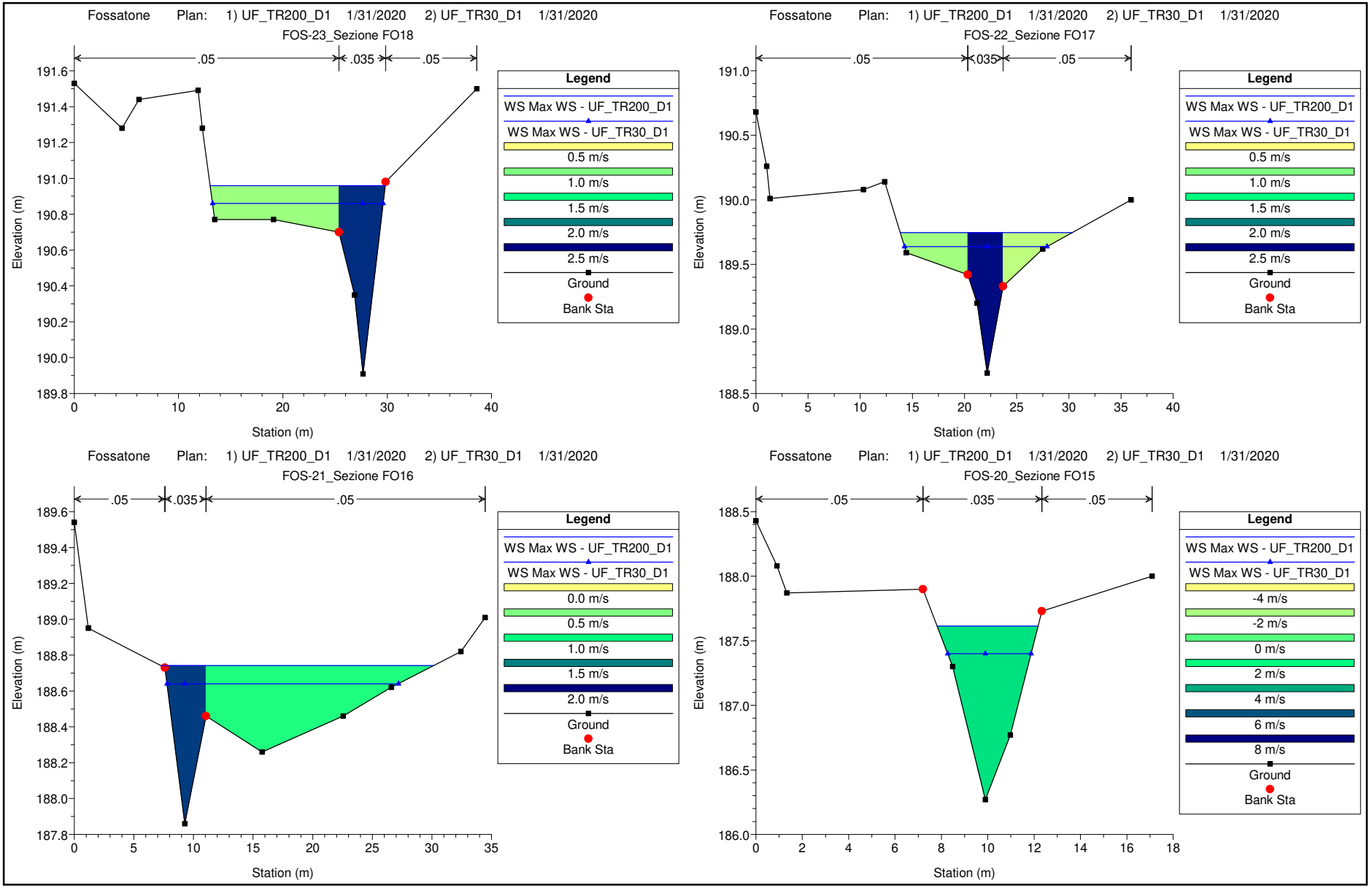
FOSSO DEL FOSSATONE

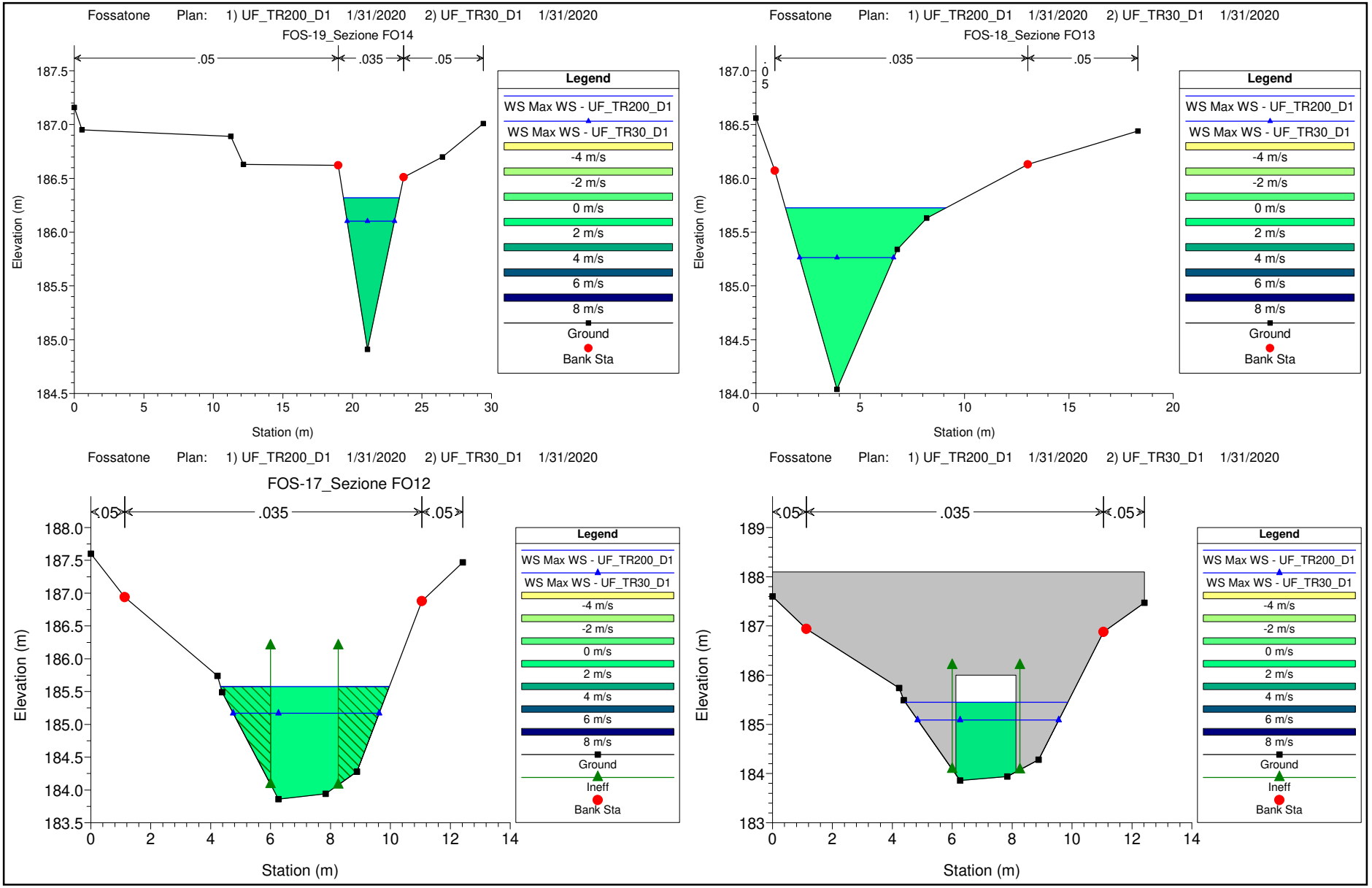
MODELLAZIONE PER TR=30 e 200 anni

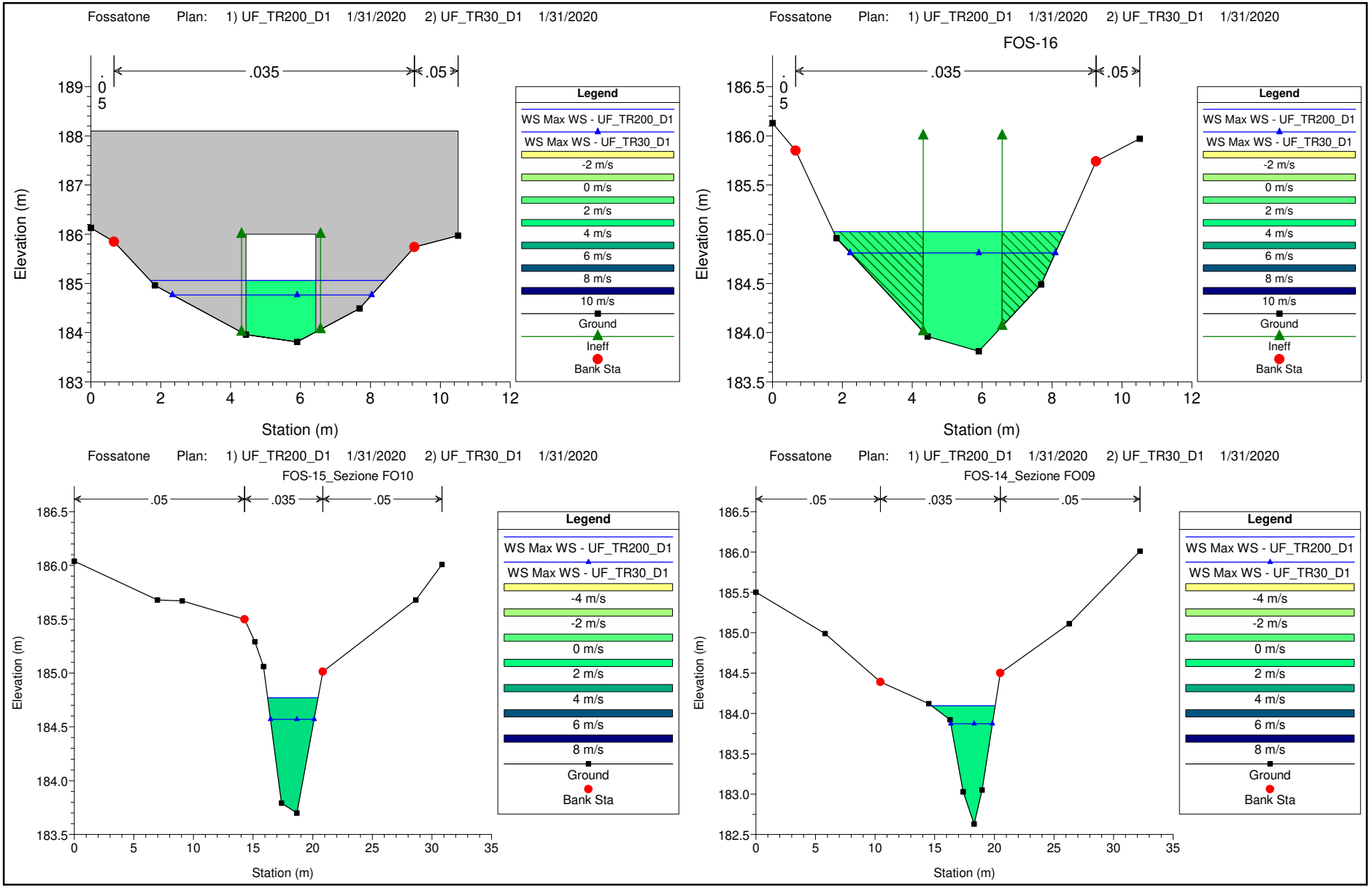
DURATE DI PIOGGIA: 1h

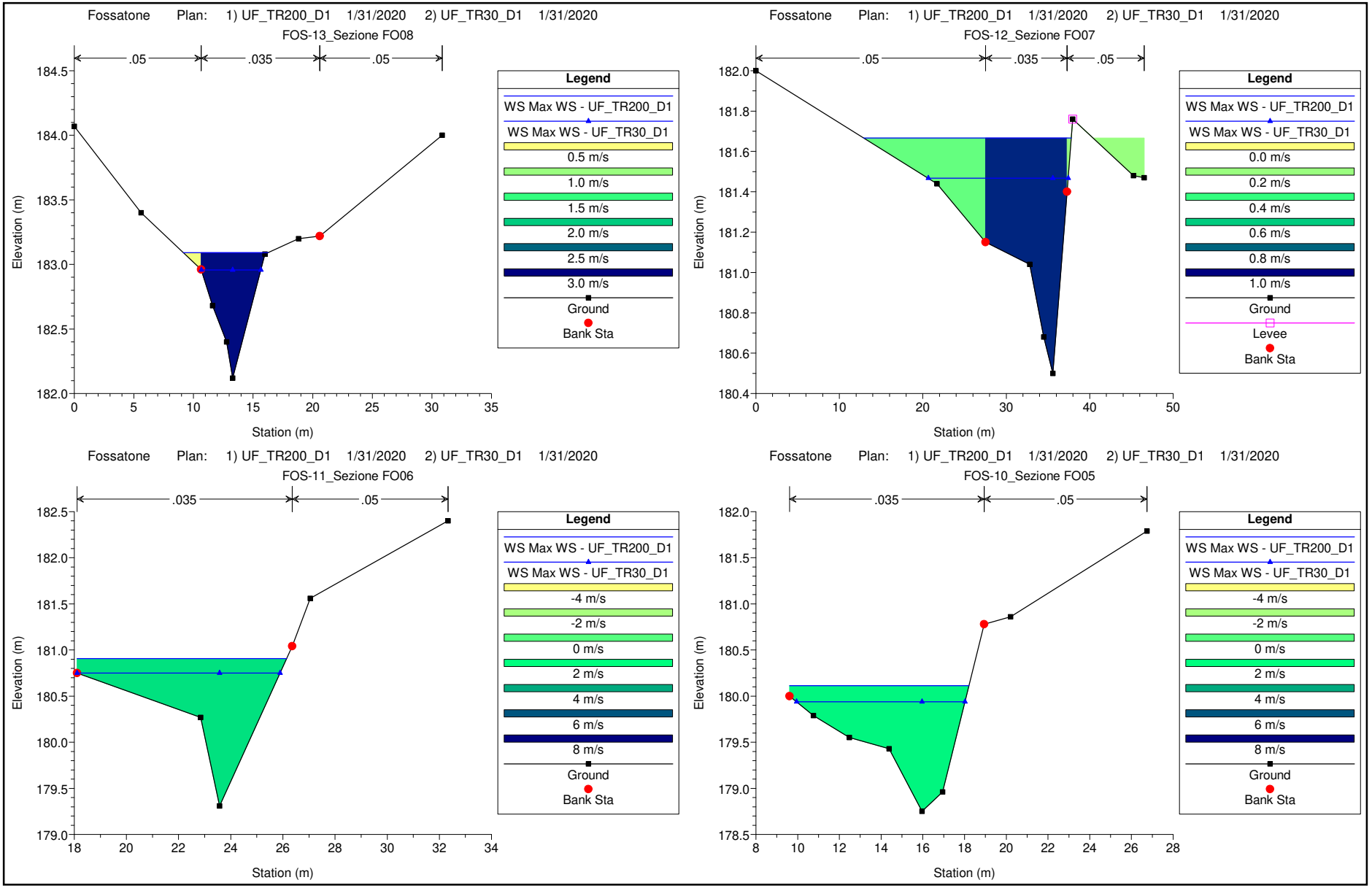
Sezioni Trasversali (da monte verso valle)

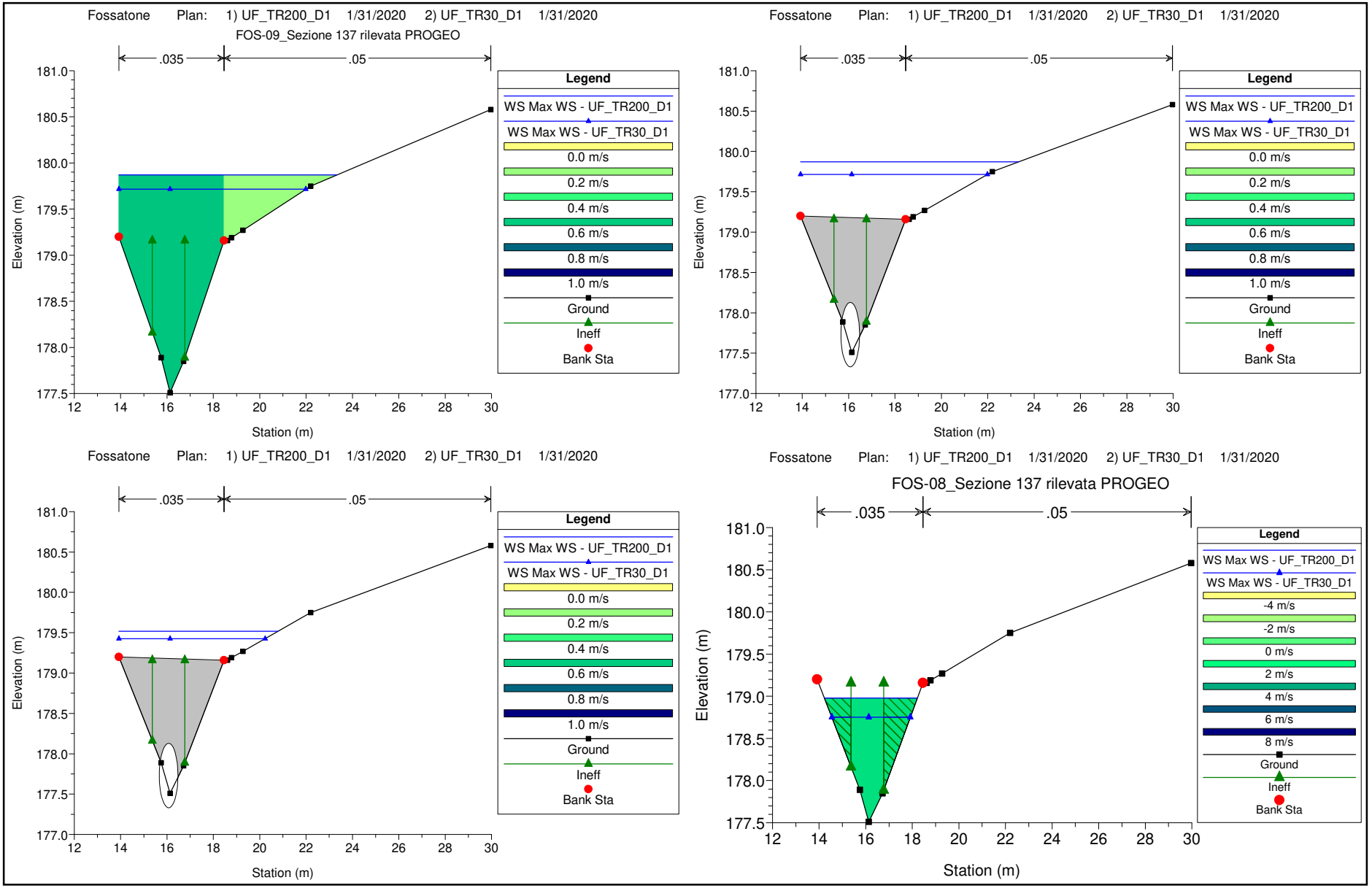

Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-27_Sezione FO22
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-26_Sezione FO21
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-25_Sezione FO20
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-24_Sezione FO19
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta

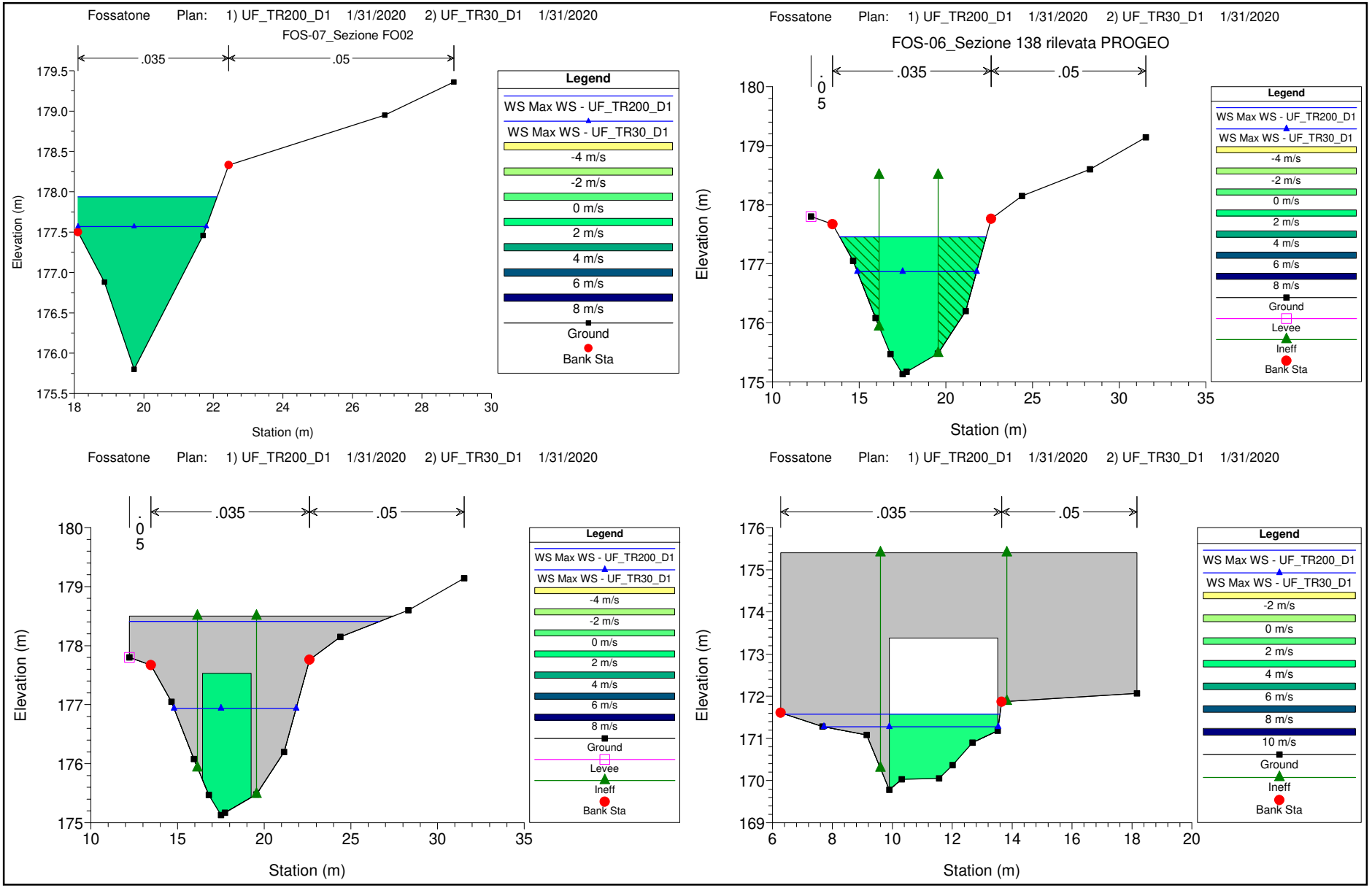

Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-23_Sezione FO18
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-22_Sezione FO17
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-21_Sezione FO16
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-20_Sezione FO15
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta

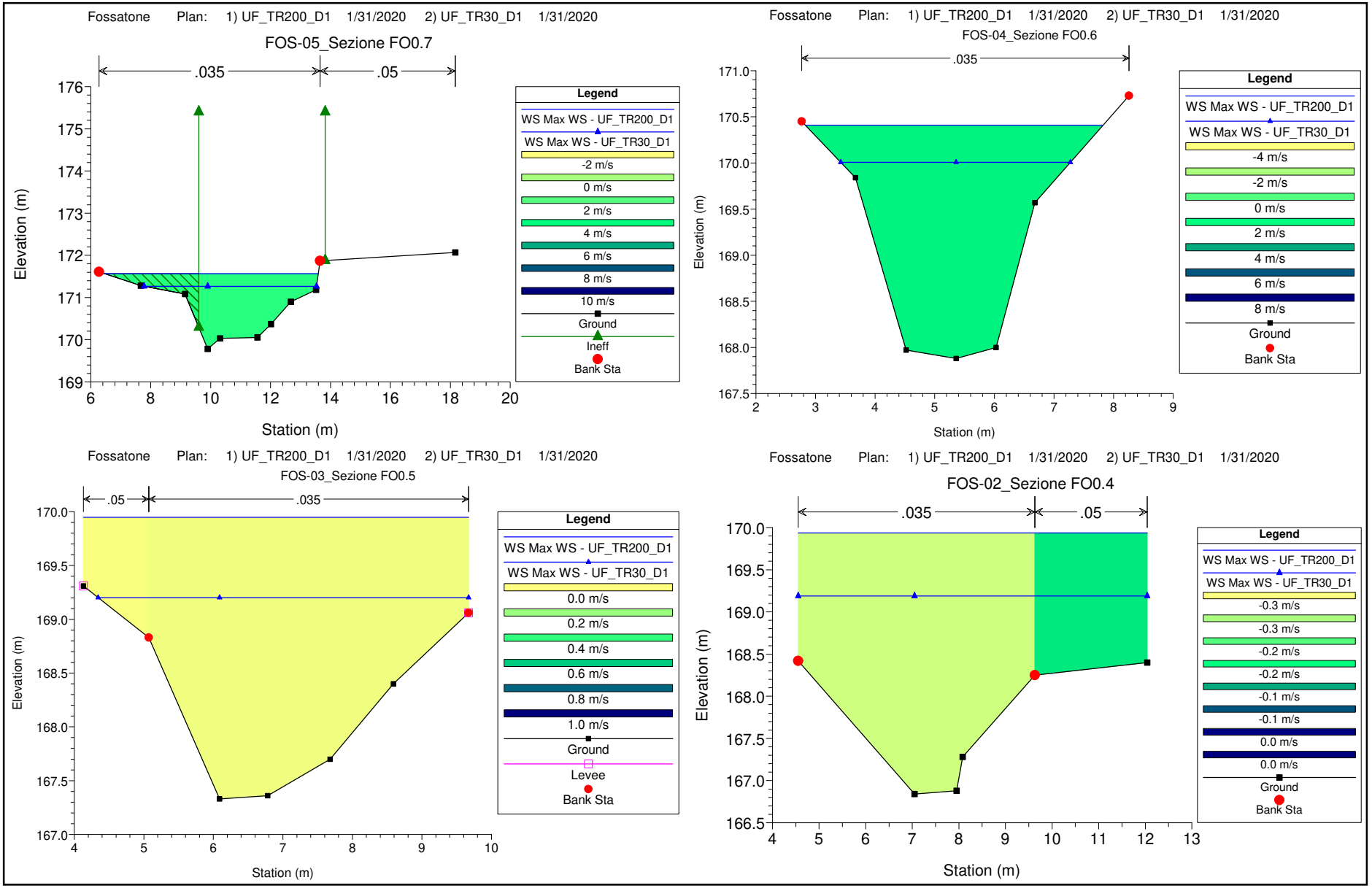

Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-19_Sezione FO14
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-18_Sezione FO13
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-17_Sezione FO12
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta

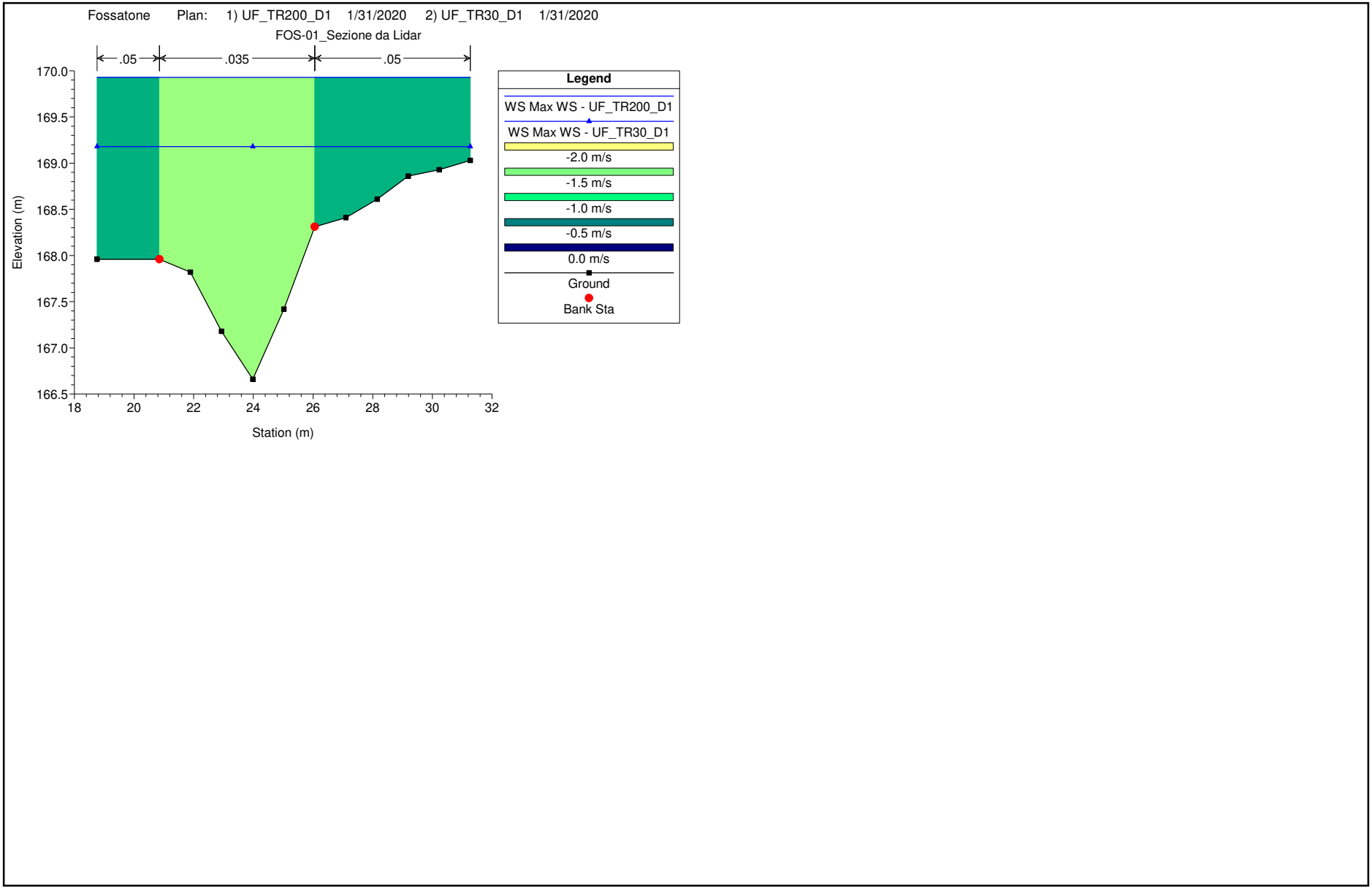

Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-16
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-15_Sezione FO10
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-14_Sezione FO09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-13_Sezione FO08
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-12_Sezione FO07
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-11_Sezione FO06
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-10_Sezione FO05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-09_Sezione 137 rilevata PROGEO
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-08_Sezione 137 rilevata PROGEO
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-07_Sezione FO02
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-06_Sezione 138 rilevata PROGEO
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Ineff
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Ineff
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-05_Sezione FO0.7
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-04_Sezione FO0.6
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-03_Sezione FO0.5
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-02_Sezione FO0.4
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-0.3 m/s
-0.3 m/s
-0.2 m/s
-0.2 m/s
-0.1 m/s
-0.1 m/s
0.0 m/s
0.0 m/s
Ground
Bank Sta


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FOS-01_Sezione da Lidar
.05
.035
.05
170.0
169.5
169.0
168.5
168.0
167.5
167.0
166.5
Elevation (m)
18
20
22
24
26
28
30
32
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-2.0 m/s
-1.5 m/s
-1.0 m/s
-0.5 m/s
0.0 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

FOSSO DEL FOSSATONE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Dati idraulici

HEC-RAS Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
F.DelFossatone	22	Max WS	UF_TR200_D1	7.90	195.61	196.46		196.51	0.004616	1.43	0.51	0.74	9.06	23.02	0.57
F.DelFossatone	22	Max WS	UF_TR30_D1	5.10	195.61	196.34		196.38	0.004867	1.28	0.42	0.64	6.46	20.64	0.56
F.DelFossatone	21	Max WS	UF_TR200_D1	7.90	194.48	195.64	195.81	196.20	0.035773	3.49		0.73	3.08	15.38	1.39
F.DelFossatone	21	Max WS	UF_TR30_D1	5.10	194.48	195.51	195.71	196.00	0.036458	3.12		0.27	1.68	5.81	1.37
F.DelFossatone	20	Max WS	UF_TR200_D1	7.90	192.49	193.36	193.55	193.87	0.035978	3.15	0.28	0.44	2.57	7.76	1.48
F.DelFossatone	20	Max WS	UF_TR30_D1	5.10	192.49	193.24	193.36	193.63	0.037349	2.77			1.84	4.94	1.45
F.DelFossatone	19	Max WS	UF_TR200_D1	7.90	190.26	191.49	191.57	191.79	0.016852	2.61	0.86		4.04	11.65	1.01
F.DelFossatone	19	Max WS	UF_TR30_D1	5.10	190.26	191.37	191.42	191.61	0.015157	2.27	0.59		2.74	9.06	0.94
F.DelFossatone	18	Max WS	UF_TR200_D1	7.90	189.91	190.96	191.00	191.17	0.016482	2.33	0.89		4.95	16.80	1.00
F.DelFossatone	18	Max WS	UF_TR30_D1	5.10	189.91	190.86	190.92	191.06	0.017091	2.15	0.59		3.32	16.37	1.00
F.DelFossatone	17	Max WS	UF_TR200_D1	7.90	188.66	189.75	189.80	189.98	0.013673	2.46	0.87	0.75	5.00	16.48	0.95
F.DelFossatone	17	Max WS	UF_TR30_D1	5.10	188.66	189.64	189.68	189.84	0.013258	2.16	0.59	0.64	3.37	13.66	0.91
F.DelFossatone	16	Max WS	UF_TR200_D1	7.90	187.86	188.74		188.83	0.010317	1.76	0.07	0.88	7.21	22.88	0.78
F.DelFossatone	16	Max WS	UF_TR30_D1	5.10	187.86	188.64		188.72	0.010608	1.61		0.76	5.09	19.43	0.77
F.DelFossatone	15	Max WS	UF_TR200_D1	7.90	186.27	187.61	187.63	187.98	0.018271	2.67			2.96	4.35	1.04
F.DelFossatone	15	Max WS	UF_TR30_D1	5.10	186.27	187.40	187.40	187.70	0.018254	2.42			2.11	3.60	1.01
F.DelFossatone	14	Max WS	UF_TR200_D1	7.90	184.91	186.32	186.34	186.71	0.019719	2.78			2.84	4.03	1.06
F.DelFossatone	14	Max WS	UF_TR30_D1	5.10	184.91	186.10	186.12	186.42	0.020151	2.51			2.03	3.41	1.04
F.DelFossatone	13	Max WS	UF_TR200_D1	7.90	184.04	185.72		185.83	0.004680	1.45			5.45	7.69	0.55
F.DelFossatone	13	Max WS	UF_TR30_D1	5.10	184.04	185.26		185.44	0.009625	1.85			2.76	4.51	0.75
F.DelFossatone	12	Max WS	UF_TR200_D1	7.90	183.86	185.58	185.01	185.80	0.003021	2.12			3.72	5.63	0.53
F.DelFossatone	12	Max WS	UF_TR30_D1	5.10	183.86	185.17	184.73	185.34	0.003239	1.82			2.80	4.87	0.52
F.DelFossatone	11.5			Bridge											
F.DelFossatone	11	Max WS	UF_TR200_D1	7.90	183.81	185.03	184.98	185.52	0.010661	3.12			2.53	6.62	0.94
F.DelFossatone	11	Max WS	UF_TR30_D1	5.10	183.81	184.81		185.13	0.009026	2.49			2.05	5.88	0.84
F.DelFossatone	10	Max WS	UF_TR200_D1	7.90	183.70	184.77	184.81	185.16	0.019335	2.77			2.85	4.23	1.08
F.DelFossatone	10	Max WS	UF_TR30_D1	5.10	183.70	184.57	184.59	184.88	0.019378	2.48			2.06	3.66	1.05
F.DelFossatone	9	Max WS	UF_TR200_D1	7.90	182.63	184.09		184.37	0.015291	2.34			3.38	5.33	0.94
F.DelFossatone	9	Max WS	UF_TR30_D1	5.10	182.63	183.87		184.10	0.011543	2.09			2.43	3.49	0.80
F.DelFossatone	8	Max WS	UF_TR200_D1	7.90	182.12	183.09	183.25	183.53	0.030716	2.94	0.57		2.76	7.09	1.36
F.DelFossatone	8	Max WS	UF_TR30_D1	5.10	182.12	182.96	183.05	183.30	0.030771	2.60			1.97	4.99	1.32
F.DelFossatone	7	Max WS	UF_TR200_D1	7.25	180.50	181.67		181.71	0.001777	0.93	0.30	0.20	10.01	24.88	0.36
F.DelFossatone	7	Max WS	UF_TR30_D1	4.95	180.50	181.47		181.51	0.003016	0.96	0.31	0.10	5.84	16.76	0.44
F.DelFossatone_v	6.499			Lat Struct											
F.DelFossatone_v	6.498			Lat Struct											
F.DelFossatone_v	6	Max WS	UF_TR200_D1	12.78	179.31	180.91	180.94	181.28	0.021470	2.70			4.74	8.03	1.12
F.DelFossatone_v	6	Max WS	UF_TR30_D1	8.16	179.31	180.75	180.78	181.03	0.022297	2.33			3.51	7.78	1.11
F.DelFossatone_v	5	Max WS	UF_TR200_D1	12.82	178.75	180.11		180.36	0.011431	2.22			5.78	8.60	0.86
F.DelFossatone_v	5	Max WS	UF_TR30_D1	8.31	178.75	179.94		180.13	0.011538	1.93			4.31	8.07	0.84
F.DelFossatone_v	4	Max WS	UF_TR200_D1	4.57	177.51	179.87		179.89	0.000409	0.61		0.20	8.58	9.40	0.16
F.DelFossatone_v	4	Max WS	UF_TR30_D1	3.44	177.51	179.72		179.73	0.000336	0.53		0.16	7.24	8.07	0.14
F.DelFossatone_v	3.5			Culvert											
F.DelFossatone_v	3	Max WS	UF_TR200_D1	4.57	177.51	178.98		179.36	0.009747	2.74			1.67	3.99	0.80
F.DelFossatone_v	3	Max WS	UF_TR30_D1	3.44	177.51	178.75		179.08	0.011117	2.54			1.35	3.37	0.82
F.DelFossatone_v	2	Max WS	UF_TR200_D1	13.70	175.80	177.94		178.39	0.015376	2.97			4.61	4.00	0.88
F.DelFossatone_v	2	Max WS	UF_TR30_D1	8.98	175.80	177.57	177.54	177.97	0.018242	2.81			3.20	3.68	0.96
F.DelFossatone_v	1	Max WS	UF_TR200_D1	14.59	175.13	177.45	176.61	177.67	0.002182	2.07			7.05	8.45	0.46
F.DelFossatone_v	1	Max WS	UF_TR30_D1	9.45	175.13	176.87	176.30	177.04	0.002779	1.87			5.05	6.88	0.49
F.DelFossatone_v	0.85			Bridge											
F.DelFossatone_v	0.7	Max WS	UF_TR200_D1	14.59	169.78	171.56		172.05	0.012580	3.08			4.73	7.13	0.91
F.DelFossatone_v	0.7	Max WS	UF_TR30_D1	9.45	169.78	171.27		171.63	0.012688	2.67			3.55	5.76	0.90
F.DelFossatone_v	0.699			Lat Struct											
F.DelFossatone_v	0.698			Lat Struct											
F.DelFossatone_v	0.6	Max WS	UF_TR200_D1	15.60	167.88	170.41		170.68	0.007645	2.30			6.80	4.99	0.63
F.DelFossatone_v	0.6	Max WS	UF_TR30_D1	10.01	167.88	170.01		170.21	0.006630	2.00			5.02	3.85	0.56
F.DelFossatone_v	0.599			Lat Struct											
F.DelFossatone_v	0.598			Lat Struct											
F.DelFossatone_v	0.5	Max WS	UF_TR200_D1	0.28	167.33	169.95		169.95	0.000001	0.03	0.01		9.74	5.54	0.01
F.DelFossatone_v	0.5	Max WS	UF_TR30_D1	10.14	167.33	169.20		169.37	0.004682	1.84	0.41		5.62	5.33	0.54
F.DelFossatone_v	0.4	Max WS	UF_TR200_D1	-3.87	166.84	169.94		169.94	0.000048	-0.27		-0.14	16.16	7.49	0.06
F.DelFossatone_v	0.4	Max WS	UF_TR30_D1	3.54	166.84	169.19		169.19	0.000131	0.38		0.17	10.55	7.49	0.09
F.DelFossatone_v	0.2	Max WS	UF_TR200_D1	-28.32	166.66	169.93	168.80	170.04	0.001172	-1.62	-0.69	-0.70	23.51	12.51	0.33
F.DelFossatone_v	0.2	Max WS	UF_TR30_D1	-7.39	166.66	169.18	168.04	169.20	0.000325	-0.67	-0.30	-0.22	14.13	12.51	0.16

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

AFFLUENTE FOSSO DEL FOSSATONE

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 1h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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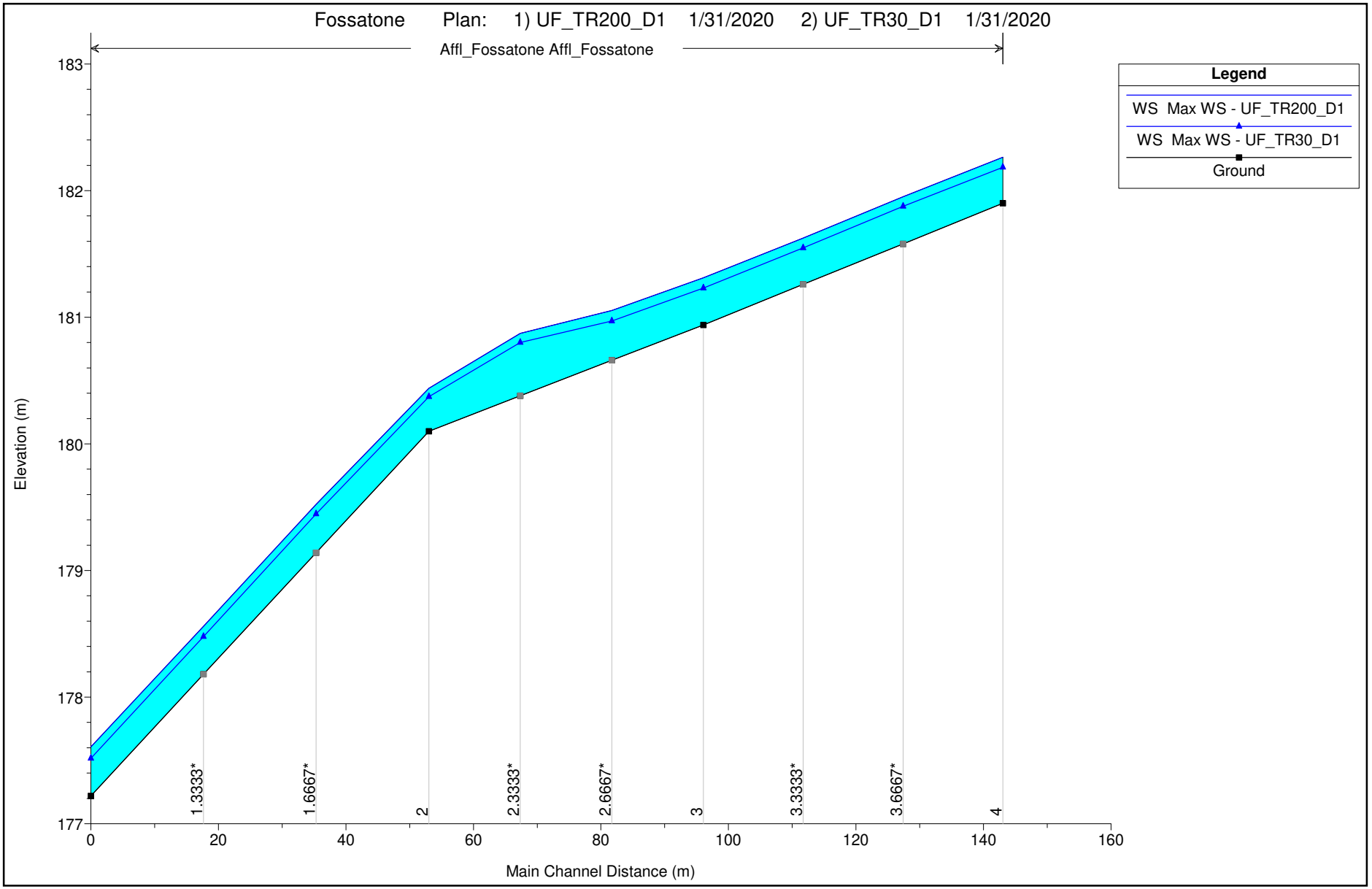
MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

AFFLUENTE FOSSO DEL FOSSATONE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Profilo longitudinale


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
Affl_Fossatone Affl_Fossatone
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
Ground
Elevation (m)
Main Channel Distance (m)
183
182
181
180
179
178
177
0
20
40
60
80
100
120
140
160
1.3333*
1.6667*
2
2.3333*
2.6667*
3
3.3333*
3.6667*
4

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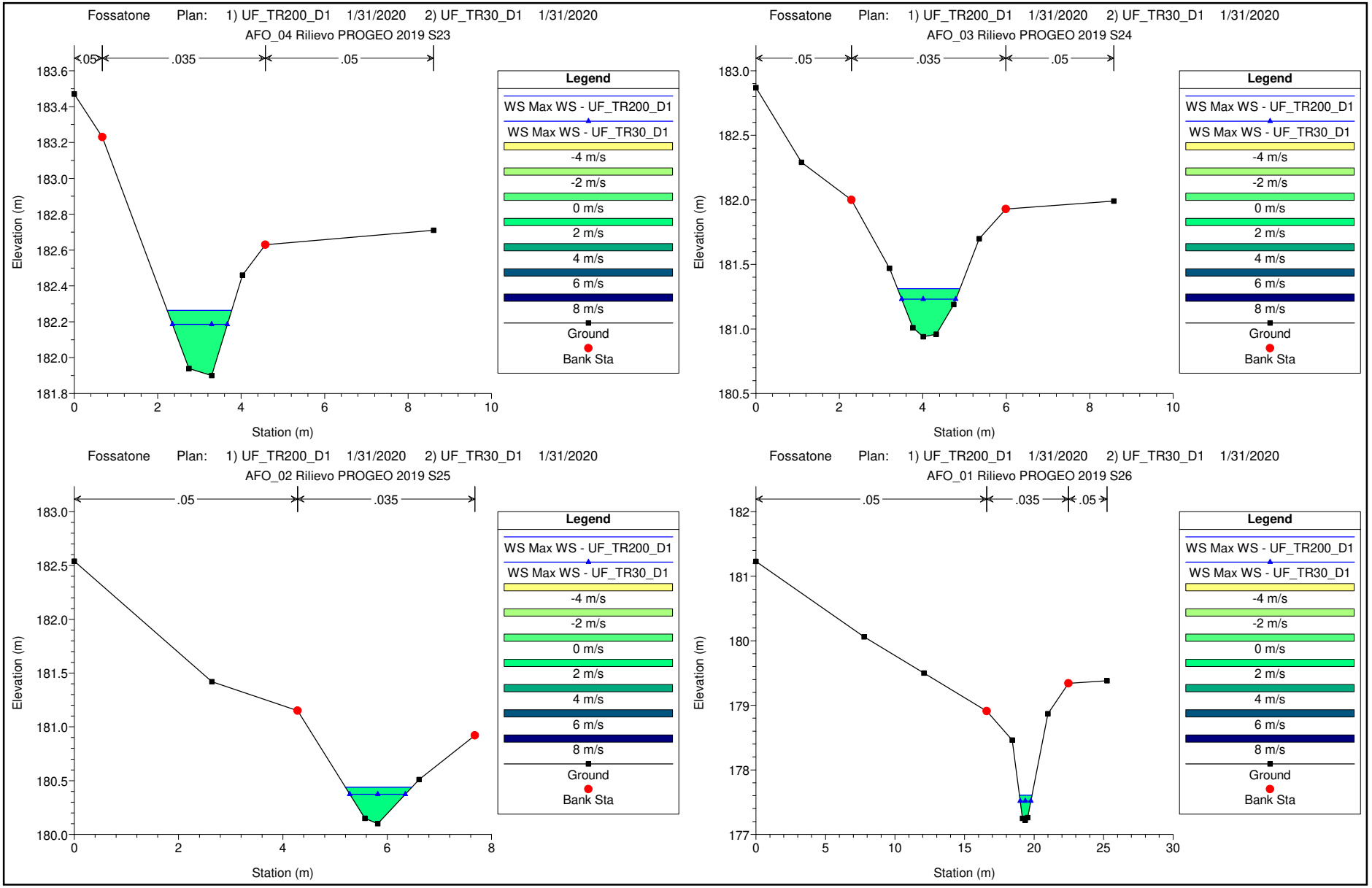
MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

AFFLUENTE FOSSO DEL FOSSATONE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Sezioni Trasversali (da monte verso valle)


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
AFO_04 Rilievo PROGEO 2019 S23
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
AFO_03 Rilievo PROGEO 2019 S24
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
AFO_02 Rilievo PROGEO 2019 S25
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
AFO_01 Rilievo PROGEO 2019 S26
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta

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MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

AFFLUENTE FOSSO DEL FOSSATONE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Dati idraulici

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

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
Affl_Fossatone	4	Max WS	UF_TR200_D1	0.50	181.90	182.26		182.36	0.019908	1.40			0.36	1.54	0.92
Affl_Fossatone	4	Max WS	UF_TR30_D1	0.30	181.90	182.19		182.26	0.020033	1.22			0.25	1.31	0.90
Affl_Fossatone	3	Max WS	UF_TR200_D1	0.50	180.94	181.31		181.41	0.018979	1.39			0.36	1.49	0.90
Affl_Fossatone	3	Max WS	UF_TR30_D1	0.30	180.94	181.23		181.31	0.019324	1.21			0.25	1.30	0.89
Affl_Fossatone	2	Max WS	UF_TR200_D1	0.50	180.10	180.44	180.50	180.65	0.056290	2.05			0.24	1.28	1.50
Affl_Fossatone	2	Max WS	UF_TR30_D1	0.30	180.10	180.37	180.42	180.54	0.056990	1.81			0.17	1.06	1.46
Affl_Fossatone	1	Max WS	UF_TR200_D1	0.50	177.22	177.61	177.67	177.85	0.055302	2.16			0.23	0.91	1.37
Affl_Fossatone	1	Max WS	UF_TR30_D1	0.30	177.22	177.52	177.57	177.71	0.057328	1.93			0.16	0.77	1.37

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MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

FOSSO DELLA BANDITA

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 1h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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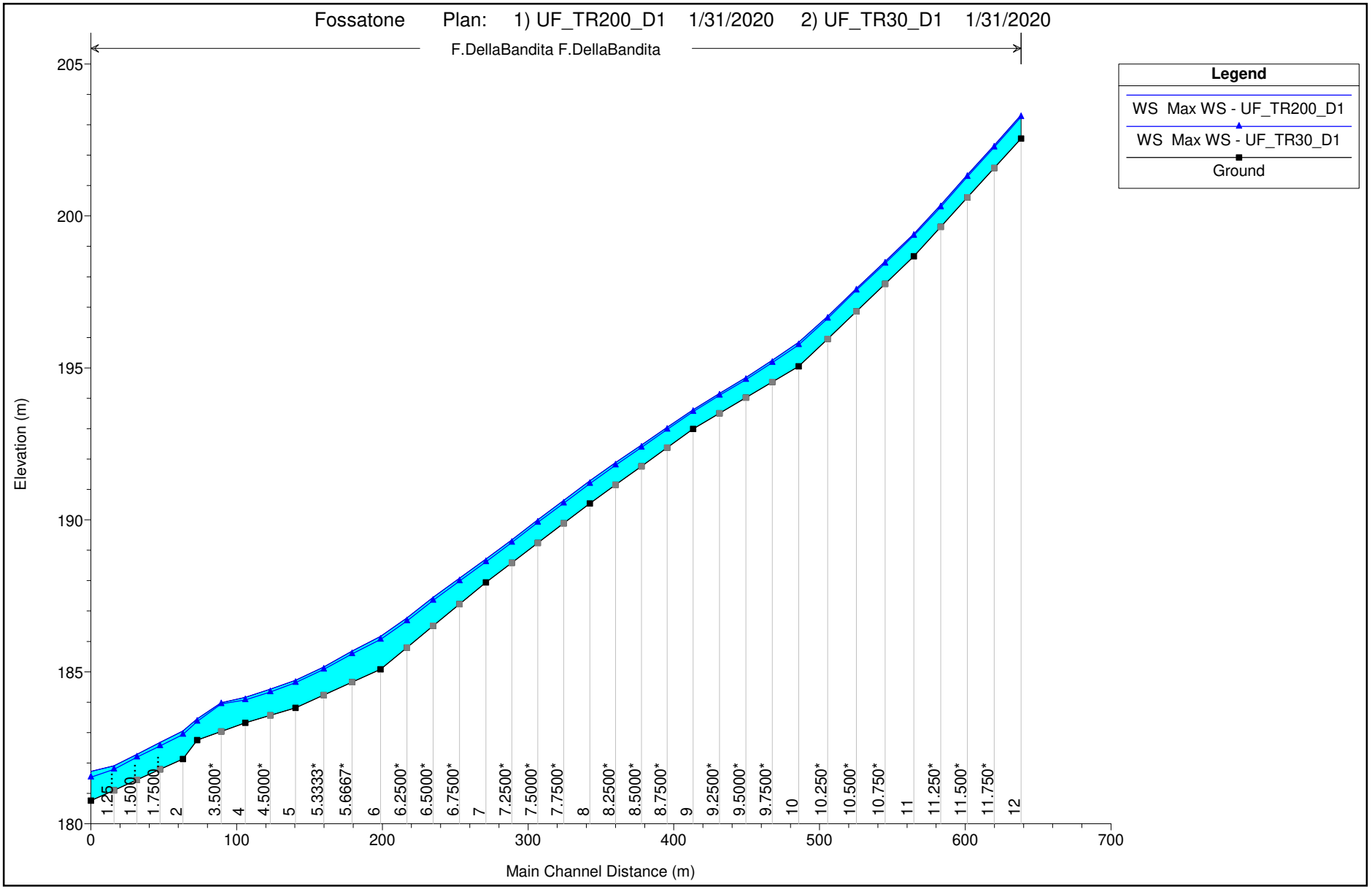
MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

FOSSO DELLA BANDITA

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Profilo longitudinale


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
F.DellaBandita F.DellaBandita
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
Ground
Elevation (m)
Main Channel Distance (m)
205
200
195
190
185
180
0
100
200
300
400
500
600
700
1.25...
1.500...
1.7500...
2
3.5000*
4
4.5000*
5
5.3333*
5.6667*
6
6.2500*
6.5000*
6.7500*
7
7.2500*
7.5000*
7.7500*
8
8.2500*
8.5000*
8.7500*
9
9.2500*
9.5000*
9.7500*
10
10.250*
10.500*
10.750*
11
11.250*
11.500*
11.750*
12

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ALLEGATI

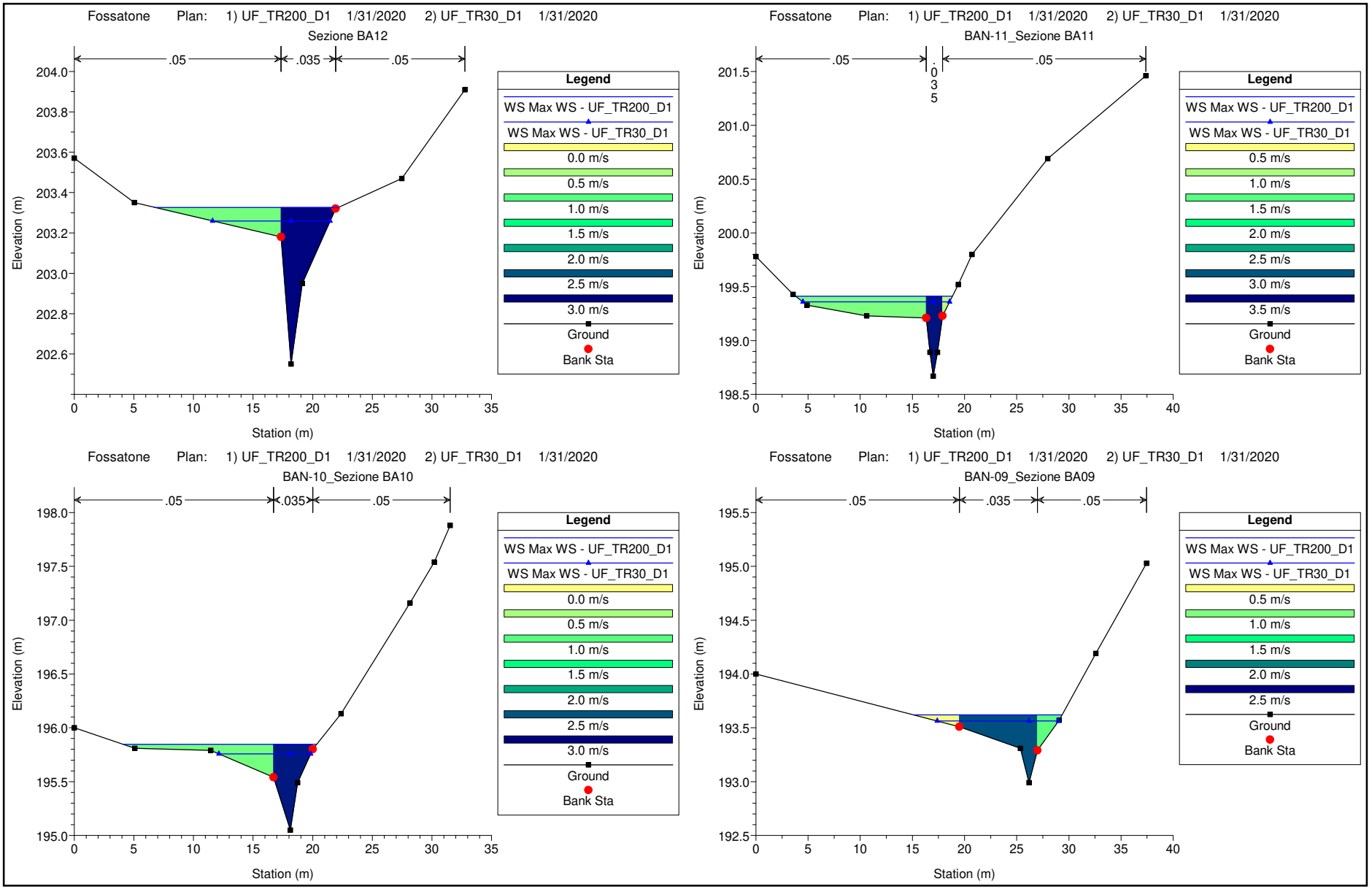
MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

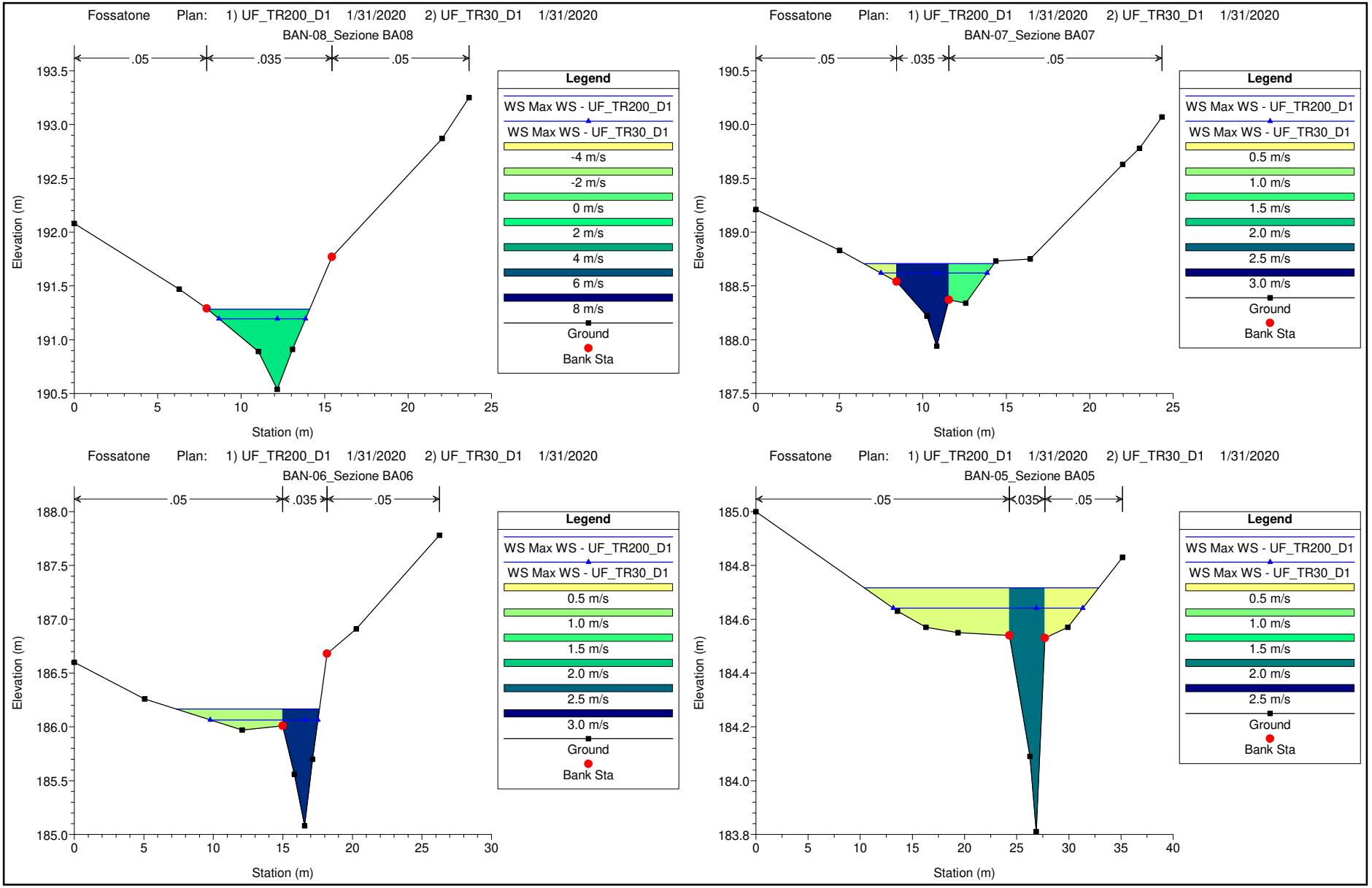
FOSSO DELLA BANDITA

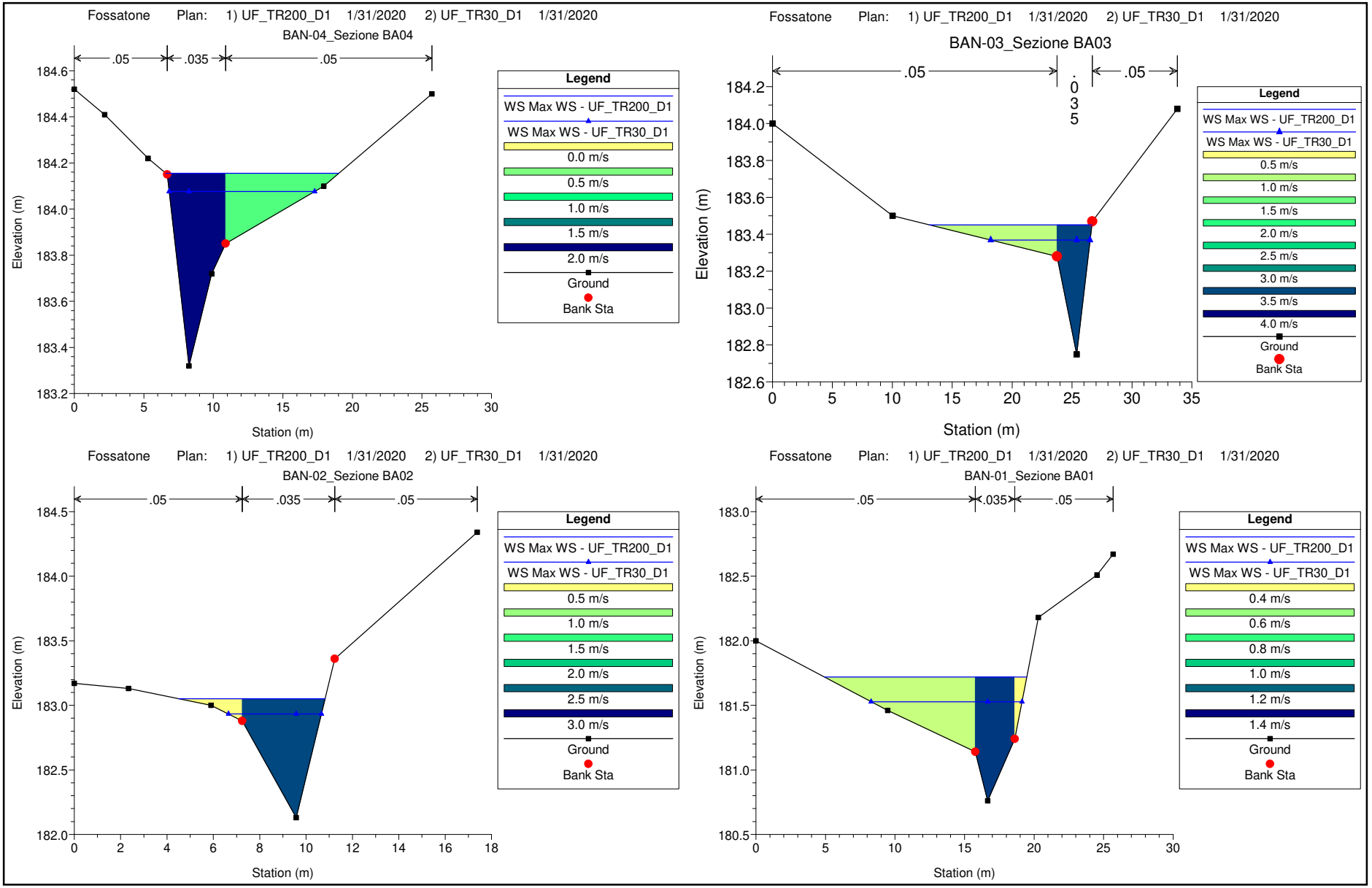
MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Sezioni Trasversali (da monte verso valle)


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
Sezione BA12
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
BAN-11_Sezione BA11
.05
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
BAN-10_Sezione BA10
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
BAN-09_Sezione BA09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
BAN-08_Sezione BA08
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
BAN-07_Sezione BA07
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
BAN-06_Sezione BA06
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
BAN-05_Sezione BA05
.05
035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
BAN-04_Sezione BA04
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
BAN-03_Sezione BA03
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
4.0 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
BAN-02_Sezione BA02
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
BAN-01_Sezione BA01
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

FOSSO DELLA BANDITA

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Dati idraulici

HEC-RAS River: F.DellaBandita Reach: F.DellaBandita Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
F.DellaBandita	12	Max WS	UF_TR200_D1	5.00	202.55	203.33	203.44	203.73	0.054547	2.98	0.82	0.10	2.24	15.44	1.68
F.DellaBandita	12	Max WS	UF_TR30_D1	3.30	202.55	203.26	203.38	203.62	0.053530	2.72	0.54		1.40	9.85	1.63
F.DellaBandita	11	Max WS	UF_TR200_D1	4.99	198.67	199.41	199.51	199.75	0.048910	3.39	1.25	0.88	2.73	15.01	1.56
F.DellaBandita	11	Max WS	UF_TR30_D1	3.30	198.67	199.36	199.45	199.67	0.046016	3.05	0.97	0.69	1.98	14.06	1.48
F.DellaBandita	10	Max WS	UF_TR200_D1	4.99	195.05	195.85	195.95	196.18	0.035219	2.86	0.81	0.30	2.66	16.23	1.41
F.DellaBandita	10	Max WS	UF_TR30_D1	3.29	195.05	195.76	195.88	196.06	0.037357	2.61	0.88		1.59	7.69	1.40
F.DellaBandita	9	Max WS	UF_TR200_D1	4.99	192.99	193.62	193.68	193.84	0.034485	2.19	0.54	1.13	2.66	14.25	1.35
F.DellaBandita	9	Max WS	UF_TR30_D1	3.29	192.99	193.56	193.61	193.73	0.035660	1.89	0.34	1.00	1.92	11.63	1.32
F.DellaBandita	8	Max WS	UF_TR200_D1	4.98	190.54	191.28	191.38	191.62	0.038737	2.56			1.95	6.13	1.45
F.DellaBandita	8	Max WS	UF_TR30_D1	3.29	190.54	191.19	191.27	191.46	0.037064	2.28			1.44	5.18	1.38
F.DellaBandita	7	Max WS	UF_TR200_D1	4.98	187.94	188.71	188.85	189.06	0.033336	2.87	0.70	1.42	2.20	7.81	1.39
F.DellaBandita	7	Max WS	UF_TR30_D1	3.29	187.94	188.62	188.70	188.90	0.034041	2.50	0.43	1.23	1.58	6.38	1.35
F.DellaBandita	6	Max WS	UF_TR200_D1	4.98	185.08	186.17	186.28	186.50	0.027777	2.78	0.84		2.47	10.29	1.18
F.DellaBandita	6	Max WS	UF_TR30_D1	3.29	185.08	186.06	186.17	186.37	0.027872	2.53	0.53		1.56	7.74	1.15
F.DellaBandita	5	Max WS	UF_TR200_D1	4.98	183.81	184.72	184.76	184.88	0.015089	2.06	0.63	0.57	4.08	22.47	0.93
F.DellaBandita	5	Max WS	UF_TR30_D1	3.29	183.81	184.64	184.69	184.80	0.016427	1.93	0.46	0.43	2.54	18.15	0.94
F.DellaBandita	4	Max WS	UF_TR200_D1	4.97	183.32	184.16	184.17	184.32	0.013415	1.98	0.04	0.68	3.37	12.42	0.90
F.DellaBandita	4	Max WS	UF_TR30_D1	3.29	183.32	184.08	184.06	184.21	0.011582	1.68		0.50	2.46	10.45	0.82
F.DellaBandita	3	Max WS	UF_TR200_D1	4.97	182.75	183.45	183.60	183.99	0.058824	3.54	0.94		2.07	13.57	1.79
F.DellaBandita	3	Max WS	UF_TR30_D1	3.29	182.75	183.37	183.53	183.92	0.066624	3.37	0.65		1.17	8.29	1.86
F.DellaBandita	2	Max WS	UF_TR200_D1	4.97	182.13	183.05	183.19	183.40	0.024062	2.65	0.51		2.03	6.32	1.18
F.DellaBandita	2	Max WS	UF_TR30_D1	3.28	182.13	182.93	182.98	183.20	0.023606	2.29	0.27		1.45	4.01	1.13
F.DellaBandita	1	Max WS	UF_TR200_D1	4.42	180.76	181.72		181.78	0.003278	1.29	0.51	0.40	5.52	14.54	0.48
F.DellaBandita	1	Max WS	UF_TR30_D1	3.06	180.76	181.53		181.61	0.006203	1.45	0.53	0.40	3.09	10.85	0.63

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

FOSSO SANTA LUCIA

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 1h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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ALLEGATI

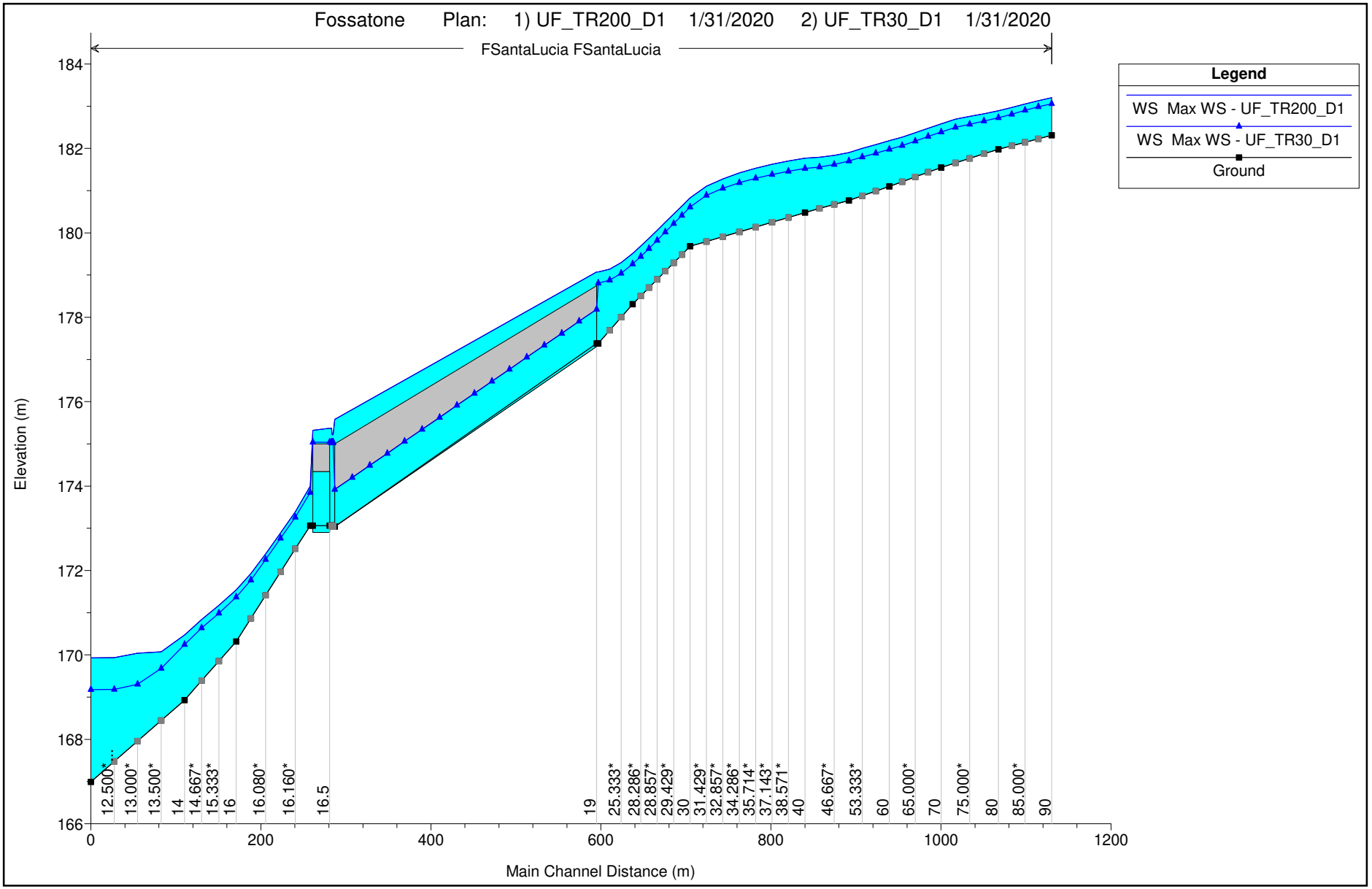
MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

FOSSO SANTA LUCIA

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Profilo longitudinale


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
FSantaLucia FSantaLucia
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
Ground
Elevation (m)
Main Channel Distance (m)
184
182
180
178
176
174
172
170
168
166
0
200
400
600
800
1000
1200
12.500*
13.000*
13.500*
14
14.667*
15.333*
16
16.080*
16.160*
16.5
19
25.333*
28.286*
28.857*
29.429*
30
31.429*
32.857*
34.286*
35.714*
37.143*
38.571*
40
46.667*
53.333*
60
65.000*
70
75.000*
80
85.000*
90

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ALLEGATI

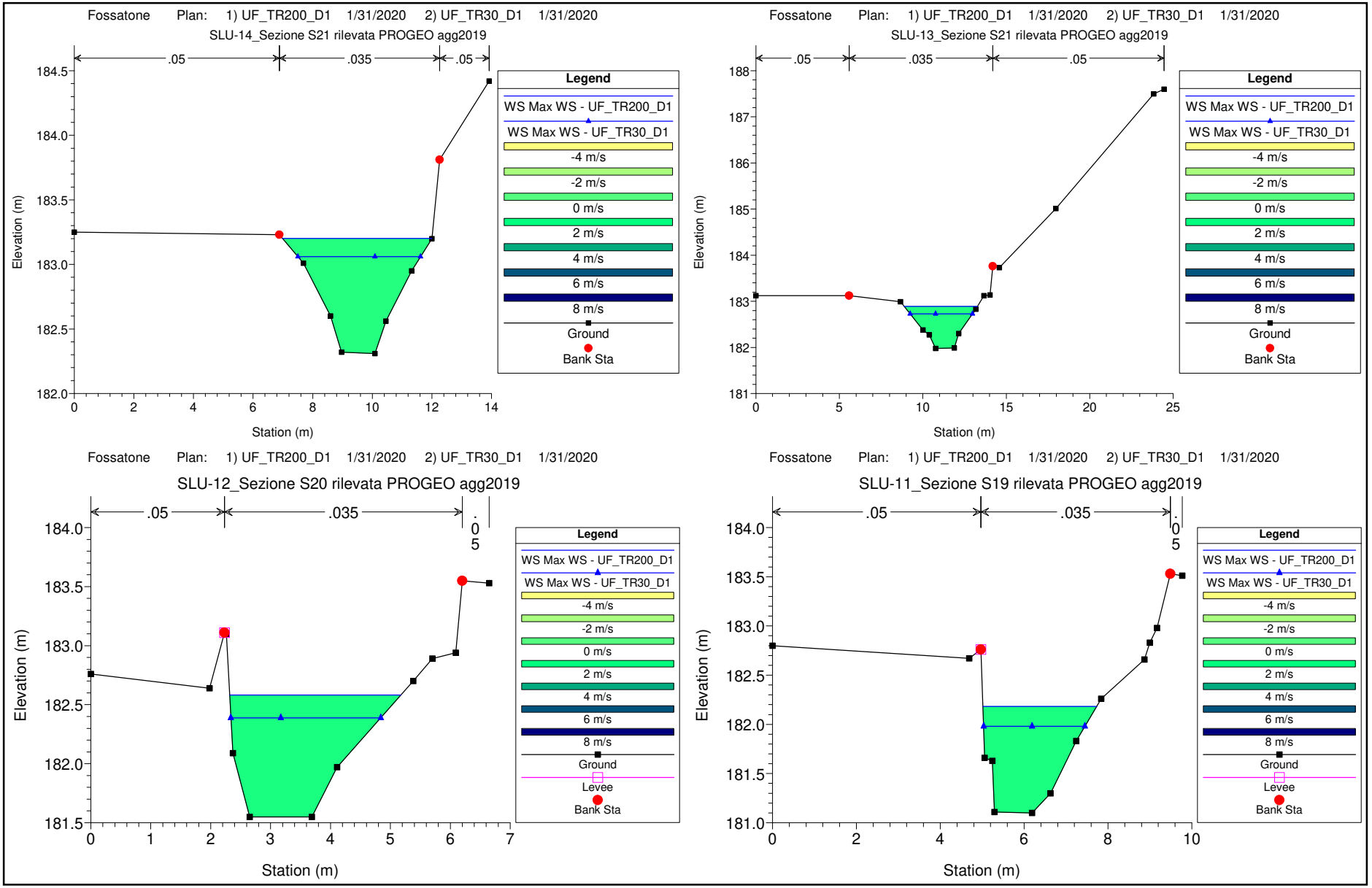
MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

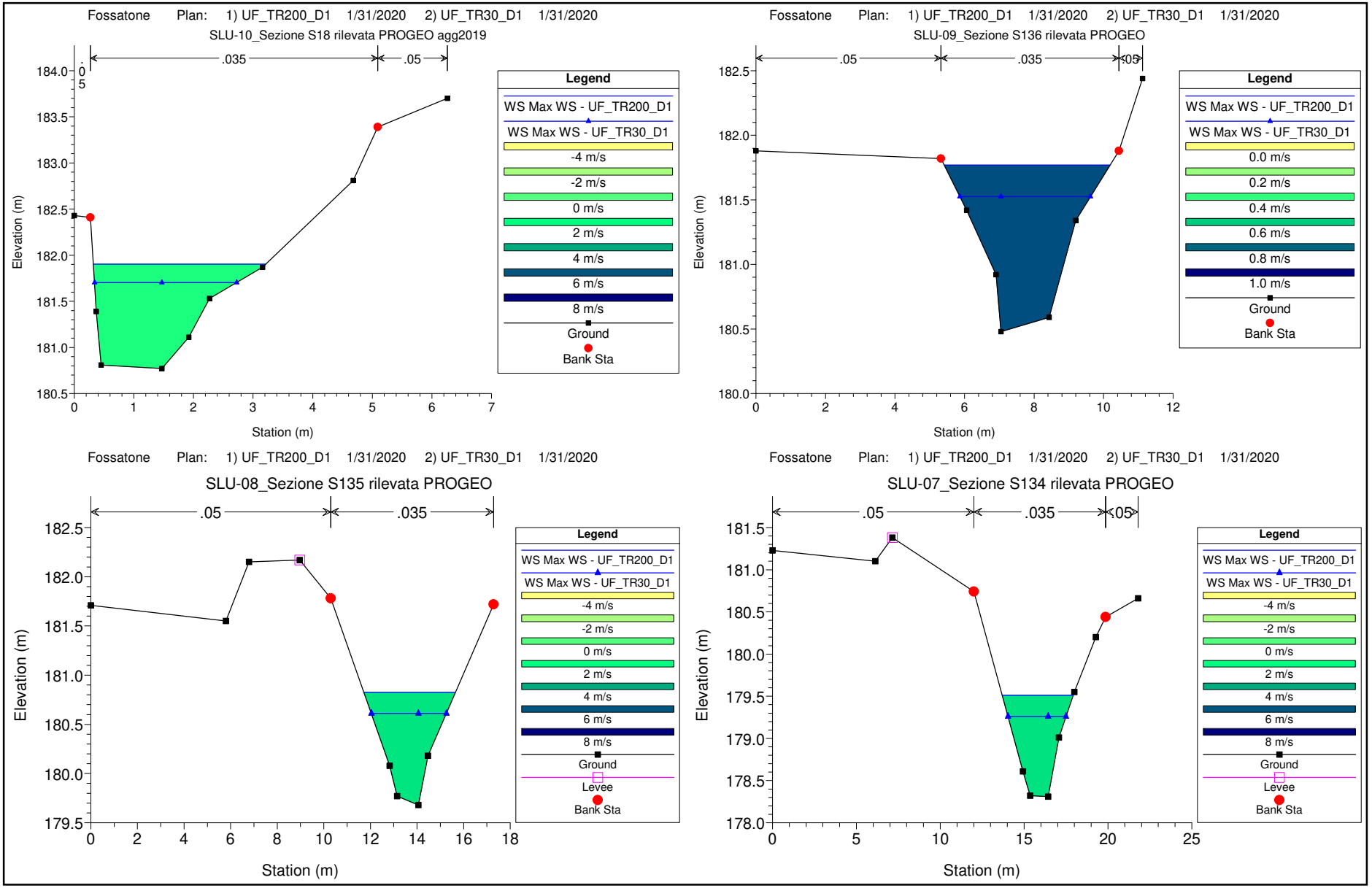
FOSSO SANTA LUCIA

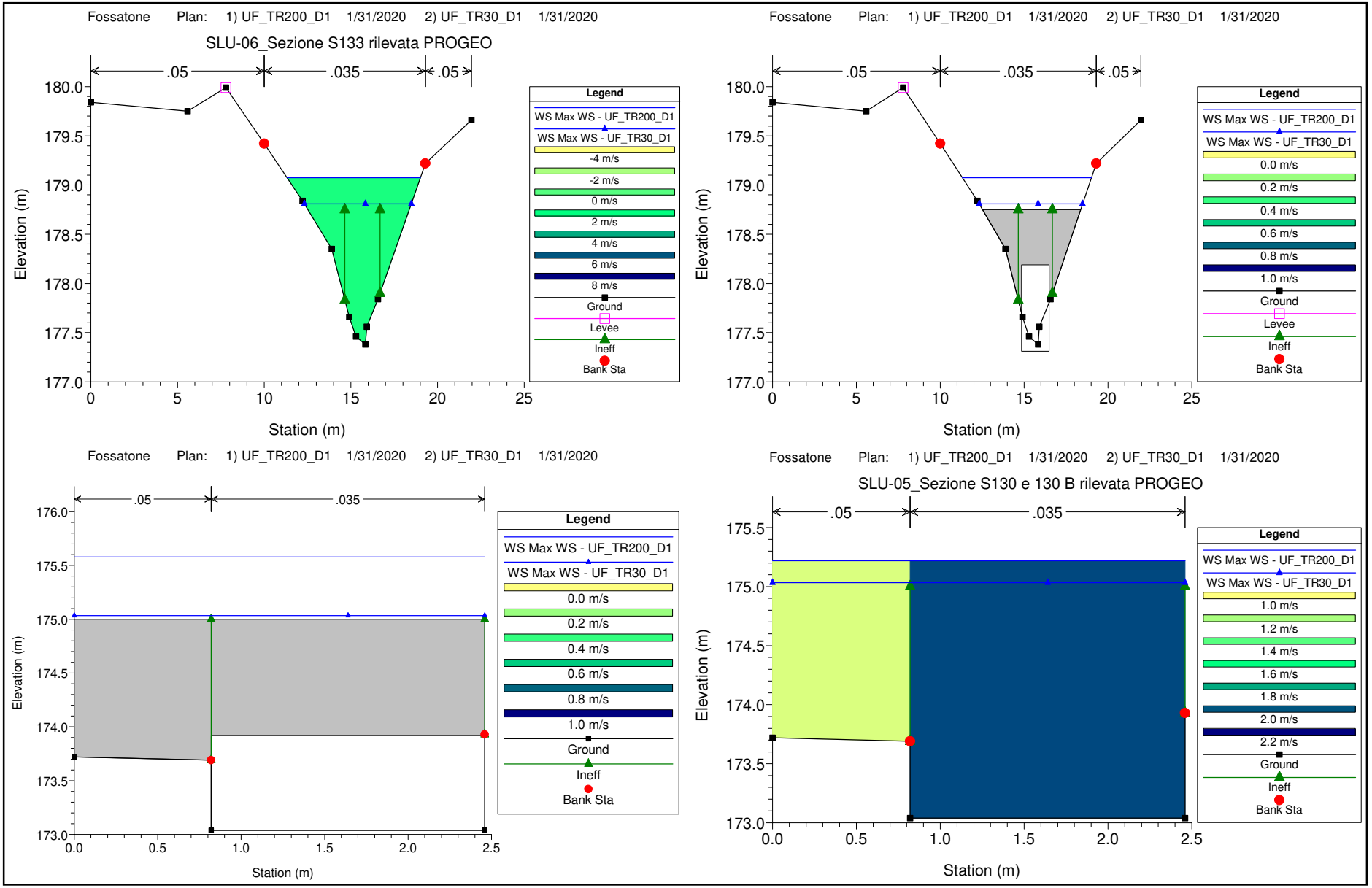
MODELLAZIONE PER TR=30 e 200 anni

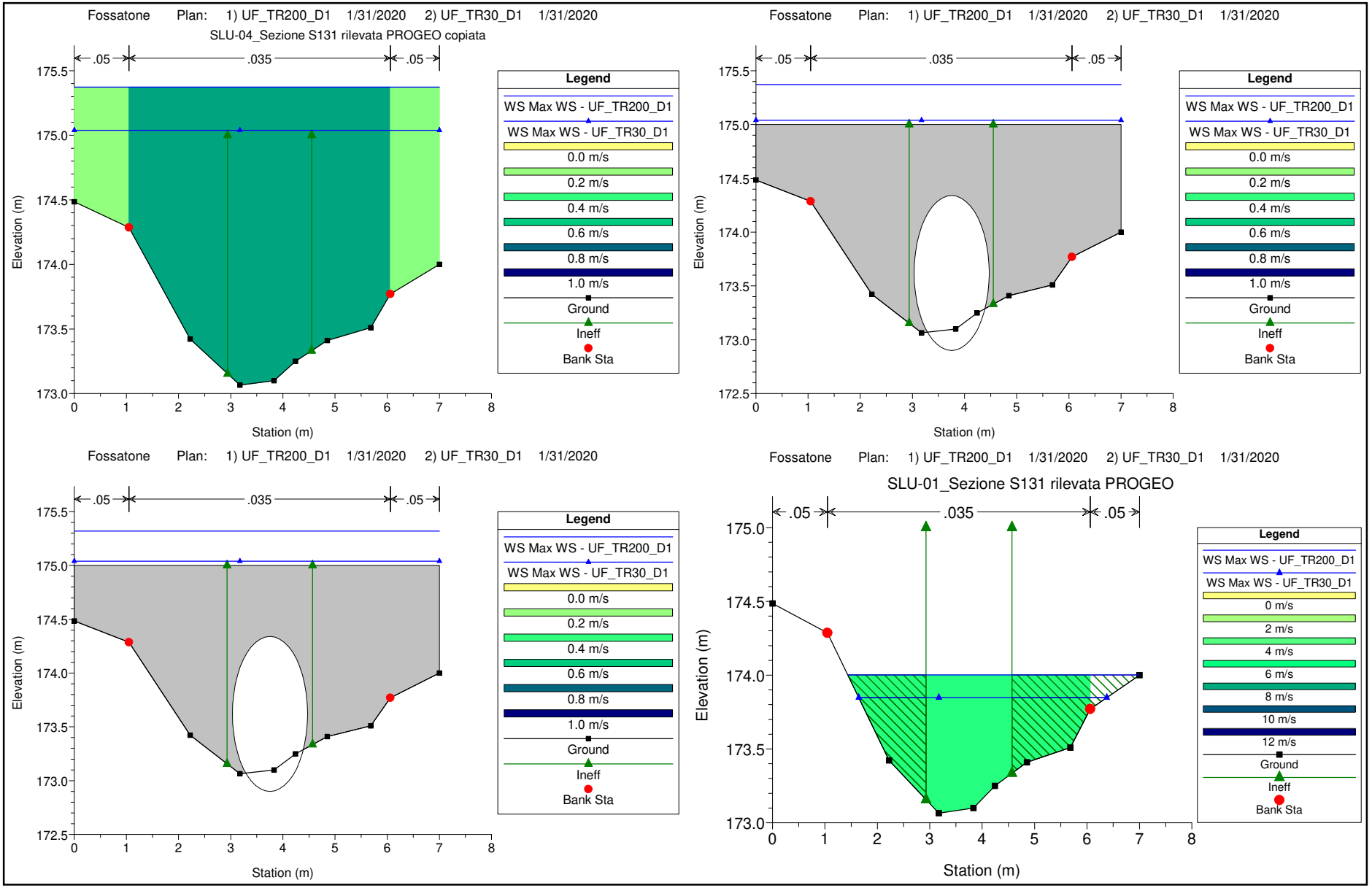
DURATE DI PIOGGIA: 1h

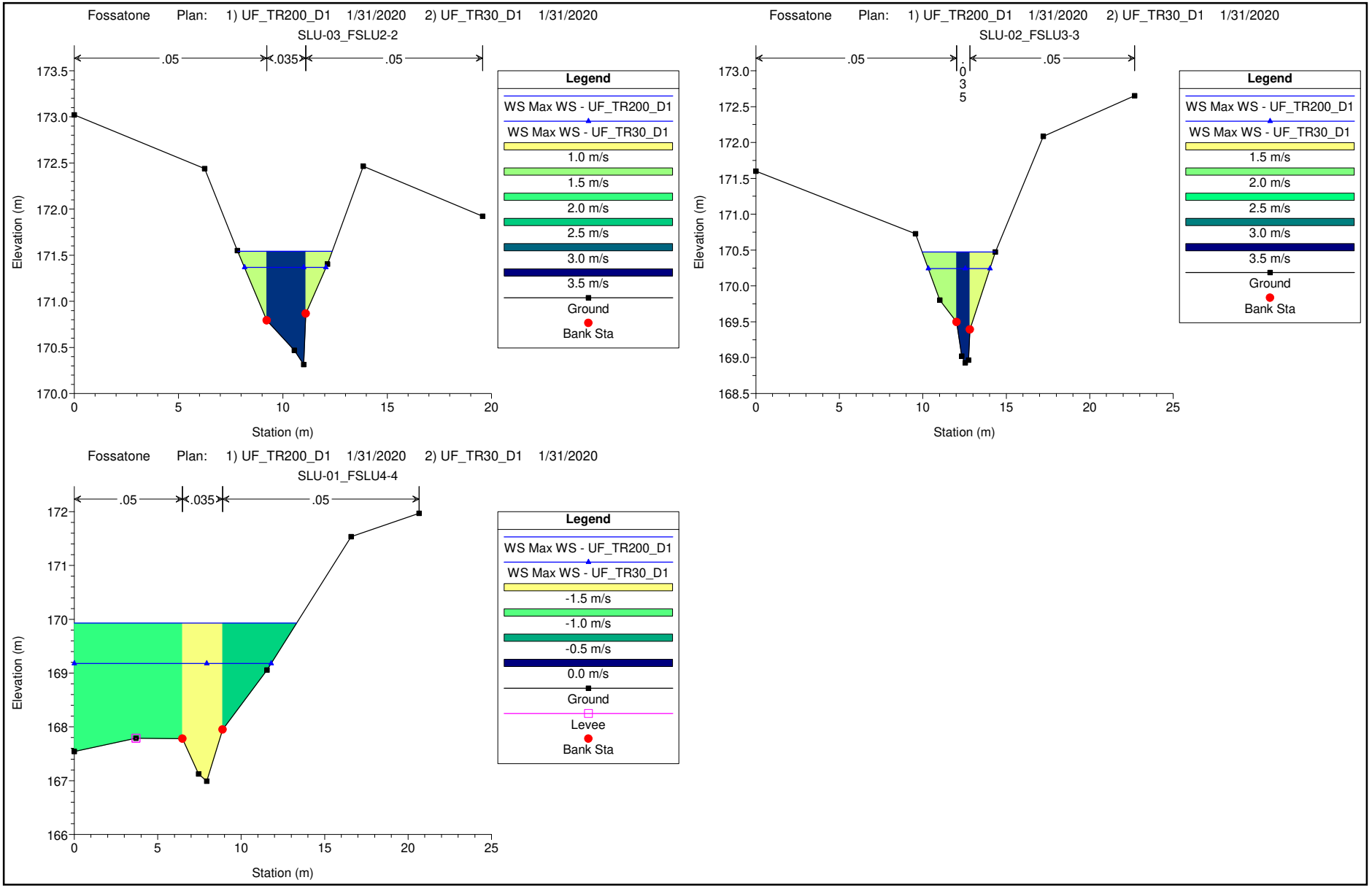
Sezioni Trasversali (da monte verso valle)


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-14_Sezione S21 rilevata PROGEO agg2019
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-13_Sezione S21 rilevata PROGEO agg2019
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-12_Sezione S20 rilevata PROGEO agg2019
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-11_Sezione S19 rilevata PROGEO agg2019
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-10_Sezione S18 rilevata PROGEO agg2019
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-09_Sezione S136 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-08_Sezione S135 rilevata PROGEO
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-07_Sezione S134 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-06_Sezione S133 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Ineff
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-05_Sezione S130 e 130 B rilevata PROGEO
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
2.0 m/s
2.2 m/s


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-04_Sezione S131 rilevata PROGEO copiata
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-01_Sezione S131 rilevata PROGEO
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s


Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-03_FSLU2-2
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-02_FSLU3-3
.05
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
Fossatone Plan: 1) UF_TR200_D1 1/31/2020 2) UF_TR30_D1 1/31/2020
SLU-01_FSLU4-4
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D1
WS Max WS - UF_TR30_D1
-1.5 m/s
-1.0 m/s
-0.5 m/s
0.0 m/s
Ground
Levee
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Fossatone"

FOSSO SANTA LUCIA

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 1h

Dati idraulici

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

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
FSantaLucia	90	Max WS	UF_TR200_D1	2.80	182.31	183.20		183.27	0.004652	1.15			2.44	5.01	0.52
FSantaLucia	90	Max WS	UF_TR30_D1	1.90	182.31	183.06		183.12	0.004565	1.05			1.80	4.12	0.51
FSantaLucia	80	Max WS	UF_TR200_D1	2.80	181.98	182.89		182.96	0.004697	1.20			2.34	4.39	0.52
FSantaLucia	80	Max WS	UF_TR30_D1	1.89	181.98	182.73		182.79	0.005175	1.12			1.68	3.74	0.53
FSantaLucia	70	Max WS	UF_TR200_D1	2.80	181.55	182.58		182.68	0.006274	1.42			1.97	2.86	0.55
FSantaLucia	70	Max WS	UF_TR30_D1	1.88	181.55	182.39		182.47	0.006351	1.30			1.45	2.50	0.54
FSantaLucia	60	Max WS	UF_TR200_D1	2.80	181.10	182.18		182.28	0.005949	1.39			2.01	2.71	0.51
FSantaLucia	60	Max WS	UF_TR30_D1	1.88	181.10	181.98		182.06	0.005982	1.26			1.49	2.41	0.51
FSantaLucia	50	Max WS	UF_TR200_D1	2.80	180.77	181.90		182.00	0.006189	1.37			2.03	2.89	0.52
FSantaLucia	50	Max WS	UF_TR30_D1	1.88	180.77	181.70		181.78	0.005961	1.25			1.50	2.38	0.50
FSantaLucia	40	Max WS	UF_TR200_D1	2.79	180.48	181.77		181.80	0.001823	0.85			3.30	4.77	0.32
FSantaLucia	40	Max WS	UF_TR30_D1	1.88	180.48	181.52		181.56	0.002163	0.83			2.26	3.76	0.34
FSantaLucia	30	Max WS	UF_TR200_D1	6.45	179.68	180.83	180.86	181.18	0.019963	2.62			2.46	3.94	1.06
FSantaLucia	30	Max WS	UF_TR30_D1	3.97	179.68	180.61	180.62	180.89	0.020548	2.36			1.68	3.22	1.04
FSantaLucia	28	Max WS	UF_TR200_D1	8.28	178.31	179.51	179.53	179.89	0.017633	2.71			3.06	4.23	1.02
FSantaLucia	28	Max WS	UF_TR30_D1	5.01	178.31	179.26	179.25	179.55	0.017744	2.41			2.08	3.45	0.99
FSantaLucia	20	Max WS	UF_TR200_D1	8.64	177.38	179.07		179.18	0.004015	1.43			6.02	7.70	0.52
FSantaLucia	20	Max WS	UF_TR30_D1	4.11	177.38	178.81		178.86	0.002333	0.99			4.17	6.16	0.38
FSantaLucia	19			Culvert											
FSantaLucia	18	Max WS	UF_TR200_D1	8.61	173.04	175.22		175.41	0.006803	2.03	1.09		4.82	2.46	0.44
FSantaLucia	18	Max WS	UF_TR30_D1	5.17	173.04	175.03		175.12	0.003162	1.34	0.72		4.36	2.46	0.30
FSantaLucia	17.999			Lat Struct											
FSantaLucia	17.998			Lat Struct											
FSantaLucia	17	Max WS	UF_TR200_D1	7.14	173.07	175.37		175.39	0.000264	0.68	0.21	0.23	12.14	7.00	0.16
FSantaLucia	17	Max WS	UF_TR30_D1	4.91	173.07	175.04		175.05	0.000238	0.57	0.17	0.20	9.81	7.00	0.14
FSantaLucia	16.5			Culvert											
FSantaLucia	16.2	Max WS	UF_TR200_D1	7.14	173.07	174.00	174.40	175.34	0.041849	5.13			1.39	5.57	1.78
FSantaLucia	16.2	Max WS	UF_TR30_D1	4.91	173.07	173.85	174.12	174.79	0.038433	4.30			1.14	4.73	1.65
FSantaLucia	16	Max WS	UF_TR200_D1	7.13	170.31	171.54	171.63	172.00	0.018846	3.26	1.31	1.25	2.77	4.52	1.06
FSantaLucia	16	Max WS	UF_TR30_D1	4.91	170.31	171.37	171.43	171.75	0.019547	2.90	1.12	1.03	2.03	3.90	1.04
FSantaLucia	14	Max WS	UF_TR200_D1	7.13	168.93	170.47	170.48	170.84	0.019667	3.35	1.80	1.62	3.10	4.38	0.91
FSantaLucia	14	Max WS	UF_TR30_D1	4.91	168.93	170.24	170.30	170.60	0.022745	3.19	1.64	1.49	2.17	3.70	0.95
FSantaLucia	12	Max WS	UF_TR200_D1	-24.71	166.99	169.93	168.63	169.99	0.001045	-1.48	-0.89	-0.62	25.07	13.33	0.30
FSantaLucia	12	Max WS	UF_TR30_D1	-2.57	166.99	169.18	167.87	169.18	0.000043	-0.24	-0.14	-0.09	15.65	11.81	0.06

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "Fosso Paradiso"

FOSSO PARADISO

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 2h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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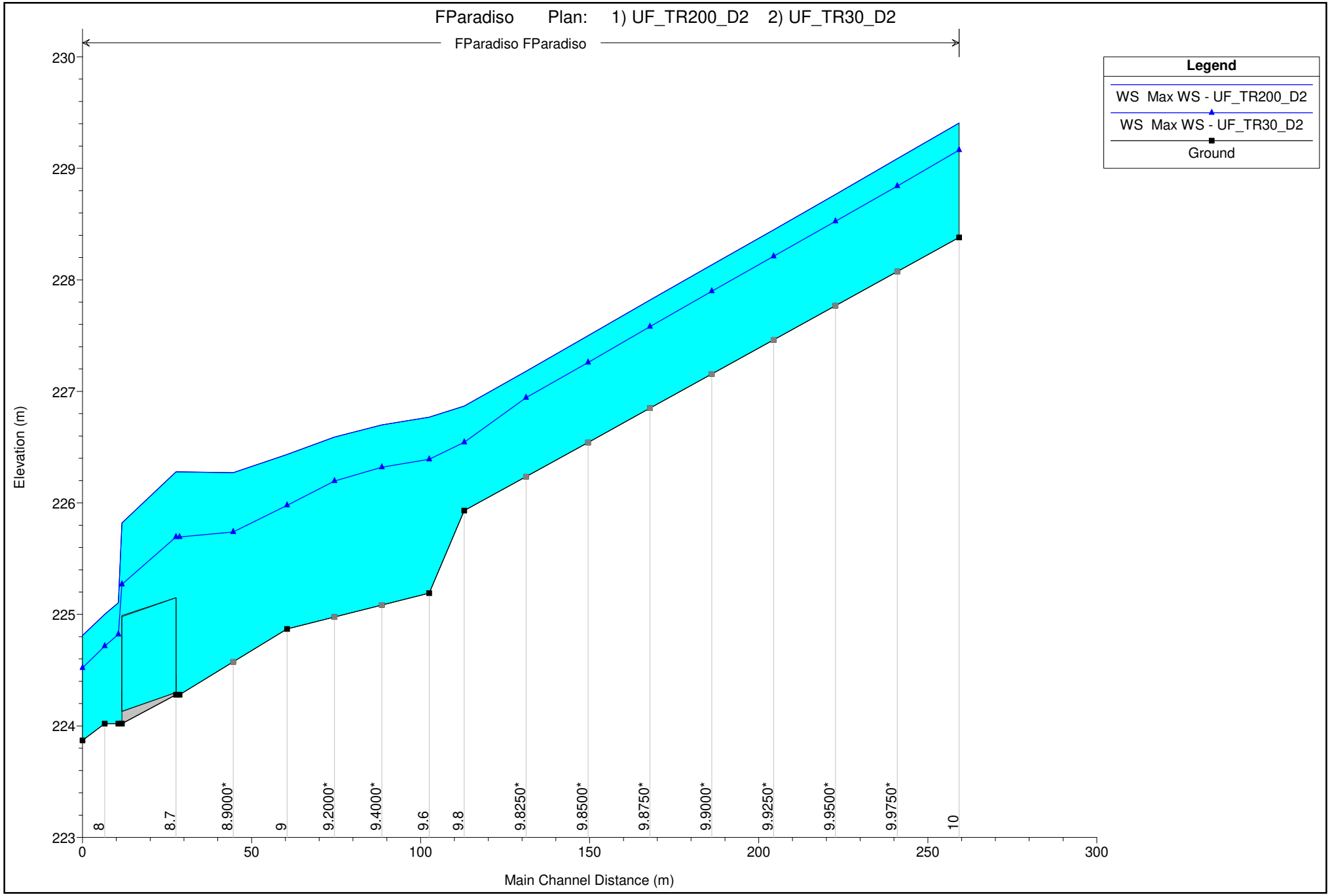
MODELLAZIONE HEC-RAS 5.0.3 "Fosso Paradiso"

FOSSO PARADISO

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 2h

Profilo longitudinale


FParadiso Plan: 1) UF_TR200_D2 2) UF_TR30_D2
FParadiso FParadiso
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
Ground
Elevation (m)
Main Channel Distance (m)
230
229
228
227
226
225
224
223
0
50
100
150
200
250
300
8
8.7
8.9000*
9
9.2000*
9.4000*
9.6
9.8
9.8250*
9.8500*
9.8750*
9.9000*
9.9250*
9.9500*
9.9750*
10

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ALLEGATI

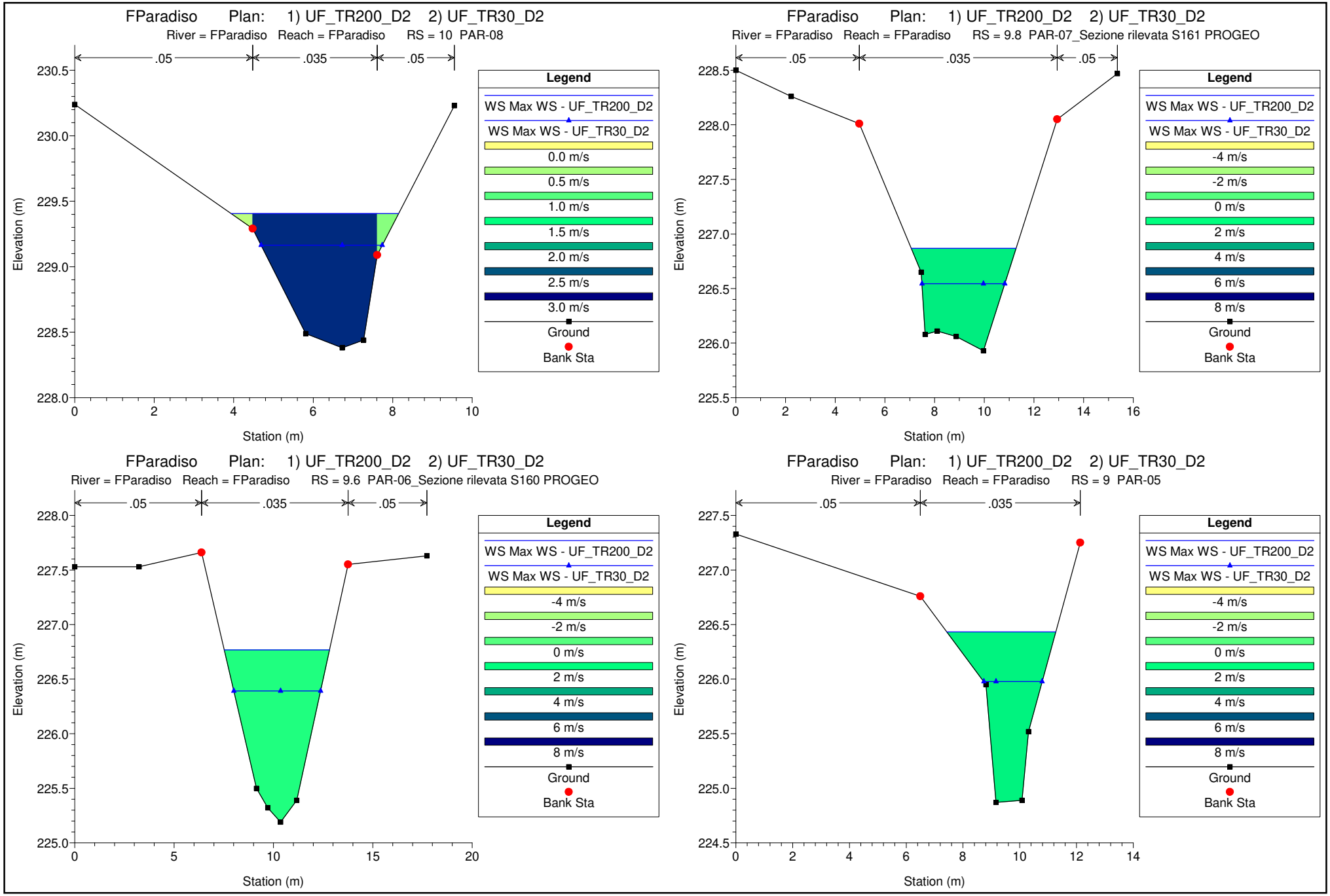
MODELLAZIONE HEC-RAS 5.0.3 "Fosso Paradiso"

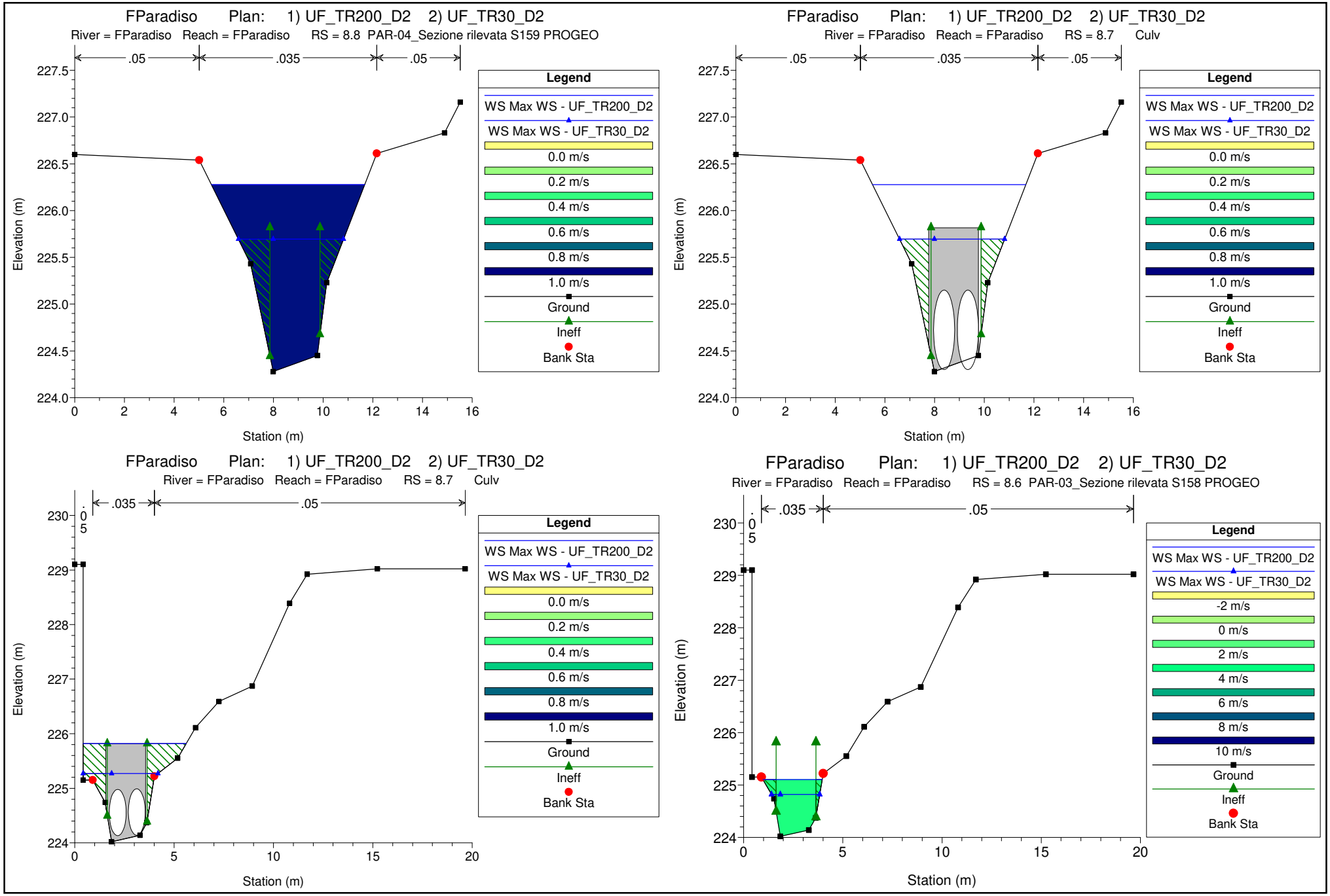
FOSSO PARADISO

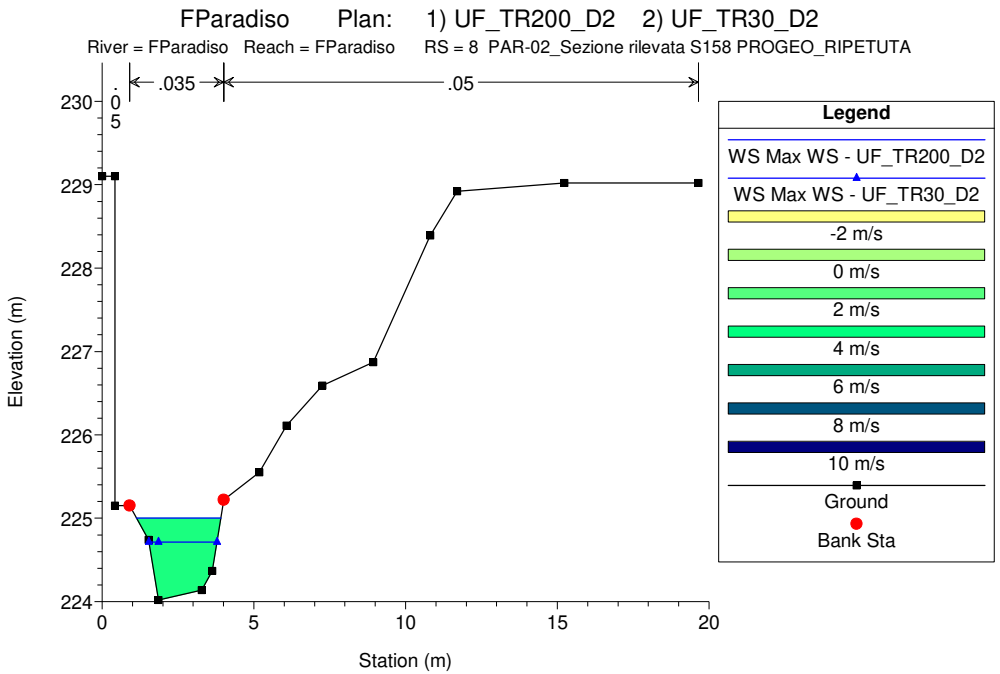
MODELLAZIONE PER TR=30 e 200 anni

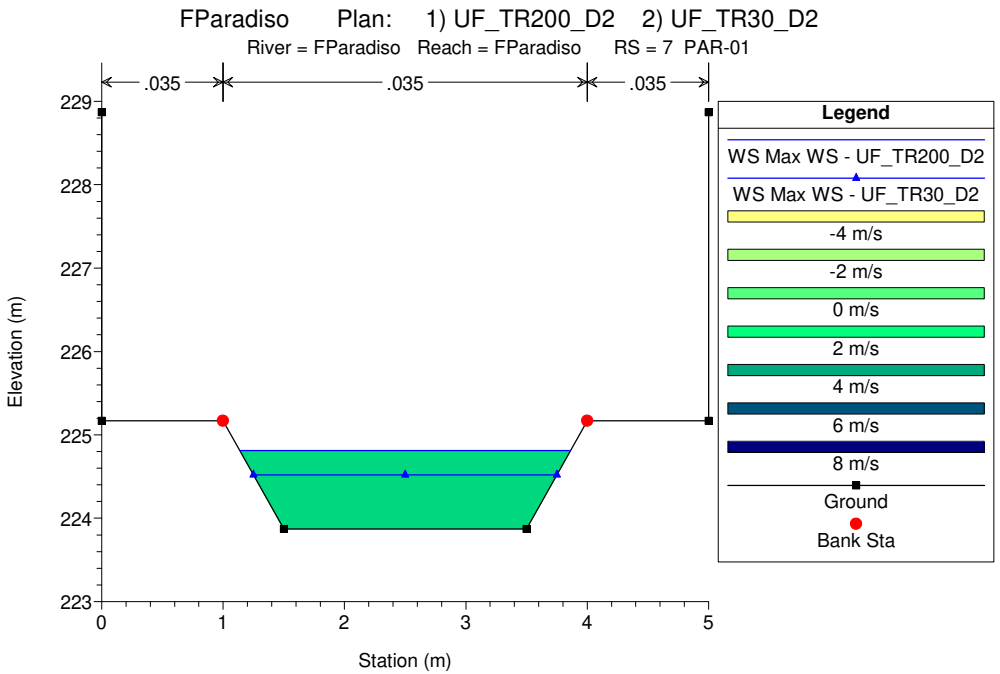
DURATE DI PIOGGIA: 2h

Sezioni Trasversali (da monte verso valle)


FParadiso Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = FParadiso Reach = FParadiso RS = 10 PAR-08
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
FParadiso Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = FParadiso Reach = FParadiso RS = 9.8 PAR-07_Sezione rilevata S161 PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
FParadiso Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = FParadiso Reach = FParadiso RS = 9.6 PAR-06_Sezione rilevata S160 PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
FParadiso Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = FParadiso Reach = FParadiso RS = 9 PAR-05
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta


FParadiso Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = FParadiso Reach = FParadiso RS = 8.8 PAR-04_Sezione rilevata S159 PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
FParadiso Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = FParadiso Reach = FParadiso RS = 8.7 Culv
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
FParadiso Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = FParadiso Reach = FParadiso RS = 8.7 Culv
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
FParadiso Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = FParadiso Reach = FParadiso RS = 8.6 PAR-03_Sezione rilevata S158 PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta


FParadiso Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = FParadiso Reach = FParadiso RS = 8 PAR-02_Sezione rilevata S158 PROGEO_RIPETUTA
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta


FParadiso Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = FParadiso Reach = FParadiso RS = 7 PAR-01
.035
.035
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "Fosso Paradiso"

FOSSO PARADISO

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 2h

Dati idraulici

HEC-RAS Plan: UF_TR200_D2 River: FParadiso Reach: FParadiso Profile: Max WS

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
FParadiso	10	Max WS	6.50	228.38	229.41	229.44	229.79	0.017496	2.75	0.39	0.70	2.45	4.21	1.02
FParadiso	9.8	Max WS	6.50	225.93	226.87	226.85	227.17	0.016762	2.43			2.67	4.22	0.98
FParadiso	9.6	Max WS	6.50	225.19	226.77		226.85	0.002618	1.27			5.11	5.30	0.41
FParadiso	9	Max WS	6.49	224.87	226.43		226.70	0.015452	2.28			2.84	3.84	0.85
FParadiso	8.8	Max WS	6.49	224.28	226.28		226.33	0.001397	0.97			6.70	6.18	0.30
FParadiso	8.7		Culvert											
FParadiso	8.6	Max WS	6.49	224.02	225.10	225.15	225.67	0.017939	3.33			1.95	2.99	1.08
FParadiso	8	Max WS	6.49	224.02	225.00	225.16	225.58	0.035118	3.39			1.92	2.78	1.30
FParadiso	7	Max WS	6.49	223.87	224.81	224.83	225.25	0.022998	2.92			2.22	2.72	1.03

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MODELLAZIONE HEC-RAS 5.0.7 "Riluogo monte"

RILUOGO (monte)

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 3h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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ALLEGATI

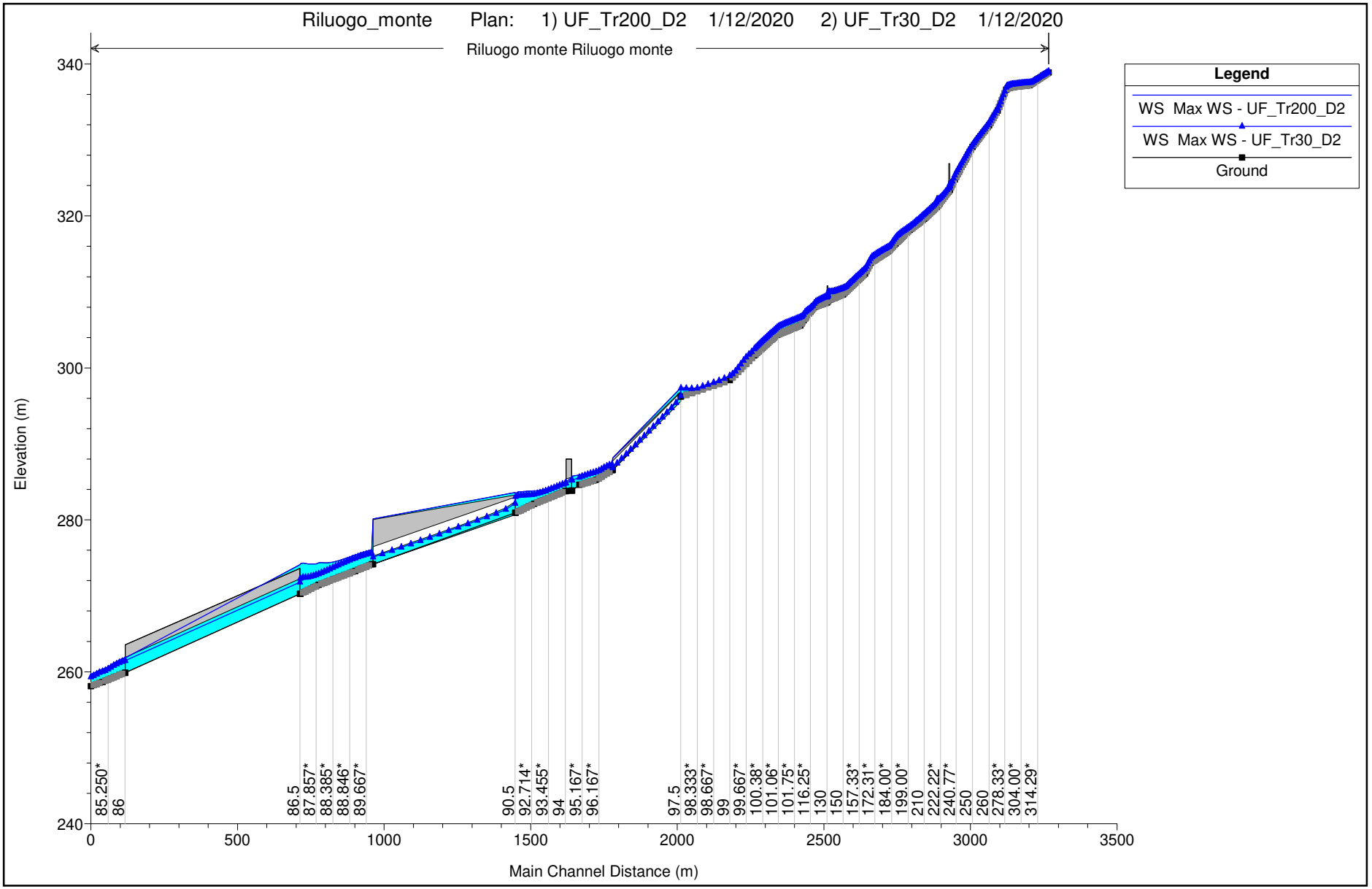
MODELLAZIONE HEC-RAS 5.0.7 "Riluogo monte"

RILUOGO (monte)

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 3h

Profilo longitudinale


Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
Riluogo monte Riluogo monte
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
Ground
Elevation (m)
Main Channel Distance (m)
340
320
300
280
260
240
0
500
1000
1500
2000
2500
3000
3500
85.250*
86
86.5
87.857*
88.385*
88.846*
89.667*
90.5
92.714*
93.455*
94
95.167*
96.167*
97.5
98.333*
98.667*
99
99.667*
100.38*
101.06*
101.75*
116.25*
130
150
157.33*
172.31*
184.00*
199.00*
210
222.22*
240.77*
250
260
278.33*
304.00*
314.29*

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ALLEGATI

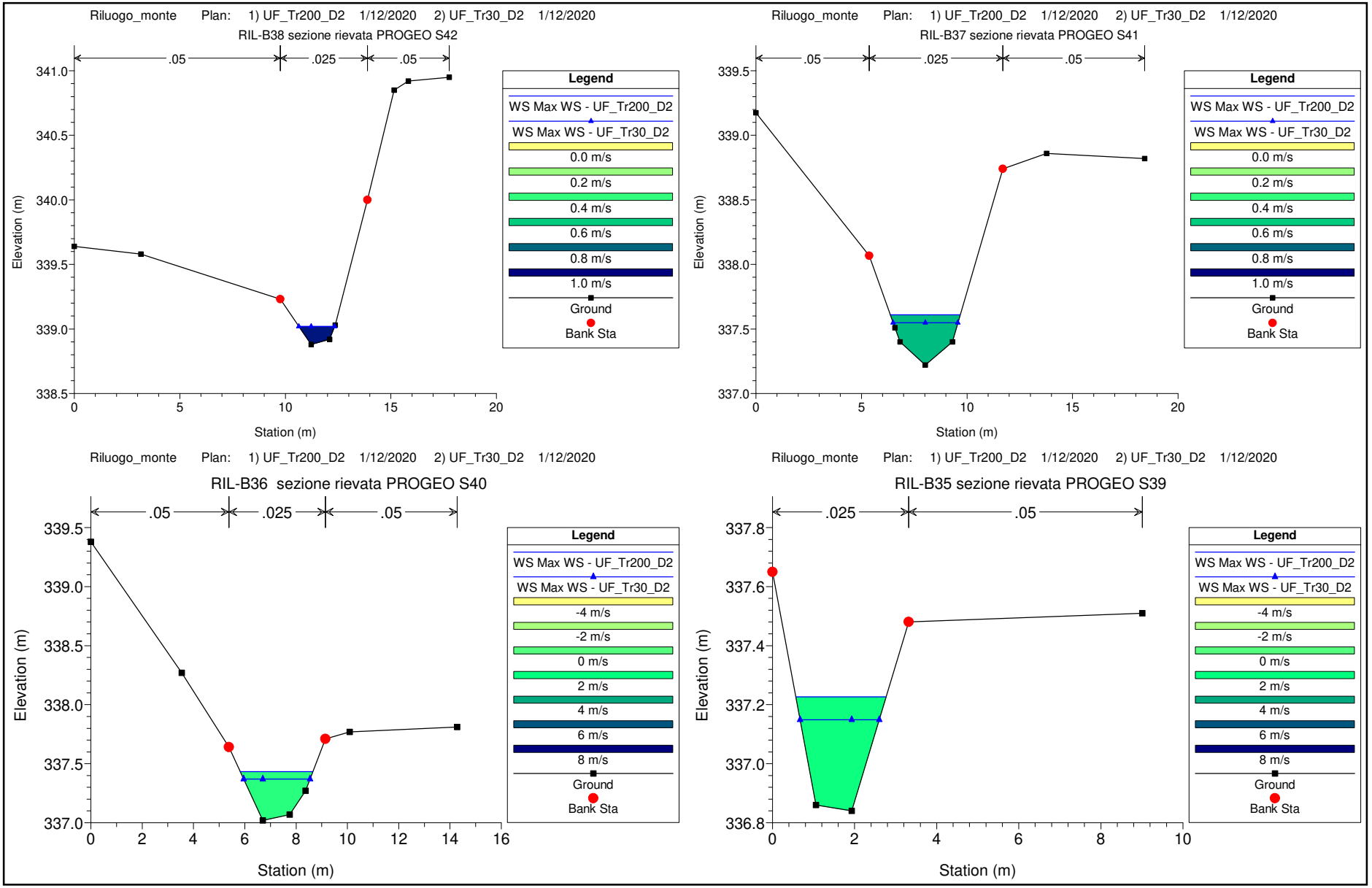
MODELLAZIONE HEC-RAS 5.0.7 "Riluogo monte"

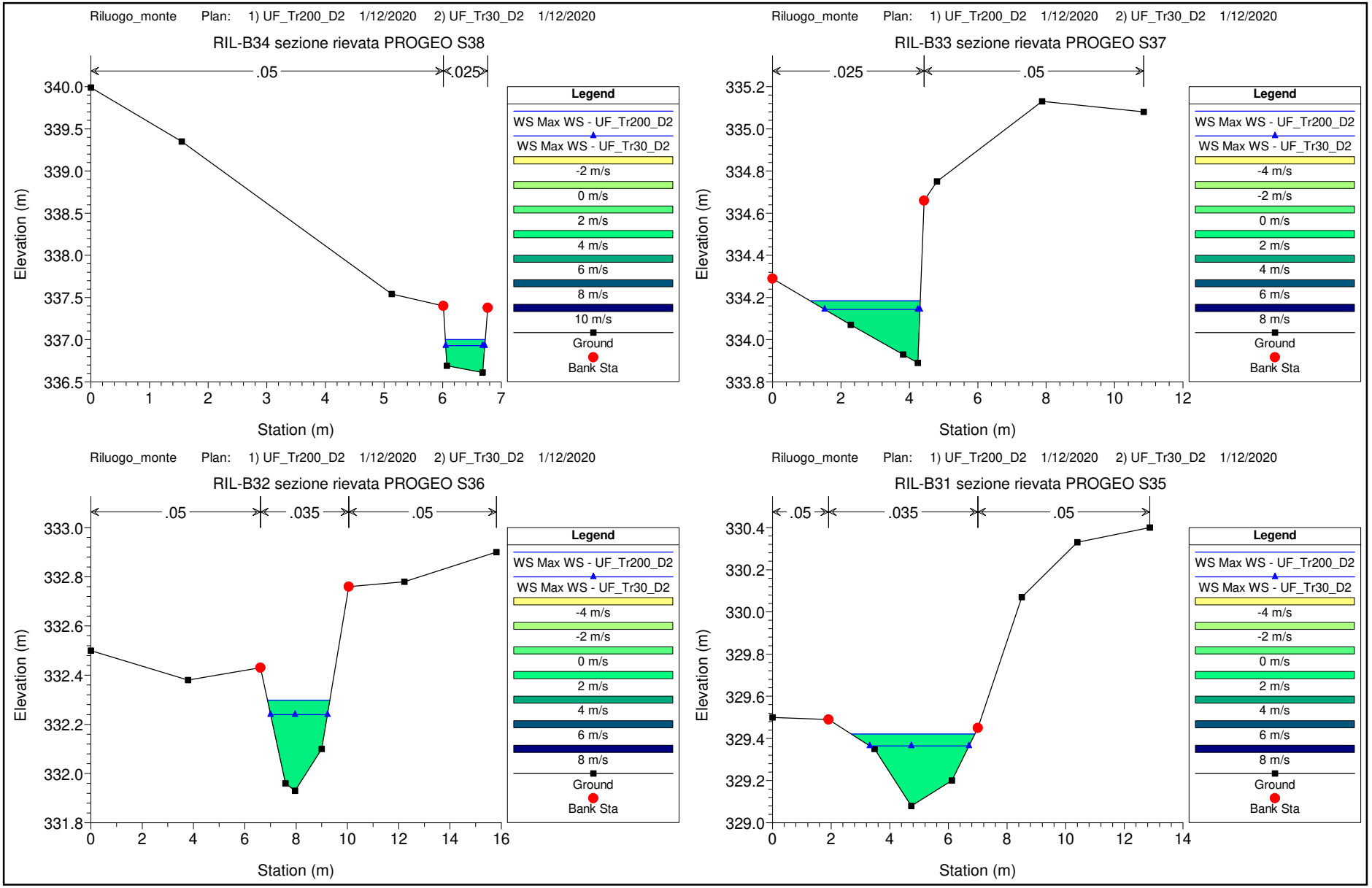
RILUOGO (monte)

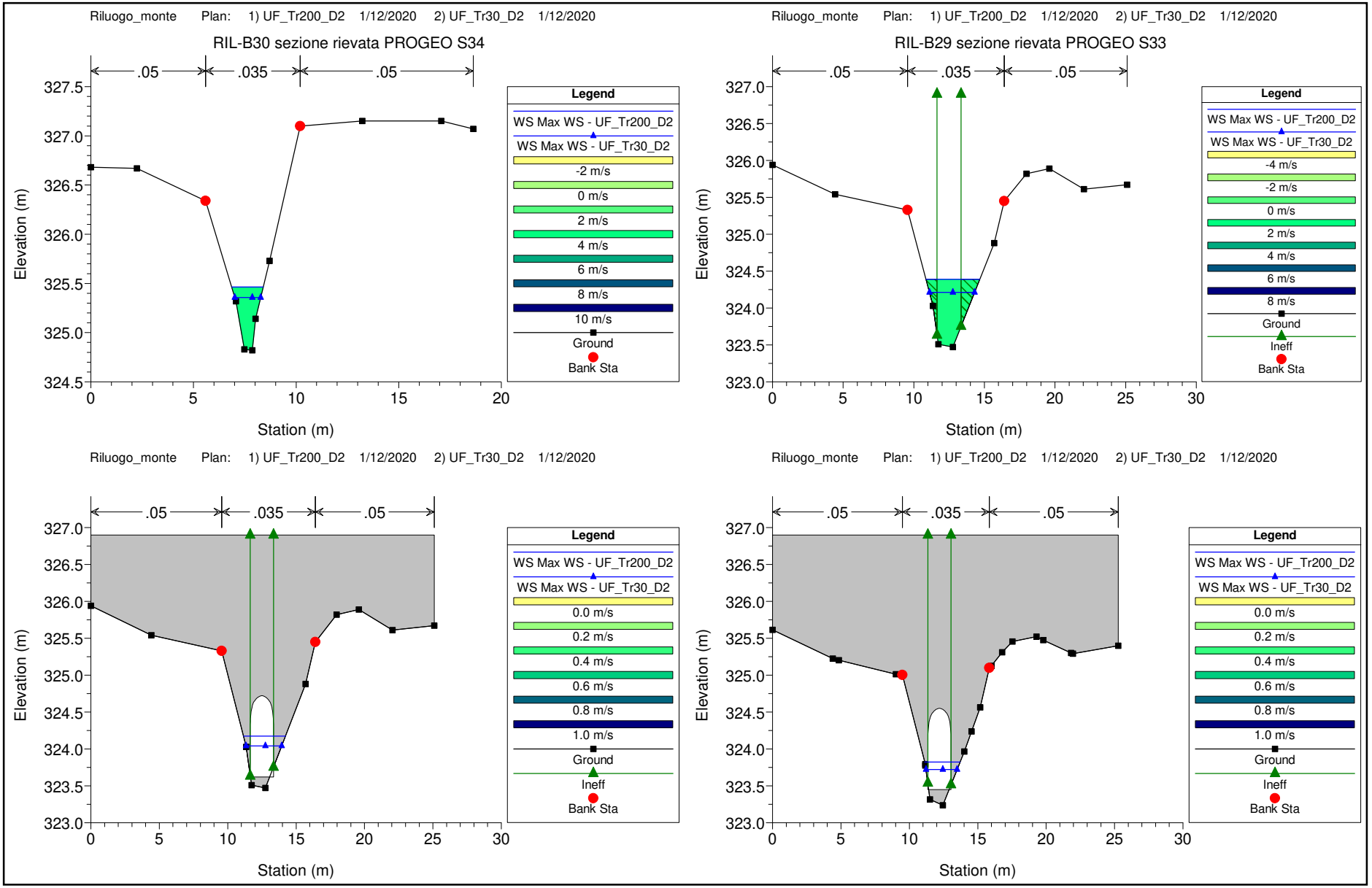
MODELLAZIONE PER TR=30 e 200 anni

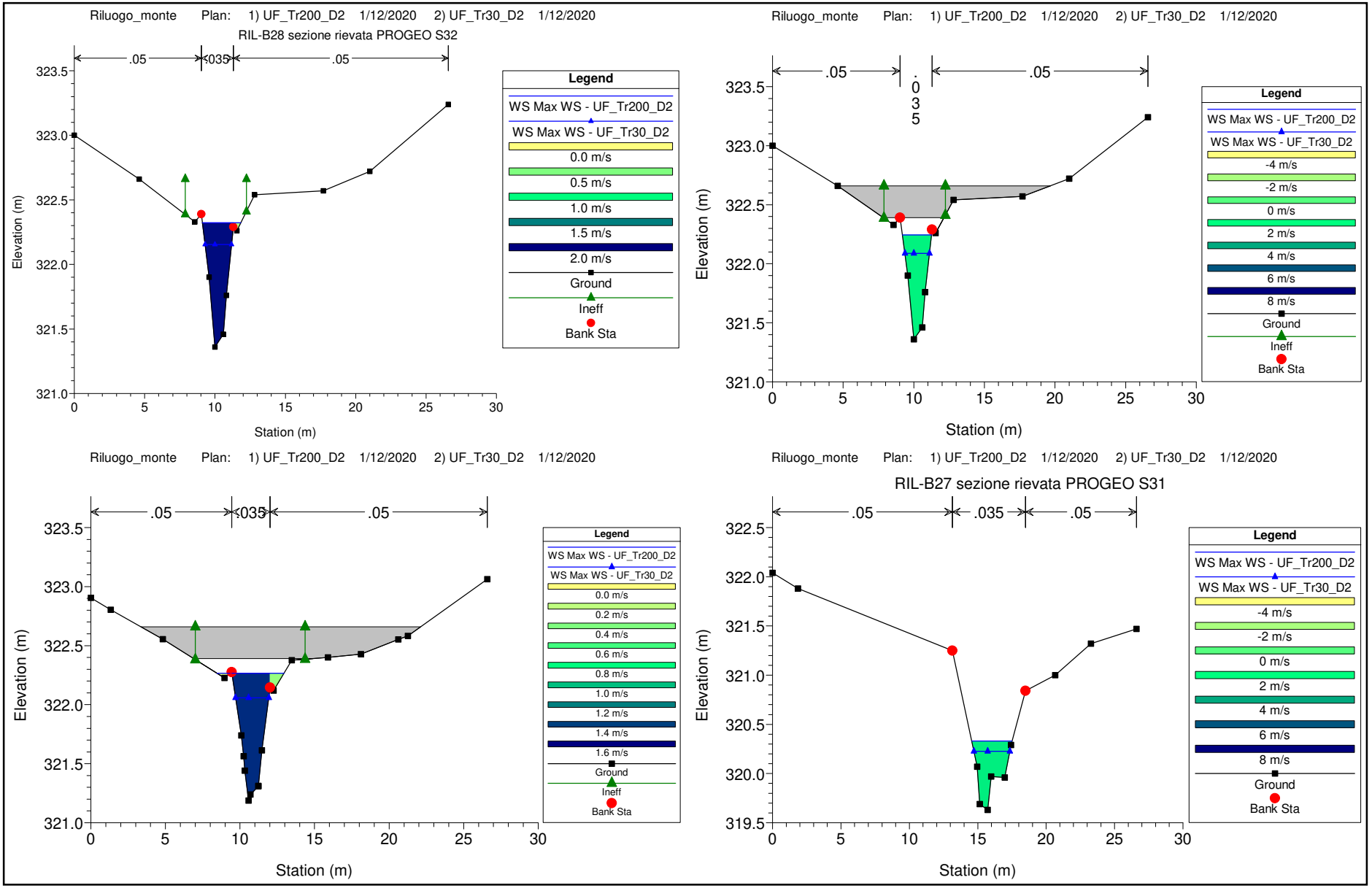
DURATE DI PIOGGIA: 3h

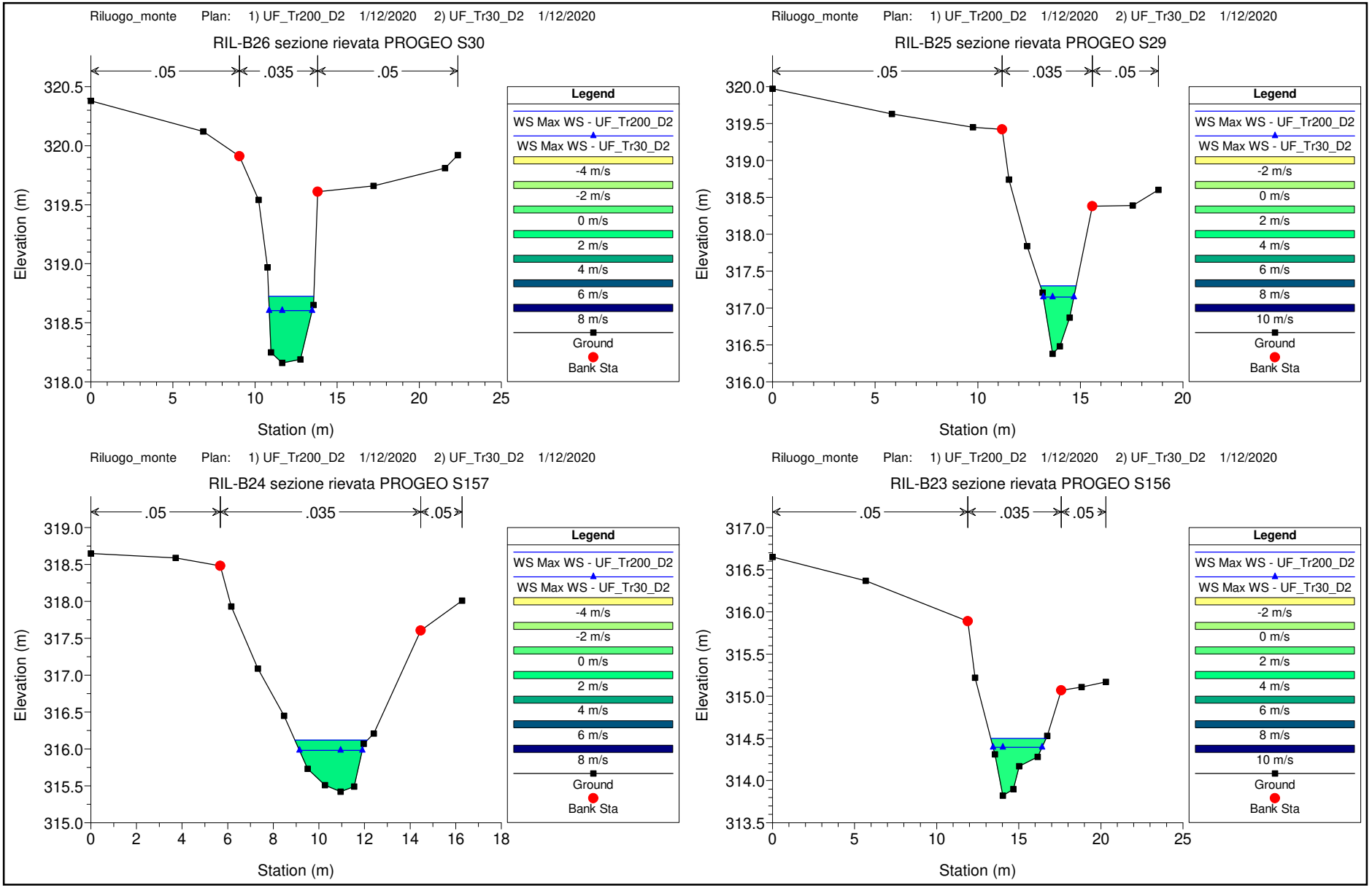
Sezioni Trasversali (da monte verso valle)

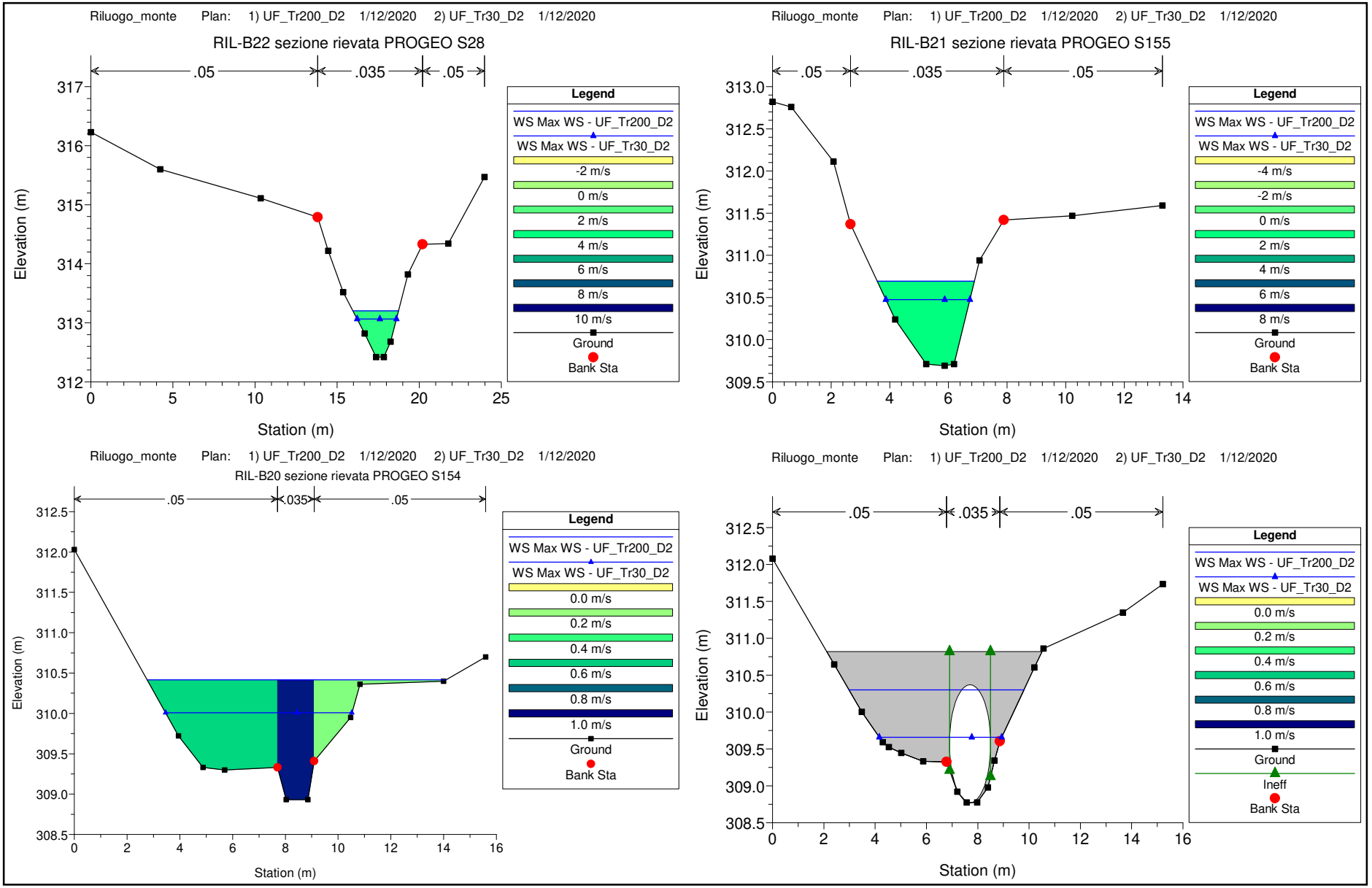

Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B38 sezione rievata PROGEO S42
.05
.025
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B37 sezione rievata PROGEO S41
.05
.025
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B36 sezione rievata PROGEO S40
.05
.025
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B35 sezione rievata PROGEO S39
.025
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta

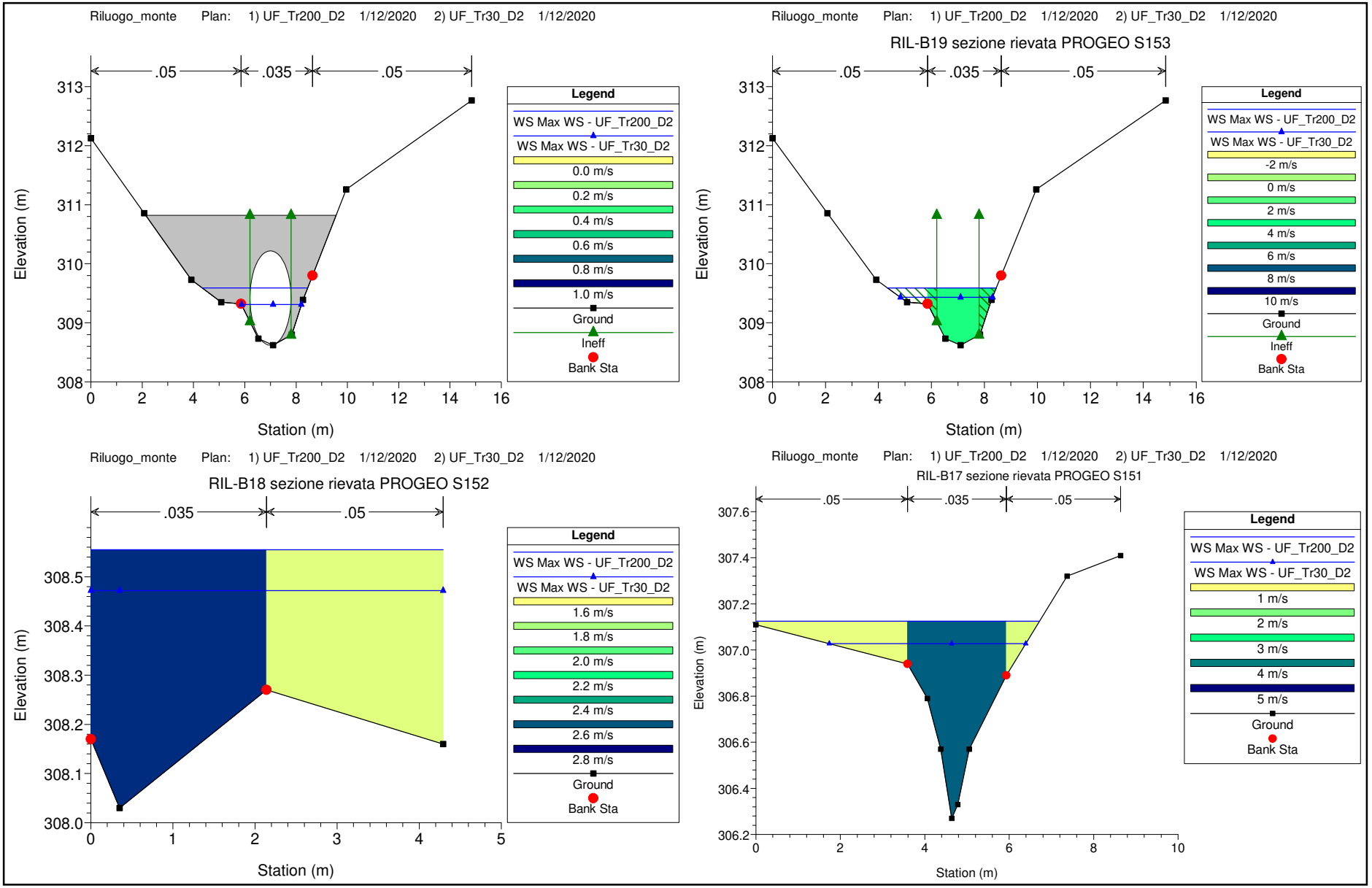

Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B34 sezione rievata PROGEO S38
.05
.025
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B33 sezione rievata PROGEO S37
.025
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B32 sezione rievata PROGEO S36
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B31 sezione rievata PROGEO S35
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta

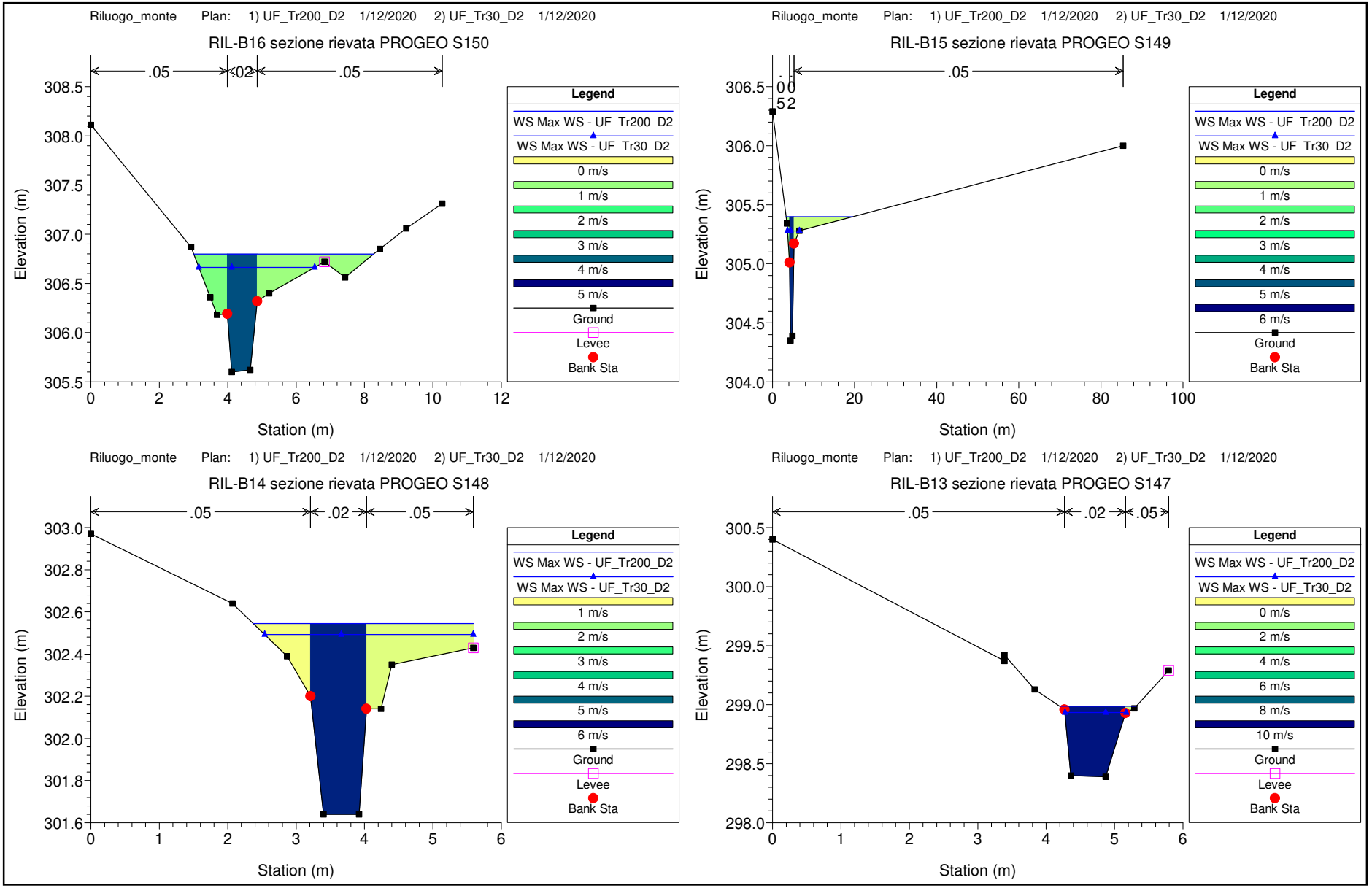

Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B30 sezione rievata PROGEO S34
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B29 sezione rievata PROGEO S33
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta

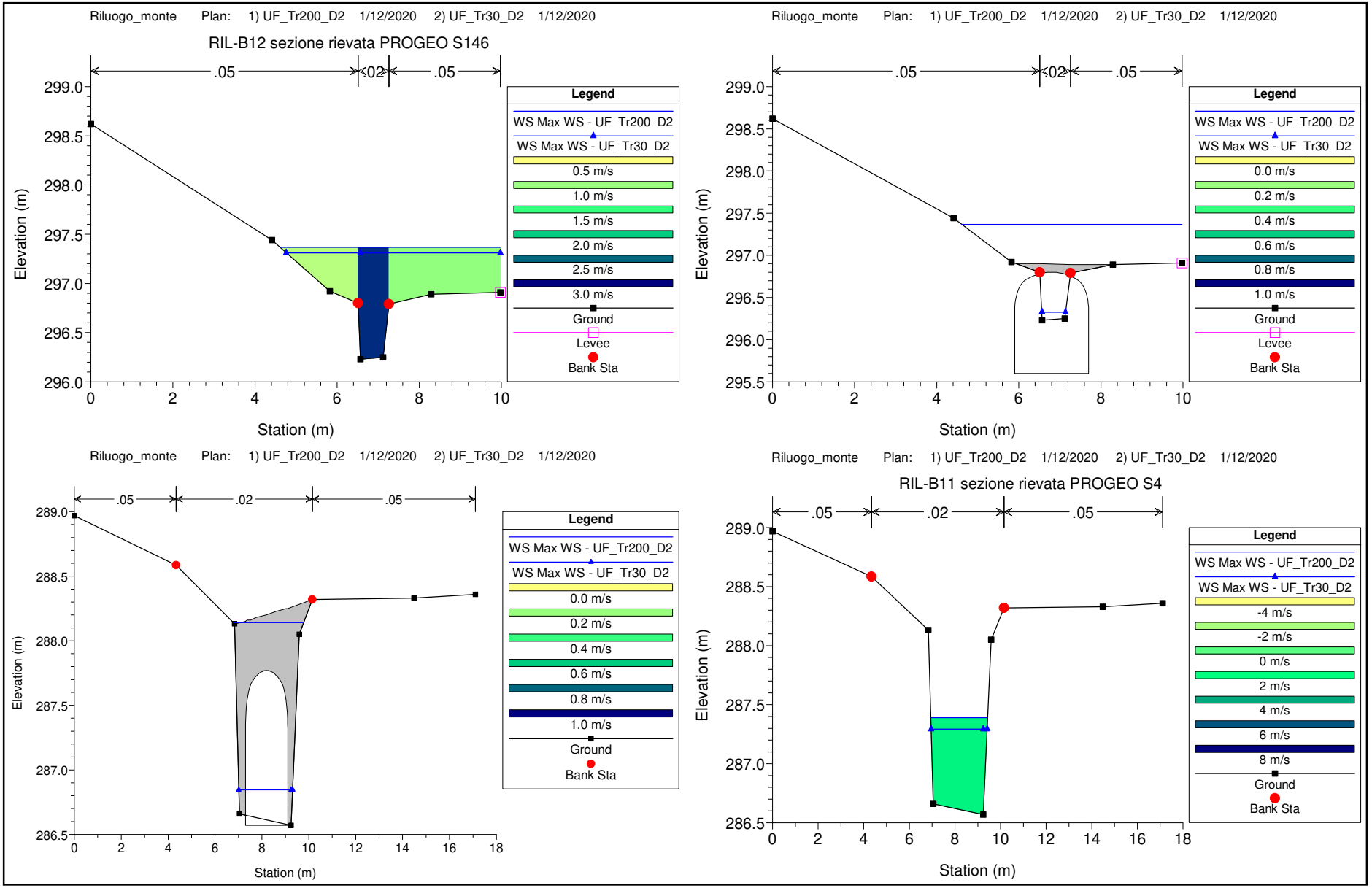

Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B28 sezione rievata PROGEO S32
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Ineff
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Ineff
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B27 sezione rievata PROGEO S31
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta

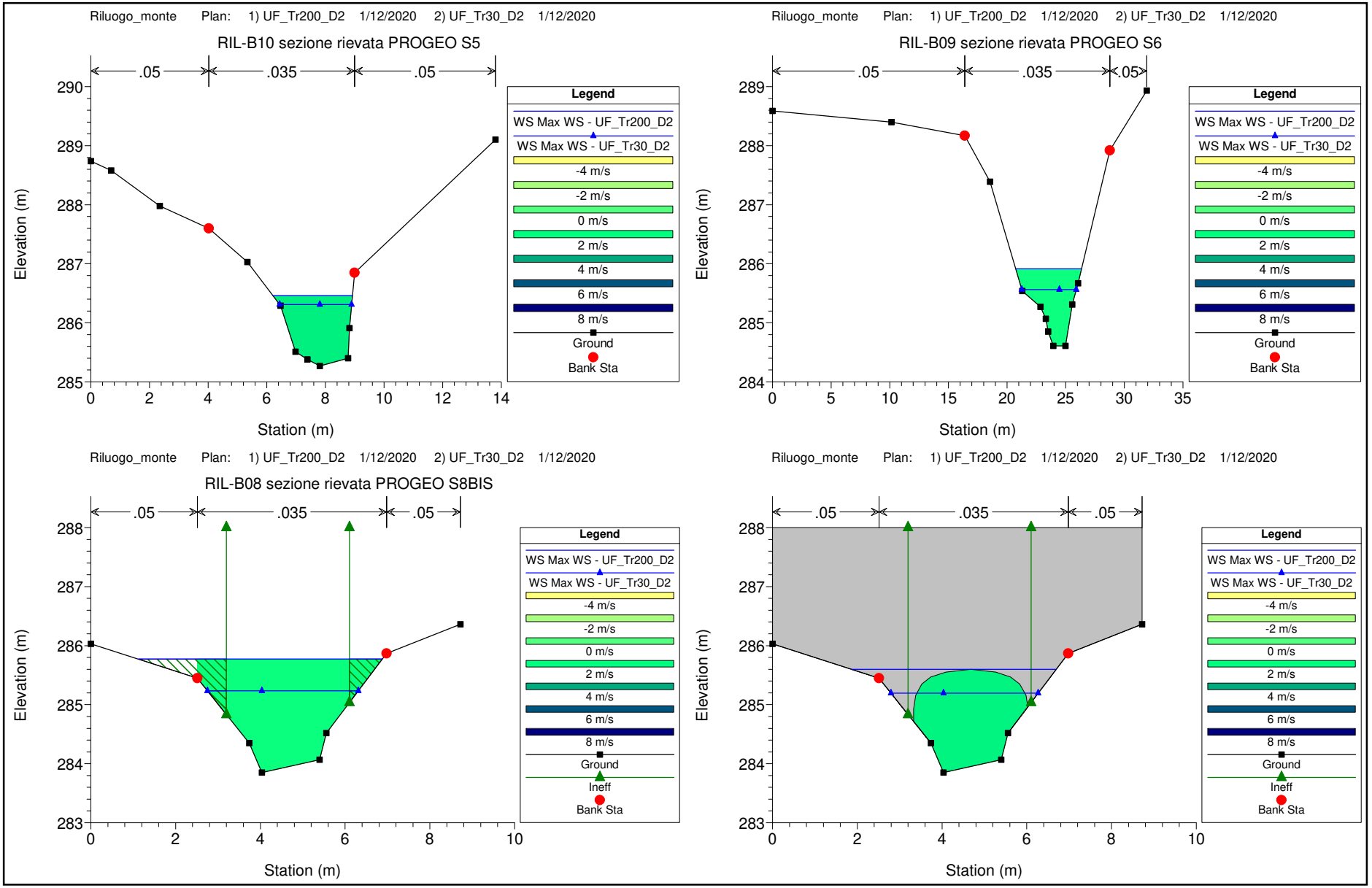

Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B26 sezione rievata PROGEO S30
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B25 sezione rievata PROGEO S29
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B24 sezione rievata PROGEO S157
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B23 sezione rievata PROGEO S156
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta

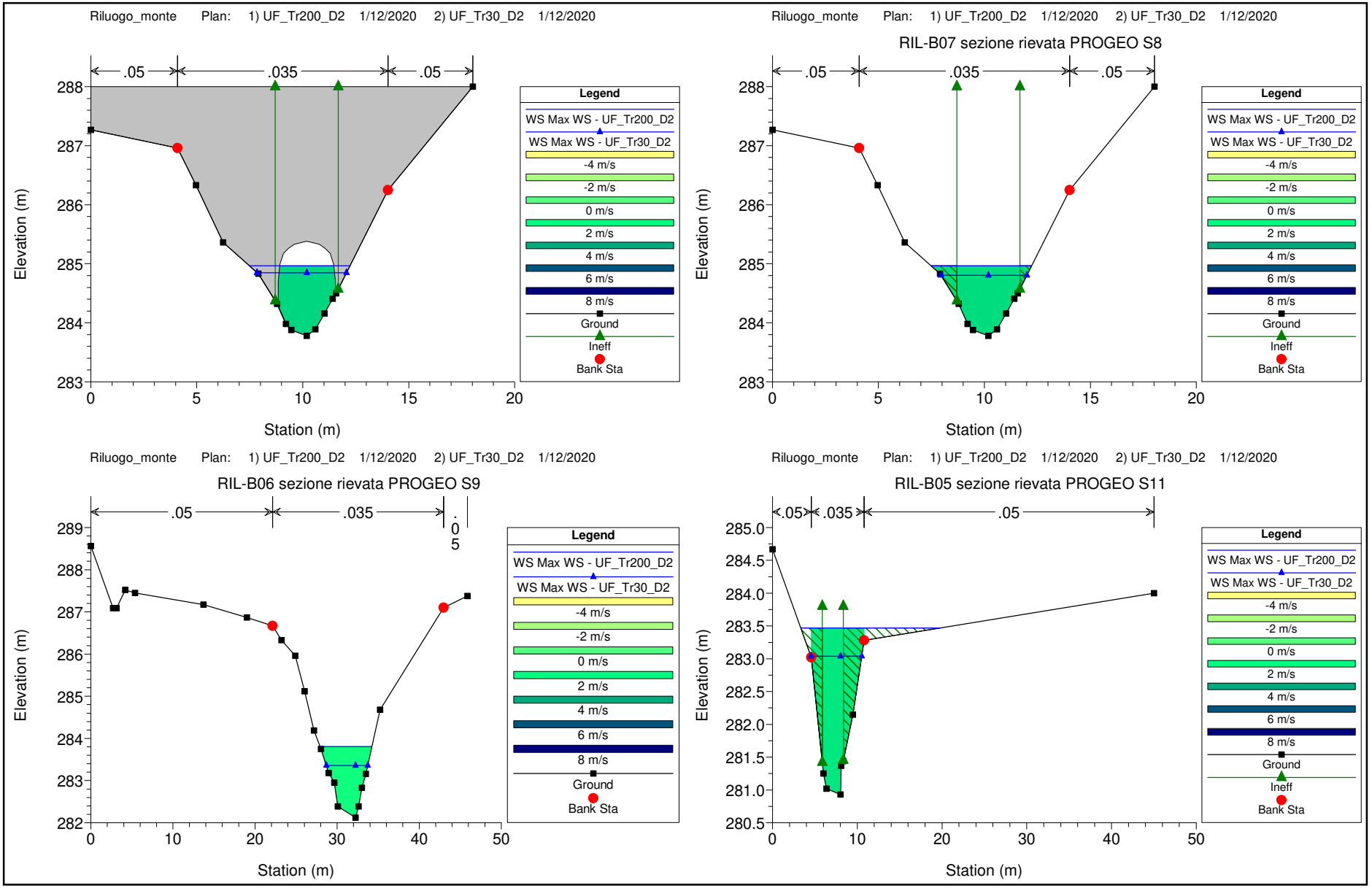

Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B22 sezione rievata PROGEO S28
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B21 sezione rievata PROGEO S155
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B20 sezione rievata PROGEO S154
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta

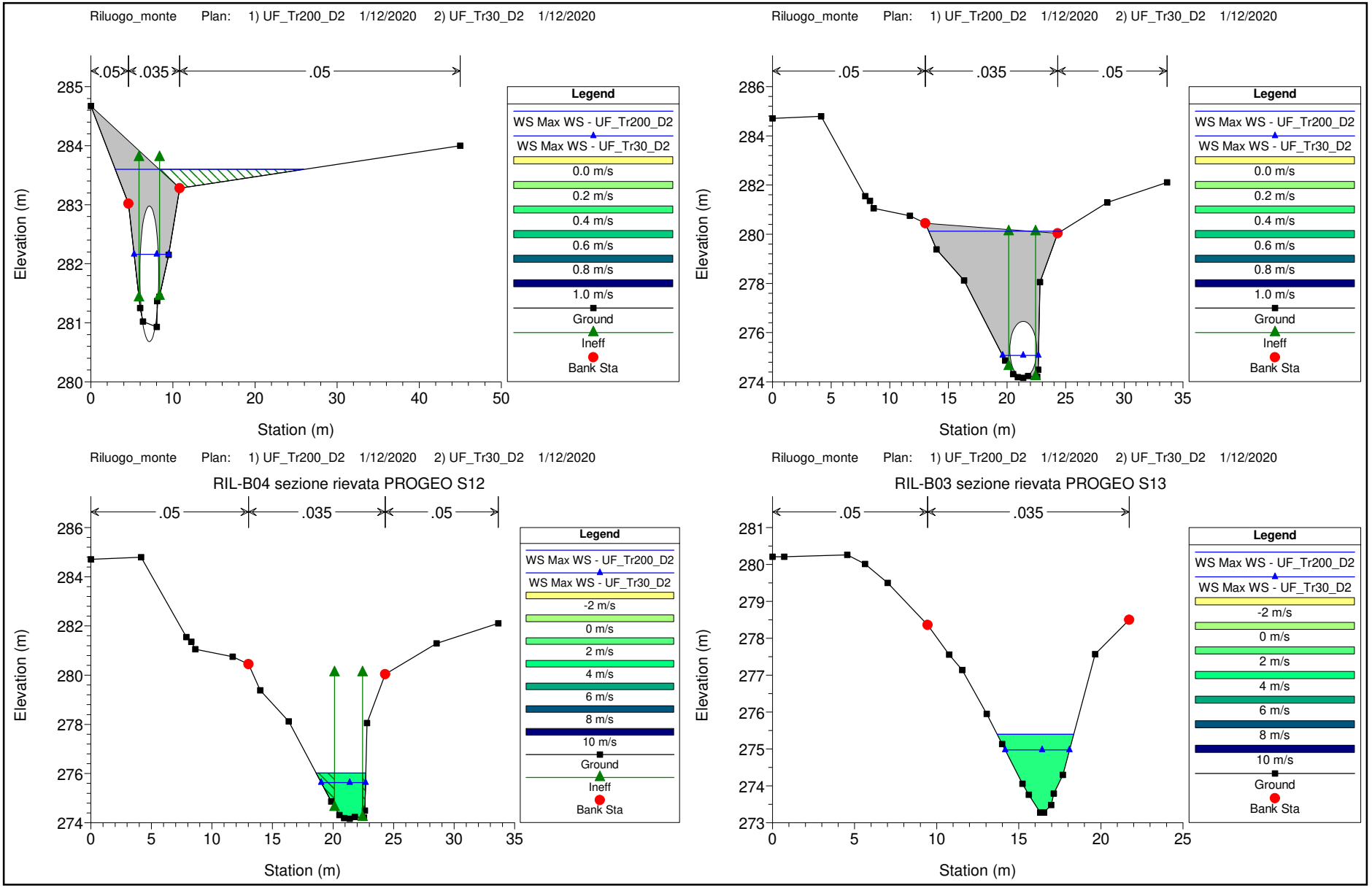

Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B19 sezione rievata PROGEO S153
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B18 sezione rievata PROGEO S152
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
1.6 m/s
1.8 m/s
2.0 m/s
2.2 m/s
2.4 m/s
2.6 m/s
2.8 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B17 sezione rievata PROGEO S151
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
Ground
Bank Sta

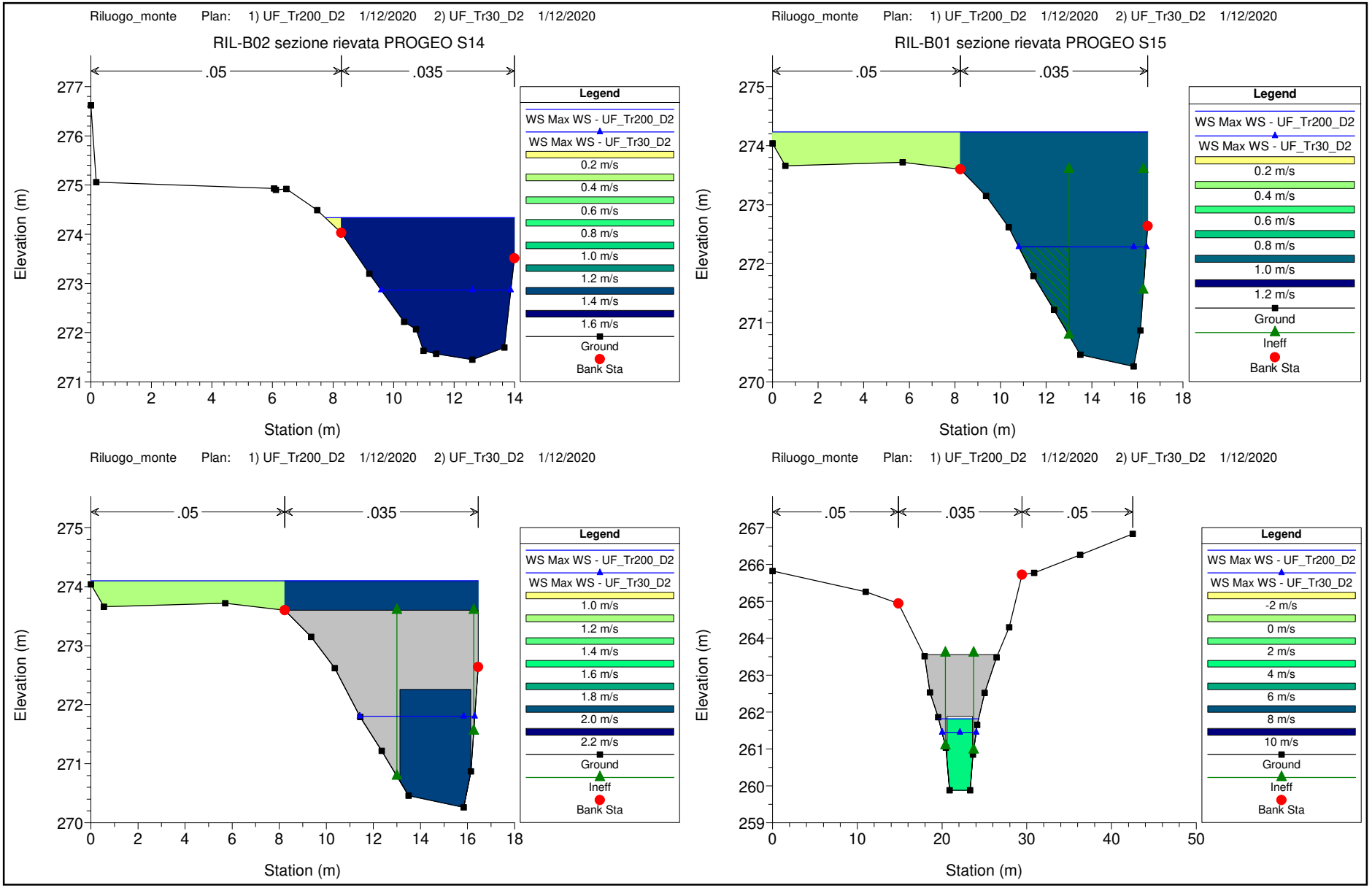

Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B16 sezione rievata PROGEO S150
.05
.02
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
Ground
Levee
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B15 sezione rievata PROGEO S149
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
6 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B14 sezione rievata PROGEO S148
.05
.02
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
6 m/s
Ground
Levee
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B13 sezione rievata PROGEO S147
.05
.02
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta

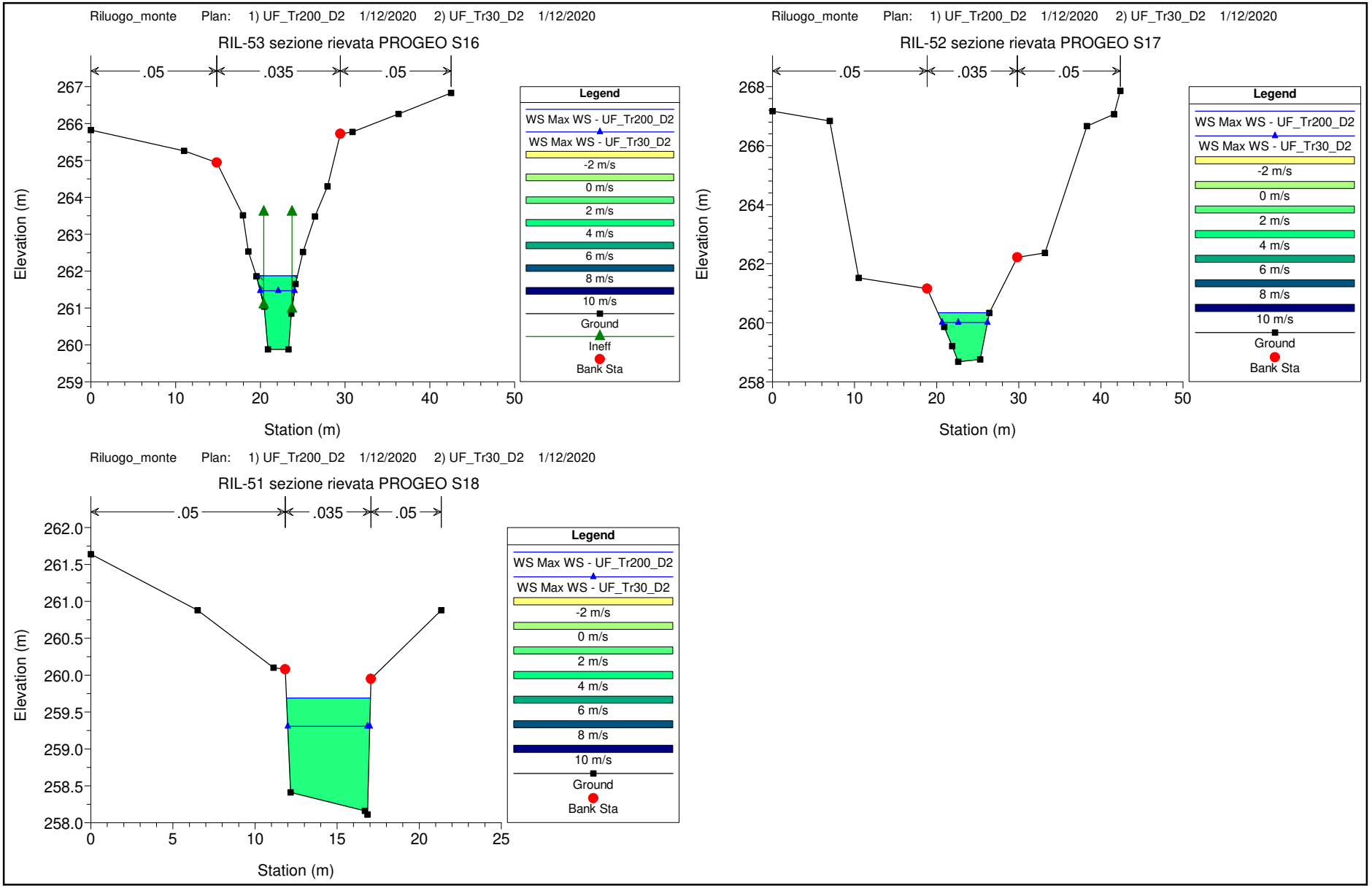

Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B12 sezione rievata PROGEO S146
.05
.02
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Levee
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.02
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.02
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B11 sezione rievata PROGEO S4
.05
.02
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta


Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B10 sezione rievata PROGEO S5
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B09 sezione rievata PROGEO S6
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B08 sezione rievata PROGEO S8BIS
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta


Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
RIL-B07 sezione rievata PROGEO S8
RIL-B06 sezione rievata PROGEO S9
RIL-B05 sezione rievata PROGEO S11


Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B04 sezione rievata PROGEO S12
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B03 sezione rievata PROGEO S13


Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B02 sezione rievata PROGEO S14
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-B01 sezione rievata PROGEO S15
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
Ground
Ineff
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
2.0 m/s
2.2 m/s
Ground
Ineff
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta


Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-53 sezione rievata PROGEO S16
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-52 sezione rievata PROGEO S17
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
Riluogo_monte Plan: 1) UF_Tr200_D2 1/12/2020 2) UF_Tr30_D2 1/12/2020
RIL-51 sezione rievata PROGEO S18
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_Tr200_D2
WS Max WS - UF_Tr30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Riluogo monte"

RILUOGO (monte)

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 3h

Dati idraulici

HEC-RAS River: Riluogo monte Reach: Riluogo monte Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
Riluogo monte	320	Max WS	UF_Tr200_D2	0.15	338.88	339.02	339.02	339.07	0.014121	0.96			0.16	1.69	1.01
Riluogo monte	320	Max WS	UF_Tr30_D2	0.15	338.88	339.02	339.02	339.07	0.014121	0.96			0.16	1.69	1.01
Riluogo monte	319.99			Lat Struct											
Riluogo monte	319.9			Lat Struct											
Riluogo monte	310	Max WS	UF_Tr200_D2	0.53	337.22	337.61		337.63	0.001663	0.63			0.83	3.31	0.40
Riluogo monte	310	Max WS	UF_Tr30_D2	0.39	337.22	337.55		337.57	0.002016	0.61			0.63	3.07	0.43
Riluogo monte	300	Max WS	UF_Tr200_D2	0.81	337.02	337.43		337.49	0.004192	1.05			0.78	2.83	0.64
Riluogo monte	300	Max WS	UF_Tr30_D2	0.57	337.02	337.37		337.42	0.004246	0.95			0.60	2.59	0.63
Riluogo monte	290	Max WS	UF_Tr200_D2	0.98	336.84	337.23	337.24	337.37	0.011901	1.69			0.58	2.20	1.05
Riluogo monte	290	Max WS	UF_Tr30_D2	0.68	336.84	337.15	337.16	337.28	0.013960	1.62			0.42	1.93	1.11
Riluogo monte	280	Max WS	UF_Tr200_D2	1.01	336.61	337.00	337.28	338.01	0.129401	4.45			0.23	0.68	2.46
Riluogo monte	280	Max WS	UF_Tr30_D2	0.70	336.61	336.93	337.15	337.72	0.120134	3.94			0.18	0.67	2.44
Riluogo monte	270	Max WS	UF_Tr200_D2	1.19	333.89	334.18	334.28	334.50	0.054740	2.50			0.48	3.22	2.07
Riluogo monte	270	Max WS	UF_Tr30_D2	0.81	333.89	334.14	334.23	334.41	0.056281	2.29			0.36	2.78	2.05
Riluogo monte	260	Max WS	UF_Tr200_D2	1.37	331.93	332.30	332.39	332.59	0.051342	2.38			0.58	2.43	1.56
Riluogo monte	260	Max WS	UF_Tr30_D2	0.93	331.93	332.24	332.31	332.47	0.050795	2.12			0.44	2.22	1.52
Riluogo monte	259.99			Lat Struct											
Riluogo monte	259.98			Lat Struct											
Riluogo monte	250	Max WS	UF_Tr200_D2	1.72	329.08	329.42	329.51	329.68	0.062485	2.26			0.76	4.21	1.70
Riluogo monte	250	Max WS	UF_Tr30_D2	1.15	329.08	329.36	329.44	329.59	0.062777	2.10			0.55	3.38	1.67
Riluogo monte	240	Max WS	UF_Tr200_D2	2.09	324.82	325.46	325.69	326.17	0.101205	3.73			0.56	1.54	1.98
Riluogo monte	240	Max WS	UF_Tr30_D2	1.39	324.82	325.36	325.55	325.94	0.099198	3.38			0.41	1.26	1.90
Riluogo monte	230	Max WS	UF_Tr200_D2	2.19	323.47	324.39		324.51	0.003830	1.51			1.45	3.81	0.52
Riluogo monte	230	Max WS	UF_Tr30_D2	1.45	323.47	324.21		324.29	0.003658	1.27			1.15	3.20	0.49
Riluogo monte	229			Culvert											
Riluogo monte	220	Max WS	UF_Tr200_D2	2.42	321.36	322.32	322.24	322.52	0.015501	1.96		0.29	1.25	2.73	0.83
Riluogo monte	220	Max WS	UF_Tr30_D2	1.60	321.36	322.15	322.09	322.32	0.016565	1.80			0.88	1.88	0.84
Riluogo monte	219.5			Bridge											
Riluogo monte	210	Max WS	UF_Tr200_D2	2.67	319.63	320.33	320.39	320.62	0.032787	2.39			1.12	2.95	1.24
Riluogo monte	210	Max WS	UF_Tr30_D2	1.76	319.63	320.23	320.27	320.46	0.033414	2.13			0.83	2.62	1.21
Riluogo monte	200	Max WS	UF_Tr200_D2	2.98	318.16	318.72	318.76	319.02	0.025769	2.40			1.24	2.75	1.14
Riluogo monte	200	Max WS	UF_Tr30_D2	1.96	318.16	318.60	318.64	318.84	0.027148	2.14			0.92	2.62	1.15
Riluogo monte	199.99			Lat Struct											
Riluogo monte	199.98			Lat Struct											
Riluogo monte	190	Max WS	UF_Tr200_D2	3.27	316.38	317.30	317.50	317.94	0.061500	3.54			0.93	1.74	1.55
Riluogo monte	190	Max WS	UF_Tr30_D2	2.14	316.38	317.15	317.30	317.65	0.058013	3.14			0.68	1.49	1.48
Riluogo monte	180	Max WS	UF_Tr200_D2	3.41	315.42	316.12	316.15	316.39	0.021508	2.30			1.48	3.19	1.08
Riluogo monte	180	Max WS	UF_Tr30_D2	2.23	315.42	315.98	316.00	316.20	0.022074	2.08			1.07	2.76	1.06
Riluogo monte	170	Max WS	UF_Tr200_D2	3.79	313.82	314.50	314.67	315.03	0.061224	3.24			1.17	3.37	1.75
Riluogo monte	170	Max WS	UF_Tr30_D2	2.48	313.82	314.40	314.53	314.84	0.066324	2.94			0.84	2.99	1.76
Riluogo monte	160	Max WS	UF_Tr200_D2	3.91	312.42	313.20	313.33	313.66	0.037768	3.00			1.30	2.77	1.40
Riluogo monte	160	Max WS	UF_Tr30_D2	2.55	312.42	313.06	313.16	313.43	0.037767	2.70			0.95	2.39	1.37
Riluogo monte	150	Max WS	UF_Tr200_D2	4.37	309.69	310.69		310.90	0.011394	2.00			2.18	3.31	0.79
Riluogo monte	150	Max WS	UF_Tr30_D2	2.85	309.69	310.48		310.66	0.013147	1.88			1.51	2.87	0.83
Riluogo monte	149.99			Lat Struct											
Riluogo monte	149.98			Lat Struct											
Riluogo monte	140	Max WS	UF_Tr200_D2	4.66	308.93	310.42		310.44	0.001063	0.95	0.58	0.25	7.51	11.32	0.26
Riluogo monte	140	Max WS	UF_Tr30_D2	3.04	308.93	310.01		310.04	0.001901	1.01	0.59	0.38	4.30	7.06	0.33
Riluogo monte	132			Culvert											
Riluogo monte	130	Max WS	UF_Tr200_D2	4.68	308.62	309.59	309.69	310.18	0.019337	3.40			1.38	4.11	1.17
Riluogo monte	130	Max WS	UF_Tr30_D2	3.05	308.62	309.43	309.45	309.81	0.016261	2.72			1.12	3.47	1.04
Riluogo monte	120	Max WS	UF_Tr200_D2	3.60	308.03	308.55	308.61	308.85	0.036908	2.70		1.67	1.61	4.29	1.34
Riluogo monte	120	Max WS	UF_Tr30_D2	2.55	308.03	308.47	308.53	308.72	0.039677	2.46		1.47	1.26	4.29	1.37
Riluogo monte	110	Max WS	UF_Tr200_D2	5.18	306.27	307.12	307.34	307.96	0.075265	4.26	1.17	1.28	1.54	6.71	1.99
Riluogo monte	110	Max WS	UF_Tr30_D2	3.53	306.27	307.03	307.25	307.81	0.089471	3.98	0.74	0.98	0.98	4.65	2.09
Riluogo monte	102	Max WS	UF_Tr200_D2	5.11	305.60	306.80	307.04	307.51	0.018345	4.23	1.28	0.95	2.05	5.25	1.31
Riluogo monte	102	Max WS	UF_Tr30_D2	3.52	305.60	306.66	306.87	307.27	0.016921	3.71	1.08	0.78	1.36	3.39	1.23
Riluogo monte	101	Max WS	UF_Tr200_D2	5.84	304.35	305.40	305.64	306.75	0.036336	5.53	1.11	0.64	2.05	16.25	1.96
Riluogo monte	101	Max WS	UF_Tr30_D2	3.90	304.35	305.28	305.58	306.47	0.035217	4.89	0.91	0.54	0.91	2.90	1.88
Riluogo monte	100.3799			Lat Struct											
Riluogo monte	100	Max WS	UF_Tr200_D2	4.30	301.64	302.55	302.98	303.98	0.042498	5.67	1.09	1.31	1.10	3.22	2.01
Riluogo monte	100	Max WS	UF_Tr30_D2	3.61	301.64	302.49	302.87	303.79	0.040532	5.29	0.95	1.07	0.94	3.05	1.95
Riluogo monte	99	Max WS	UF_Tr200_D2	4.08	298.39	298.99	299.73	303.69	0.233558	9.61	0.52	0.93	0.43	1.11	4.45
Riluogo monte	99	Max WS	UF_Tr30_D2	3.67	298.39	298.93	299.66	303.78	0.275657	9.75		0.14	0.38	0.90	4.78
Riluogo monte	98	Max WS	UF_Tr200_D2	4.11	296.23	297.37		297.60	0.008509	2.79	0.85	1.03	2.74	5.37	0.87
Riluogo monte	98	Max WS	UF_Tr30_D2	3.49	296.23	297.31		297.53	0.008190	2.64	0.78	0.95	2.45	5.22	0.84
Riluogo monte	97.5			Culvert											
Riluogo monte	97	Max WS	UF_Tr200_D2	4.11	286.57	287.39		287.65	0.005360	2.25			1.82	2.50	0.84
Riluogo monte	97	Max WS	UF_Tr30_D2	3.49	286.57	287.29		287.54	0.005771	2.20			1.58	2.46	0.88

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

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
Riluogo monte	96	Max WS	UF_Tr200_D2	5.51	285.27	286.46		286.74	0.014334	2.34			2.35	2.71	0.80
Riluogo monte	96	Max WS	UF_Tr30_D2	4.31	285.27	286.31		286.56	0.013947	2.20			1.96	2.45	0.79
Riluogo monte	95	Max WS	UF_Tr200_D2	7.02	284.61	285.92		286.07	0.006623	1.71			4.10	5.61	0.64
Riluogo monte	95	Max WS	UF_Tr30_D2	5.24	284.61	285.56	285.58	285.83	0.019497	2.29			2.29	4.64	1.04
Riluogo monte	94.2	Max WS	UF_Tr200_D2	7.68	283.85	285.77	285.16	285.93	0.003253	1.76			4.37	5.75	0.46
Riluogo monte	94.2	Max WS	UF_Tr30_D2	5.65	283.85	285.24	284.99	285.44	0.007594	2.00			2.82	3.56	0.65
Riluogo monte	94.1			Bridge											
Riluogo monte	94	Max WS	UF_Tr200_D2	7.68	283.78	284.97		285.37	0.012560	2.80			2.74	4.76	0.93
Riluogo monte	94	Max WS	UF_Tr30_D2	5.65	283.78	284.80		285.12	0.013005	2.50			2.26	4.06	0.92
Riluogo monte	93	Max WS	UF_Tr200_D2	10.45	282.12	283.80		283.94	0.004137	1.65			6.33	6.32	0.53
Riluogo monte	93	Max WS	UF_Tr30_D2	7.33	282.12	283.36		283.55	0.008182	1.93			3.80	5.05	0.71
Riluogo monte	92.999			Lat Struct											
Riluogo monte	91	Max WS	UF_Tr200_D2	15.21	280.93	283.47		283.80	0.003224	2.55			5.98	16.45	0.52
Riluogo monte	91	Max WS	UF_Tr30_D2	10.04	280.93	283.04		283.25	0.002716	2.05			4.90	6.00	0.47
Riluogo monte	90.5			Culvert											
Riluogo monte	90	Max WS	UF_Tr200_D2	15.23	274.16	276.03		276.74	0.008688	3.74			4.07	4.12	0.90
Riluogo monte	90	Max WS	UF_Tr30_D2	10.03	274.16	275.63		276.15	0.008672	3.17			3.17	3.68	0.86
Riluogo monte	89.999			Lat Struct											
Riluogo monte	89	Max WS	UF_Tr200_D2	17.89	273.28	275.40		275.91	0.014593	3.16			5.66	4.66	0.91
Riluogo monte	89	Max WS	UF_Tr30_D2	10.93	273.28	274.98		275.39	0.015203	2.84			3.85	3.92	0.91
Riluogo monte	88	Max WS	UF_Tr200_D2	18.47	271.45	274.34		274.46	0.001967	1.53	0.23		12.13	6.25	0.34
Riluogo monte	88	Max WS	UF_Tr30_D2	12.89	271.45	272.87		273.30	0.015060	2.92			4.42	4.28	0.92
Riluogo monte	87	Max WS	UF_Tr200_D2	23.75	270.26	274.23	272.20	274.28	0.000614	1.02	0.32		26.28	16.45	0.20
Riluogo monte	87	Max WS	UF_Tr30_D2	13.76	270.26	272.29	271.67	272.56	0.004195	2.30			5.99	5.59	0.54
Riluogo monte	86.5			Bridge											
Riluogo monte	86	Max WS	UF_Tr200_D2	22.57	259.88	261.87		262.58	0.012785	3.72			6.06	4.85	0.88
Riluogo monte	86	Max WS	UF_Tr30_D2	13.76	259.88	261.47		261.90	0.011013	2.92			4.71	4.05	0.78
Riluogo monte	85	Max WS	UF_Tr200_D2	22.25	258.68	260.34		260.83	0.012422	3.08			7.23	6.28	0.92
Riluogo monte	85	Max WS	UF_Tr30_D2	13.76	258.68	260.01		260.36	0.011064	2.60			5.29	5.50	0.85
Riluogo monte	84	Max WS	UF_Tr200_D2	22.19	258.11	259.69	259.58	260.22	0.014328	3.21			6.91	5.12	0.88
Riluogo monte	84	Max WS	UF_Tr30_D2	13.76	258.11	259.31	259.23	259.70	0.014335	2.77			4.97	5.00	0.89

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Riluogo Intermedio"

RILUOGO (intermedio)

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 2h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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ALLEGATI

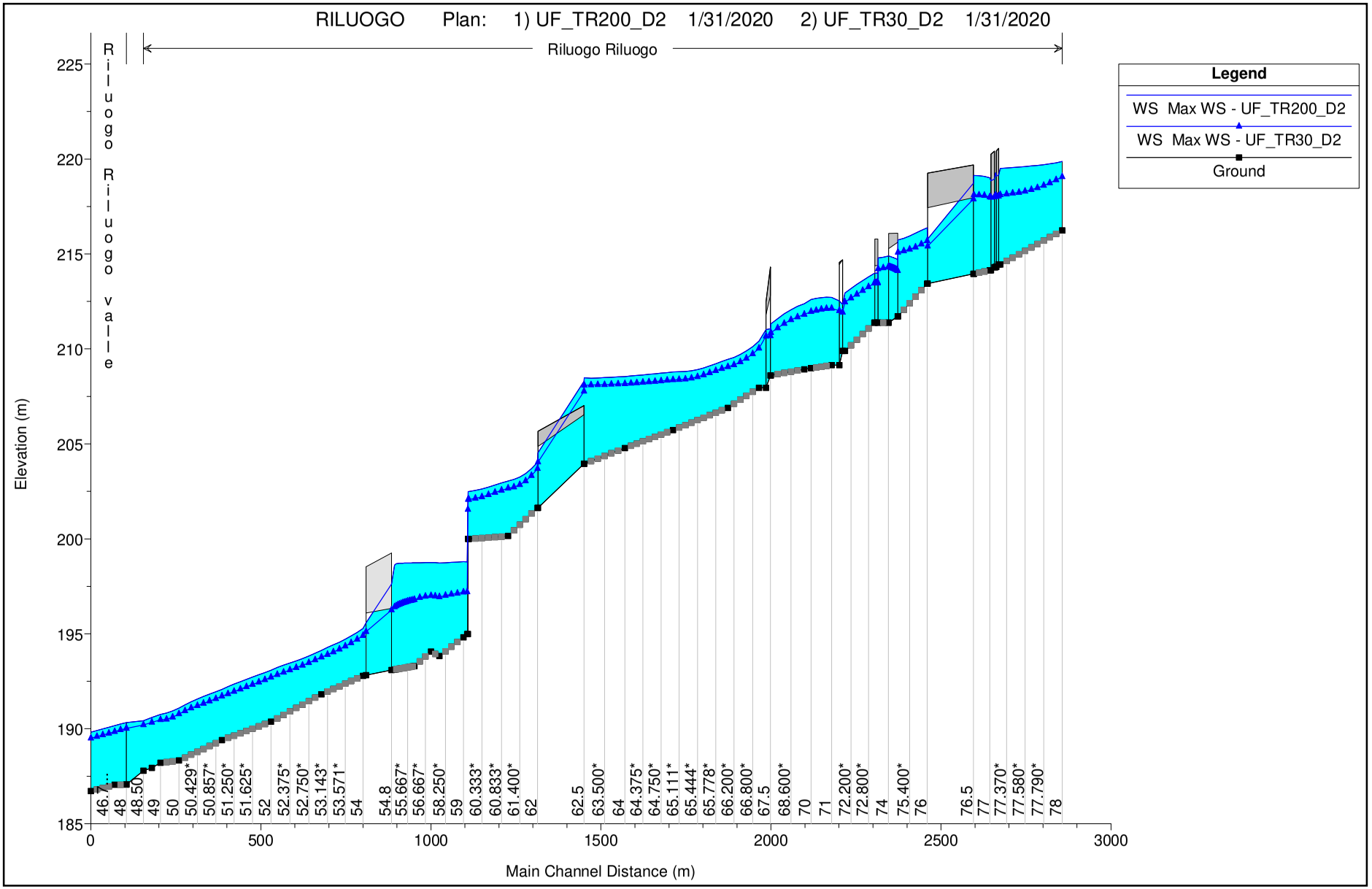
MODELLAZIONE HEC-RAS 5.0.7 "Riluogo Intermedio"

RILUOGO (intermedio)

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 2h

Profilo longitudinale


RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
Riluogo Riluogo
Riluogo Riluogo valle
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
Ground
Elevation (m)
Main Channel Distance (m)
225
220
215
210
205
200
195
190
185
0
500
1000
1500
2000
2500
3000
46.
48
48.50
49
50
50.429*
50.857*
51.250*
51.625*
52
52.375*
52.750*
53.143*
53.571*
54
54.8
55.667*
56.667*
58.250*
59
60.333*
60.833*
61.400*
62
62.5
63.500*
64
64.375*
64.750*
65.111*
65.444*
65.778*
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67.5
68.600*
70
71
72.200*
72.800*
74
75.400*
76
76.5
77
77.370*
77.580*
77.790*
78

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ALLEGATI

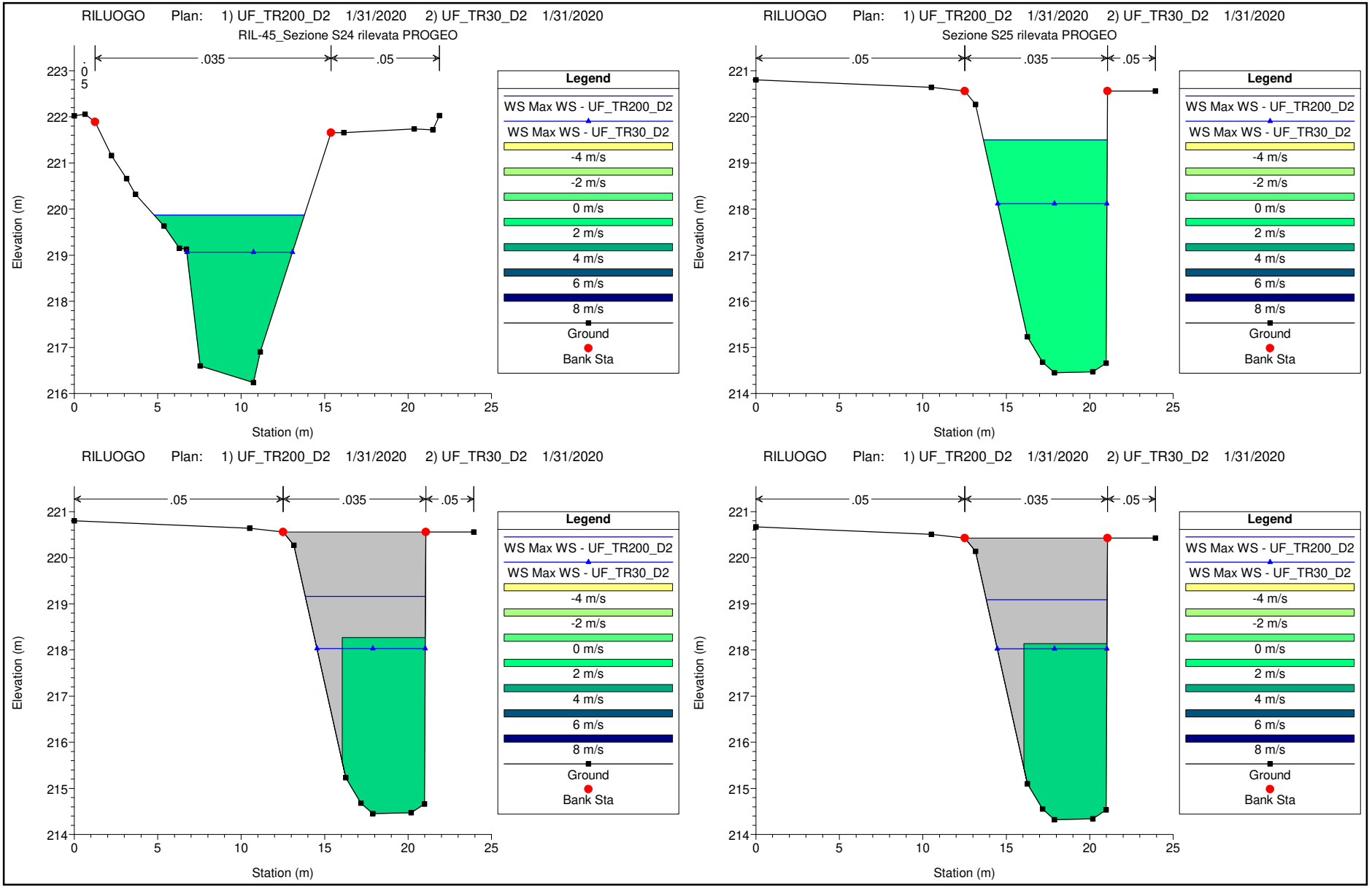
MODELLAZIONE HEC-RAS 5.0.7 "Riluogo Intermedio"

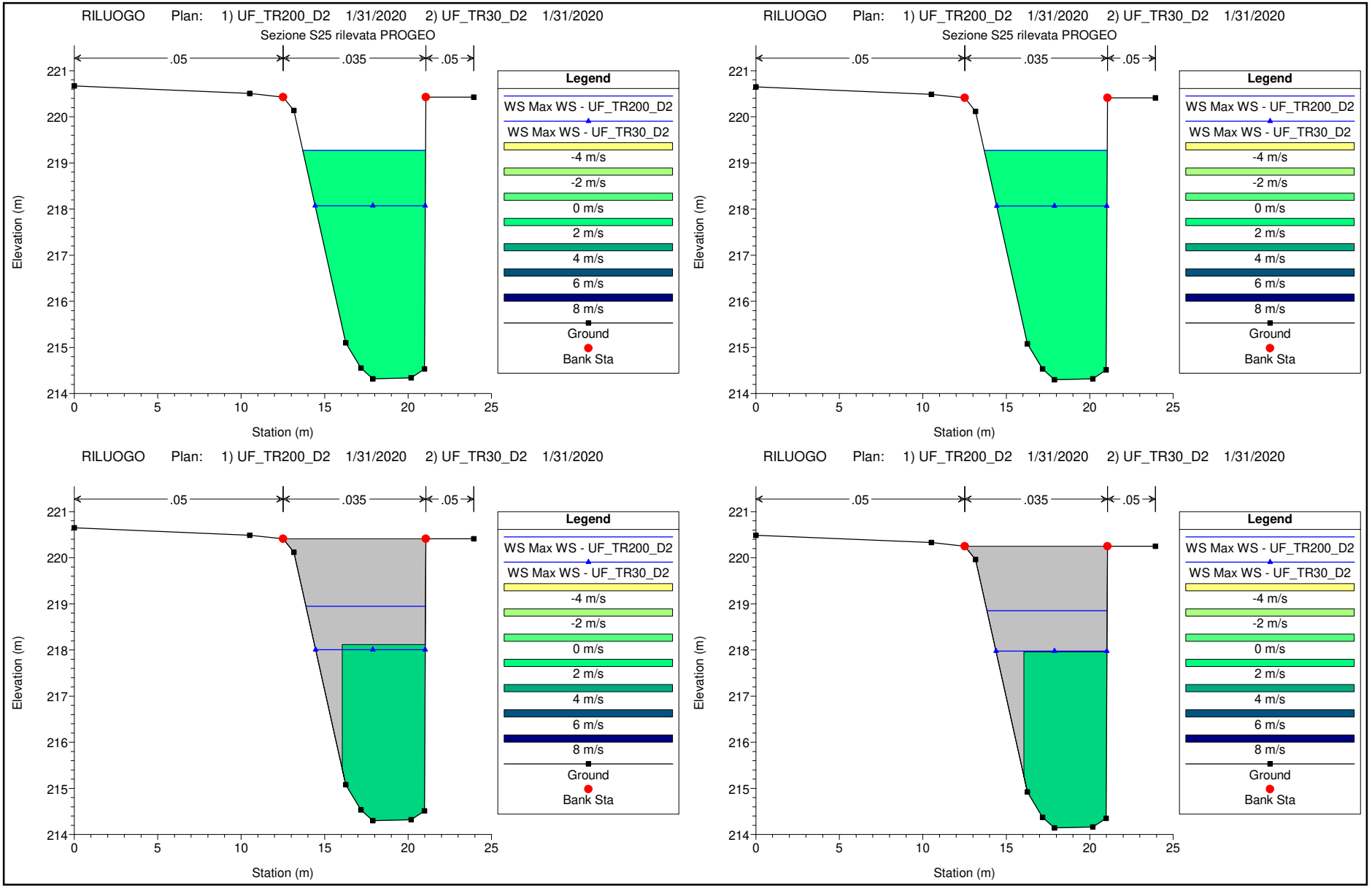
RILUOGO (intermedio)

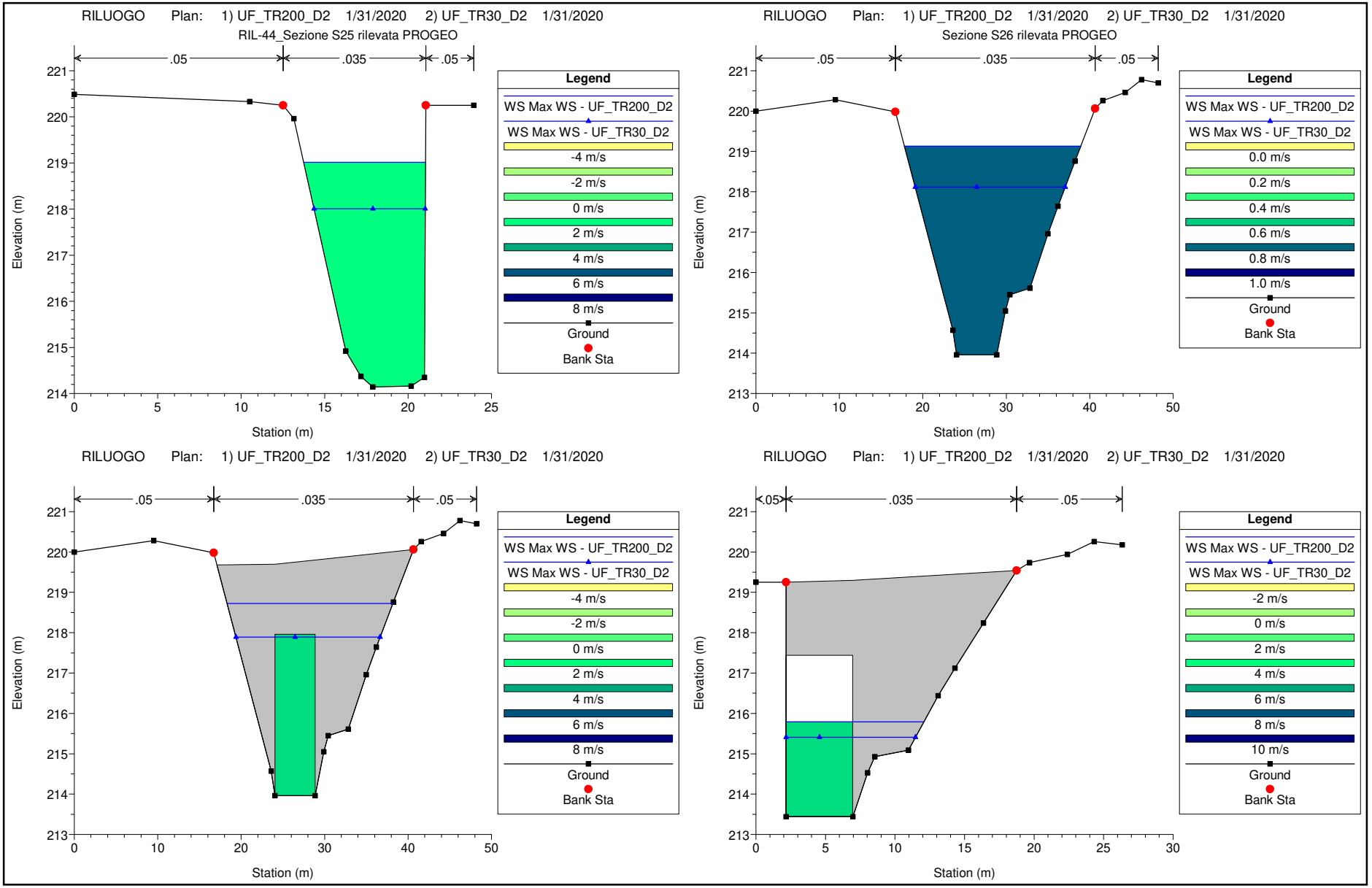
MODELLAZIONE PER TR=30 e 200 anni

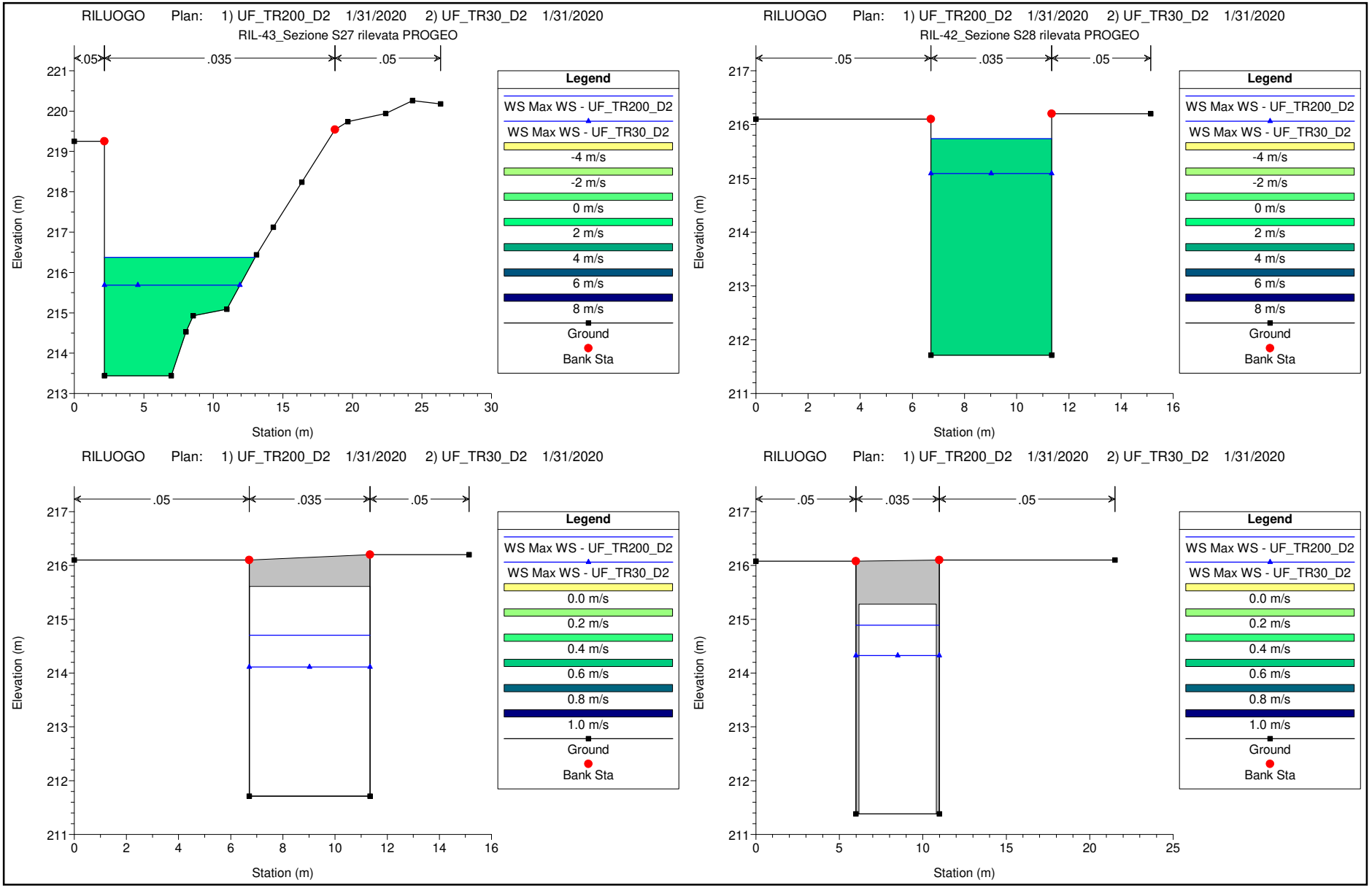
DURATE DI PIOGGIA: 2h

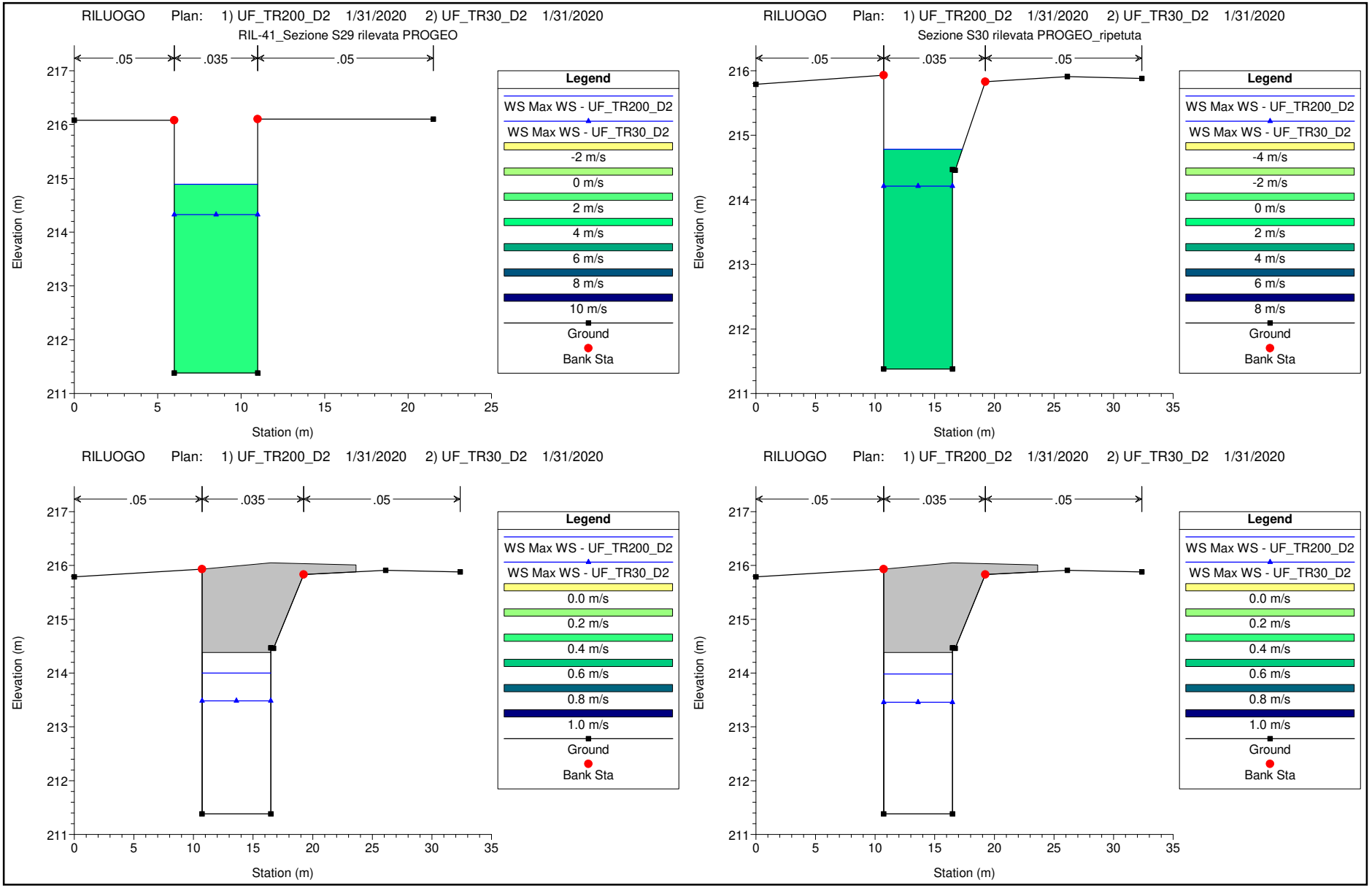
Sezioni Trasversali (da monte verso valle)

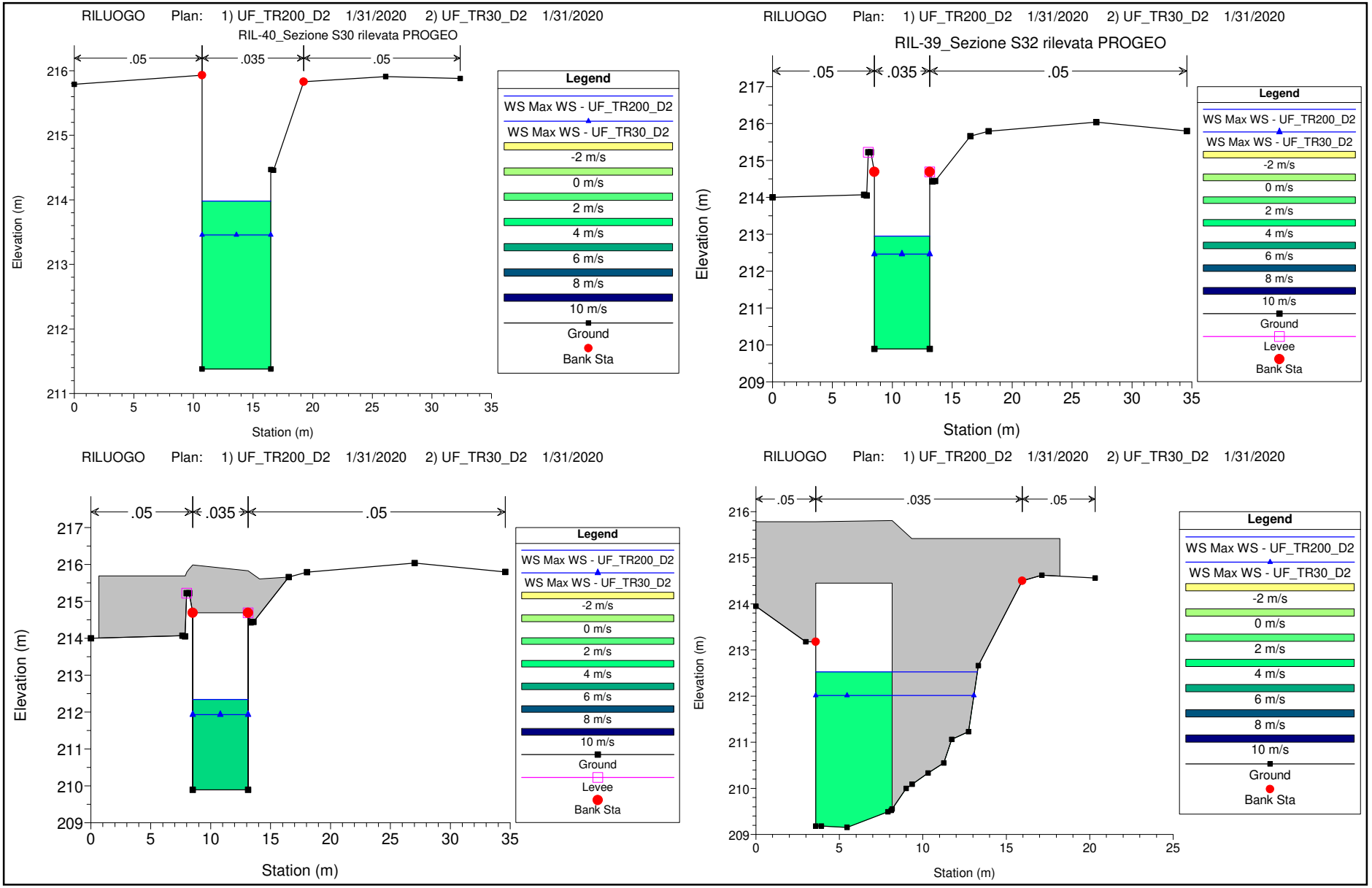

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-45_Sezione S24 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
Sezione S25 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta

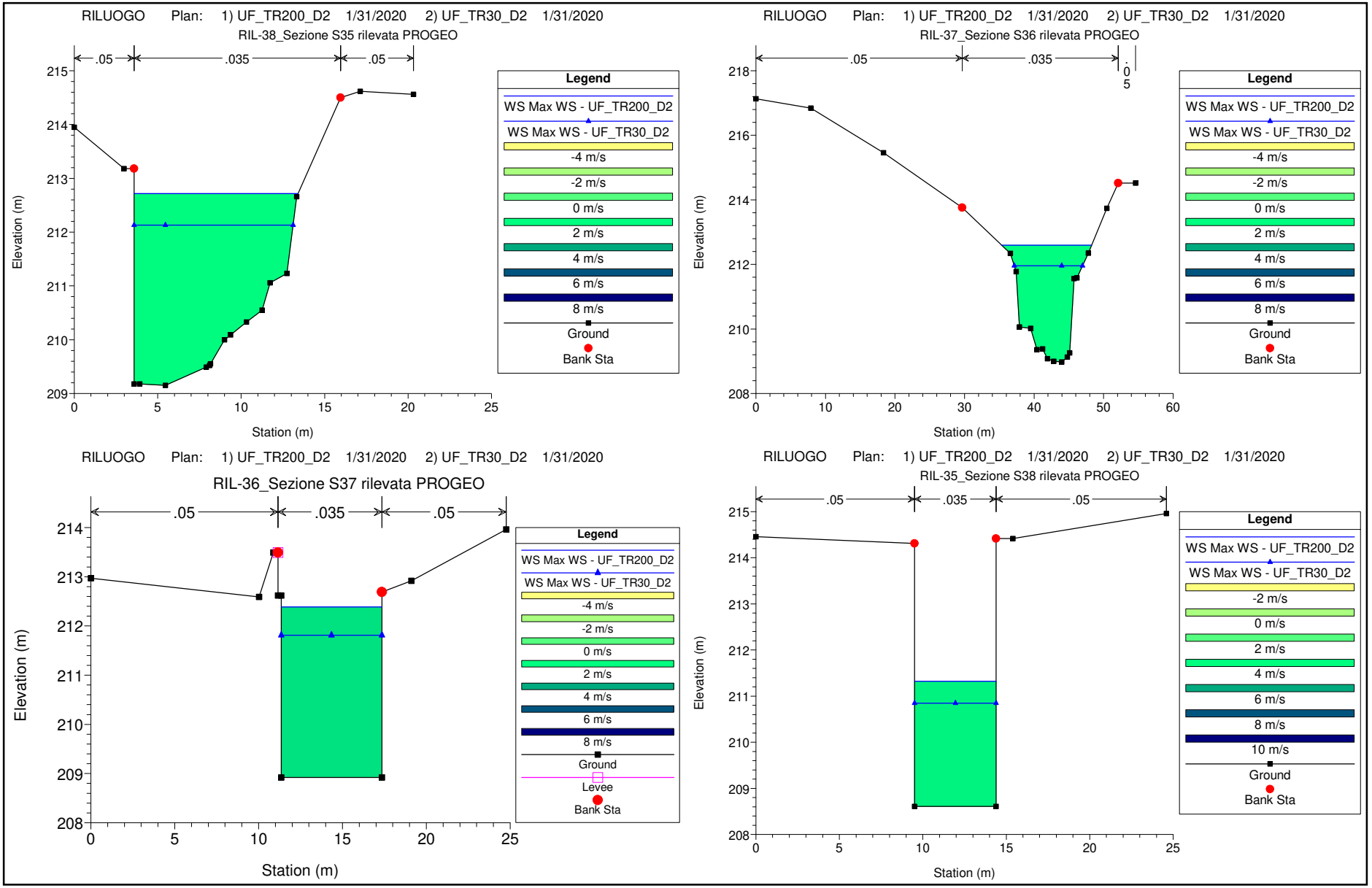

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
Sezione S25 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta

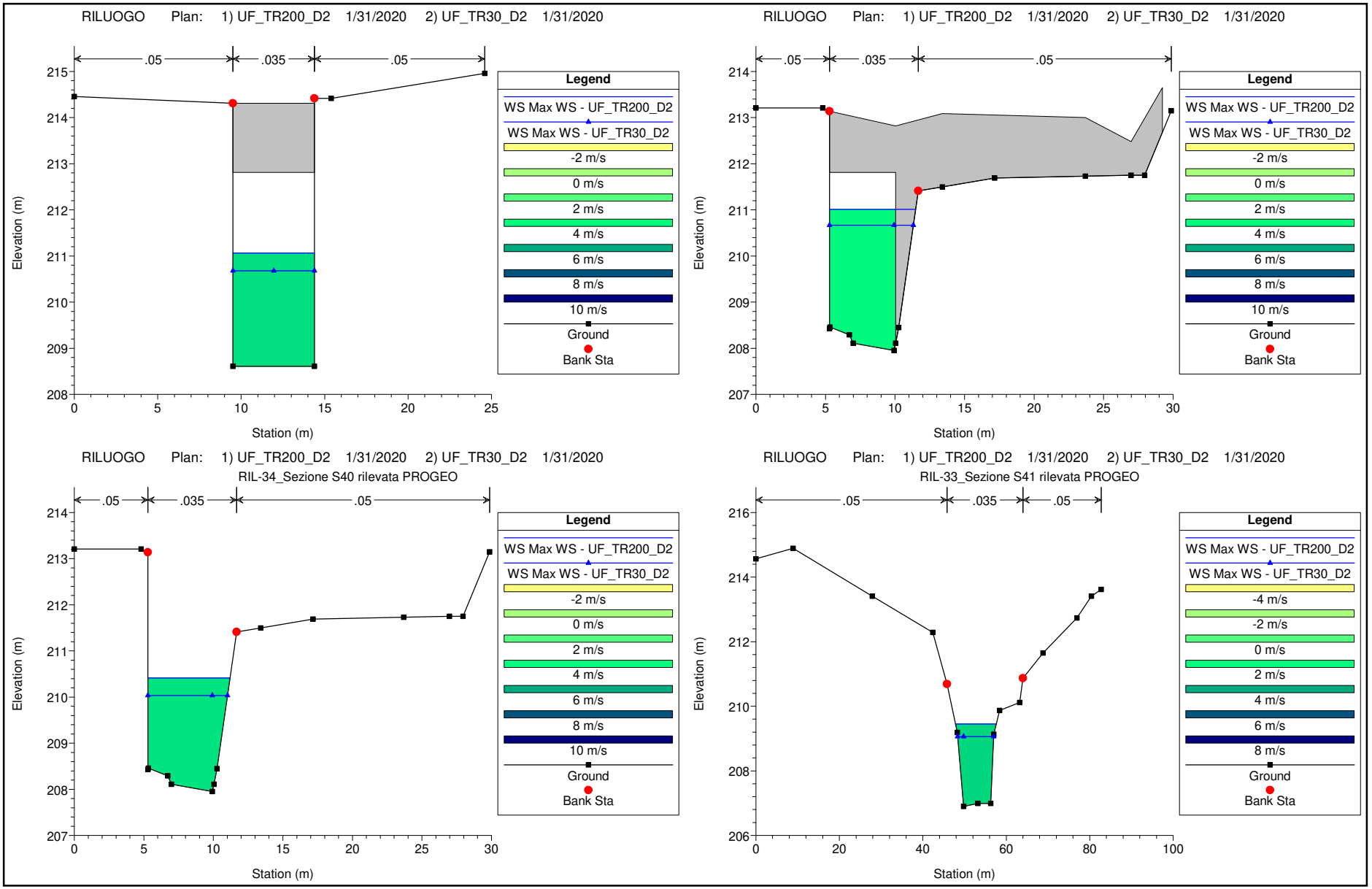

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-44_Sezione S25 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
Sezione S26 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta

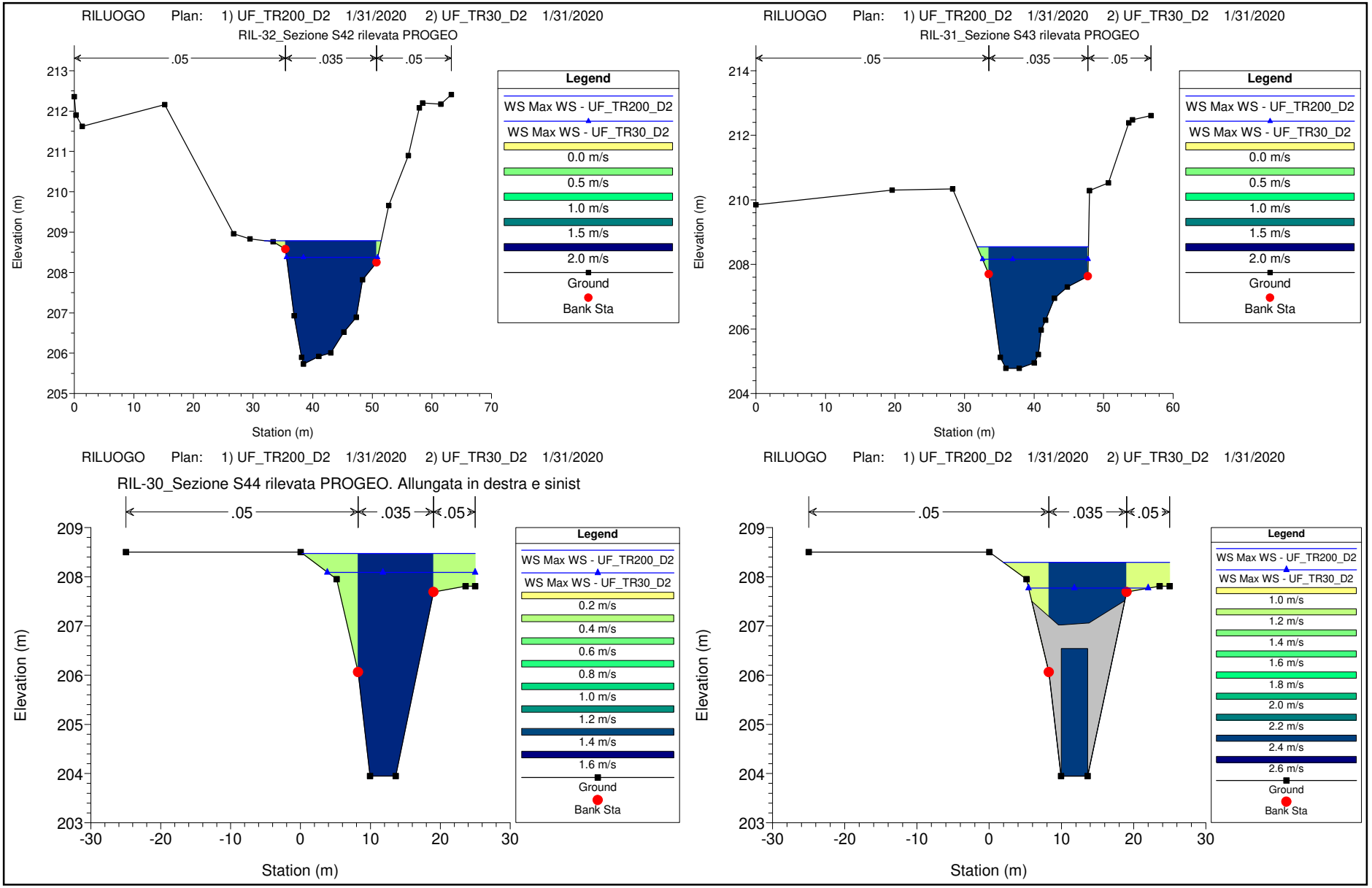

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-43_Sezione S27 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-42_Sezione S28 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta

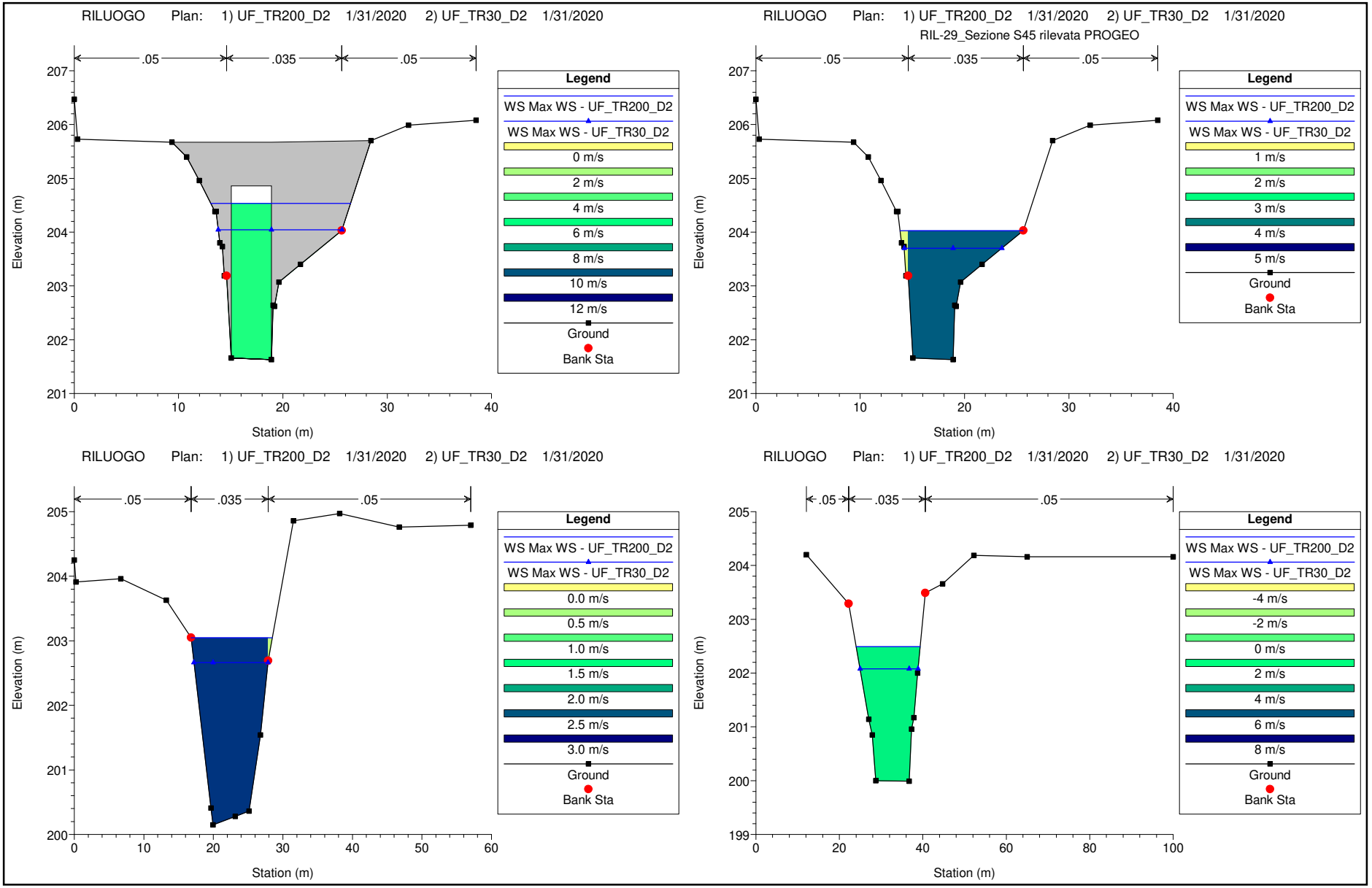

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-41_Sezione S29 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
Sezione S30 rilevata PROGEO_ripetuta
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta

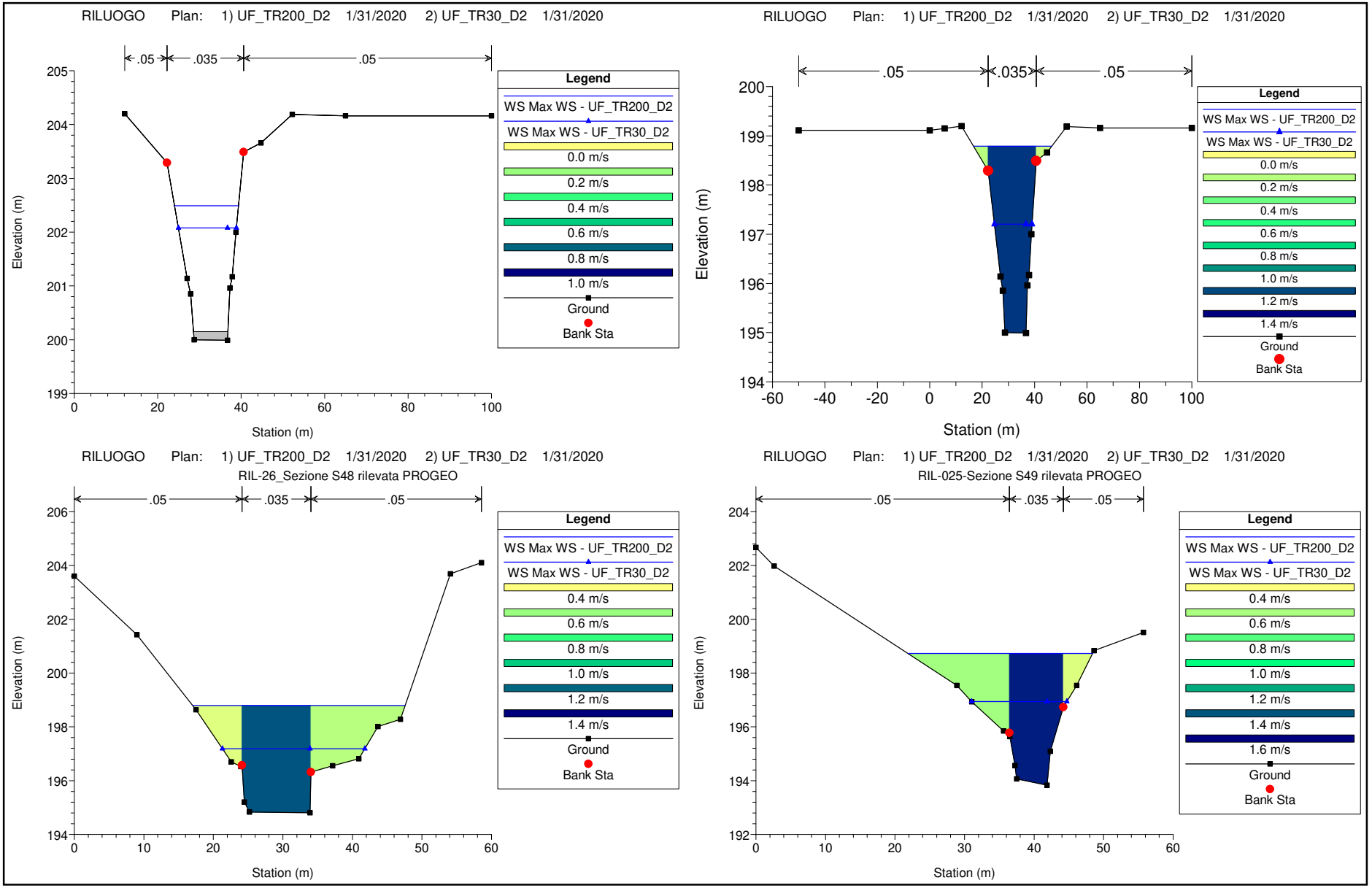

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-40_Sezione S30 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-39_Sezione S32 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta

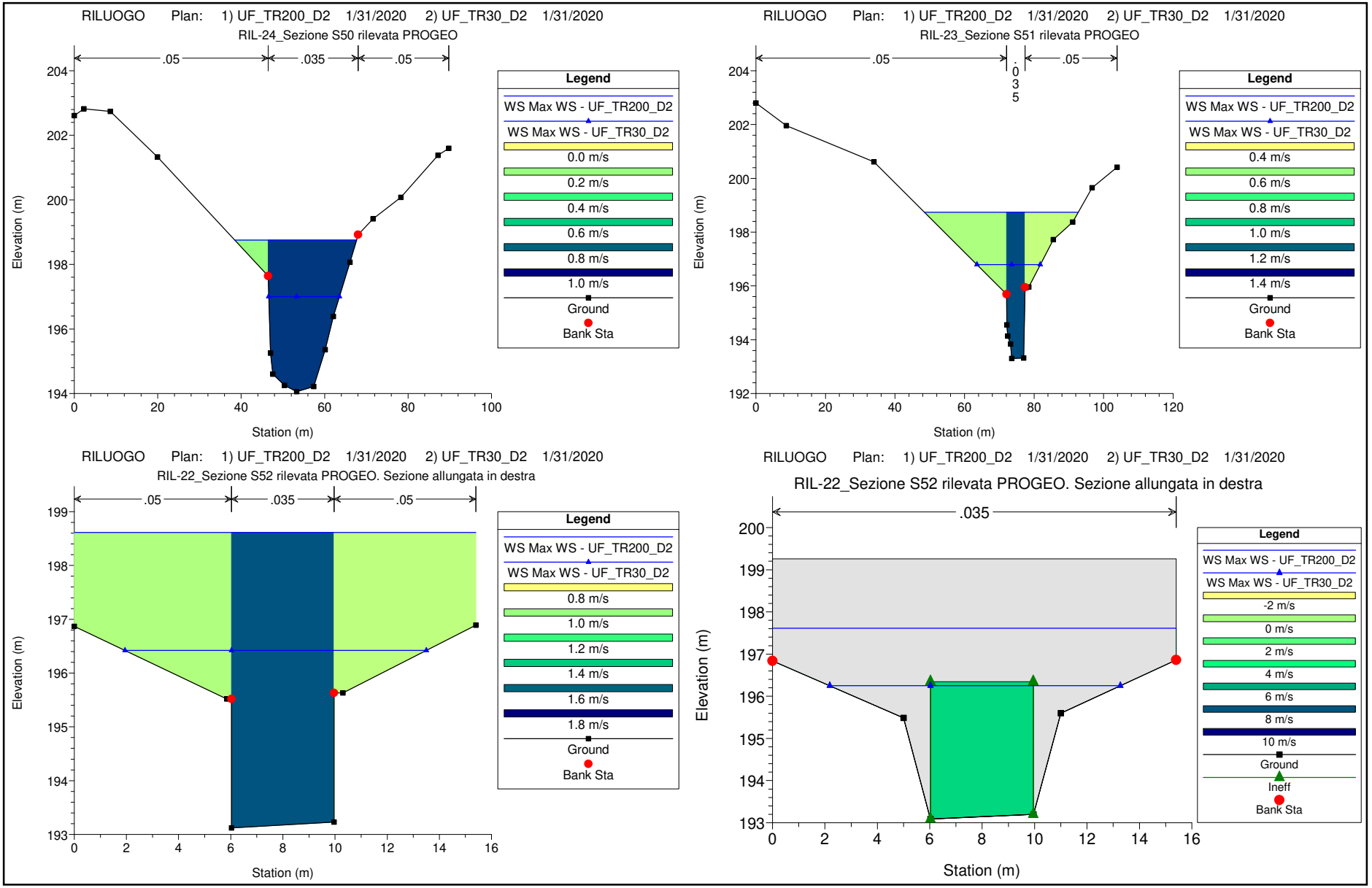

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-38_Sezione S35 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-37_Sezione S36 rilevata PROGEO
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-36_Sezione S37 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-35_Sezione S38 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta

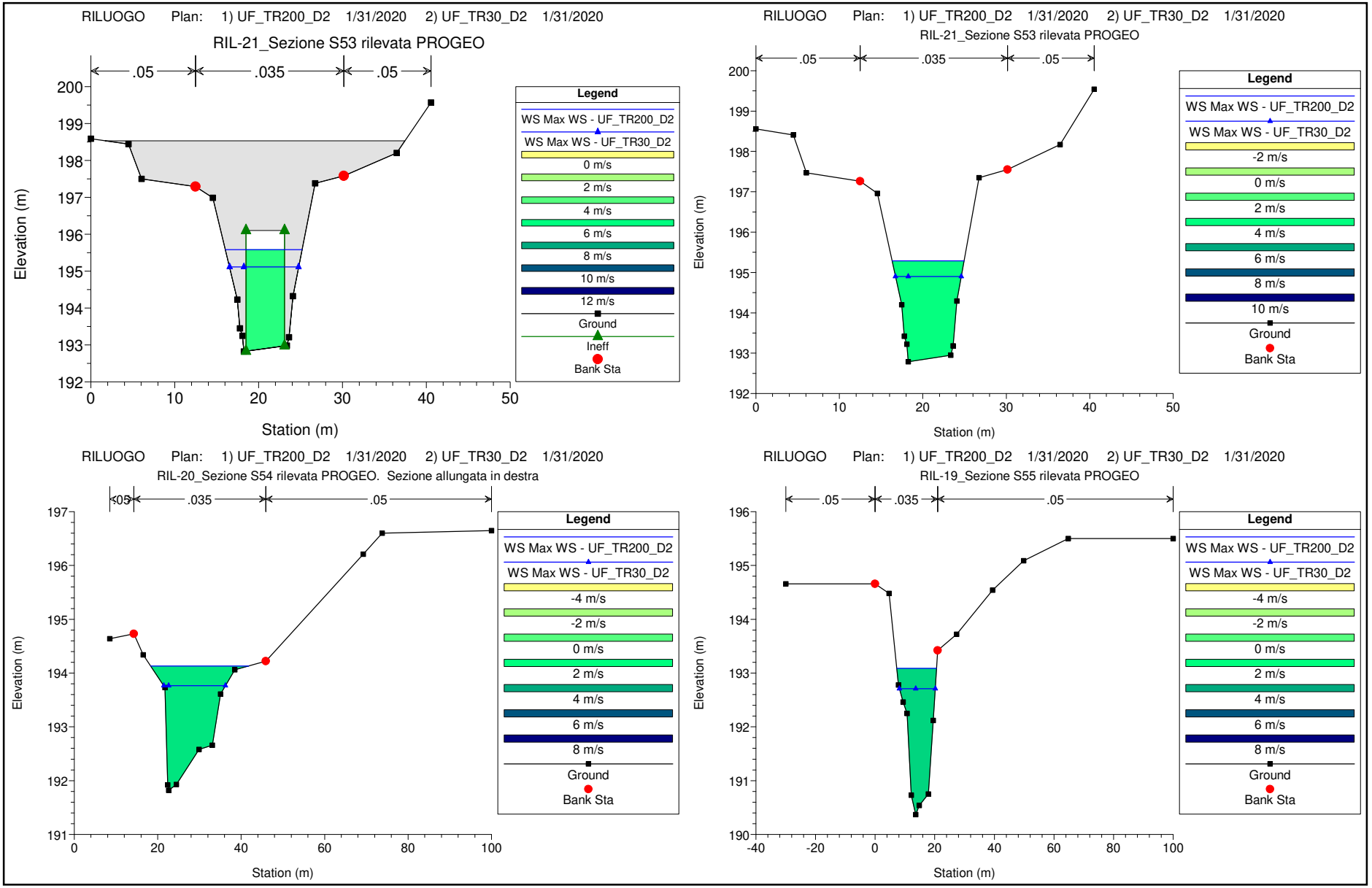

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-34_Sezione S40 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-33_Sezione S41 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta

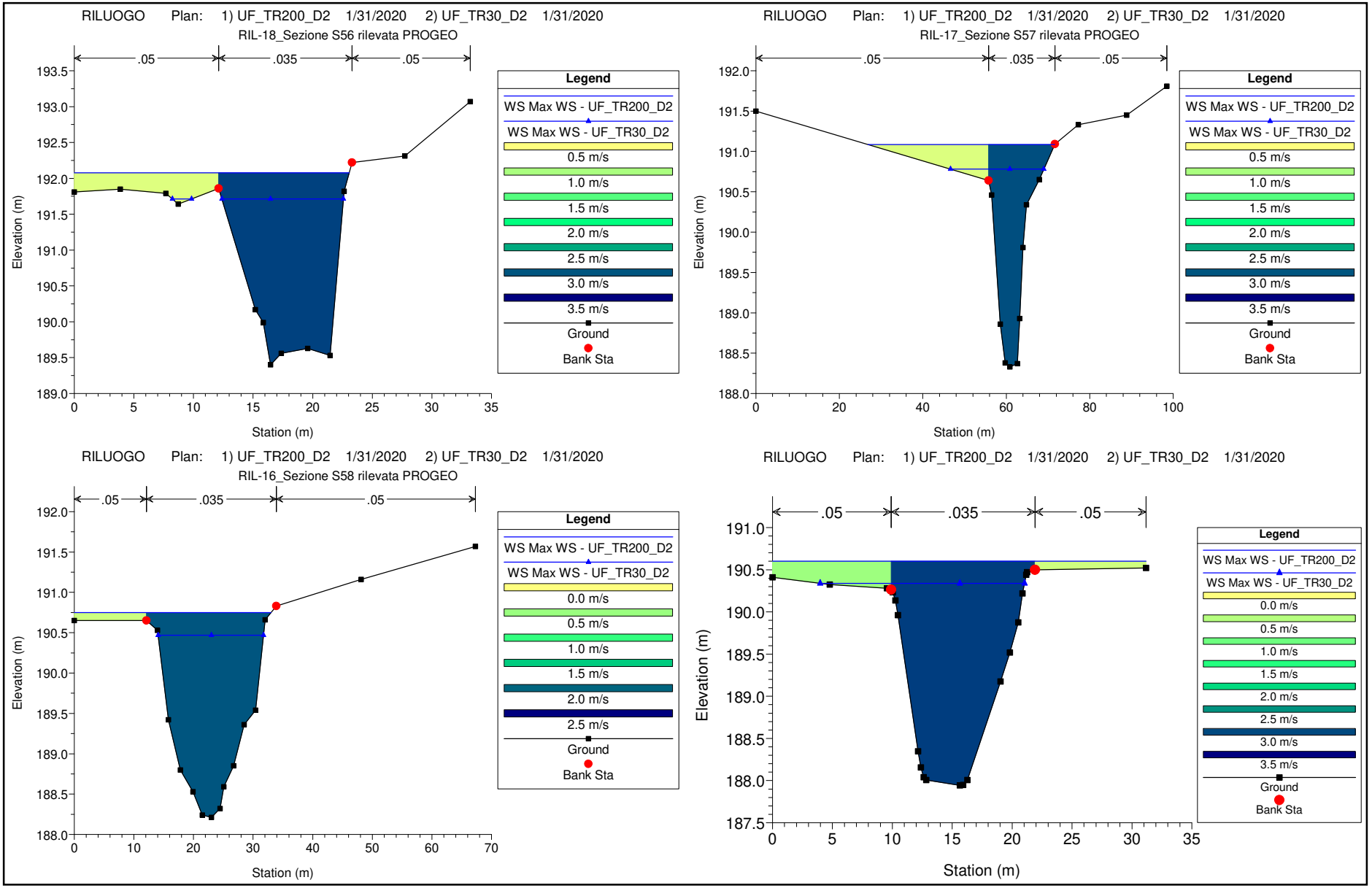

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-32_Sezione S42 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-31_Sezione S43 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-30_Sezione S44 rilevata PROGEO. Allungata in destra e sinist
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
2.0 m/s
2.2 m/s
2.4 m/s
2.6 m/s
Ground
Bank Sta

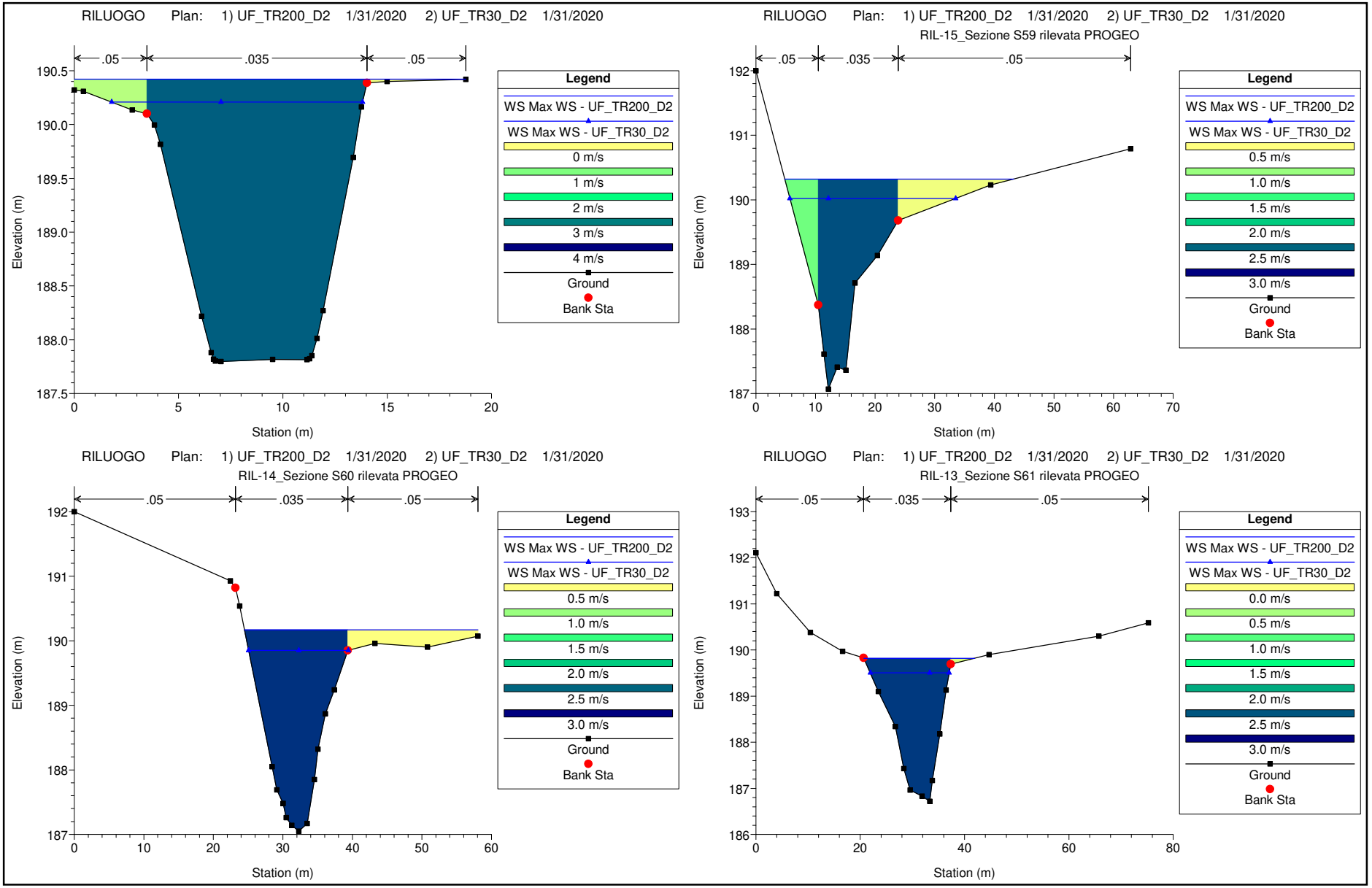

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-29_Sezione S45 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta


RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-26_Sezione S48 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-025-Sezione S49 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Bank Sta


RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-24_Sezione S50 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-23_Sezione S51 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-22_Sezione S52 rilevata PROGEO. Sezione allungata in destra
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-22_Sezione S52 rilevata PROGEO. Sezione allungata in destra
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta


RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-21_Sezione S53 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Ineff
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-21_Sezione S53 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-20_Sezione S54 rilevata PROGEO. Sezione allungata in destra
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-19_Sezione S55 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta


RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-18_Sezione S56 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-17_Sezione S57 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-16_Sezione S58 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta


RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-15_Sezione S59 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-14_Sezione S60 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
RIL-13_Sezione S61 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Riluogo Intermedio"

RILUOGO (intermedio)

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 2h

Dati idraulici

HEC-RAS Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
Riluogo	78	Max WS	UF_TR200_D2	52.40	216.24	219.87	218.98	220.27	0.005715	2.80			18.74	9.00	0.62
Riluogo	78	Max WS	UF_TR30_D2	40.85	216.24	219.06	218.63	219.61	0.008991	3.26			12.52	6.33	0.74
Riluogo	77.3	Max WS	UF_TR200_D2	53.59	214.45	219.50	216.92	219.68	0.001719	1.85			28.92	7.41	0.30
Riluogo	77.3	Max WS	UF_TR30_D2	41.34	214.45	218.12	216.57	218.35	0.002920	2.14			19.28	6.54	0.40
Riluogo	77.25			Bridge											
Riluogo	77.2	Max WS	UF_TR200_D2	53.59	214.32	219.27	216.79	219.46	0.001834	1.90			28.20	7.35	0.31
Riluogo	77.2	Max WS	UF_TR30_D2	41.34	214.32	218.07	216.44	218.29	0.002717	2.09			19.82	6.59	0.38
Riluogo	77.1	Max WS	UF_TR200_D2	53.60	214.30	219.27	216.77	219.45	0.001811	1.89			28.34	7.36	0.31
Riluogo	77.1	Max WS	UF_TR30_D2	41.34	214.30	218.07	216.42	218.29	0.002674	2.07			19.94	6.60	0.38
Riluogo	77.05			Bridge											
Riluogo	77	Max WS	UF_TR200_D2	53.60	214.14	219.01	216.61	219.21	0.001935	1.94			27.62	7.30	0.32
Riluogo	77	Max WS	UF_TR30_D2	41.34	214.14	218.00	216.26	218.21	0.002463	2.01			20.58	6.66	0.37
Riluogo	76.8	Max WS	UF_TR200_D2	53.94	213.96	219.13	216.00	219.16	0.000217	0.81			66.22	21.15	0.15
Riluogo	76.8	Max WS	UF_TR30_D2	41.49	213.96	218.11	215.77	218.16	0.000338	0.90			46.34	17.99	0.18
Riluogo	76.5			Bridge											
Riluogo	76	Max WS	UF_TR200_D2	53.94	213.44	216.37	215.59	216.68	0.004264	2.44			22.08	10.84	0.55
Riluogo	76	Max WS	UF_TR30_D2	41.48	213.44	215.68	215.33	216.07	0.007587	2.77			14.98	9.74	0.71
Riluogo	75	Max WS	UF_TR200_D2	54.58	211.71	215.74		216.17	0.006284	2.93			18.64	4.63	0.47
Riluogo	75	Max WS	UF_TR30_D2	41.75	211.71	215.09		215.45	0.005700	2.67			15.66	4.63	0.46
Riluogo	74.5			Culvert											
Riluogo	74	Max WS	UF_TR200_D2	54.58	211.38	214.89	213.68	215.38	0.007153	3.11			17.55	5.00	0.53
Riluogo	74	Max WS	UF_TR30_D2	41.75	211.38	214.32	213.30	214.73	0.006589	2.84			14.72	5.00	0.53
Riluogo	73.2	Max WS	UF_TR200_D2	54.80	211.38	214.79		215.18	0.005436	2.77			19.82	6.60	0.51
Riluogo	73.2	Max WS	UF_TR30_D2	41.85	211.38	214.21		214.55	0.004987	2.56			16.34	5.77	0.49
Riluogo	73.1			Culvert											
Riluogo	73	Max WS	UF_TR200_D2	54.80	211.38	213.98	213.47	214.66	0.010755	3.65			15.01	5.77	0.72
Riluogo	73	Max WS	UF_TR30_D2	41.85	211.38	213.46	213.13	214.08	0.011602	3.49			11.99	5.77	0.77
Riluogo	72	Max WS	UF_TR200_D2	55.45	209.89	212.95	212.34	213.73	0.013088	3.93			14.13	4.62	0.72
Riluogo	72	Max WS	UF_TR30_D2	42.12	209.89	212.46	211.93	213.10	0.011816	3.54			11.89	4.62	0.70
Riluogo	71.5			Bridge											
Riluogo	71	Max WS	UF_TR200_D2	55.43	209.15	212.72	211.40	212.94	0.002405	2.08			26.69	9.82	0.40
Riluogo	71	Max WS	UF_TR30_D2	42.11	209.15	212.13	211.10	212.34	0.002721	2.00			21.04	9.52	0.43
Riluogo	70	Max WS	UF_TR200_D2	55.90	208.98	212.60	211.20	212.81	0.002641	2.04			27.43	12.96	0.45
Riluogo	70	Max WS	UF_TR30_D2	42.30	208.98	211.96	210.89	212.18	0.003047	2.09			20.28	9.82	0.46
Riluogo	69	Max WS	UF_TR200_D2	56.05	208.92	212.38	210.99	212.76	0.004729	2.70			20.79	6.00	0.46
Riluogo	69	Max WS	UF_TR30_D2	42.36	208.92	211.81	210.64	212.11	0.004367	2.44			17.34	6.00	0.46
Riluogo	68	Max WS	UF_TR200_D2	56.80	208.61	211.32	211.01	212.26	0.016190	4.29			13.23	4.88	0.83
Riluogo	68	Max WS	UF_TR30_D2	42.67	208.61	210.85	210.59	211.63	0.015202	3.91			10.92	4.88	0.83
Riluogo	67.5			Bridge											
Riluogo	67	Max WS	UF_TR200_D2	56.80	207.95	210.41	210.46	211.52	0.019051	4.66			12.19	5.91	1.04
Riluogo	67	Max WS	UF_TR30_D2	42.67	207.95	210.03	210.07	210.97	0.018655	4.28			9.97	5.73	1.04
Riluogo	66	Max WS	UF_TR200_D2	57.49	206.90	209.45	208.85	209.90	0.006033	2.95			19.47	9.80	0.67
Riluogo	66	Max WS	UF_TR30_D2	42.95	206.90	209.06	208.53	209.43	0.005627	2.70			15.93	8.67	0.64
Riluogo	65	Max WS	UF_TR200_D2	58.64	205.73	208.79	207.68	208.96	0.001786	1.84	0.15	0.31	32.30	19.57	0.41
Riluogo	65	Max WS	UF_TR30_D2	43.39	205.73	208.38	207.41	208.52	0.001991	1.70		0.12	25.58	15.29	0.42
Riluogo	64	Max WS	UF_TR200_D2	62.09	204.78	208.55	207.15	208.71	0.001444	1.78	0.40	0.09	35.45	15.99	0.36
Riluogo	64	Max WS	UF_TR30_D2	44.84	204.78	208.16	206.71	208.28	0.001345	1.53	0.26	0.06	29.45	15.20	0.34
Riluogo	63.999			Lat Struct											
Riluogo	63	Max WS	UF_TR200_D2	59.17	203.95	208.48	206.28	208.58	0.000679	1.49	0.40	0.39	47.00	24.77	0.26
Riluogo	63	Max WS	UF_TR30_D2	44.77	203.95	208.09	205.95	208.18	0.000613	1.31	0.39	0.23	38.16	21.17	0.24
Riluogo	62.5			Bridge											
Riluogo	62	Max WS	UF_TR200_D2	59.16	201.63	204.02	204.21	204.95	0.021407	4.27	1.24		14.10	11.80	1.22
Riluogo	62	Max WS	UF_TR30_D2	44.77	201.63	203.70	203.95	204.62	0.024083	4.24	1.07		10.67	9.37	1.25
Riluogo	61.999			Lat Struct											
Riluogo	61.998			Lat Struct											
Riluogo	61	Max WS	UF_TR200_D2	63.61	200.15	203.05	202.34	203.42	0.004067	2.70		0.37	23.68	11.70	0.59
Riluogo	61	Max WS	UF_TR30_D2	45.04	200.15	202.66	201.96	202.94	0.003693	2.33			19.36	10.65	0.55
Riluogo	60	Max WS	UF_TR200_D2	64.50	199.99	202.49	201.75	202.76	0.003405	2.31			27.94	15.36	0.55
Riluogo	60	Max WS	UF_TR30_D2	45.42	199.99	202.08	201.42	202.30	0.003333	2.08			21.86	13.91	0.53
Riluogo	59.75			Inl Struct											
Riluogo	59.5	Max WS	UF_TR200_D2	63.57	194.99	198.79	196.74	198.87	0.000584	1.25	0.19	0.15	52.87	29.89	0.24
Riluogo	59.5	Max WS	UF_TR30_D2	45.16	194.99	197.20	196.42	197.39	0.002653	1.91			23.63	14.35	0.48
Riluogo	59	Max WS	UF_TR200_D2	63.66	194.81	198.80	196.53	198.86	0.000412	1.24	0.46	0.54	69.32	30.55	0.20
Riluogo	59	Max WS	UF_TR30_D2	45.20	194.81	197.19	196.16	197.35	0.001854	1.84	0.48	0.59	28.44	20.49	0.39
Riluogo	58	Max WS	UF_TR200_D2	64.13	193.83	198.73	196.54	198.83	0.000625	1.53	0.62	0.48	57.10	26.57	0.24
Riluogo	58	Max WS	UF_TR30_D2	45.30	193.83	196.94	196.04	197.20	0.003070	2.33	0.81	0.23	21.77	13.72	0.49
Riluogo	57	Max WS	UF_TR200_D2	64.33	194.06	198.75	195.74	198.80	0.000235	0.89	0.21		75.49	29.23	0.16
Riluogo	57	Max WS	UF_TR30_D2	45.39	194.06	197.00	195.45	197.08	0.000741	1.21			37.46	16.95	0.26
Riluogo	56	Max WS	UF_TR200_D2	64.68	193.30	198.74	196.38	198.78	0.000457	1.25	0.56	0.51	83.61	44.22	0.18

HEC-RAS Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
Riluogo	56	Max WS	UF_TR30_D2	45.54	193.30	196.80	195.55	197.06	0.003131	2.39	0.75	0.72	23.93	18.26	0.43
Riluogo	55.9			Lat Struct											
Riluogo	55.800			Lat Struct											
Riluogo	55	Max WS	UF_TR200_D2	61.05	193.12	198.62	196.49	198.71	0.000993	1.64	0.95	0.93	49.12	15.40	0.22
Riluogo	55	Max WS	UF_TR30_D2	45.75	193.12	196.42	195.59	196.94	0.008072	3.30	1.07	1.01	16.21	11.55	0.59
Riluogo	54.8	Max WS	UF_TR200_D2	62.02	193.09	197.62	196.09	198.86	0.035498	4.94			12.54		0.74
Riluogo	54.8	Max WS	UF_TR30_D2	45.86	193.09	196.25	195.55	196.97	0.003838	3.77			12.18	3.93	0.68
Riluogo	54.5	Max WS	UF_TR200_D2	62.57	192.82	195.58	195.57	196.90	0.008490	5.08			12.33	4.60	0.98
Riluogo	54.5	Max WS	UF_TR30_D2	46.04	192.82	195.12	195.06	196.16	0.008702	4.52			10.18	4.60	0.95
Riluogo	54	Max WS	UF_TR200_D2	62.63	192.79	195.29	195.15	196.05	0.011331	3.87			16.16	8.63	0.90
Riluogo	54	Max WS	UF_TR30_D2	46.06	192.79	194.90	194.75	195.55	0.011148	3.55			12.98	7.89	0.88
Riluogo	53	Max WS	UF_TR200_D2	63.53	191.82	194.13	193.82	194.48	0.008695	2.61			24.35	23.53	0.82
Riluogo	53	Max WS	UF_TR30_D2	46.48	191.82	193.77	193.50	194.12	0.007565	2.62			17.73	14.82	0.77
Riluogo	52.99			Lat Struct											
Riluogo	52	Max WS	UF_TR200_D2	64.63	190.37	193.08	192.75	193.54	0.006746	2.98			21.66	13.38	0.75
Riluogo	52	Max WS	UF_TR30_D2	46.98	190.37	192.71	192.35	193.11	0.007092	2.79			16.87	12.05	0.75
Riluogo	51.999			Lat Struct											
Riluogo	51.998			Lat Struct											
Riluogo	51	Max WS	UF_TR200_D2	65.67	189.40	192.08	191.73	192.56	0.006687	3.12	0.70		23.72	23.07	0.73
Riluogo	51	Max WS	UF_TR30_D2	47.47	189.40	191.71	191.35	192.14	0.006918	2.89	0.18		16.46	11.80	0.73
Riluogo	50	Max WS	UF_TR200_D2	66.42	188.33	191.09	191.12	191.53	0.009156	3.04	0.70		26.79	44.74	0.86
Riluogo	50	Max WS	UF_TR30_D2	47.87	188.33	190.78	190.64	191.24	0.009916	3.00	0.34		16.54	22.34	0.87
Riluogo	49	Max WS	UF_TR200_D2	66.68	188.21	190.75	190.06	190.97	0.003226	2.08	0.24		33.07	33.01	0.54
Riluogo	49	Max WS	UF_TR30_D2	44.77	188.21	190.47	189.76	190.61	0.002189	1.69			26.45	17.67	0.44
Riluogo	48.75	Max WS	UF_TR200_D2	66.67	187.94	190.60	190.25	191.07	0.006454	3.08	0.66	0.33	24.49	31.17	0.75
Riluogo	48.75	Max WS	UF_TR30_D2	47.82	187.94	190.34	189.90	190.70	0.005432	2.67	0.15		18.10	17.04	0.67
Riluogo	48.50	Max WS	UF_TR200_D2	66.66	187.80	190.42	190.05	190.96	0.006693	3.26	0.56	0.10	21.12	18.76	0.75
Riluogo	48.50	Max WS	UF_TR30_D2	47.70	187.80	190.21	189.65	190.56	0.004959	2.64	0.21		18.19	12.02	0.64
Riluogo valle	48	Max WS	UF_TR200_D2	75.83	187.07	190.32	189.90	190.63	0.003994	2.61	1.20	0.57	36.59	38.45	0.61
Riluogo valle	48	Max WS	UF_TR30_D2	57.37	187.07	190.02	189.62	190.31	0.004483	2.47	1.13	0.41	26.76	27.83	0.63
Riluogo valle	47.999			Lat Struct											
Riluogo valle	47.998			Lat Struct											
Riluogo valle	47	Max WS	UF_TR200_D2	75.74	187.05	190.17	189.69	190.55	0.004813	2.76		0.51	30.88	33.57	0.66
Riluogo valle	47	Max WS	UF_TR30_D2	57.36	187.05	189.85	189.37	190.20	0.005221	2.60		0.02	22.04	14.34	0.67
Riluogo valle	46	Max WS	UF_TR200_D2	75.63	186.72	189.82	189.28	190.18	0.004817	2.67		0.22	28.62	21.21	0.65
Riluogo valle	46	Max WS	UF_TR30_D2	57.40	186.72	189.50	188.97	189.81	0.004714	2.46			23.29	15.14	0.63

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Fosso Borrino"

FOSSO BORRINO

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 2h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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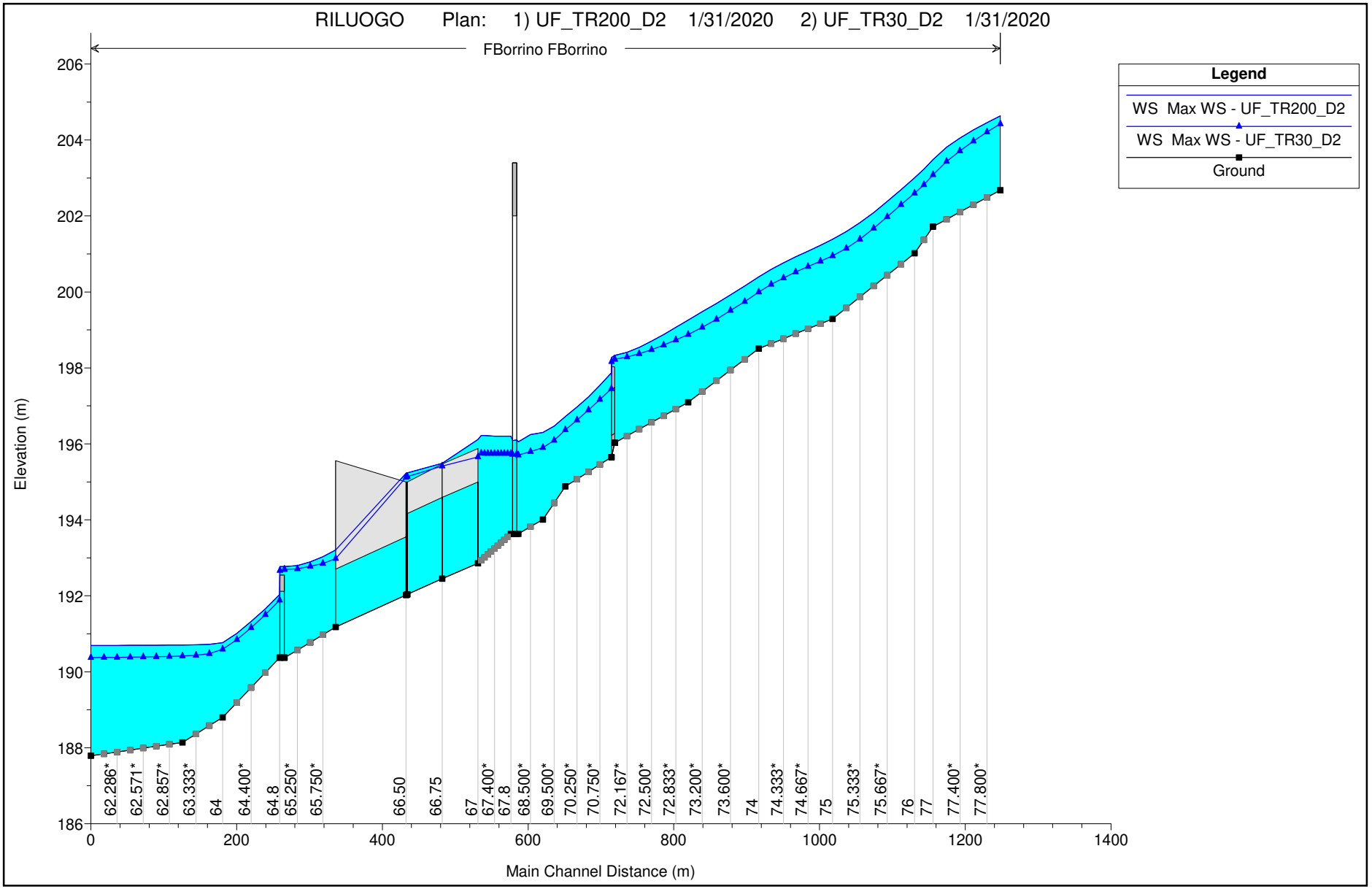
MODELLAZIONE HEC-RAS 5.0.7 "Fosso Borrino"

FOSSO BORRINO

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 2h

Profilo longitudinale


RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
FBorrino FBorrino
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
Ground
Elevation (m)
Main Channel Distance (m)
206
204
202
200
198
196
194
192
190
188
186
0
200
400
600
800
1000
1200
1400
62.286*
62.571*
62.857*
63.333*
64
64.400*
64.8
65.250*
65.750*
66.50
66.75
67
67.400*
67.8
68.500*
69.500*
70.250*
70.750*
72.167*
72.500*
72.833*
73.200*
73.600*
74
74.333*
74.667*
75
75.333*
75.667*
76
77
77.400*
77.800*

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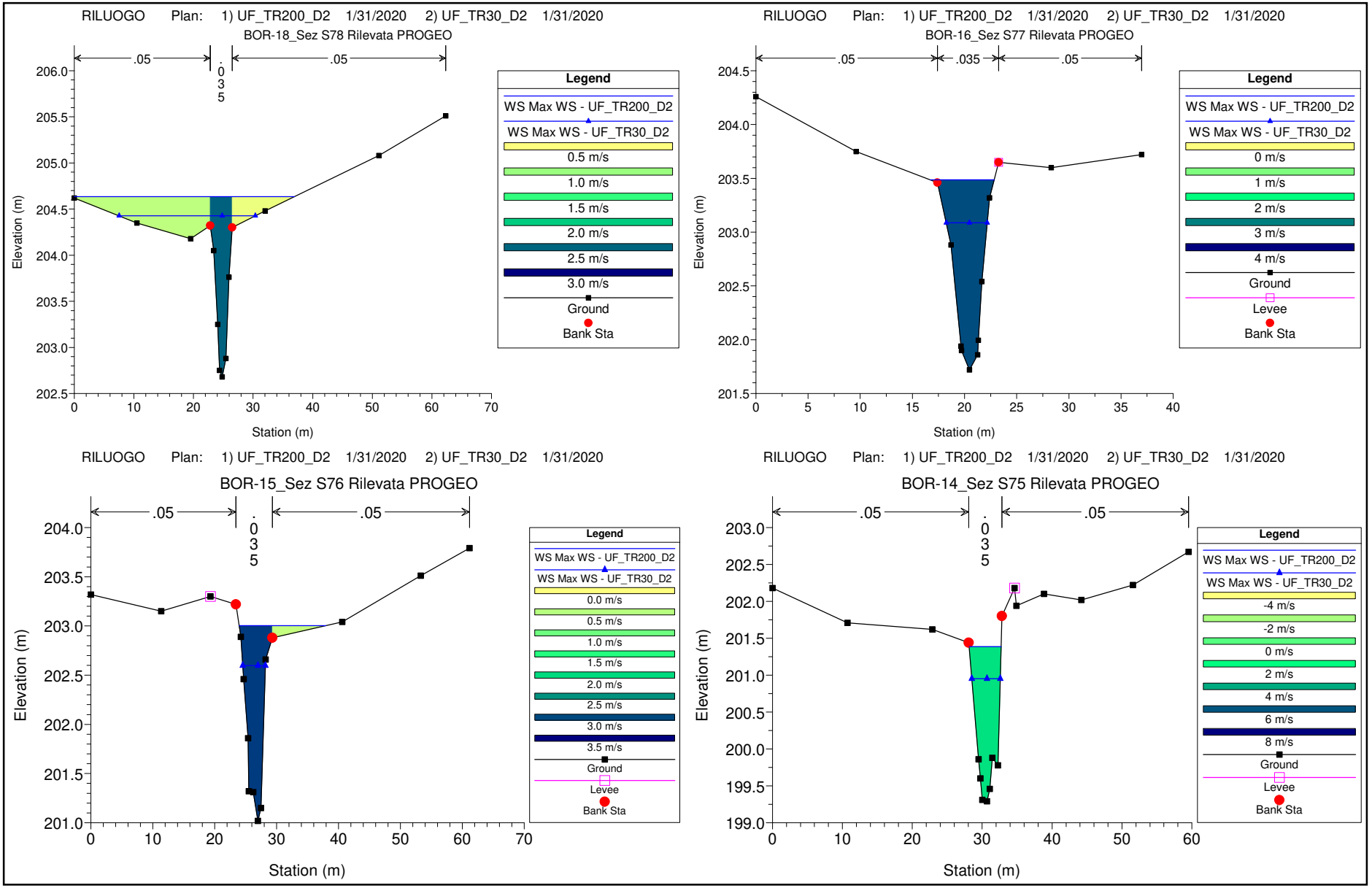
MODELLAZIONE HEC-RAS 5.0.7 "Fosso Borrino"

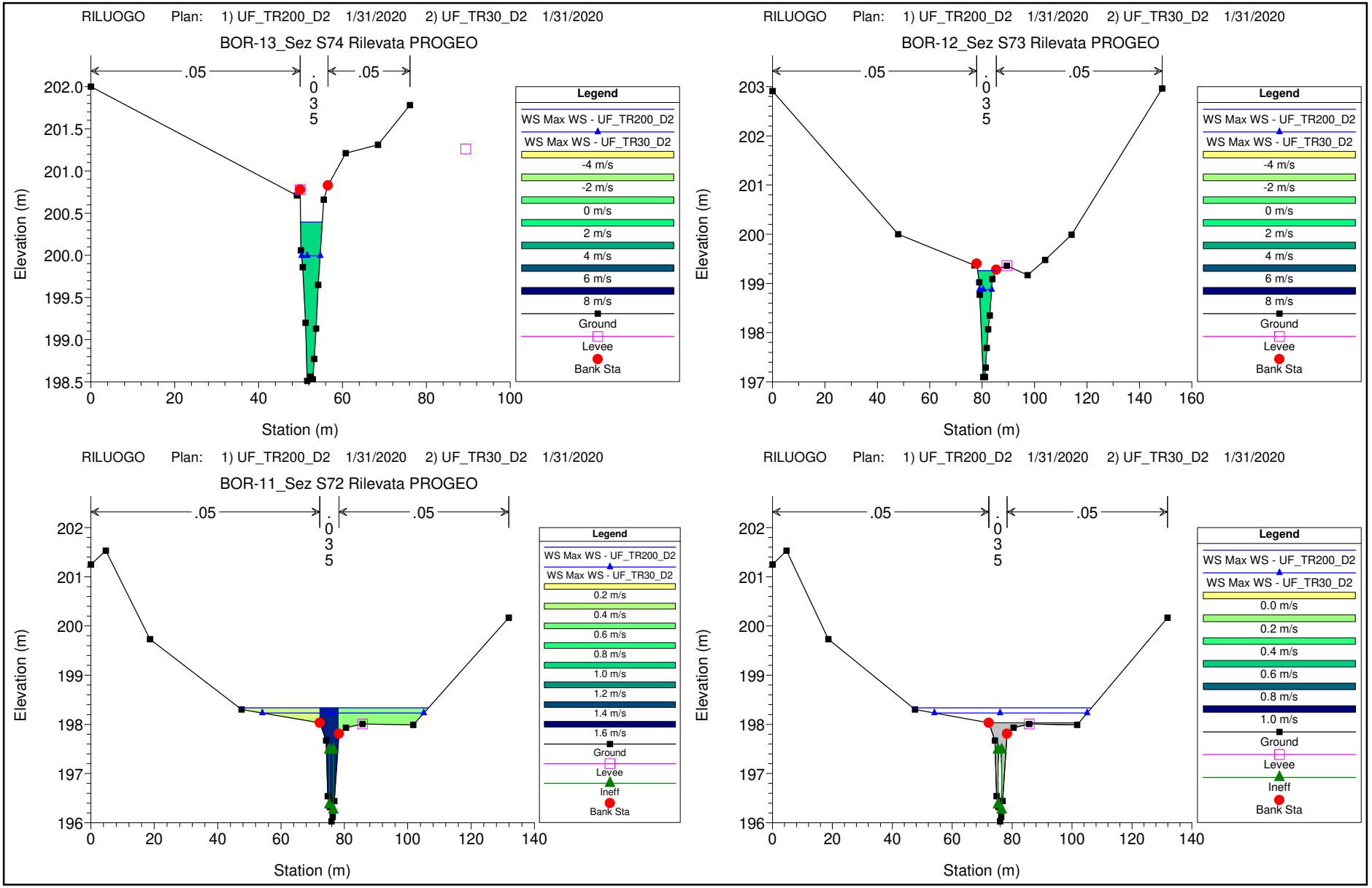
FOSSO BORRINO

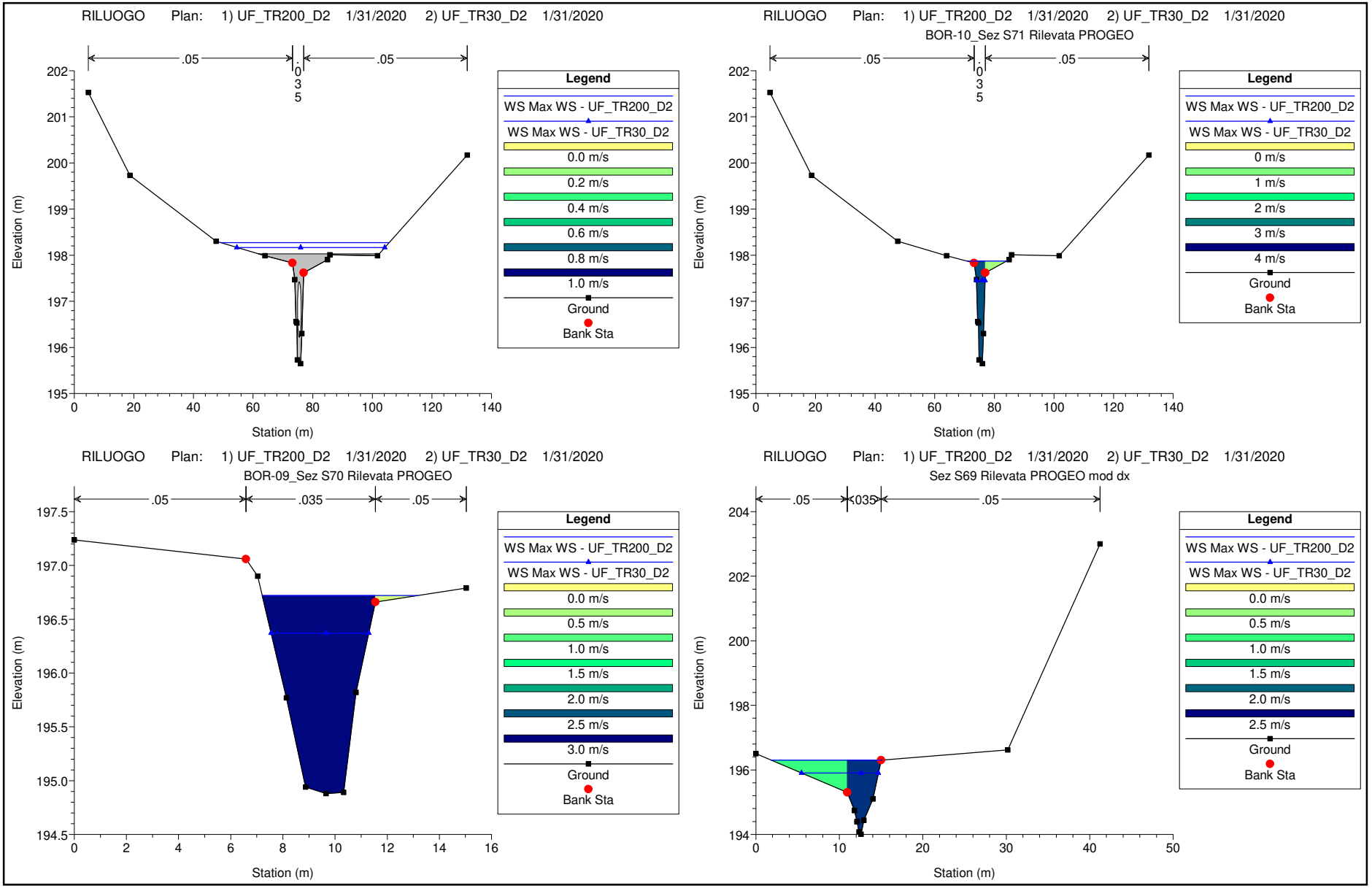
MODELLAZIONE PER TR=30 e 200 anni

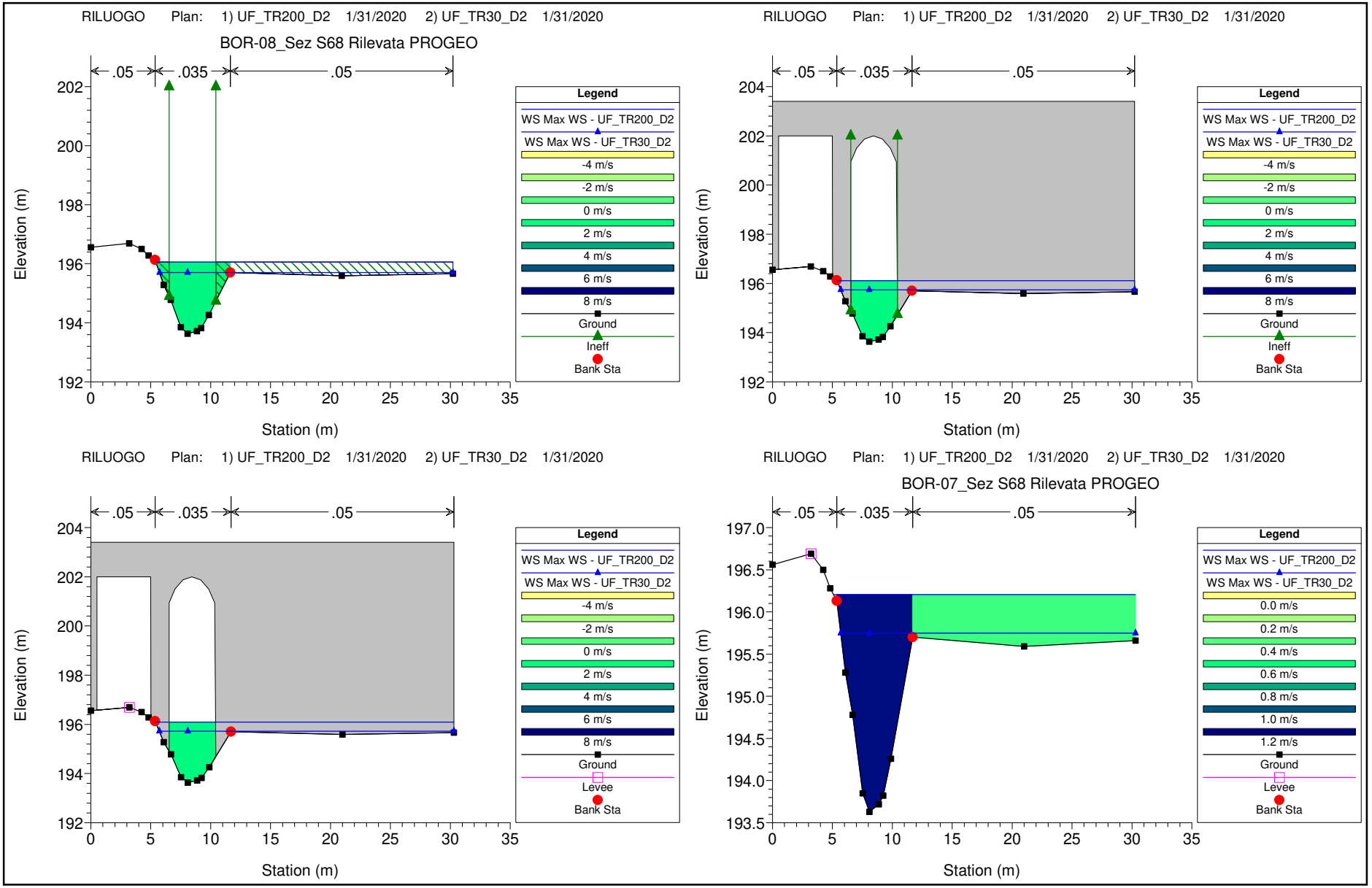
DURATE DI PIOGGIA: 2h

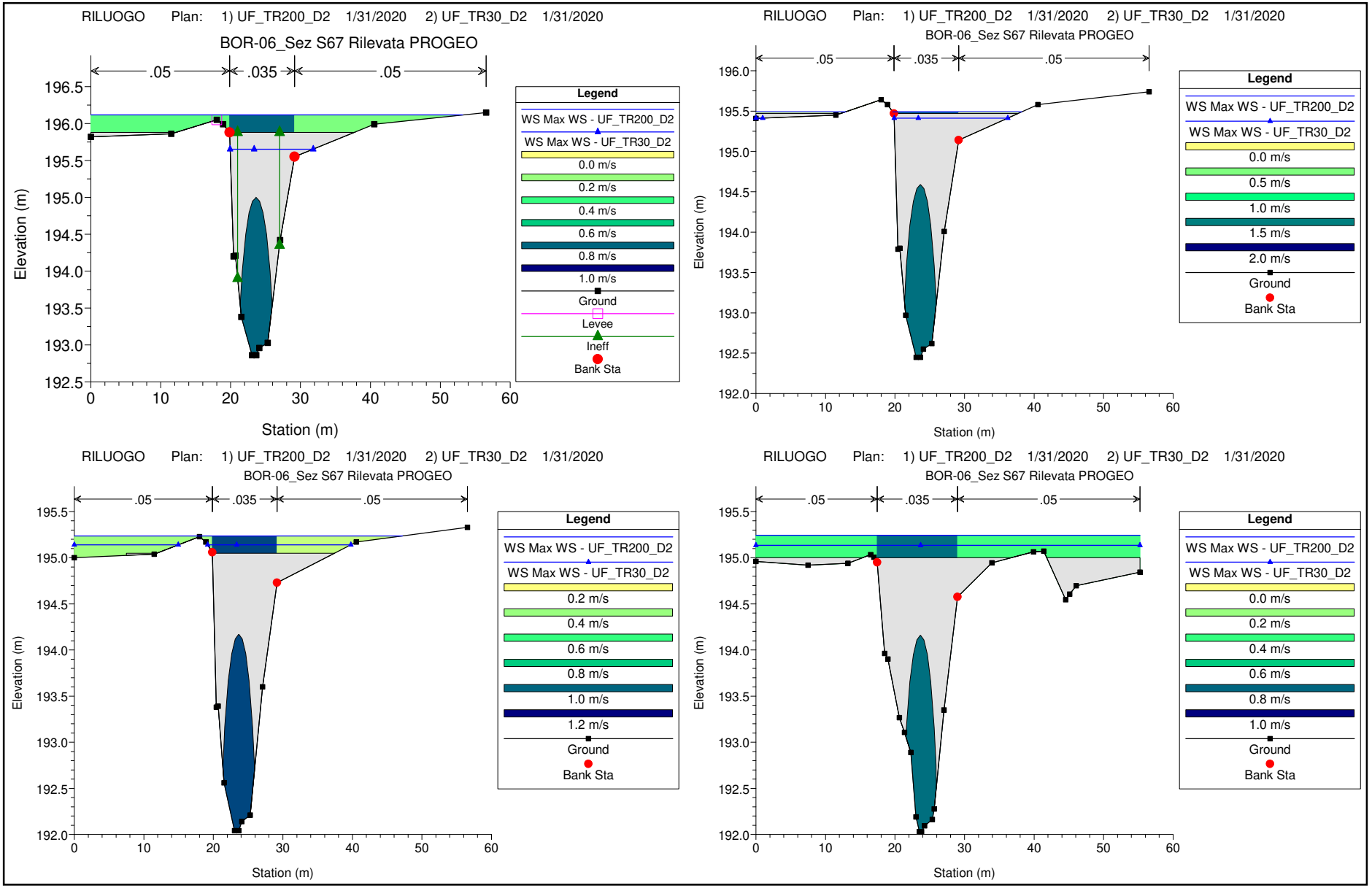
Sezioni Trasversali (da monte verso valle)

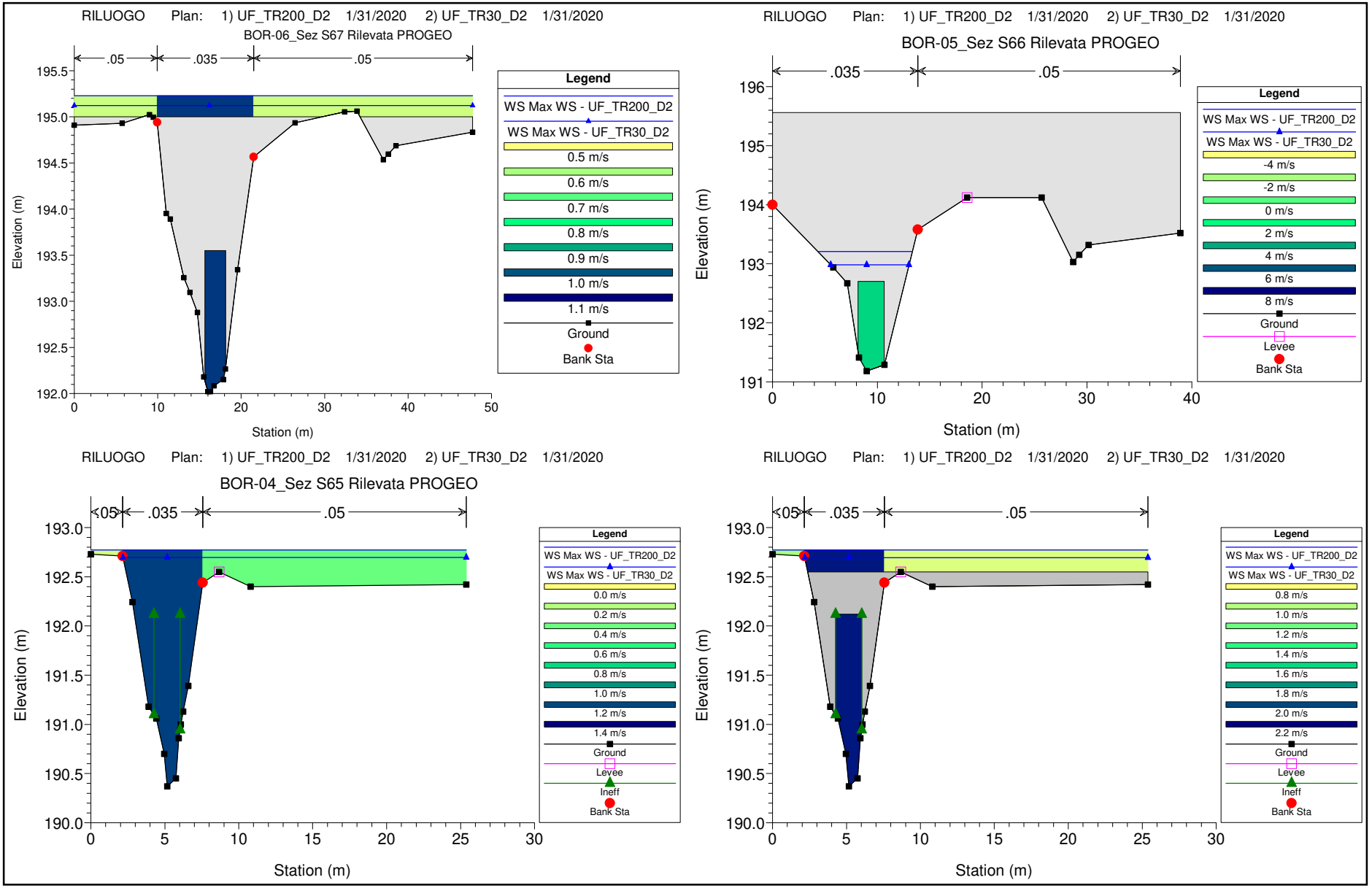

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-18_Sez S78 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-16_Sez S77 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
Ground
Levee
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-15_Sez S76 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Levee
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-14_Sez S75 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta

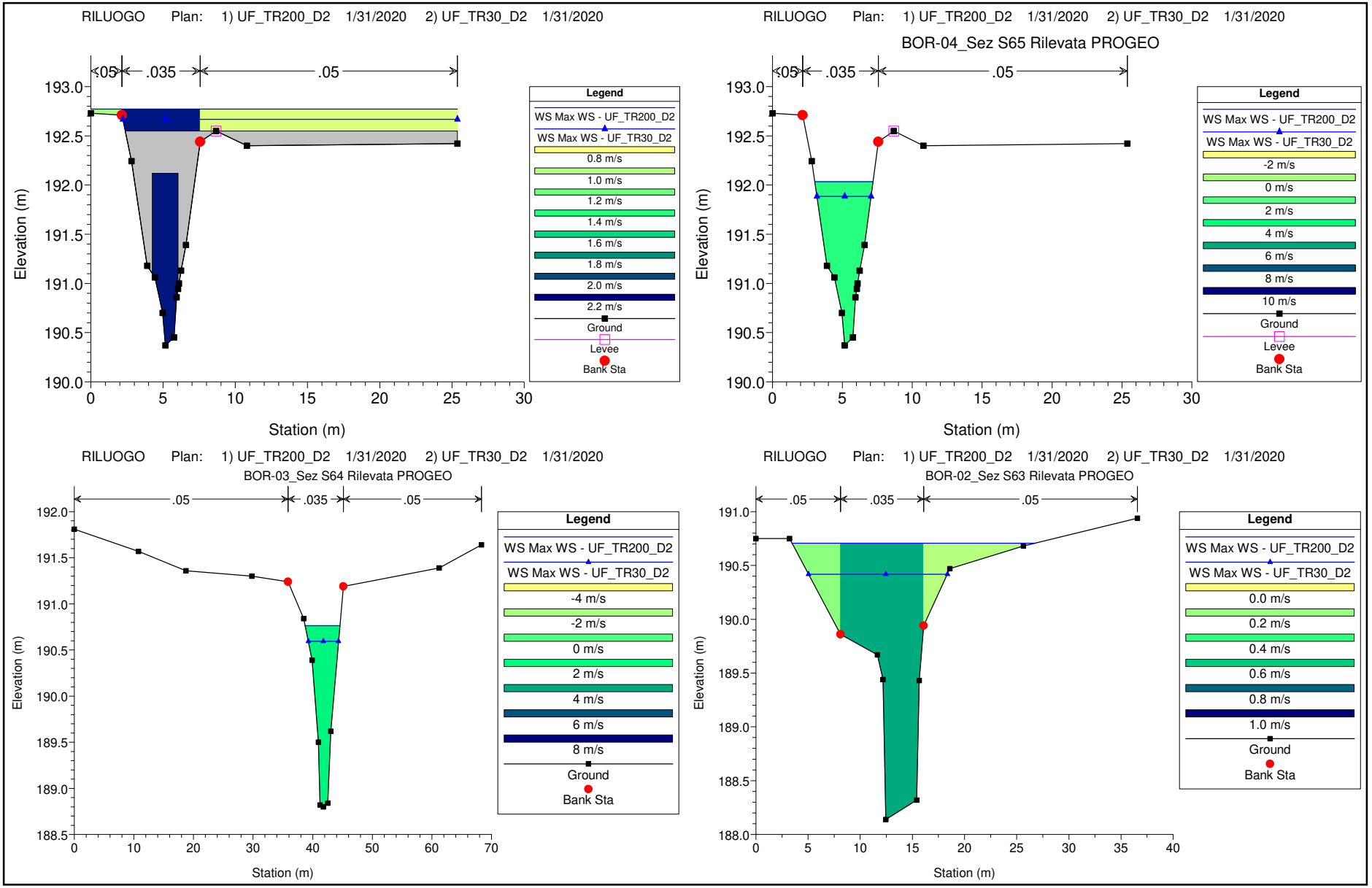

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-13_Sez S74 Rilevata PROGEO
.05
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-12_Sez S73 Rilevata PROGEO
.05
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-11_Sez S72 Rilevata PROGEO
.05
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Levee
Ineff
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Ineff
Bank Sta

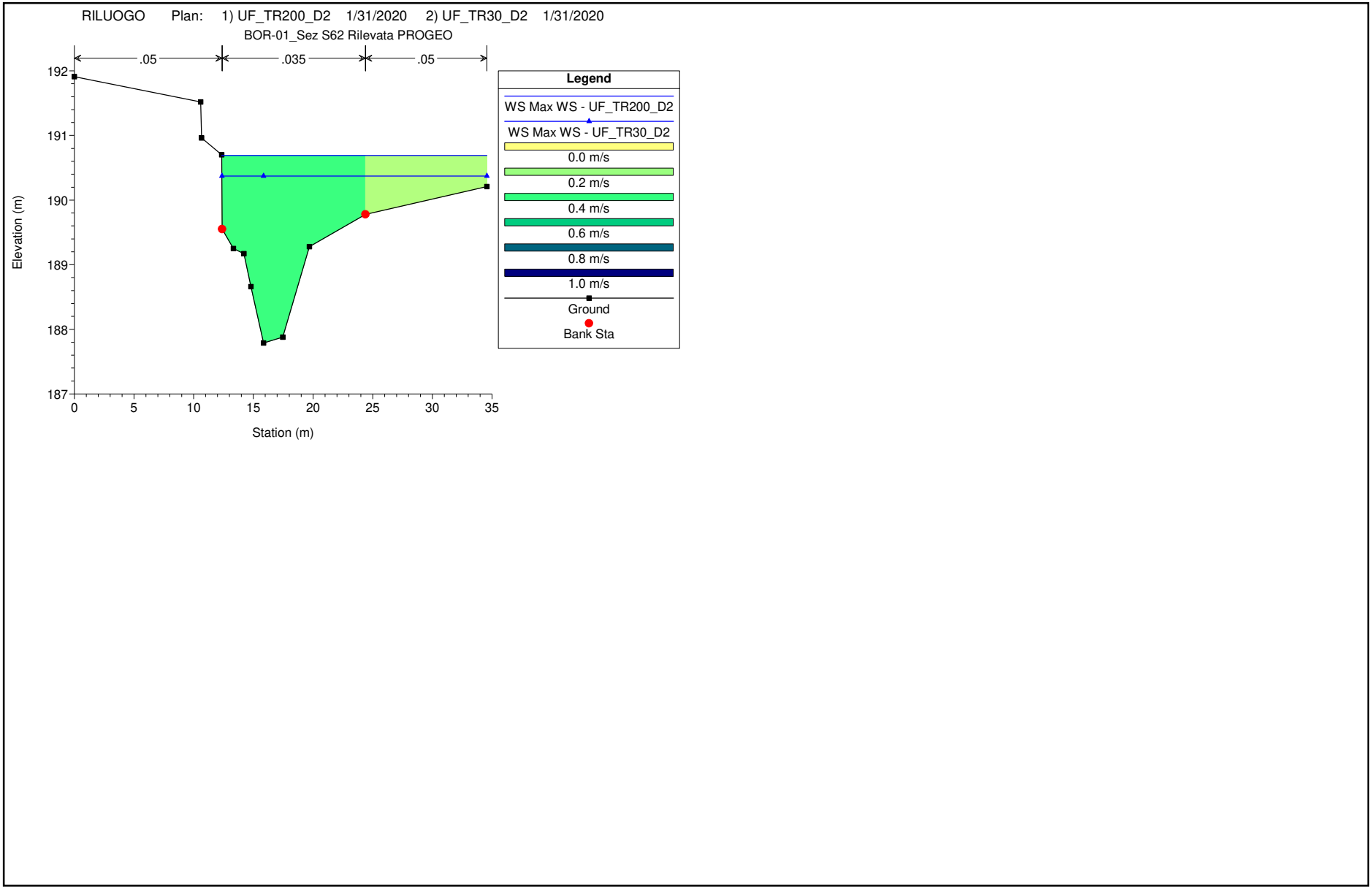

RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-10_Sez S71 Rilevata PROGEO
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-09_Sez S70 Rilevata PROGEO
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
Sez S69 Rilevata PROGEO mod dx


RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-08_Sez S68 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-07_Sez S68 Rilevata PROGEO
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
Ground
Levee
Bank Sta


RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-06_Sez S67 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Ineff
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-06_Sez S67 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-06_Sez S67 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-06_Sez S67 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta


RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-06_Sez S67 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.5 m/s
0.6 m/s
0.7 m/s
0.8 m/s
0.9 m/s
1.0 m/s
1.1 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-05_Sez S66 Rilevata PROGEO
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-04_Sez S65 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
Ground
Levee
Ineff
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
2.0 m/s
2.2 m/s
Ground
Levee
Ineff
Bank Sta


RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
2.0 m/s
2.2 m/s
Ground
Levee
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-04_Sez S65 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-03_Sez S64 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-02_Sez S63 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta


RILUOGO Plan: 1) UF_TR200_D2 1/31/2020 2) UF_TR30_D2 1/31/2020
BOR-01_Sez S62 Rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
192
191
190
189
188
187
0
5
10
15
20
25
30
35
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Fosso Borrino"

FOSSO BORRINO

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 2h

Dati idraulici

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

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
FBorrino	78	Max WS	UF_TR200_D2	17.30	202.68	204.63	204.67	204.86	0.009498	2.53	0.82	0.59	12.36	36.94	0.73
FBorrino	78	Max WS	UF_TR30_D2	10.30	202.68	204.43	204.50	204.69	0.011376	2.44	0.58	0.34	6.08	22.84	0.78
FBorrino	77	Max WS	UF_TR200_D2	17.28	201.72	203.49	203.79	204.08	0.020684	3.40	0.16		5.09	6.13	1.12
FBorrino	77	Max WS	UF_TR30_D2	10.29	201.72	203.09	203.17	203.60	0.022475	3.19			3.23	3.93	1.12
FBorrino	76	Max WS	UF_TR200_D2	17.28	201.02	203.00	203.17	203.48	0.016726	3.09		0.40	6.05	13.97	0.97
FBorrino	76	Max WS	UF_TR30_D2	10.29	201.02	202.60	202.50	202.99	0.015494	2.79			3.69	3.64	0.88
FBorrino	75	Max WS	UF_TR200_D2	17.28	199.29	201.39	201.07	201.76	0.009801	2.69			6.43	4.58	0.72
FBorrino	75	Max WS	UF_TR30_D2	10.29	199.29	200.95	200.66	201.21	0.008860	2.26			4.55	4.07	0.68
FBorrino	74	Max WS	UF_TR200_D2	17.28	198.51	200.40	200.27	200.82	0.012407	2.90			5.96	5.20	0.86
FBorrino	74	Max WS	UF_TR30_D2	10.29	198.51	199.99	199.88	200.33	0.012919	2.57			4.01	4.46	0.86
FBorrino	73	Max WS	UF_TR200_D2	17.28	197.10	199.26	199.04	199.60	0.011681	2.60			6.65	6.99	0.85
FBorrino	73	Max WS	UF_TR30_D2	10.29	197.10	198.88	198.63	199.13	0.008943	2.25			4.58	4.61	0.72
FBorrino	72.999			Lat Struct											
FBorrino	72.998			Lat Struct											
FBorrino	72	Max WS	UF_TR200_D2	17.27	196.03	198.33		198.41	0.002746	1.51	0.31	0.49	20.86	59.58	0.43
FBorrino	72	Max WS	UF_TR30_D2	10.28	196.03	198.23		198.28	0.001773	1.14	0.18	0.32	14.99	50.94	0.34
FBorrino	71.5			Culvert											
FBorrino	71	Max WS	UF_TR200_D2	17.27	195.65	197.87	198.16	198.44	0.019753	3.40	0.21	0.71	5.85	13.28	0.95
FBorrino	71	Max WS	UF_TR30_D2	10.28	195.65	197.45	197.31	197.89	0.018270	2.95			3.48	2.86	0.85
FBorrino	70.999			Lat Struct											
FBorrino	70.6			Lat Struct											
FBorrino	70	Max WS	UF_TR200_D2	15.13	194.88	196.72	196.60	197.17	0.013462	2.96		0.22	5.16	5.96	0.87
FBorrino	70	Max WS	UF_TR30_D2	10.28	194.88	196.37	196.29	196.77	0.014976	2.79			3.69	3.75	0.90
FBorrino	69	Max WS	UF_TR200_D2	17.24	194.01	196.30	196.09	196.51	0.006121	2.26	0.98	0.02	10.21	13.30	0.61
FBorrino	69	Max WS	UF_TR30_D2	10.28	194.01	195.90	195.76	196.12	0.007881	2.20	0.79		5.71	9.21	0.67
FBorrino	68	Max WS	UF_TR200_D2	17.18	193.63	196.06	195.31	196.30	0.003025	2.20			7.82	24.79	0.50
FBorrino	68	Max WS	UF_TR30_D2	10.24	193.63	195.70	194.95	195.83	0.002063	1.59			6.43	24.49	0.40
FBorrino	67.9			Bridge											
FBorrino	67.8	Max WS	UF_TR200_D2	17.19	193.63	196.20	195.34	196.26	0.001168	1.17	0.07	0.46	21.12	25.20	0.29
FBorrino	67.8	Max WS	UF_TR30_D2	10.25	193.63	195.75	194.96	195.83	0.001936	1.28		0.20	9.78	24.61	0.36
FBorrino	67.79			Lat Struct											
FBorrino	67	Max WS	UF_TR200_D2	9.40	192.86	196.12	193.82	196.14	0.002238	0.80	0.32	0.25	16.41	53.17	0.13
FBorrino	67	Max WS	UF_TR30_D2	10.28	192.86	195.65	193.86	195.77	0.004894	1.50			6.86		0.29
FBorrino	66.75	Max WS	UF_TR200_D2	11.09	192.45	195.49	193.49	195.61	0.011883	1.56	0.16	0.16	7.50	31.45	0.29
FBorrino	66.75	Max WS	UF_TR30_D2	10.28	192.45	195.41	193.45	195.53	0.004893	1.50			6.86		0.28
FBorrino	66.52	Max WS	UF_TR200_D2	11.02	192.04	195.24	193.08	195.29	0.004255	1.06	0.39	0.32	13.94	47.20	0.17
FBorrino	66.52	Max WS	UF_TR30_D2	10.27	192.04	195.14	193.04	195.21	0.006704	1.24	0.35	0.30	10.02	35.54	0.22
FBorrino	66.51	Max WS	UF_TR200_D2	11.05	192.03	195.25	193.20	195.27	0.002423	0.78	0.38	0.37	19.53	55.22	0.12
FBorrino	66.51	Max WS	UF_TR30_D2	10.27	192.03	195.14	193.16	195.18	0.005258	1.04	0.38	0.37	13.51	55.22	0.17
FBorrino	66.50	Max WS	UF_TR200_D2	10.99	192.02	195.23	193.36	195.27	0.005884	1.04	0.56	0.56	14.32	47.72	0.16
FBorrino	66.50	Max WS	UF_TR30_D2	10.27	192.02	195.12	193.30	195.21	0.016904	1.52	0.63	0.62	9.27	47.72	0.24
FBorrino	66	Max WS	UF_TR200_D2	10.64	191.18	193.21	192.49	193.65	0.029450	2.96			3.60		0.66
FBorrino	66	Max WS	UF_TR30_D2	10.27	191.18	192.98	192.46	193.40	0.027420	2.85			3.60		0.68
FBorrino	65.999			Lat Struct											
FBorrino	65.9			Lat Struct											
FBorrino	65	Max WS	UF_TR200_D2	11.63	190.37	192.77	192.12	192.83	0.001799	1.23	0.12	0.42	13.70	25.38	0.34
FBorrino	65	Max WS	UF_TR30_D2	9.20	190.37	192.70	192.12	192.75	0.001546	1.10		0.33	11.79	23.21	0.31
FBorrino	64.9			Bridge											
FBorrino	64.8	Max WS	UF_TR200_D2	11.63	190.37	192.03	192.06	192.52	0.019730	3.09			3.76	4.16	1.04
FBorrino	64.8	Max WS	UF_TR30_D2	9.20	190.37	191.88	191.91	192.32	0.019921	2.92			3.16	3.86	1.03
FBorrino	64.599			Lat Struct											
FBorrino	64	Max WS	UF_TR200_D2	12.65	188.80	190.76	190.48	191.02	0.008731	2.22			5.69	5.84	0.72
FBorrino	64	Max WS	UF_TR30_D2	10.18	188.80	190.59	190.30	190.83	0.008707	2.14			4.76	5.09	0.70
FBorrino	63.599			Lat Struct											
FBorrino	63	Max WS	UF_TR200_D2	9.20	188.14	190.71	189.20	190.73	0.000407	0.67	0.23	0.14	16.87	23.35	0.17
FBorrino	63	Max WS	UF_TR30_D2	9.75	188.14	190.42	189.24	190.46	0.000983	0.90	0.27	0.24	11.78	13.32	0.25
FBorrino	62	Max WS	UF_TR200_D2	9.17	187.79	190.69	188.92	190.70	0.000097	0.39	0.01	0.15	28.06	22.22	0.09
FBorrino	62	Max WS	UF_TR30_D2	9.52	187.79	190.37	188.94	190.39	0.000230	0.52	0.01	0.16	20.97	22.21	0.14

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Riluogo valle"

RILUOGO (valle)

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 3h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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ALLEGATI

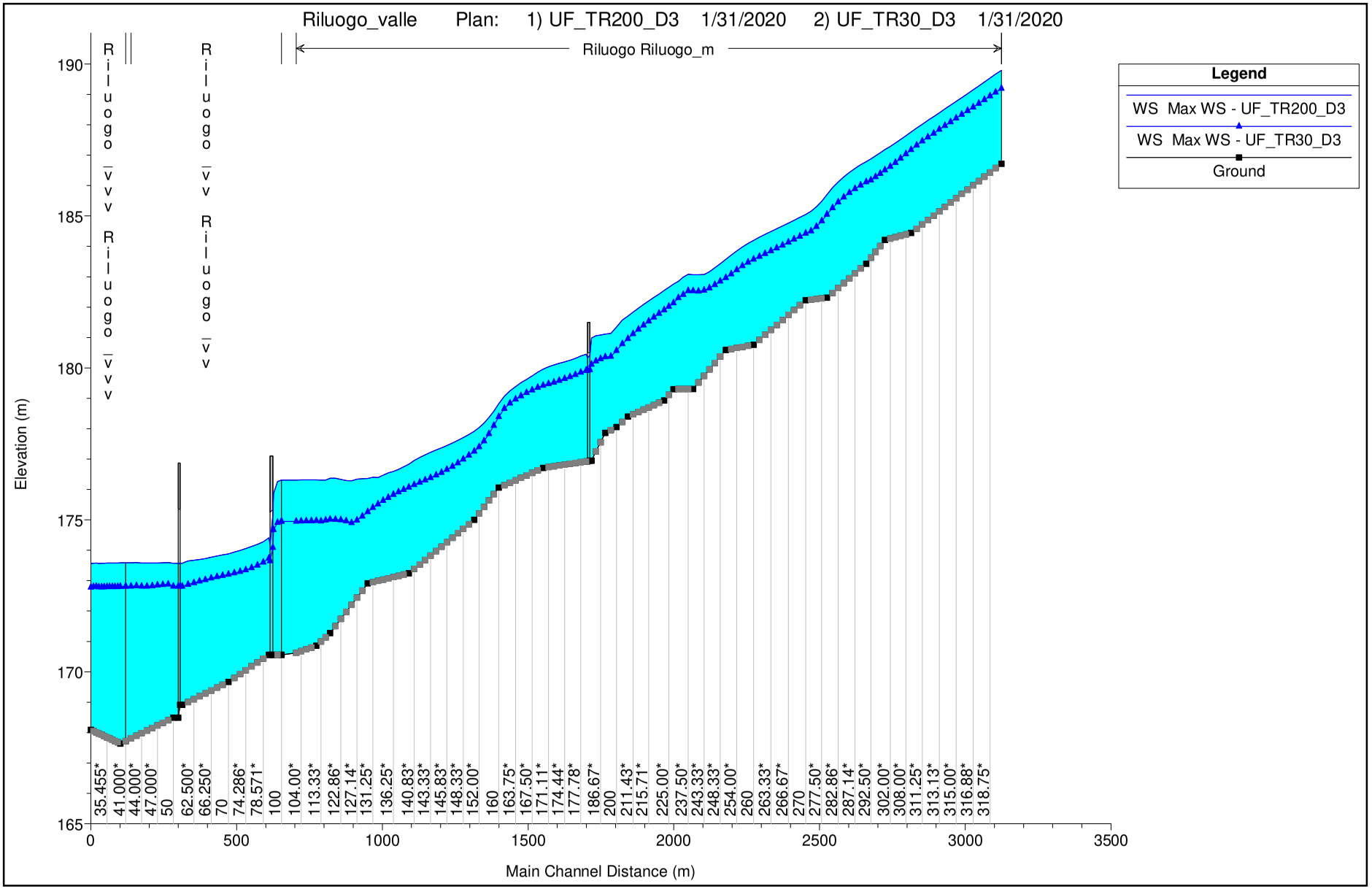
MODELLAZIONE HEC-RAS 5.0.7 "Riluogo valle"

RILUOGO (valle)

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 3h

Profilo longitudinale


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
Riluogo Riluogo_m
Riluogo vvv Riluogo vvv
Riluogo vvv
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
Ground
Elevation (m)
Main Channel Distance (m)
190
185
180
175
170
165
0
500
1000
1500
2000
2500
3000
3500
35.455*
41.000*
44.000*
47.000*
50
62.500*
66.250*
70
74.286*
78.571*
100
104.00*
113.33*
122.86*
127.14*
131.25*
136.25*
140.83*
143.33*
145.83*
148.33*
152.00*
160
163.75*
167.50*
171.11*
174.44*
177.78*
186.67*
200
211.43*
215.71*
225.00*
237.50*
243.33*
248.33*
254.00*
260
263.33*
266.67*
270
277.50*
282.86*
287.14*
292.50*
302.00*
308.00*
311.25*
313.13*
315.00*
316.88*
318.75*

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ALLEGATI

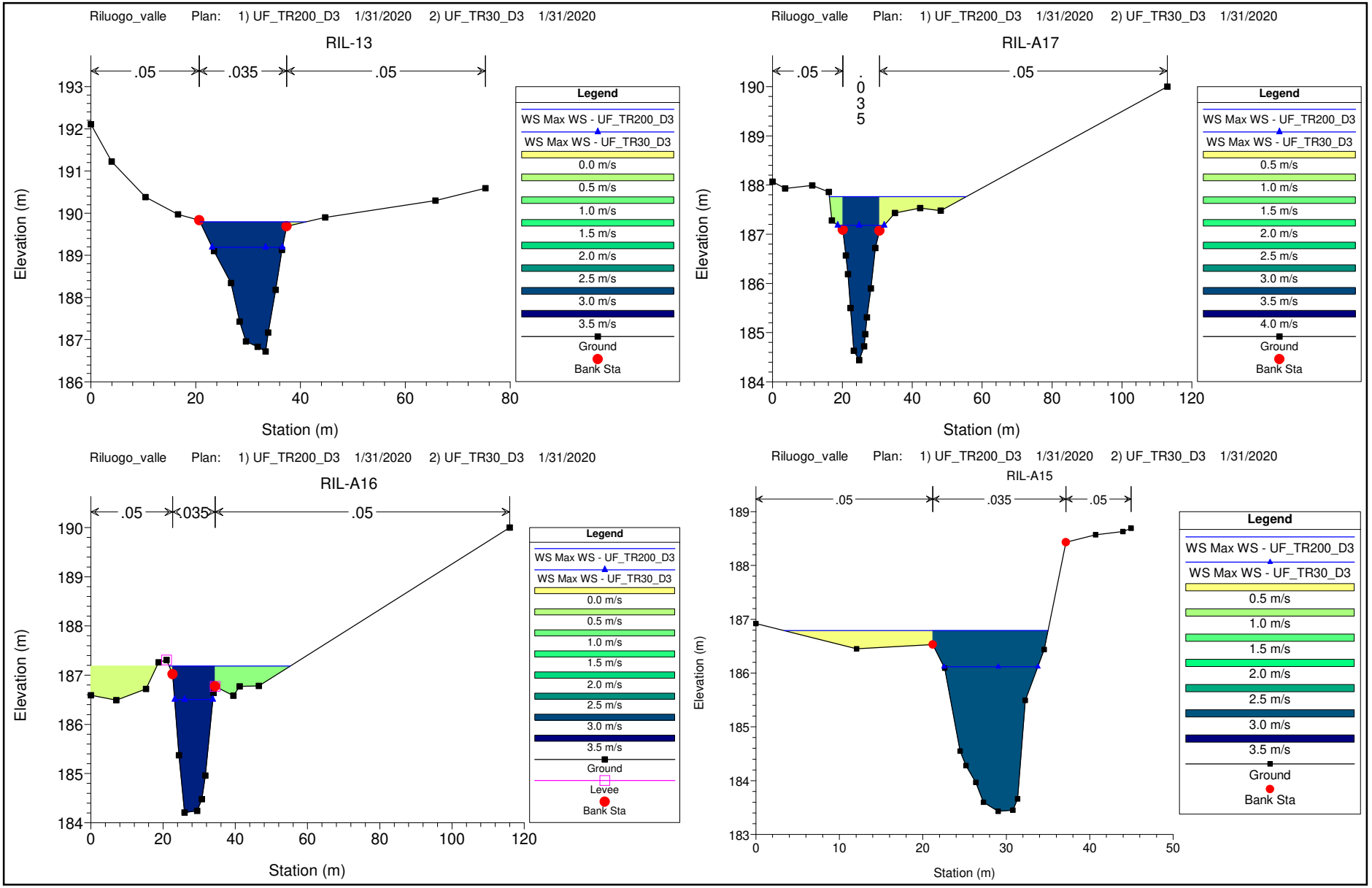
MODELLAZIONE HEC-RAS 5.0.7 "Riluogo valle"

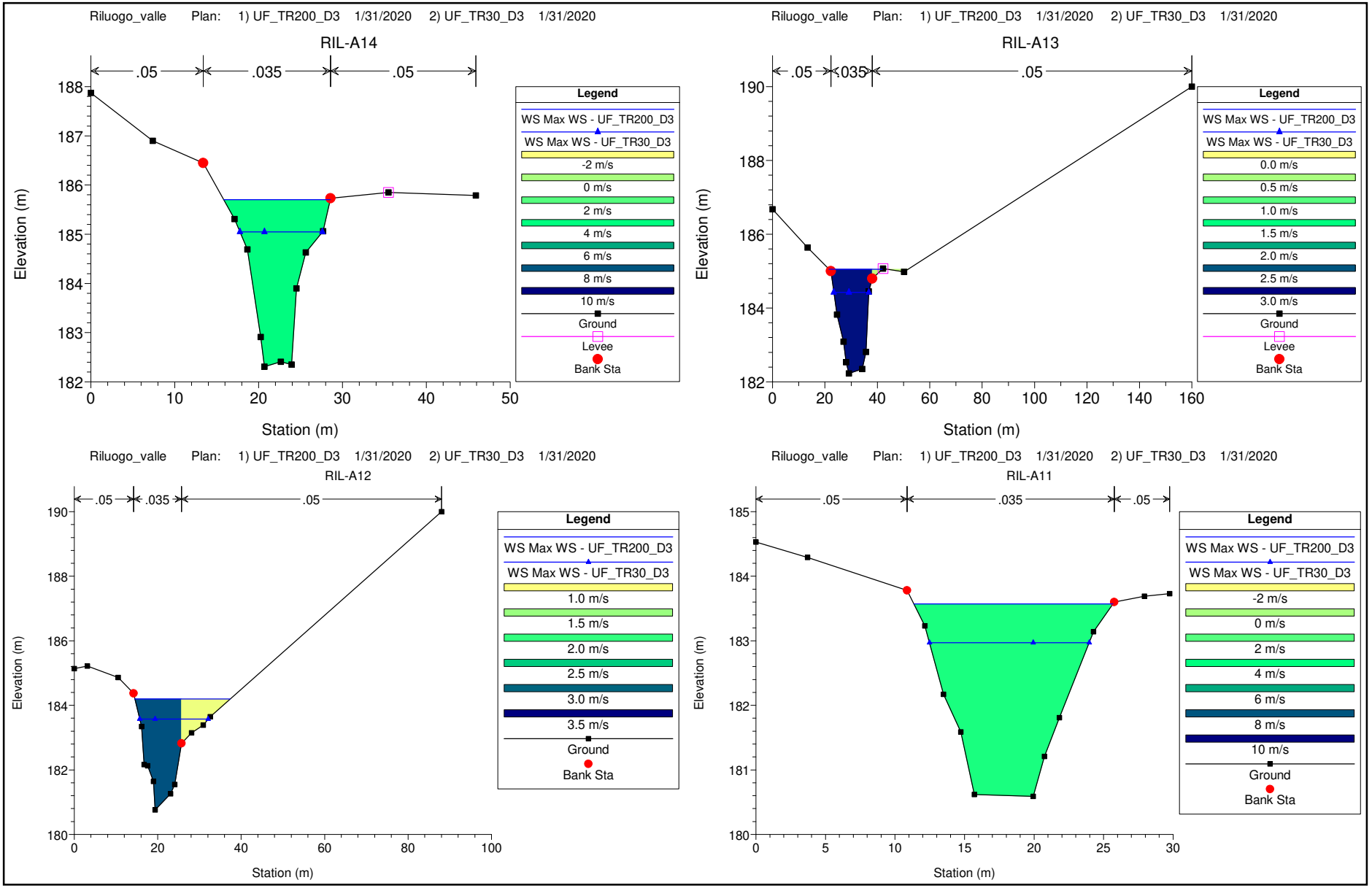
RILUOGO (valle)

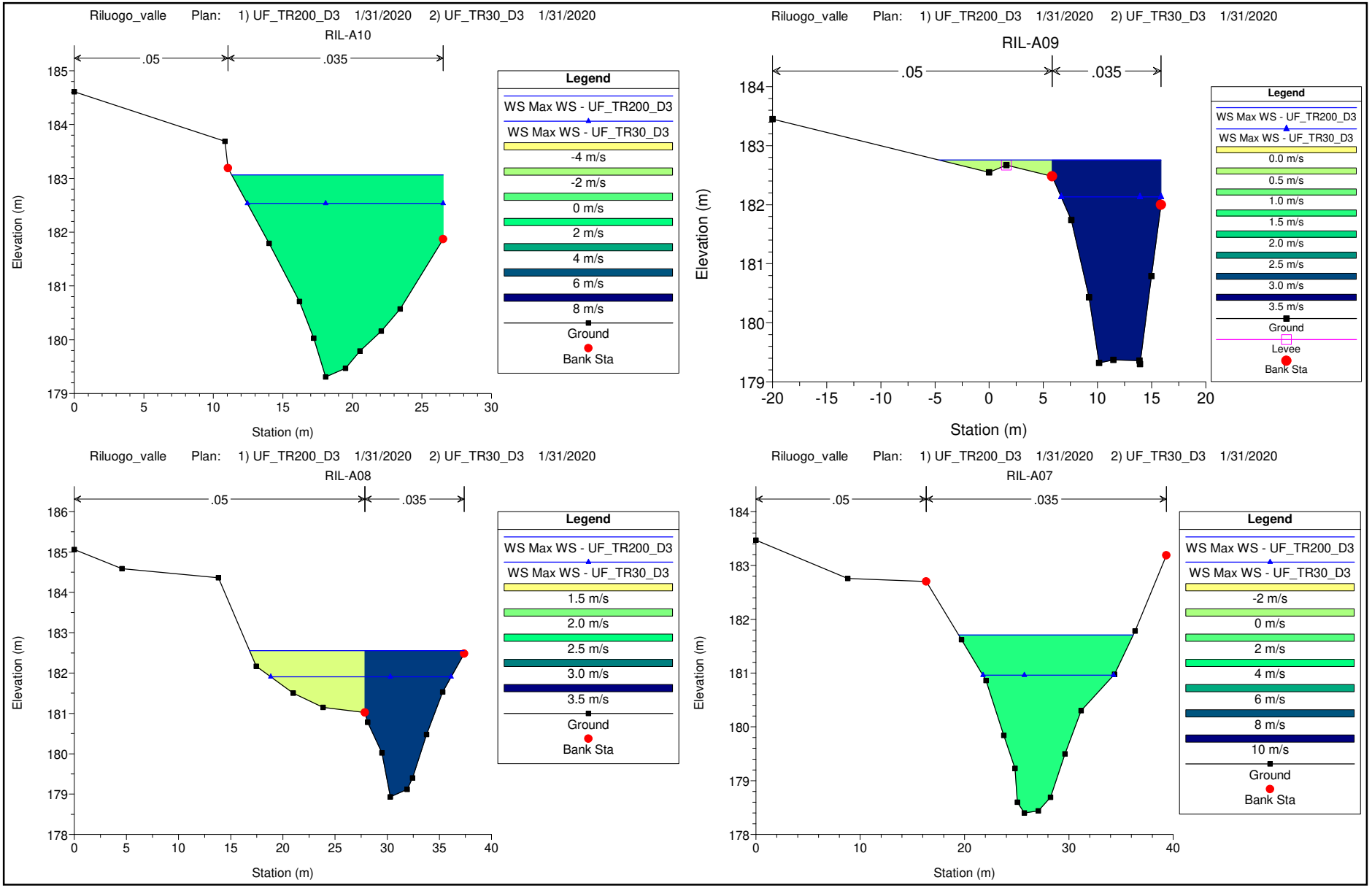
MODELLAZIONE PER TR=30 e 200 anni

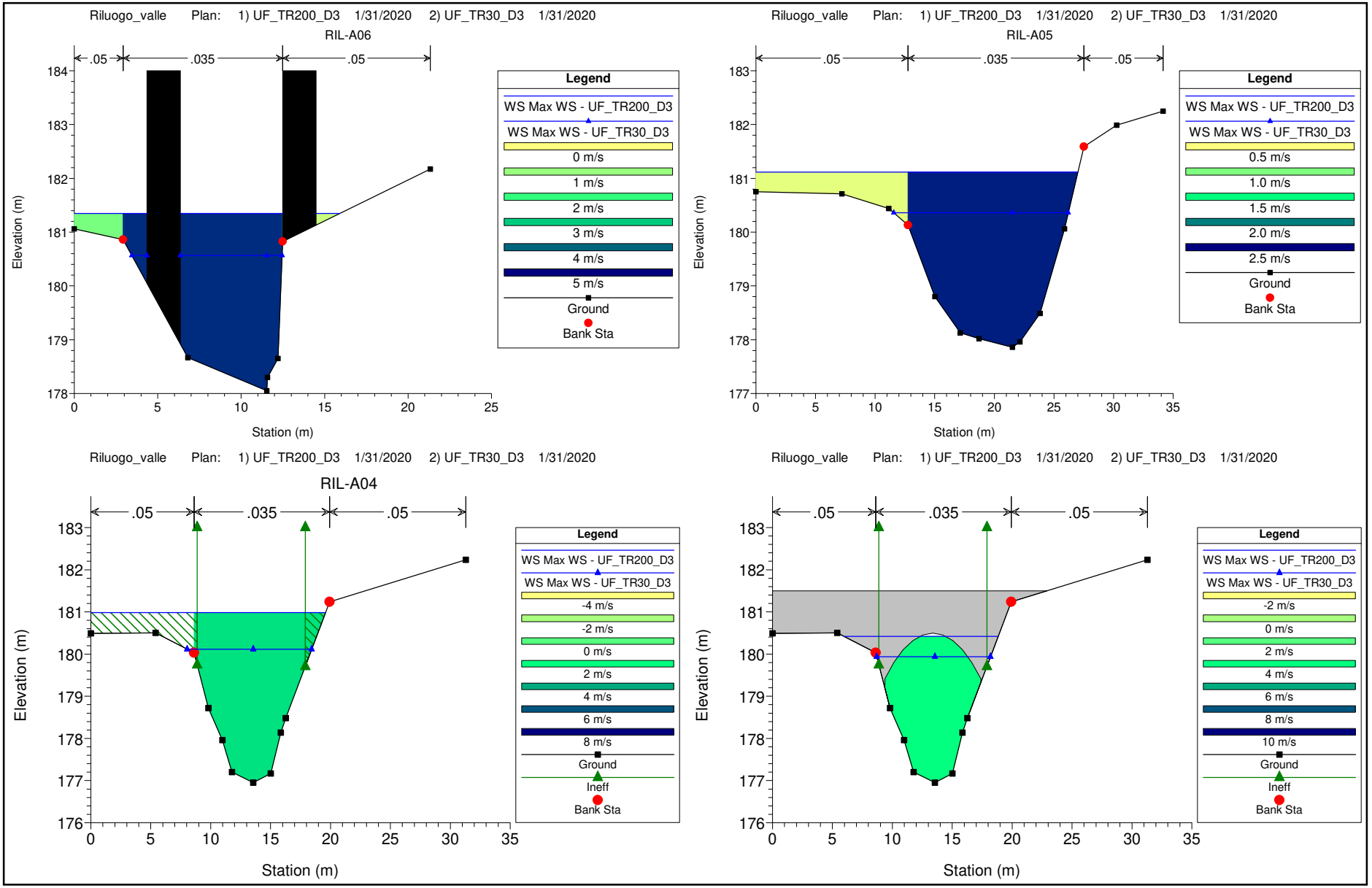
DURATE DI PIOGGIA: 3h

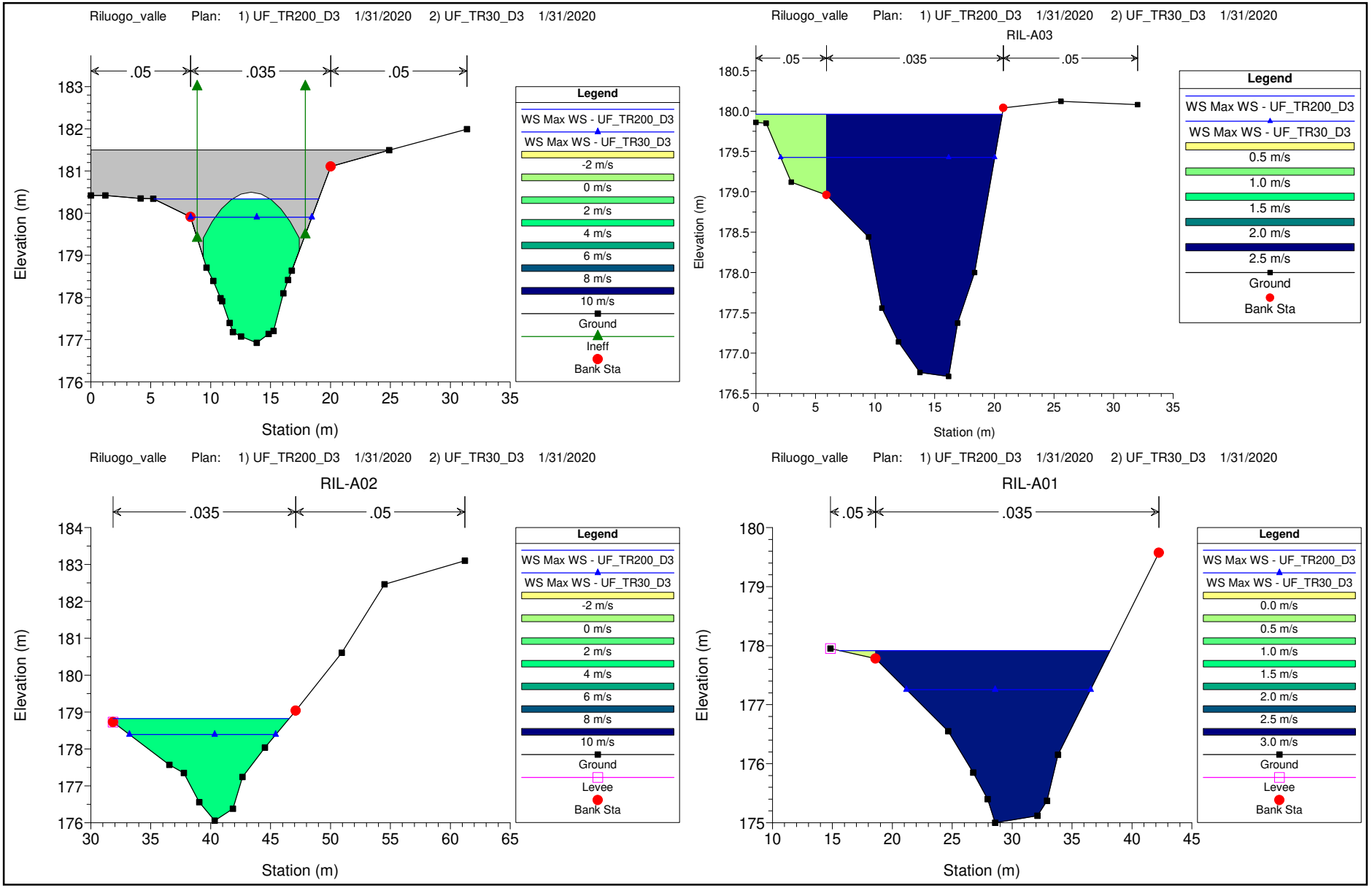
Sezioni Trasversali (da monte verso valle)

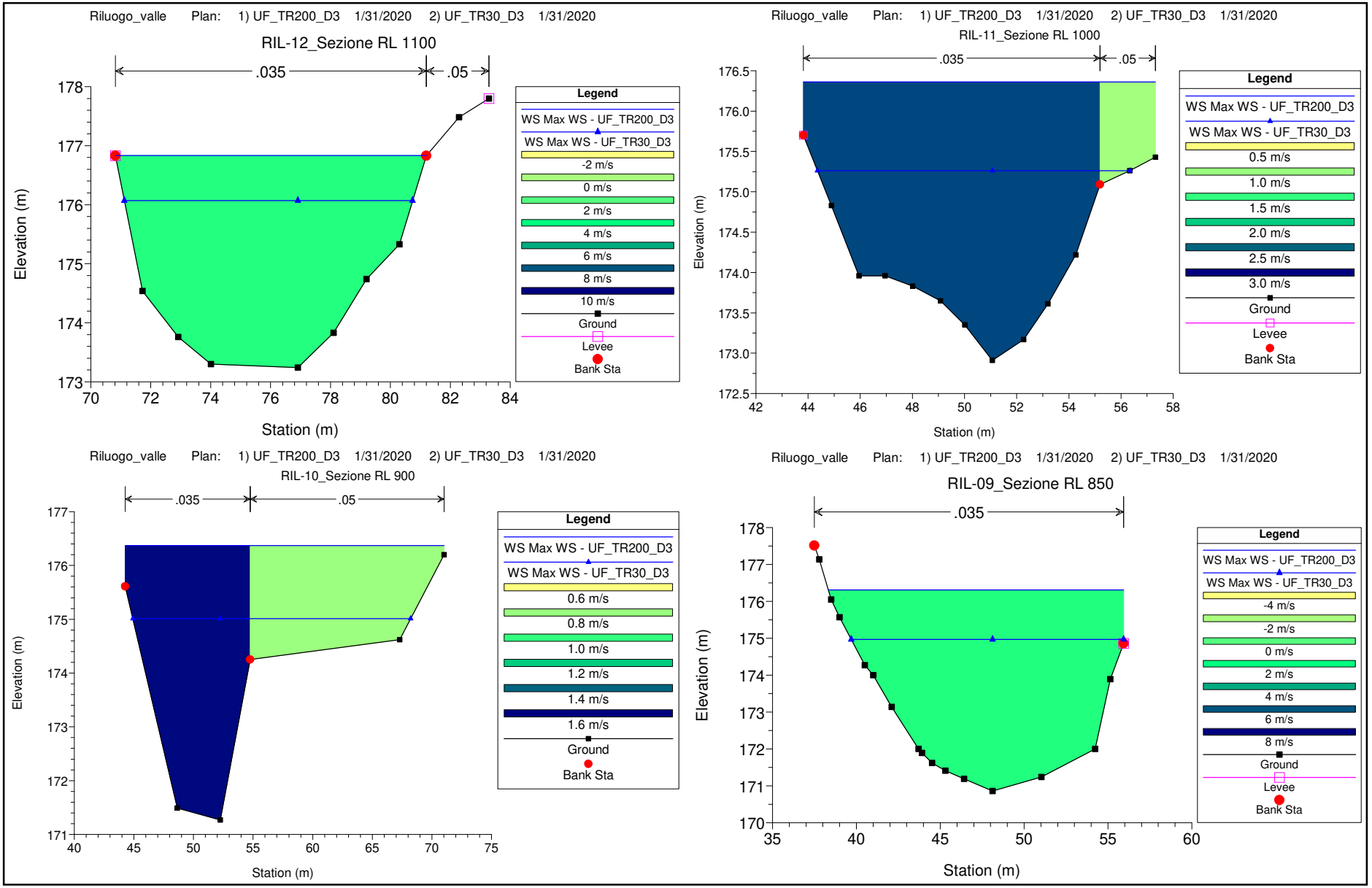

Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-13
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A17
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
4.0 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A16
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Levee
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A15
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta

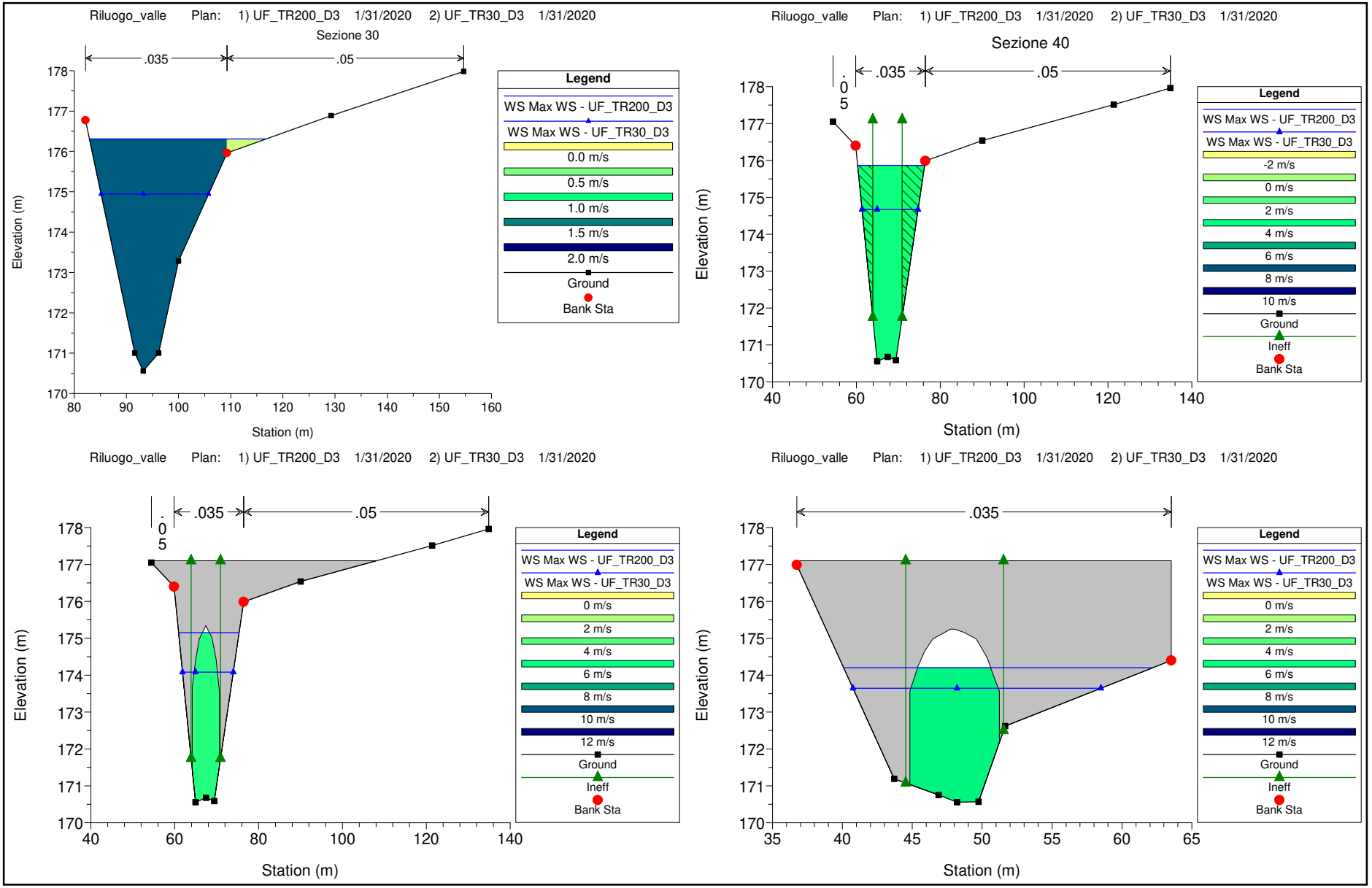

Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A14
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A13
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Levee
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A12
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A11
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta

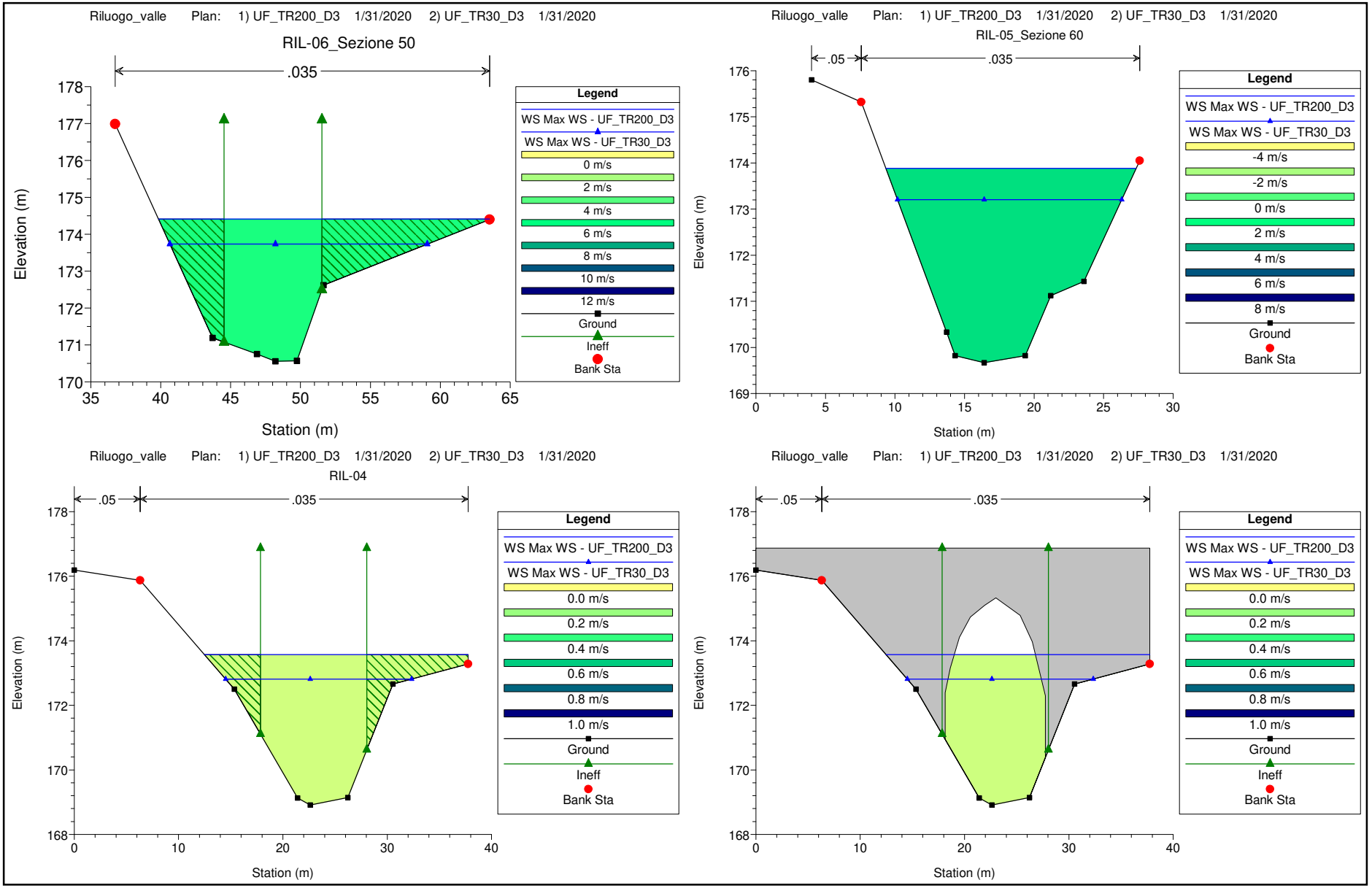

Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A10
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A09
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Levee
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A08
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A07
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta

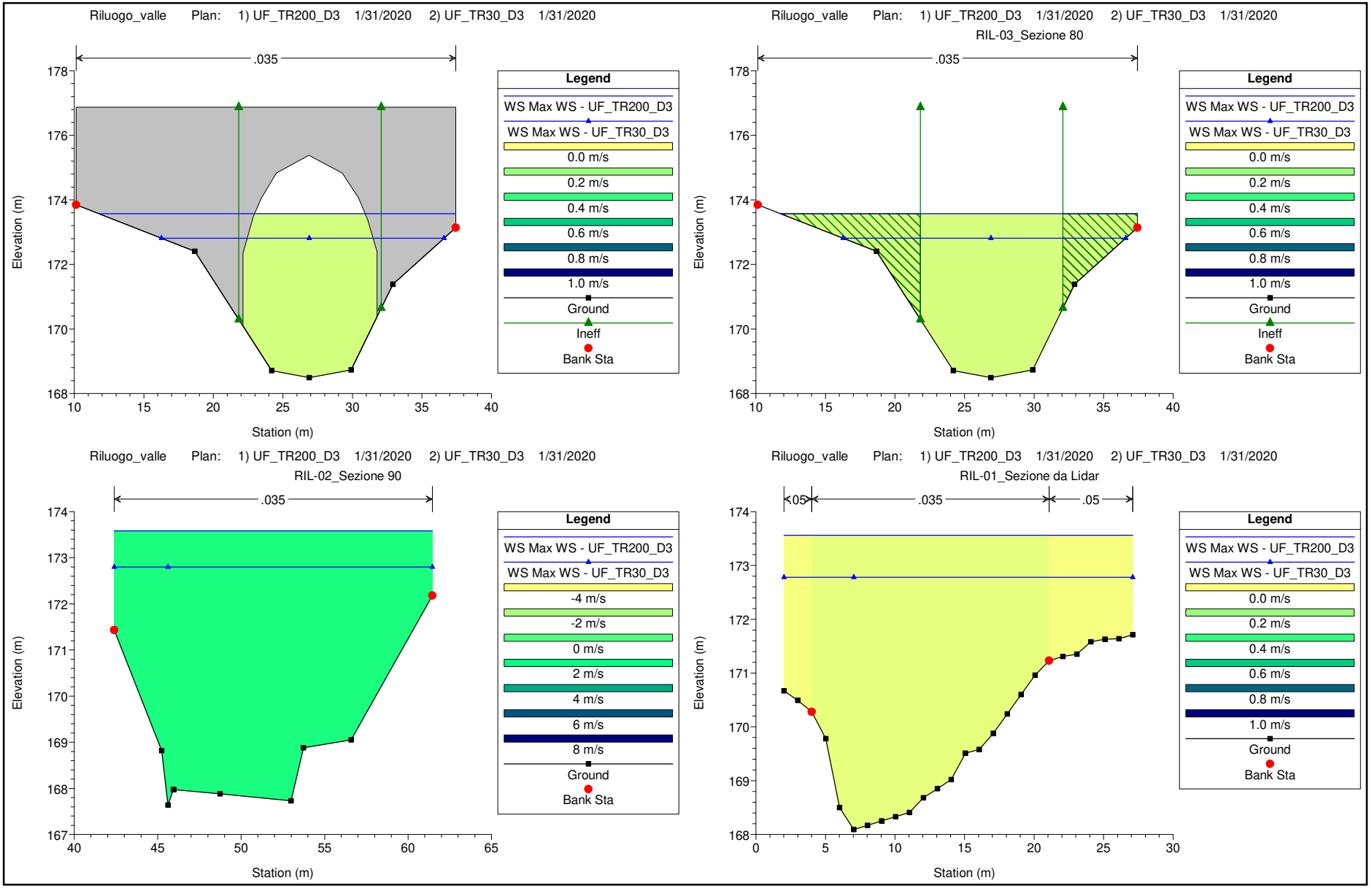

Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A06
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A05
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A04
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A03
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A02
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-A01
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Levee
Bank Sta


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-12_Sezione RL 1100
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-11_Sezione RL 1000
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Levee
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-10_Sezione RL 900
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-09_Sezione RL 850
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
Sezione 30
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
Sezione 40
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Ineff
Bank Sta


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-06_Sezione 50
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-05_Sezione 60
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-04
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-03_Sezione 80
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-02_Sezione 90
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIL-01_Sezione da Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Riluogo valle"

RILUOGO (valle)

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 3h

Dati idraulici

HEC-RAS Profile: Max WS

River	Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
					(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
Riluogo_vvv	Riluogo_vvv	40	Max WS	UF_TR200_D3	119.48	167.64	173.58	170.40	173.68	0.000490	1.39			85.69	19.06	0.21
Riluogo_vvv	Riluogo_vvv	40	Max WS	UF_TR30_D3	87.57	167.64	172.80	170.00	172.88	0.000458	1.24			70.79	19.06	0.20
Riluogo_vvv	Riluogo_vvv	38.99			Lat Struct											
Riluogo_vvv	Riluogo_vvv	38.9			Lat Struct											
Riluogo_vvv	Riluogo_vvv	30	Max WS	UF_TR200_D3	3.68	168.09	173.56	168.64	173.56	0.000000	0.05	0.01	0.02	91.79	25.09	0.01
Riluogo_vvv	Riluogo_vvv	30	Max WS	UF_TR30_D3	5.47	168.09	172.78	168.75	172.78	0.000002	0.09	0.03	0.03	72.22	25.09	0.01
Riluogo_vv	Riluogo_vv	100	Max WS	UF_TR200_D3	131.42	170.56	176.31	174.01	176.45	0.000851	1.64		0.18	81.35	33.95	0.30
Riluogo_vv	Riluogo_vv	100	Max WS	UF_TR30_D3	75.45	170.56	174.95	173.19	175.08	0.001172	1.60			47.30	20.65	0.34
Riluogo_vv	Riluogo_vv	90	Max WS	UF_TR200_D3	131.16	170.56	175.86	174.10	176.56	0.002287	3.70			35.47	15.99	0.53
Riluogo_vv	Riluogo_vv	90	Max WS	UF_TR30_D3	78.39	170.56	174.67	173.15	175.10	0.002008	2.89			27.08	13.39	0.47
Riluogo_vv	Riluogo_vv	85			Bridge											
Riluogo_vv	Riluogo_vv	80	Max WS	UF_TR200_D3	131.15	170.56	174.41	174.25	175.90	0.007997	5.40			24.27	23.69	0.93
Riluogo_vv	Riluogo_vv	80	Max WS	UF_TR30_D3	86.60	170.56	173.73	173.44	174.74	0.007196	4.43			19.53	18.42	0.85
Riluogo_vv	Riluogo_vv	79.99			Lat Struct											
Riluogo_vv	Riluogo_vv	79.98			Lat Struct											
Riluogo_vv	Riluogo_vv	70	Max WS	UF_TR200_D3	131.09	169.67	173.88	172.76	174.26	0.002951	2.73			48.05	18.00	0.53
Riluogo_vv	Riluogo_vv	70	Max WS	UF_TR30_D3	85.98	169.67	173.21	172.18	173.49	0.002709	2.36			36.50	16.13	0.50
Riluogo_vv	Riluogo_vv	60	Max WS	UF_TR200_D3	3.72	168.91	173.57	169.42	173.58	0.000002	0.09			40.98	25.28	0.01
Riluogo_vv	Riluogo_vv	60	Max WS	UF_TR30_D3	7.95	168.91	172.81	169.65	172.82	0.000017	0.24			33.22	17.83	0.04
Riluogo_vv	Riluogo_vv	55			Bridge											
Riluogo_vv	Riluogo_vv	50	Max WS	UF_TR200_D3	3.72	168.49	173.57	168.96	173.57	0.000001	0.08			46.46	25.67	0.01
Riluogo_vv	Riluogo_vv	50	Max WS	UF_TR30_D3	7.95	168.49	172.81	169.17	172.82	0.000010	0.21			38.66	20.32	0.03
Riluogo	Riluogo_m	320	Max WS	UF_TR200_D3	88.10	186.72	189.80	189.47	190.30	0.006826	3.16		0.23	28.10	20.23	0.78
Riluogo	Riluogo_m	320	Max WS	UF_TR30_D3	50.99	186.72	189.19	188.85	189.57	0.006469	2.71			18.81	13.41	0.73
Riluogo	Riluogo_m	310	Max WS	UF_TR200_D3	88.09	184.44	187.76	187.80	188.37	0.006830	3.59	1.03	0.70	31.45	39.18	0.78
Riluogo	Riluogo_m	310	Max WS	UF_TR30_D3	50.97	184.44	187.18	186.90	187.67	0.007720	3.09	0.22	0.25	16.60	13.30	0.79
Riluogo	Riluogo_m	300	Max WS	UF_TR200_D3	88.08	184.21	187.18	187.03	187.70	0.005782	3.28	0.28	0.76	32.56	33.48	0.72
Riluogo	Riluogo_m	300	Max WS	UF_TR30_D3	50.97	184.21	186.51	186.14	186.94	0.006409	2.92			17.43	10.56	0.73
Riluogo	Riluogo_m	290	Max WS	UF_TR200_D3	88.08	183.43	186.79	186.22	187.24	0.005199	3.01	0.55		32.65	31.61	0.67
Riluogo	Riluogo_m	290	Max WS	UF_TR30_D3	50.96	183.43	186.12	185.47	186.46	0.004731	2.57			19.84	11.25	0.62
Riluogo	Riluogo_m	280	Max WS	UF_TR200_D3	88.08	182.31	185.70	185.69	186.54	0.012951	4.06			21.68	12.71	0.99
Riluogo	Riluogo_m	280	Max WS	UF_TR30_D3	50.96	182.31	185.05	184.96	185.69	0.012759	3.56			14.31	9.84	0.94
Riluogo	Riluogo_m	270	Max WS	UF_TR200_D3	88.07	182.23	185.05	184.52	185.48	0.004936	2.91	0.12	0.35	30.75	20.31	0.67
Riluogo	Riluogo_m	270	Max WS	UF_TR30_D3	50.96	182.23	184.43	183.94	184.73	0.004522	2.43			20.95	13.34	0.62
Riluogo	Riluogo_m	260	Max WS	UF_TR200_D3	88.05	180.76	184.20	183.76	184.65	0.004934	3.10		1.08	33.53	22.83	0.66
Riluogo	Riluogo_m	260	Max WS	UF_TR30_D3	50.95	180.76	183.58	183.03	183.91	0.004461	2.60		0.69	21.38	16.40	0.60
Riluogo	Riluogo_m	250	Max WS	UF_TR200_D3	88.04	180.59	183.57	183.25	184.17	0.007639	3.42			25.74	14.32	0.81
Riluogo	Riluogo_m	250	Max WS	UF_TR30_D3	50.94	180.59	182.97	182.59	183.37	0.006245	2.82			18.07	11.49	0.72
Riluogo	Riluogo_m	249			Lat Struct											
Riluogo	Riluogo_m	240	Max WS	UF_TR200_D3	77.62	179.31	183.06	182.05	183.32	0.002633	2.27			34.25	15.20	0.48
Riluogo	Riluogo_m	240	Max WS	UF_TR30_D3	47.73	179.31	182.53	181.54	182.70	0.002033	1.80			26.52	14.09	0.42
Riluogo	Riluogo_m	230	Max WS	UF_TR200_D3	79.51	179.30	182.76	182.23	183.33	0.006488	3.36	0.44		25.00	20.52	0.70
Riluogo	Riluogo_m	230	Max WS	UF_TR30_D3	49.35	179.30	182.13	181.55	182.55	0.005943	2.84			17.35	9.23	0.66
Riluogo	Riluogo_m	220	Max WS	UF_TR200_D3	86.11	178.93	182.55	182.30	183.01	0.006095	3.27	1.64		32.37	20.57	0.72
Riluogo	Riluogo_m	220	Max WS	UF_TR30_D3	50.44	178.93	181.91	181.73	182.33	0.006908	3.04	1.17		19.89	17.30	0.73
Riluogo	Riluogo_m	210	Max WS	UF_TR200_D3	87.15	178.40	181.71	181.43	182.23	0.007577	3.22			27.10	16.72	0.81
Riluogo	Riluogo_m	210	Max WS	UF_TR30_D3	50.39	178.40	180.96	180.81	181.46	0.009787	3.12			16.17	12.52	0.88
Riluogo	Riluogo_m	200	Max WS	UF_TR200_D3	88.04	178.05	181.35	181.38	182.39	0.017603	4.57	1.32	0.54	20.22	11.90	0.92
Riluogo	Riluogo_m	200	Max WS	UF_TR30_D3	50.38	178.05	180.57	180.40	181.32	0.014935	3.84			13.13	7.02	0.90
Riluogo	Riluogo_m	199			Lat Struct											
Riluogo	Riluogo_m	190	Max WS	UF_TR200_D3	85.52	177.86	181.11	180.17	181.39	0.002469	2.38	0.60		40.53	27.01	0.49
Riluogo	Riluogo_m	190	Max WS	UF_TR30_D3	50.36	177.86	180.36	179.62	180.59	0.002842	2.11	0.25		24.02	14.65	0.51
Riluogo	Riluogo_m	180	Max WS	UF_TR200_D3	73.36	176.95	180.98	179.87	181.36	0.002708	2.71			27.07	19.59	0.50
Riluogo	Riluogo_m	180	Max WS	UF_TR30_D3	50.36	176.95	180.12	179.39	180.46	0.003971	2.61			19.26	10.40	0.57
Riluogo	Riluogo_m	179			Bridge											
Riluogo	Riluogo_m	170	Max WS	UF_TR200_D3	80.38	176.71	179.96	179.28	180.26	0.003167	2.48	0.82		34.98	20.67	0.54
Riluogo	Riluogo_m	170	Max WS	UF_TR30_D3	50.33	176.71	179.43	178.77	179.65	0.003149	2.12	0.53		24.73	17.95	0.52
Riluogo	Riluogo_m	160	Max WS	UF_TR200_D3	76.93	176.06	178.82	178.95	179.66	0.015891	4.04			19.02	14.69	1.14
Riluogo	Riluogo_m	160	Max WS	UF_TR30_D3	50.32	176.06	178.39	178.55	179.14	0.018256	3.83			13.13	12.20	1.18
Riluogo	Riluogo_m	159			Lat Struct											
Riluogo	Riluogo_m	150	Max WS	UF_TR200_D3	88.04	175.00	177.92	177.57	178.34	0.005981	2.87	0.26		30.85	22.60	0.73
Riluogo	Riluogo_m	150	Max WS	UF_TR30_D3	50.31	175.00	177.26	176.99	177.62	0.007099	2.66			18.92	15.37	0.77
Riluogo	Riluogo_m	140	Max WS	UF_TR200_D3	87.37	173.24	176.83	176.03	177.34	0.004869	3.17			27.55	10.38	0.62
Riluogo	Riluogo_m	140	Max WS	UF_TR30_D3	50.30	173.24	176.07	175.34	176.39	0.003979	2.52			19.93	9.62	0.56
Riluogo	Riluogo_m	139.99			Lat Struct											
Riluogo	Riluogo_m	139.98			Lat Struct											
Riluogo	Riluogo_m	130	Max WS	UF_TR200_D3	76.82	172.91	176.36	175.58	176.71	0.003226	2.65		0.95	30.46	13.50	0.54
Riluogo	Riluogo_m	130	Max WS	UF_TR30_D3	50.22	172.91	175.26	175.10	175.78	0.008796	3.19		0.36	15.82	11.99	0.85
Riluogo	Riluogo_m	120	Max WS	UF_TR200_D3	84.34	171.27	176.37	174.37	176.47	0.000796	1.58		0.79	67.16	26.75	0.26
Riluogo	Riluogo_m	120	Max WS	UF_TR30_D3	46.52	171.27	175.01	173.50	175.15	0.001390	1.69		0.50	32.73	23.31	0.34
Riluogo	Riluogo_m	110	Max WS	UF_TR200_D3	84.39	170.86	176.31	173.21	176.39	0.000404	1.22			69.44	17.61	0.20
Riluogo	Riluogo_m	110	Max WS	UF_TR30_D3	45.72	170.86	174.97	172.59	175.02	0.000363	0.98			46.63	16.25	0.18

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Riluogo valle"

BOCCA DI CANE

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 3h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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ALLEGATI

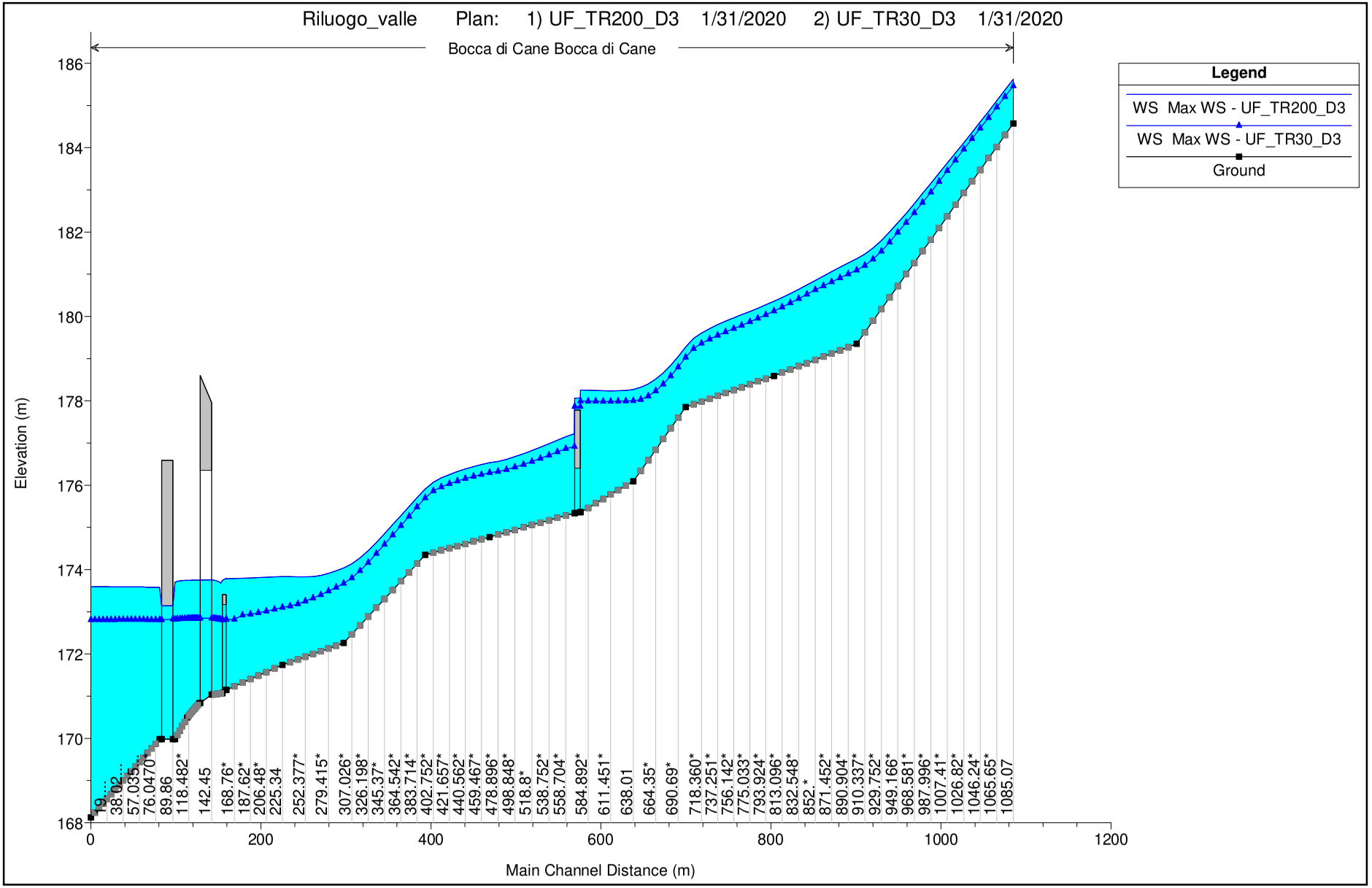
MODELLAZIONE HEC-RAS 5.0.7 "Riluogo valle"

BOCCA DI CANE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 3h

Profilo longitudinale


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
Bocca di Cane Bocca di Cane
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
Ground
Elevation (m)
Main Channel Distance (m)
186
184
182
180
178
176
174
172
170
168
0
200
400
600
800
1000
1200
19.…
38.02…
57.035…
76.0470*
89.86
118.482*
142.45
168.76*
187.62*
206.48*
225.34
252.377*
279.415*
307.026*
326.198*
345.37*
364.542*
383.714*
402.752*
421.657*
440.562*
459.467*
478.896*
498.848*
518.8*
538.752*
558.704*
584.892*
611.451*
638.01
664.35*
690.69*
718.360*
737.251*
756.142*
775.033*
793.924*
813.096*
832.548*
852.*
871.452*
890.904*
910.337*
929.752*
949.166*
968.581*
987.996*
1007.41*
1026.82*
1046.24*
1065.65*
1085.07

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ALLEGATI

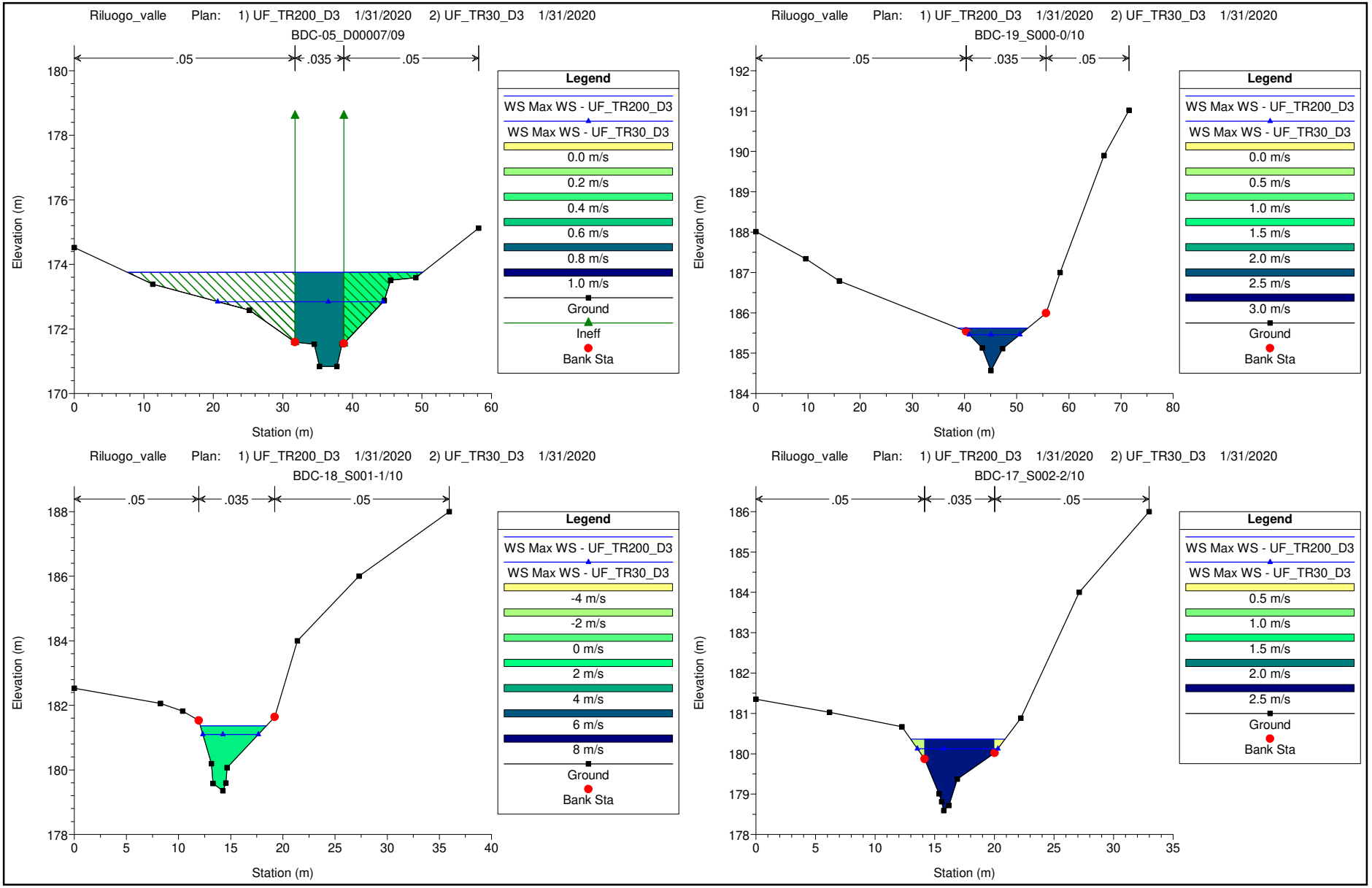
MODELLAZIONE HEC-RAS 5.0.7 "Riluogo valle"

BOCCA DI CANE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 3h

Sezioni Trasversali (da monte verso valle)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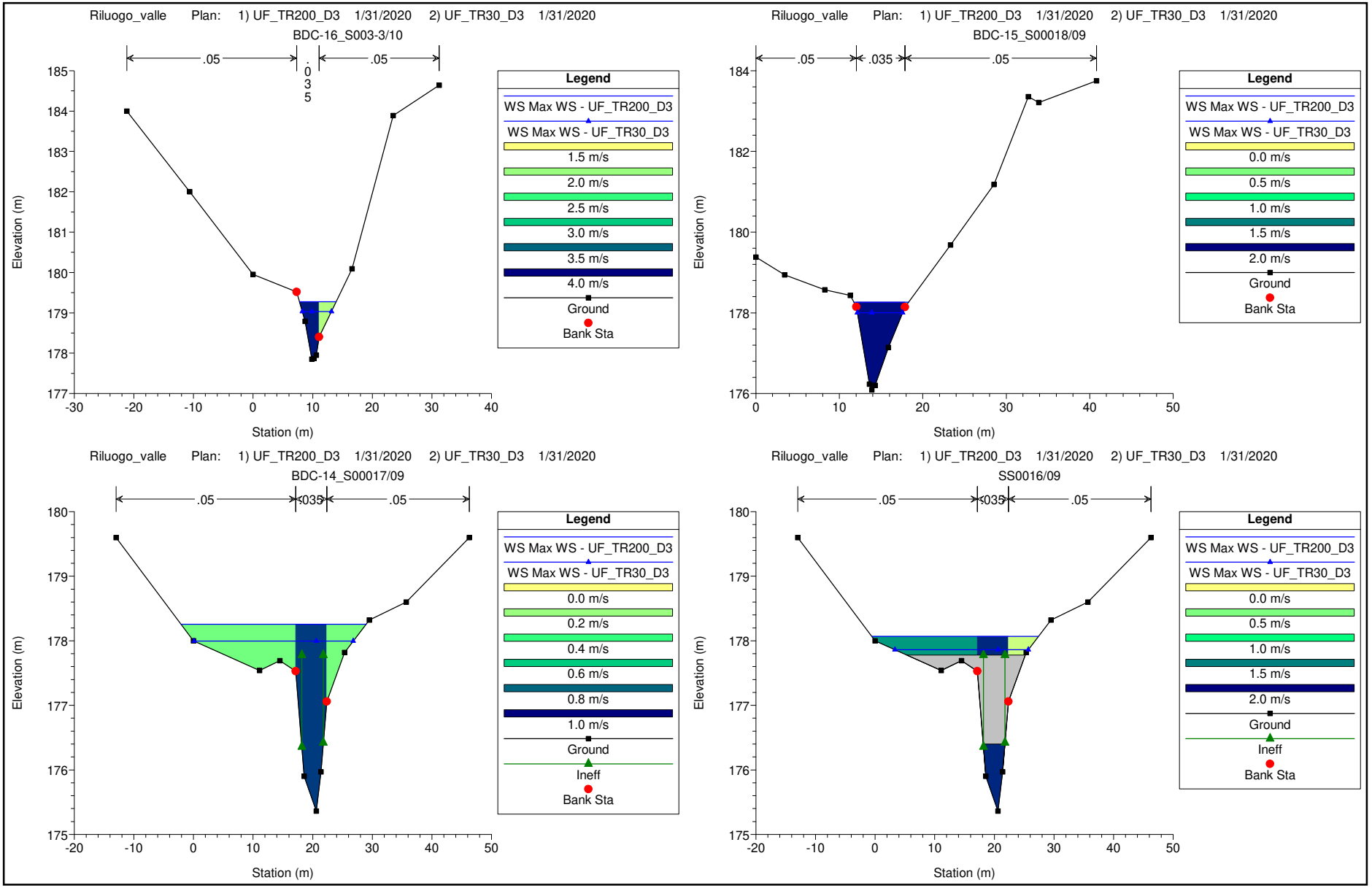
BDC-05_D00007/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-19_S000-0/10
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-18_S001-1/10
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-17_S002-2/10
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta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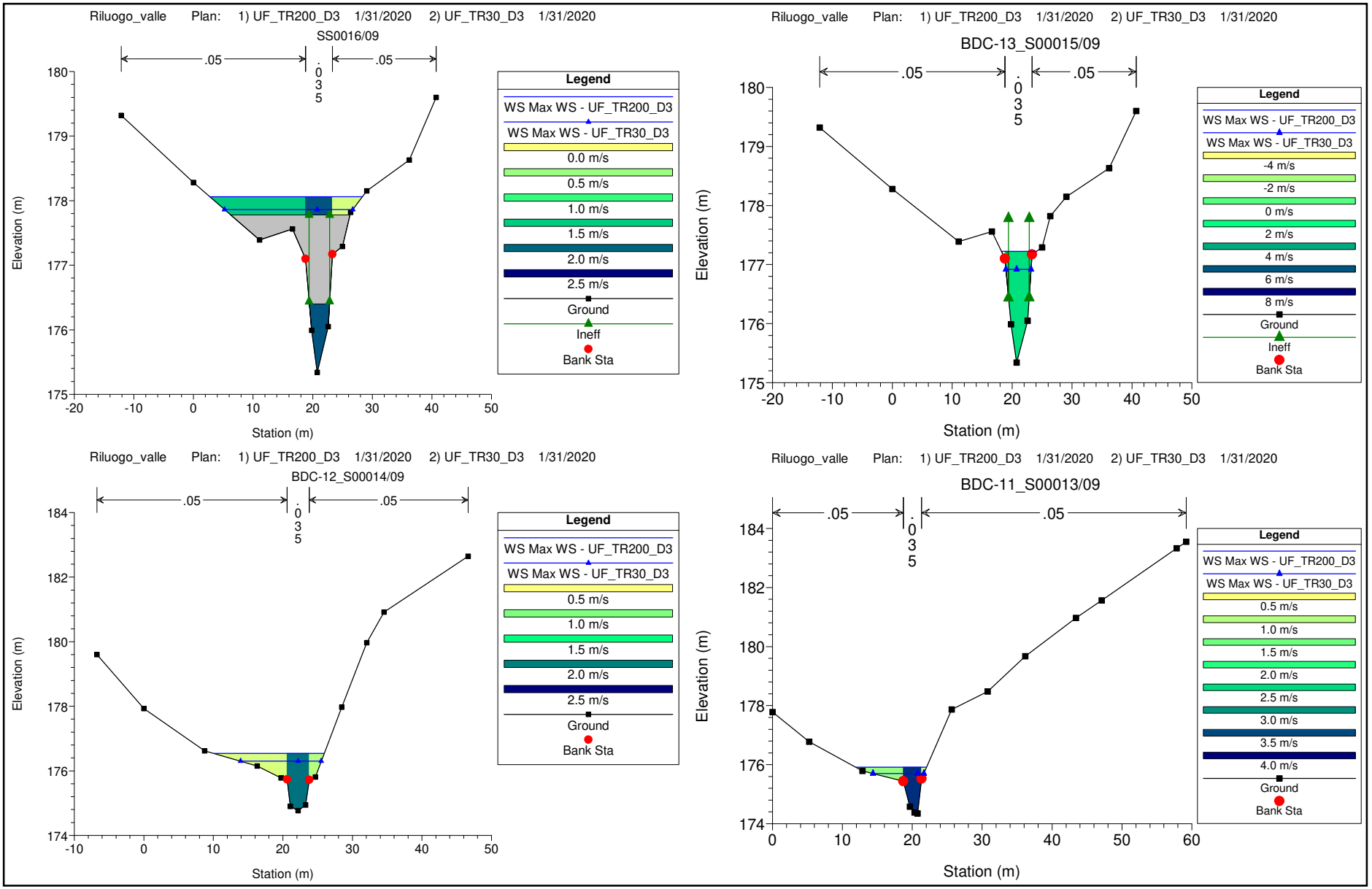
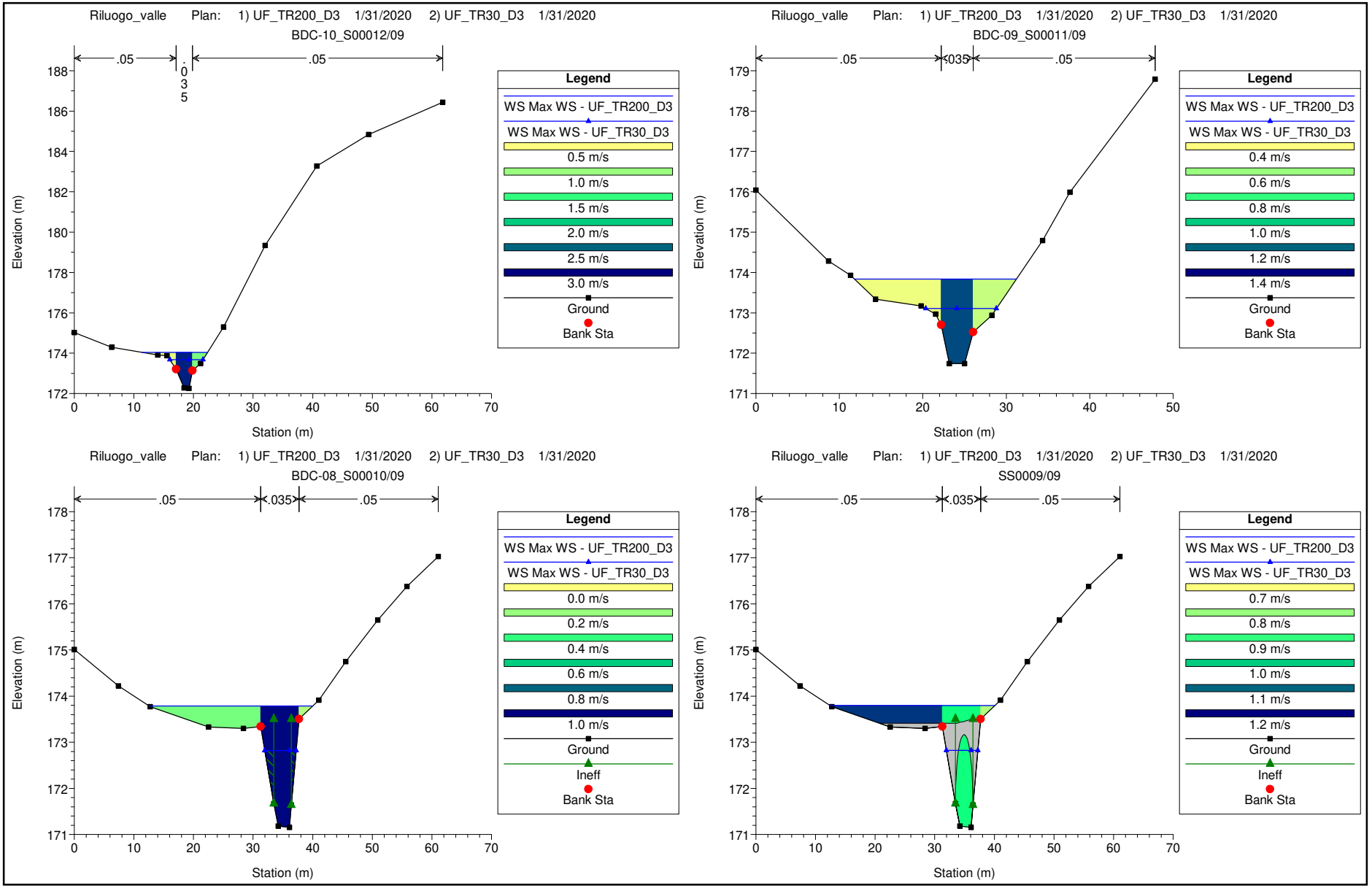
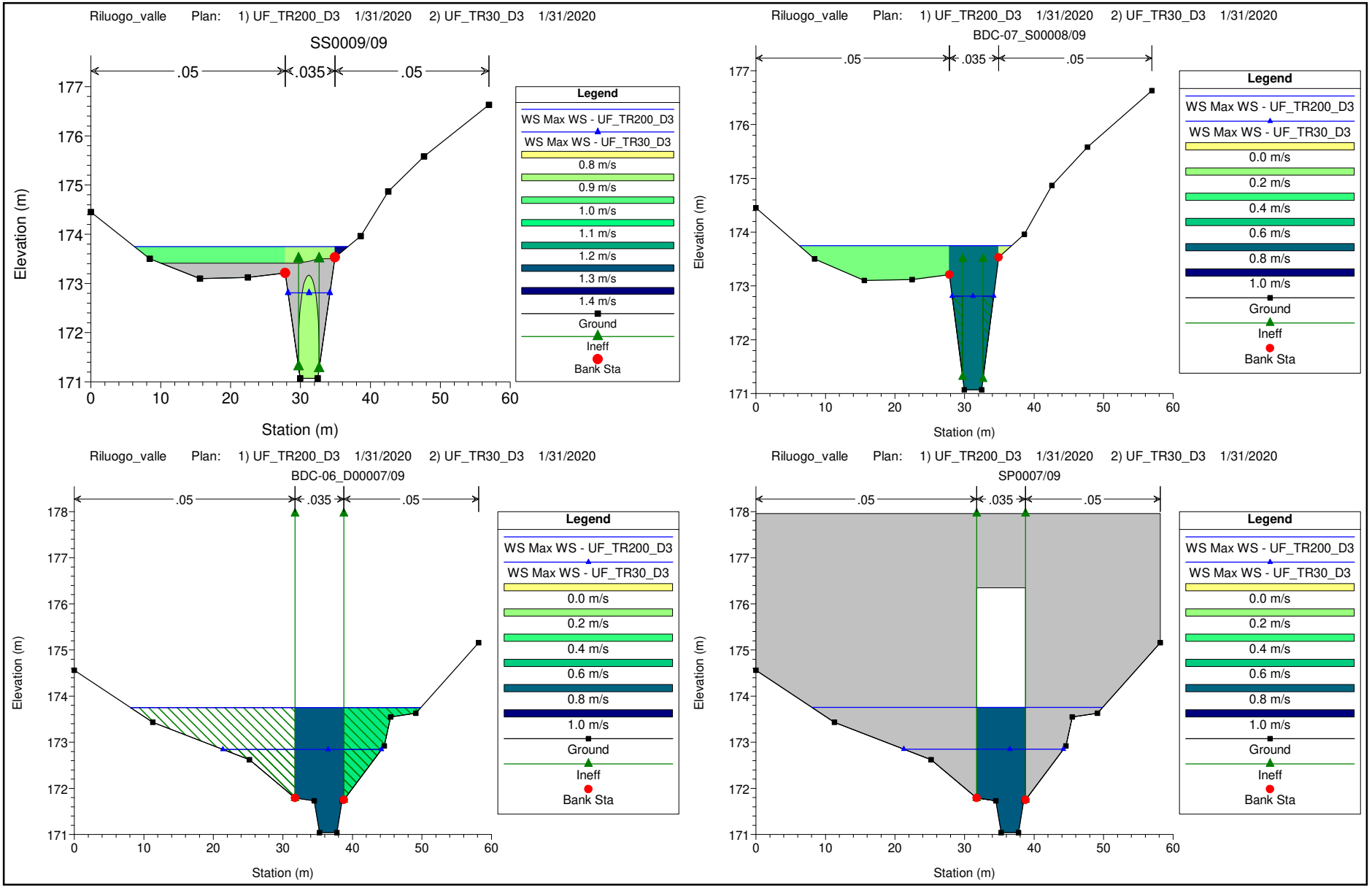
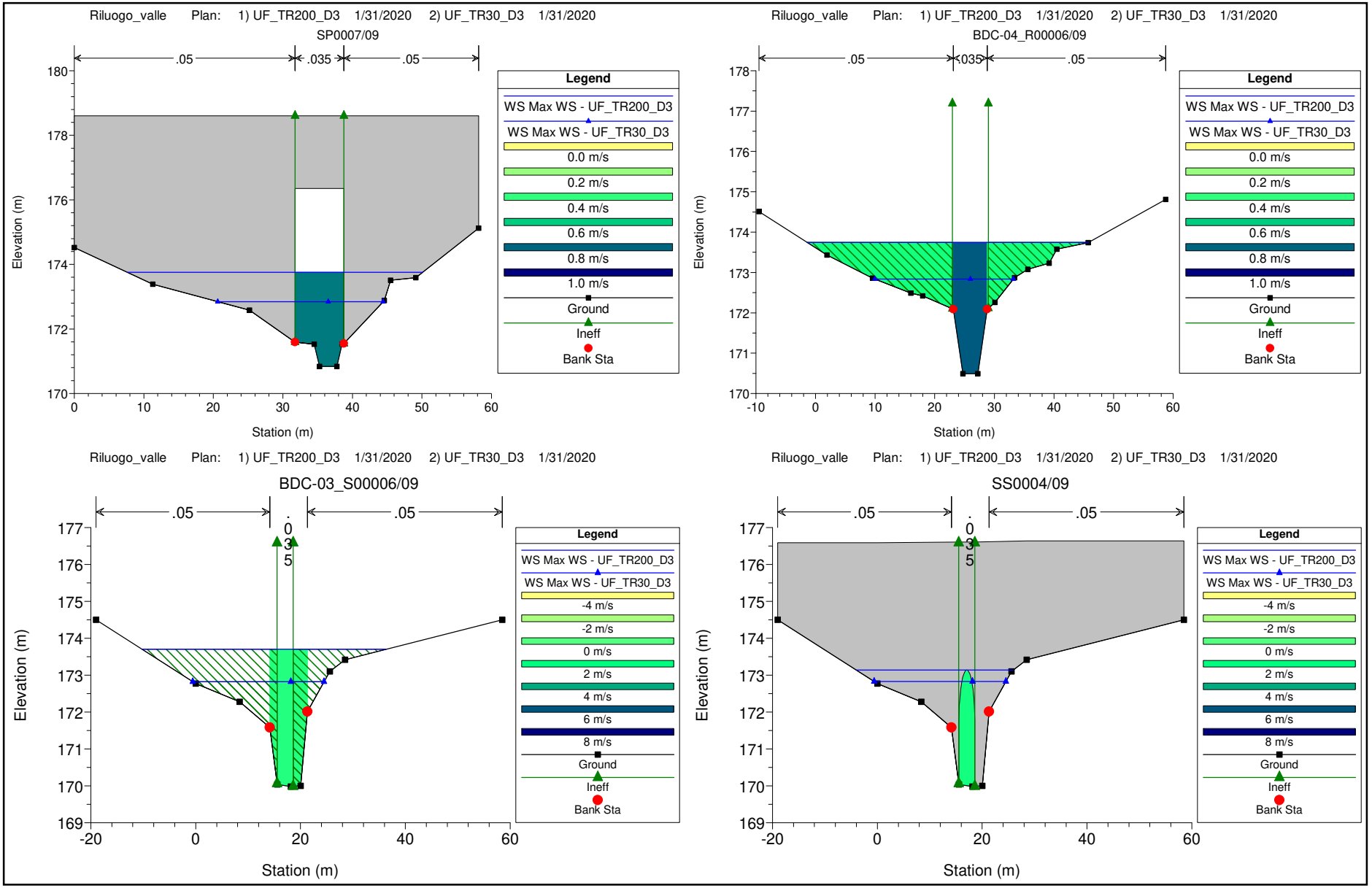
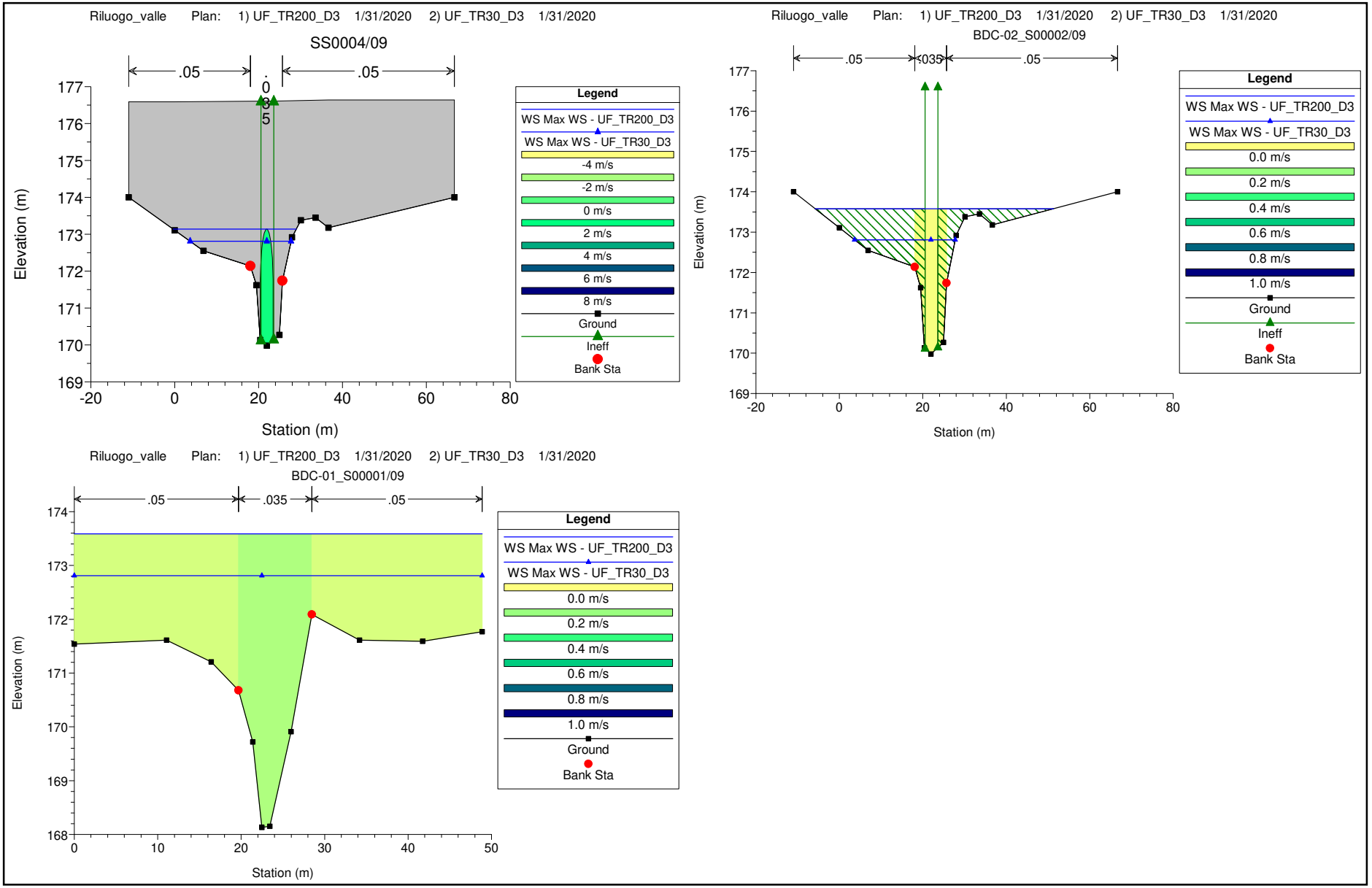
BDC-16_S003-3/10
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
4.0 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-15_S00018/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-14_S00017/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
SS0016/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Ineff
Bank Sta


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
SS0016/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-13_S00015/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-12_S00014/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-11_S00013/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
4.0 m/s
Ground
Bank Sta


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-10_S00012/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-09_S00011/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-08_S00010/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
SS0009/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.7 m/s
0.8 m/s
0.9 m/s
1.0 m/s
1.1 m/s
1.2 m/s
Ground
Ineff
Bank Sta


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
SS0009/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.8 m/s
0.9 m/s
1.0 m/s
1.1 m/s
1.2 m/s
1.3 m/s
1.4 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-07_S00008/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-06_D00007/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
SP0007/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
SP0007/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-04_R00006/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-03_S00006/09
.05
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
SS0004/09
.05
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta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SS0004/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-02_S00002/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
BDC-01_S00001/09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Riluogo valle"

BOCCA DI CANE

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 3h

Dati idraulici

HEC-RAS River: Bocca di Cane Reach: Bocca di Cane Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
Bocca di Cane	1085.07	Max WS	UF_TR200_D3	13.50	184.57	185.62	185.71	185.97	0.025886	2.61	0.38		5.22	13.43	1.26
Bocca di Cane	1085.07	Max WS	UF_TR30_D3	8.60	184.57	185.46	185.55	185.79	0.032750	2.53			3.39	9.70	1.37
Bocca di Cane	1085.06			Lat Struct											
Bocca di Cane	1085.05			Lat Struct											
Bocca di Cane	900.63	Max WS	UF_TR200_D3	13.50	179.35	181.36	181.18	181.64	0.010211	2.32			5.81	6.34	0.78
Bocca di Cane	900.63	Max WS	UF_TR30_D3	8.60	179.35	181.10	180.89	181.31	0.009518	2.03			4.24	5.31	0.72
Bocca di Cane	803.37	Max WS	UF_TR200_D3	13.49	178.59	180.36	180.25	180.65	0.009301	2.41	0.71	0.56	5.90	7.91	0.80
Bocca di Cane	803.37	Max WS	UF_TR30_D3	8.60	178.59	180.13	180.03	180.35	0.010216	2.09	0.49	0.27	4.19	6.76	0.80
Bocca di Cane	699.47	Max WS	UF_TR200_D3	13.49	177.85	179.28	179.47	179.94	0.028044	3.88		1.88	4.13	6.16	1.32
Bocca di Cane	699.47	Max WS	UF_TR30_D3	8.60	177.85	179.03	179.21	179.62	0.029303	3.57		1.54	2.78	4.89	1.31
Bocca di Cane	638.01	Max WS	UF_TR200_D3	13.48	176.09	178.27	177.83	178.46	0.005038	1.96	0.20	0.22	6.94	6.57	0.57
Bocca di Cane	638.01	Max WS	UF_TR30_D3	8.60	176.09	178.00	177.53	178.13	0.004222	1.59			5.40	5.44	0.51
Bocca di Cane	576.04	Max WS	UF_TR200_D3	13.48	175.36	178.26	176.88	178.29	0.000482	0.89	0.28	0.27	24.06	31.07	0.19
Bocca di Cane	576.04	Max WS	UF_TR30_D3	8.60	175.36	178.00	176.59	178.02	0.000406	0.74	0.17	0.22	16.50	26.67	0.17
Bocca di Cane	572.36			Bridge											
Bocca di Cane	568.68	Max WS	UF_TR200_D3	13.48	175.34	177.22	176.95	177.60	0.007260	2.72			4.95	5.88	0.73
Bocca di Cane	568.68	Max WS	UF_TR30_D3	8.60	175.34	176.92	176.65	177.17	0.006553	2.20			3.90	4.20	0.66
Bocca di Cane	568.67			Lat Struct											
Bocca di Cane	568.66			Lat Struct											
Bocca di Cane	468.92	Max WS	UF_TR200_D3	13.48	174.77	176.54	176.27	176.70	0.004057	2.05	0.65	0.78	9.88	15.85	0.53
Bocca di Cane	468.92	Max WS	UF_TR30_D3	8.60	174.77	176.30	175.98	176.43	0.003710	1.75	0.50	0.62	6.61	11.59	0.49
Bocca di Cane	393.30	Max WS	UF_TR200_D3	13.48	174.35	175.91	176.10	176.50	0.021758	3.68	1.21	0.90	4.96	10.10	1.09
Bocca di Cane	393.30	Max WS	UF_TR30_D3	8.60	174.35	175.70	175.88	176.22	0.022687	3.28	0.77	0.53	3.07	7.26	1.08
Bocca di Cane	297.44	Max WS	UF_TR200_D3	13.48	172.26	174.04	173.99	174.39	0.008335	2.84	0.62	1.14	6.46	11.02	0.75
Bocca di Cane	297.44	Max WS	UF_TR30_D3	8.60	172.26	173.68	173.63	174.01	0.010818	2.67	0.75	0.92	3.76	5.60	0.82
Bocca di Cane	225.34	Max WS	UF_TR200_D3	13.45	171.74	173.84	173.10	173.89	0.001033	1.25	0.43	0.51	16.76	19.39	0.29
Bocca di Cane	225.34	Max WS	UF_TR30_D3	8.59	171.74	173.11	172.79	173.26	0.004231	1.82	0.35	0.60	5.52	8.46	0.55
Bocca di Cane	159.33	Max WS	UF_TR200_D3	13.45	171.15	173.78	172.55	173.83	0.000755	0.99	0.27	0.15	18.52	27.42	0.23
Bocca di Cane	159.33	Max WS	UF_TR30_D3	7.41	171.15	172.82	172.12	172.95	0.002093	1.61			4.59	5.28	0.41
Bocca di Cane	156.96			Bridge											
Bocca di Cane	154.58	Max WS	UF_TR200_D3	13.44	171.07	173.75	172.37	173.77	0.000419	0.77	0.26	0.09	24.83	30.52	0.18
Bocca di Cane	154.58	Max WS	UF_TR30_D3	3.40	171.07	172.81	171.60	172.83	0.000289	0.67			5.07	5.98	0.16
Bocca di Cane	150.21	Max WS	UF_TR200_D3	13.44	171.04	173.75	172.14	173.79	0.000298	0.82		0.54	16.31	41.76	0.17
Bocca di Cane	150.21	Max WS	UF_TR30_D3	7.38	171.04	172.84	171.90	172.87	0.000466	0.74		0.45	9.95	22.83	0.20
Bocca di Cane	142.45			Bridge											
Bocca di Cane	133.69	Max WS	UF_TR200_D3	13.44	170.84	173.75	171.94	173.78	0.000226	0.76		0.50	17.72	42.43	0.15
Bocca di Cane	133.69	Max WS	UF_TR30_D3	7.39	170.84	172.85	171.70	172.87	0.000300	0.65		0.40	11.37	23.79	0.16
Bocca di Cane	133.68			Lat Struct											
Bocca di Cane	133.67			Lat Struct											
Bocca di Cane	116.31	Max WS	UF_TR200_D3	13.44	170.49	173.74	171.70	173.78	0.000278	0.82	0.46	0.46	16.54	47.22	0.16
Bocca di Cane	116.31	Max WS	UF_TR30_D3	7.23	170.49	172.84	171.33	172.86	0.000302	0.66	0.28	0.28	11.07	23.24	0.15
Bocca di Cane	98.92	Max WS	UF_TR200_D3	13.43	169.98	173.70	171.26	173.78	0.000303	1.19			11.31	46.60	0.20
Bocca di Cane	98.92	Max WS	UF_TR30_D3	6.99	169.98	172.82	170.82	172.85	0.000204	0.81			8.61	25.03	0.15
Bocca di Cane	89.86			Bridge											
Bocca di Cane	80.80	Max WS	UF_TR200_D3	0.15	169.98	173.58	170.11	173.58	0.000000	0.01			10.79	57.13	0.00
Bocca di Cane	80.80	Max WS	UF_TR30_D3	3.01	169.98	172.81	170.52	172.82	0.000040	0.36			8.44	24.12	0.07
Bocca di Cane	0.00	Max WS	UF_TR200_D3	11.80	168.13	173.59	169.66	173.59	0.000007	0.16	0.08	0.08	115.26	48.87	0.03
Bocca di Cane	0.00	Max WS	UF_TR30_D3	4.88	168.13	172.81	169.12	172.81	0.000004	0.10	0.05	0.04	77.25	48.87	0.02

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Riluogo valle"

RIBUCCIANO

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 3h

Profilo longitudinale

Sezioni Trasversali

Dati idraulici

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ALLEGATI

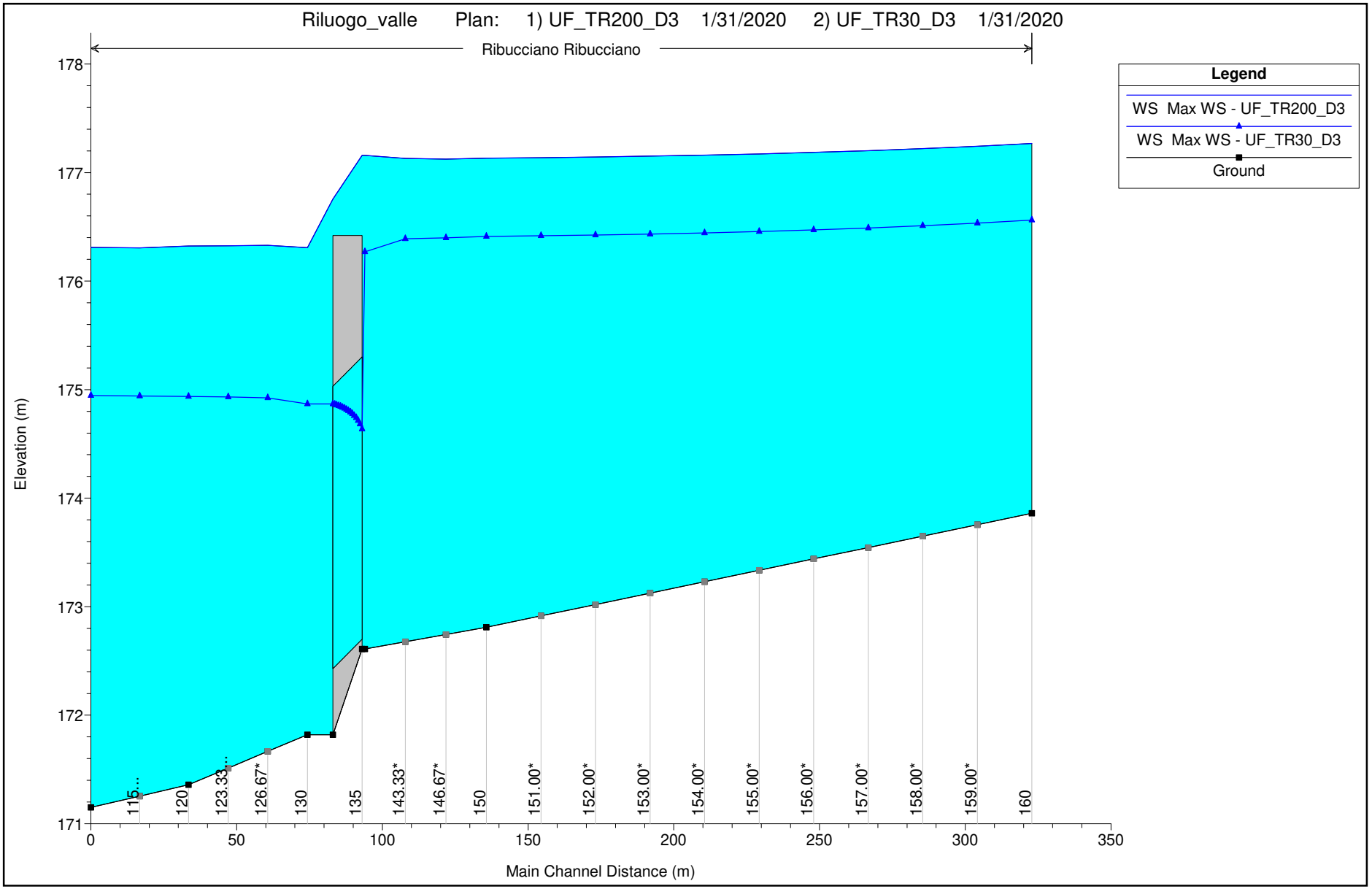
MODELLAZIONE HEC-RAS 5.0.7 "Riluogo valle"

RIBUCCIANO

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 3h

Profilo longitudinale


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
Ribucciano Ribucciano
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
Ground
Elevation (m)
Main Channel Distance (m)
178
177
176
175
174
173
172
171
0
50
100
150
200
250
300
350
115...
120
123.33...
126.67*
130
135
143.33*
146.67*
150
151.00*
152.00*
153.00*
154.00*
155.00*
156.00*
157.00*
158.00*
159.00*
160

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ALLEGATI

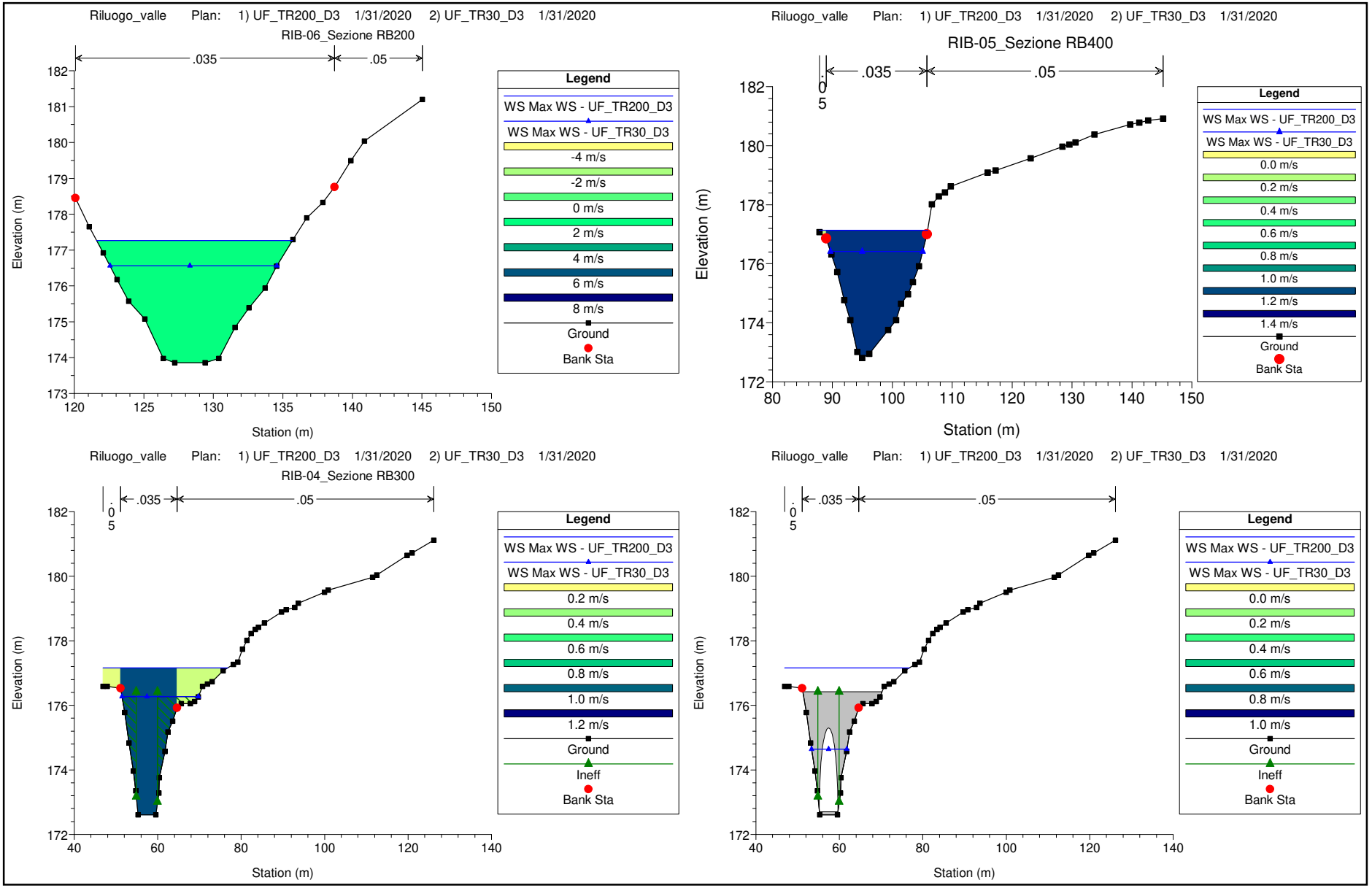
MODELLAZIONE HEC-RAS 5.0.7 "Riluogo valle"

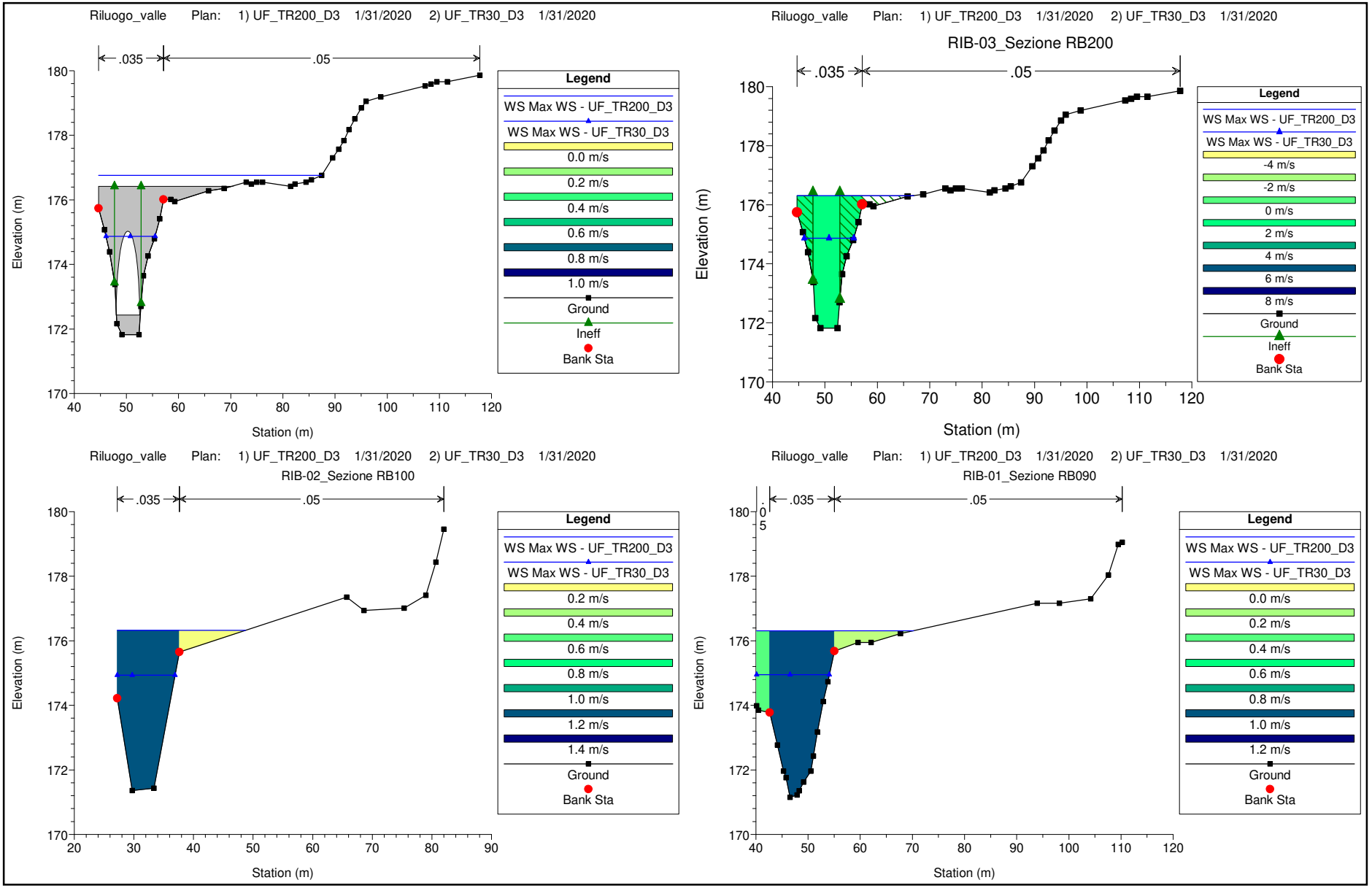
RIBUCCIANO

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 3h

Sezioni Trasversali (da monte verso valle)


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIB-06_Sezione RB200
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIB-05_Sezione RB400
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
Ground
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
RIB-04_Sezione RB300
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
Ground
Ineff
Bank Sta
Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta


Riluogo_valle Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
RIB-03_Sezione RB200
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
RIB-02_Sezione RB100
1.2 m/s
1.4 m/s
RIB-01_Sezione RB090

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "Riluogo valle"

RIBUCCIANO

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 3h

Dati idraulici

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

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
Ribucciano	160	Max WS	UF_TR200_D3	56.06	173.86	177.27	176.05	177.45	0.001878	1.87			29.95	14.08	0.41
Ribucciano	160	Max WS	UF_TR30_D3	35.14	173.86	176.56	175.59	176.71	0.001998	1.69			20.76	12.01	0.41
Ribucciano	159.99			Lat Struct											
Ribucciano	150	Max WS	UF_TR200_D3	55.89	172.81	177.13	175.13	177.21	0.000635	1.26	0.15	0.06	44.49	18.07	0.25
Ribucciano	150	Max WS	UF_TR30_D3	35.15	172.81	176.41	174.68	176.47	0.000615	1.08			32.57	15.39	0.24
Ribucciano	140	Max WS	UF_TR200_D3	47.31	172.61	177.16		177.21	0.000381	1.05	0.25	0.30	52.79	29.90	0.19
Ribucciano	140	Max WS	UF_TR30_D3	35.14	172.61	176.27		176.45	0.000892	1.91			18.45	18.30	0.32
Ribucciano	135			Culvert											
Ribucciano	130	Max WS	UF_TR200_D3	44.02	171.82	176.31	173.95	176.51	0.001000	2.00			22.06	22.31	0.31
Ribucciano	130	Max WS	UF_TR30_D3	29.54	171.82	174.87	173.49	175.07	0.001738	2.01			14.71	9.41	0.38
Ribucciano	120	Max WS	UF_TR200_D3	47.26	171.36	176.32	173.53	176.39	0.000526	1.20		0.22	42.35	21.50	0.20
Ribucciano	120	Max WS	UF_TR30_D3	32.08	171.36	174.94	173.10	175.03	0.000918	1.31			24.48	9.68	0.26
Ribucciano	110	Max WS	UF_TR200_D3	48.98	171.15	176.31	173.45	176.36	0.000284	1.02	0.40	0.15	55.83	30.11	0.17
Ribucciano	110	Max WS	UF_TR30_D3	31.43	171.15	174.95	173.00	175.00	0.000511	1.06	0.39		31.29	13.95	0.22

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "T. Sorra"

T. SORRA

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 2h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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ALLEGATI

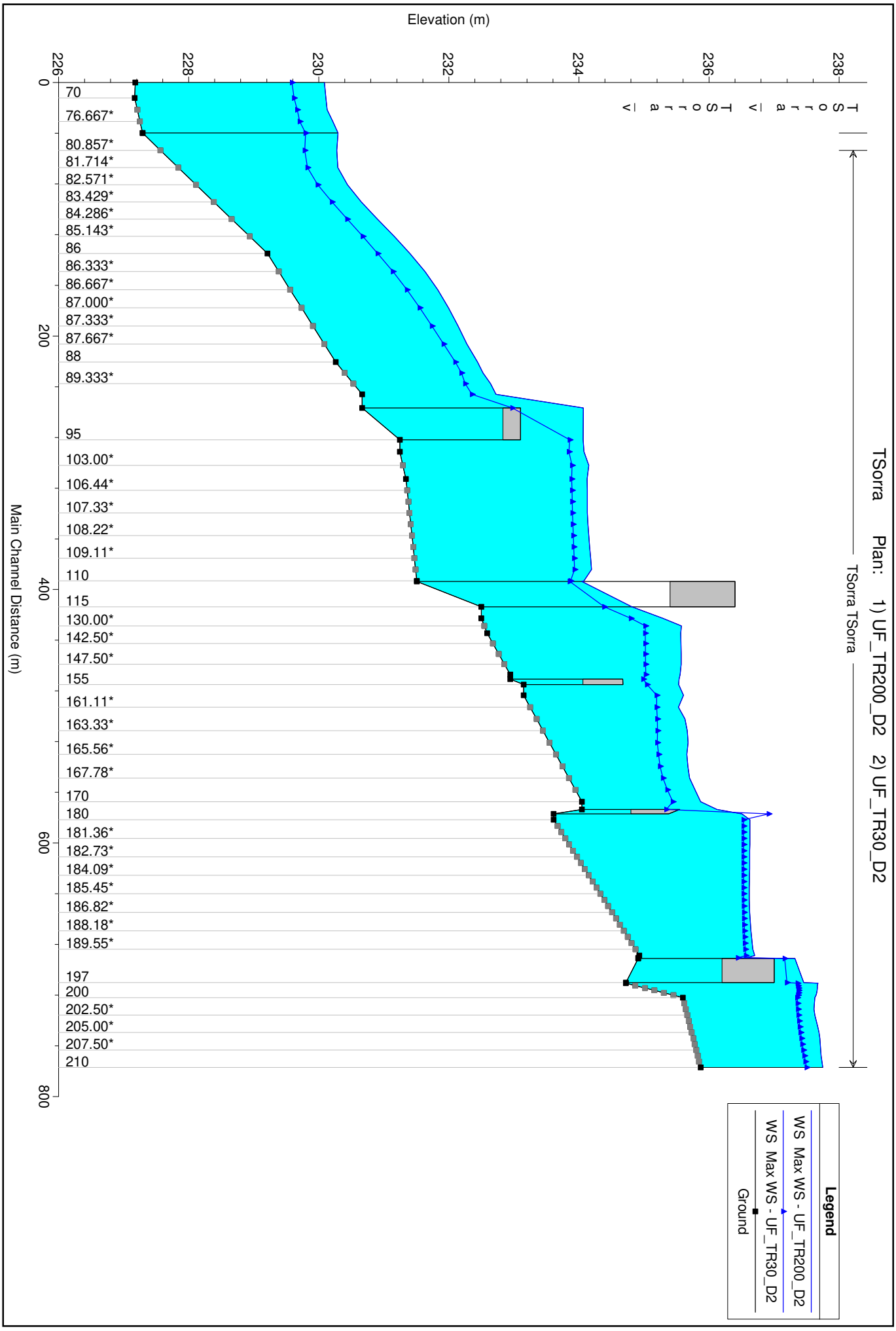
MODELLAZIONE HEC-RAS 5.0.3 "T. Sorra"

T. SORRA

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 2h

Profilo longitudinale


TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
Elevation (m)
Main Channel Distance (m)
TSorra TSorra
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
Ground

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ALLEGATI

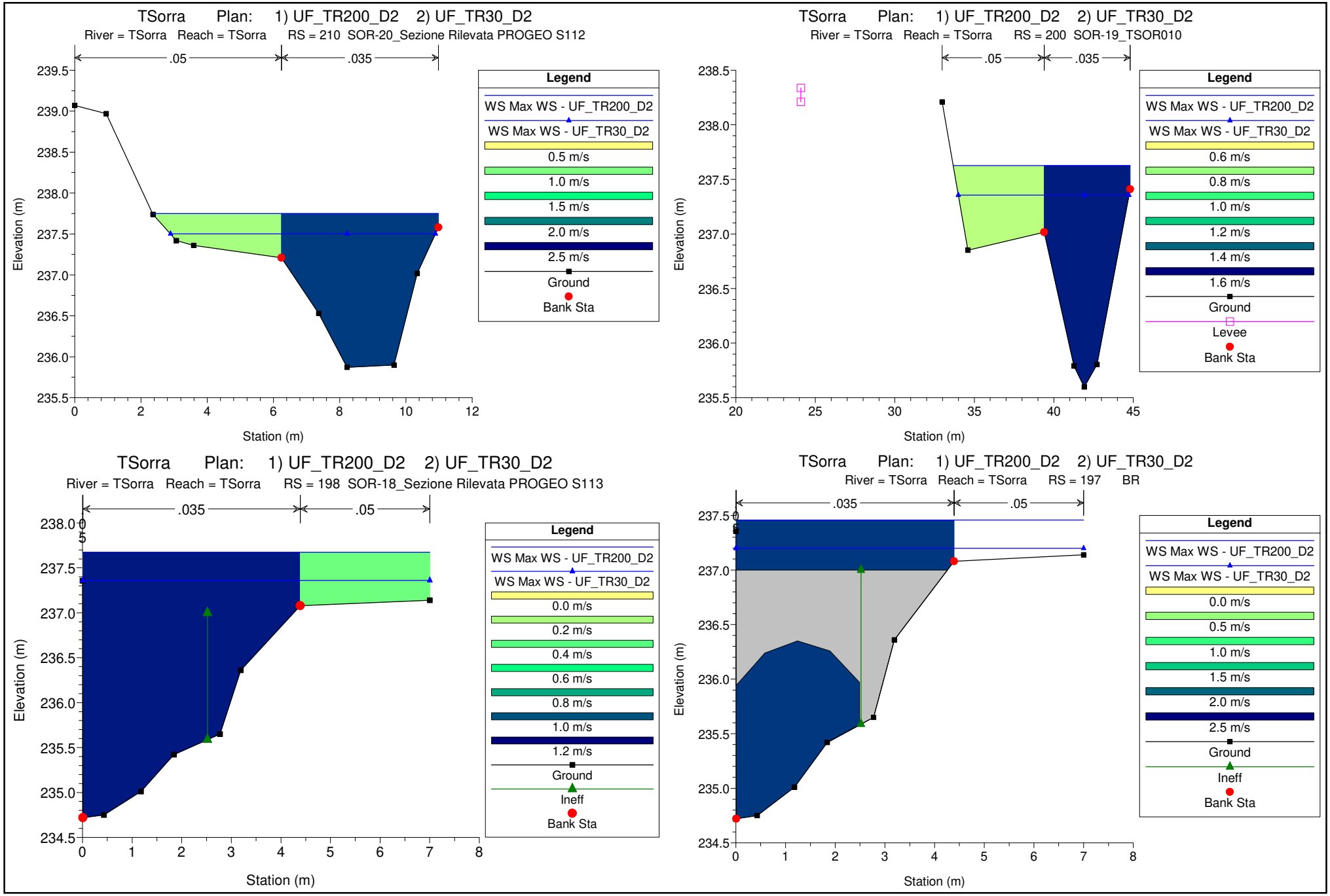
MODELLAZIONE HEC-RAS 5.0.3 "T. Sorra"

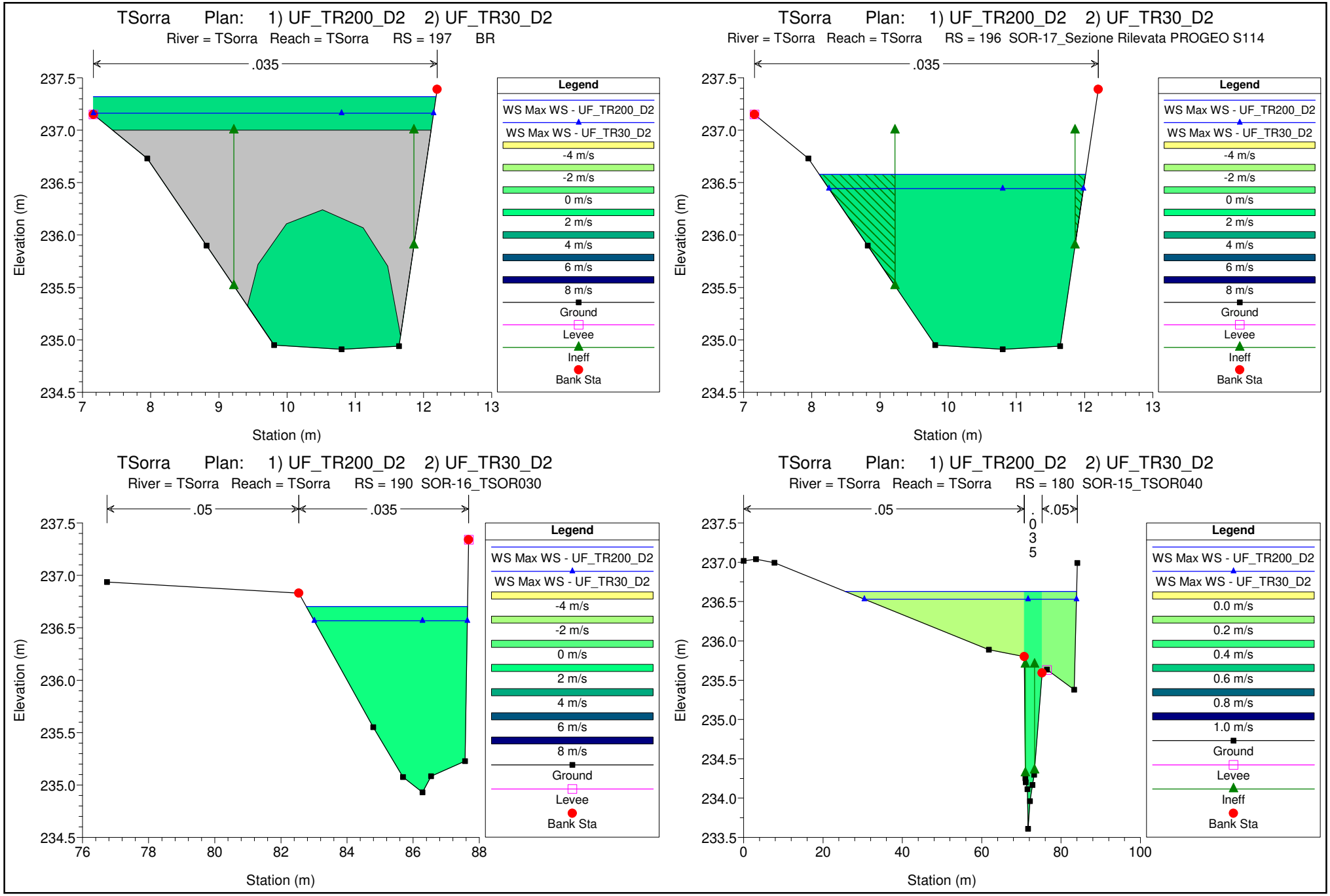
T. SORRA

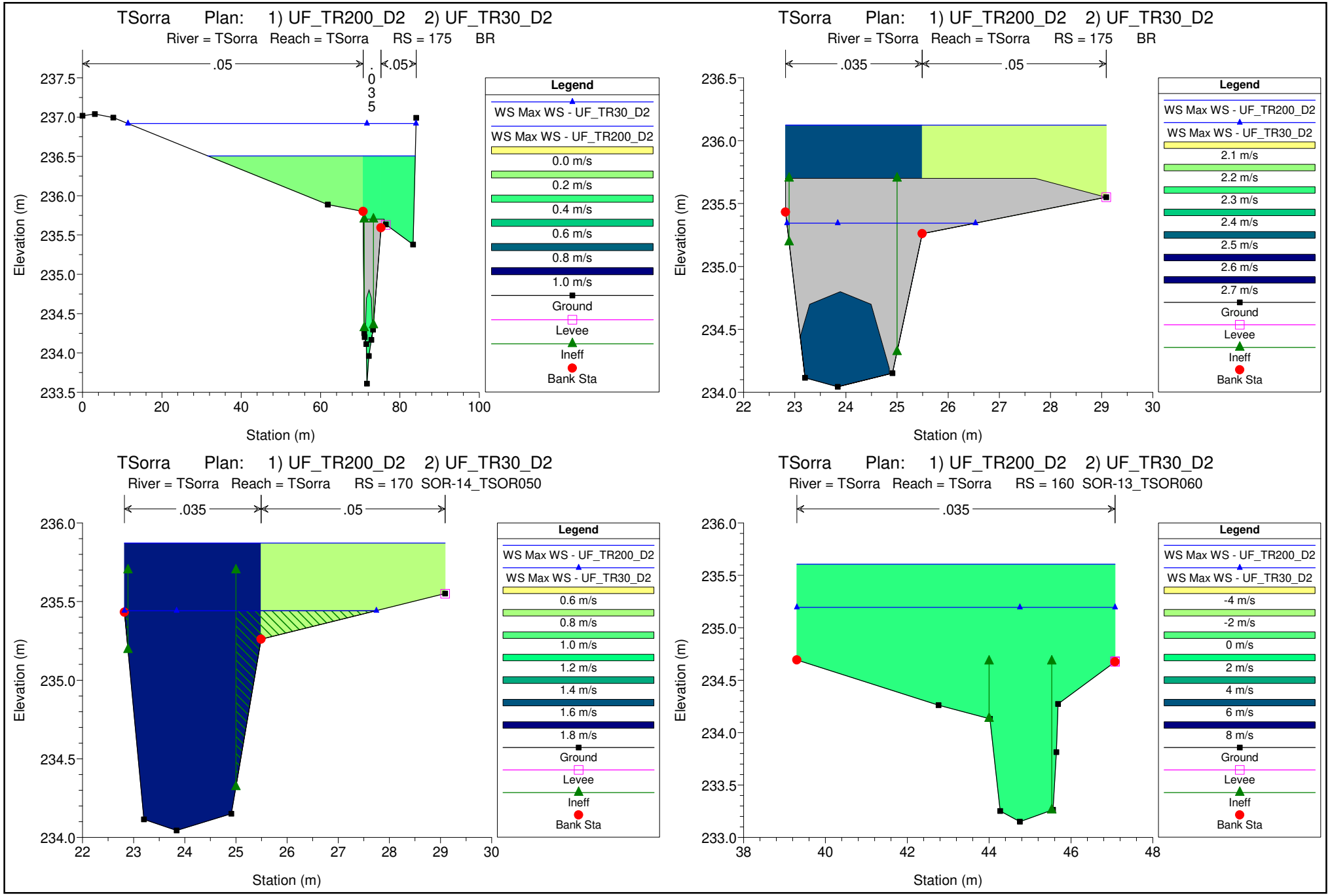
MODELLAZIONE PER TR=30 e 200 anni

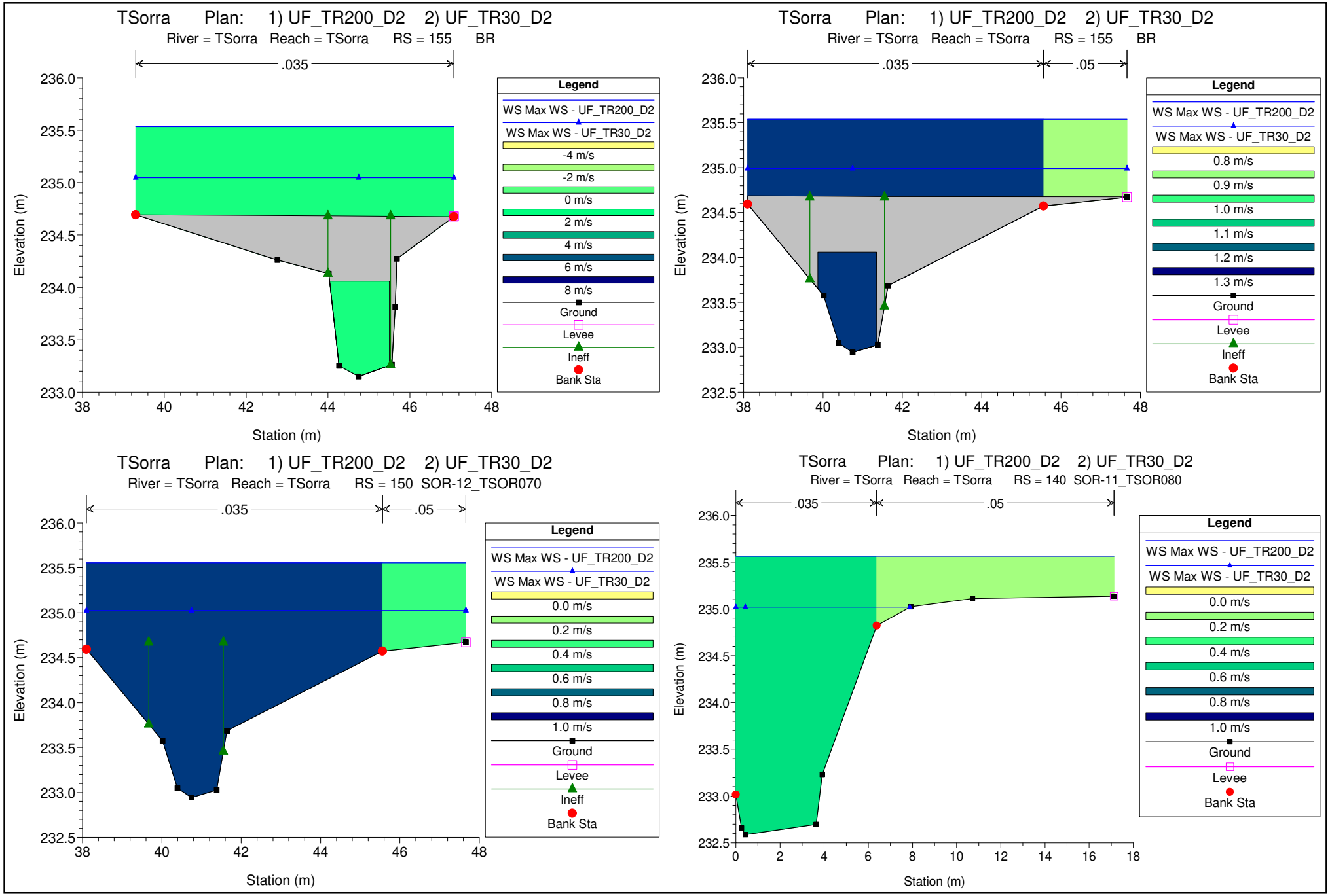
DURATE DI PIOGGIA: 2h

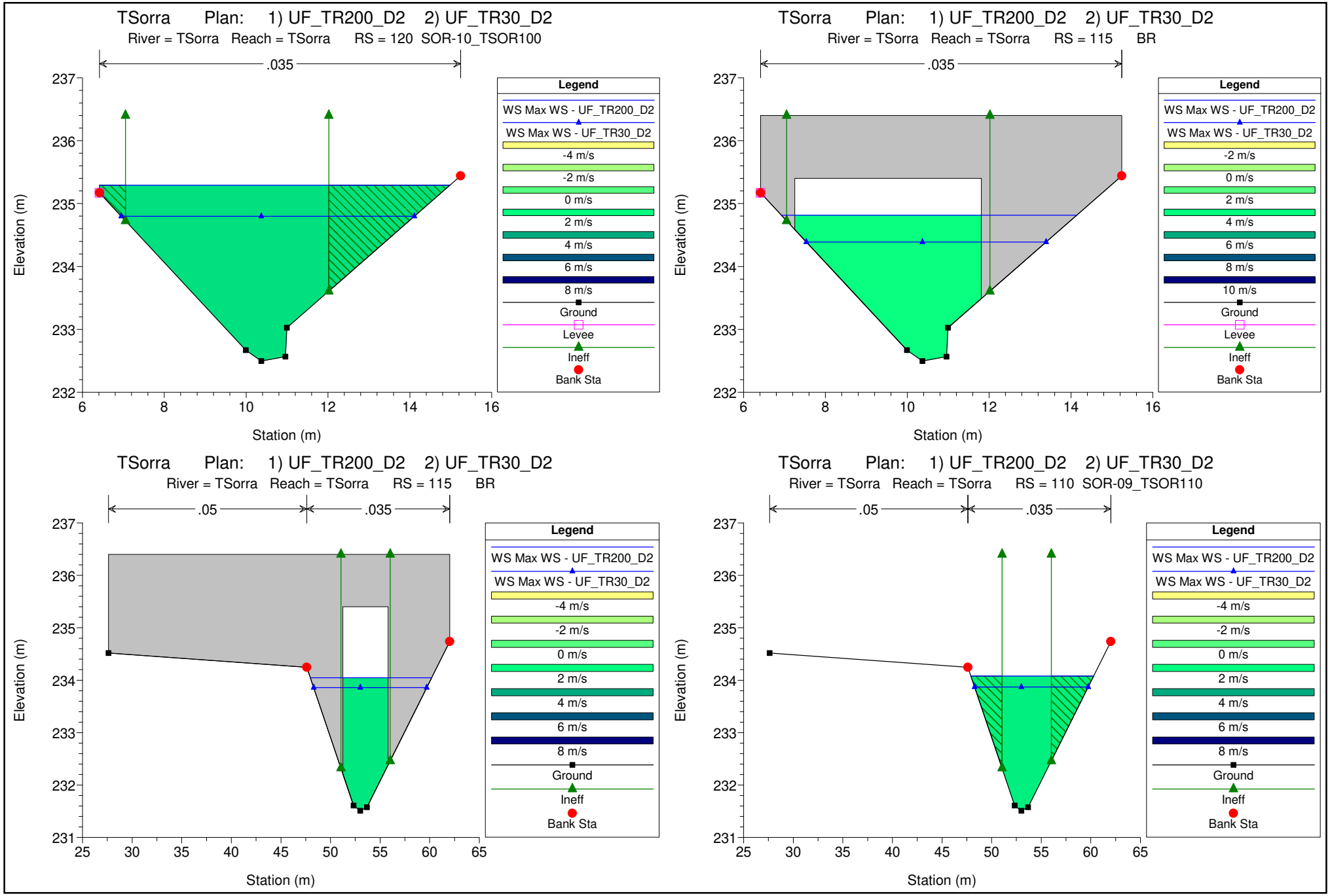
Sezioni Trasversali (da monte verso valle)

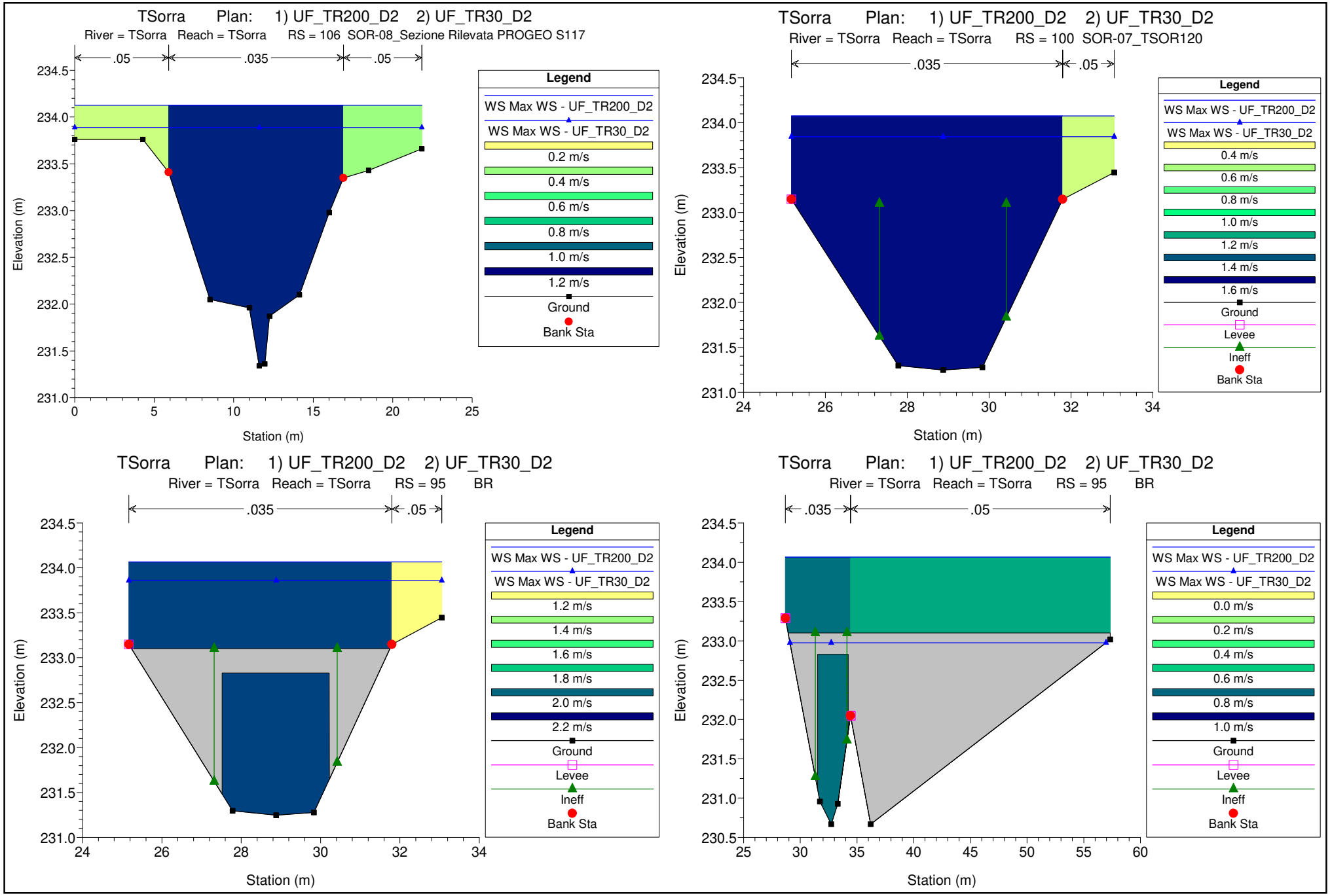

TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 210 SOR-20_Sezione Rilevata PROGEO S112
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 200 SOR-19_TSOR010
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Levee
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 198 SOR-18_Sezione Rilevata PROGEO S113
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
Ground
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 197 BR
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Ineff
Bank Sta

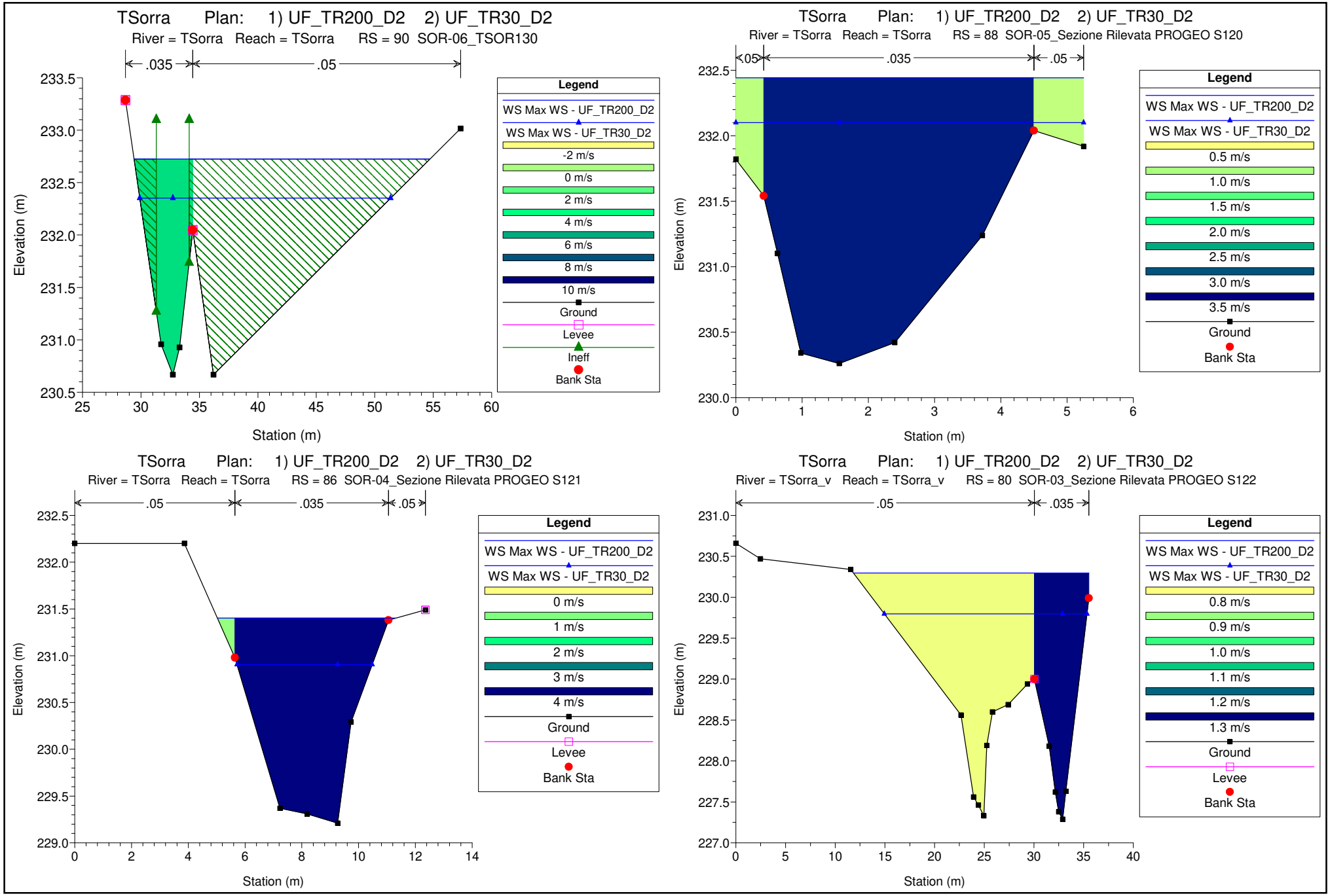

TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 197 BR
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 196 SOR-17_Sezione Rilevata PROGEO S114
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 190 SOR-16_TSOR030
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 180 SOR-15_TSOR040
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Ineff
Bank Sta

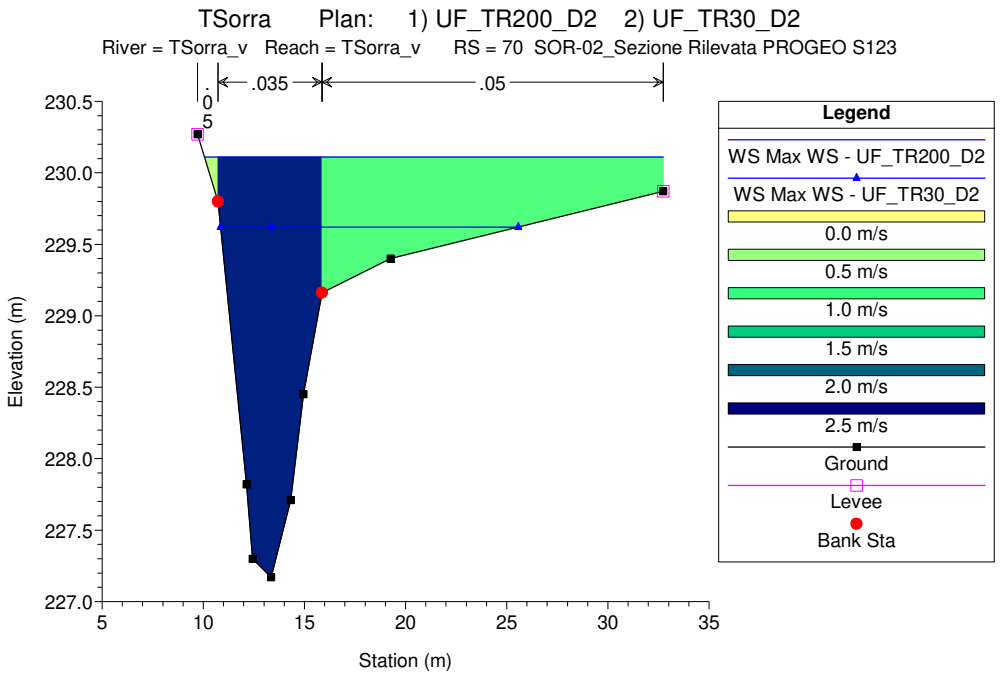

TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 175 BR
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR30_D2
WS Max WS - UF_TR200_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 175 BR
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
2.1 m/s
2.2 m/s
2.3 m/s
2.4 m/s
2.5 m/s
2.6 m/s
2.7 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 170 SOR-14_TSOR050
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 160 SOR-13_TSOR060
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Ineff
Bank Sta

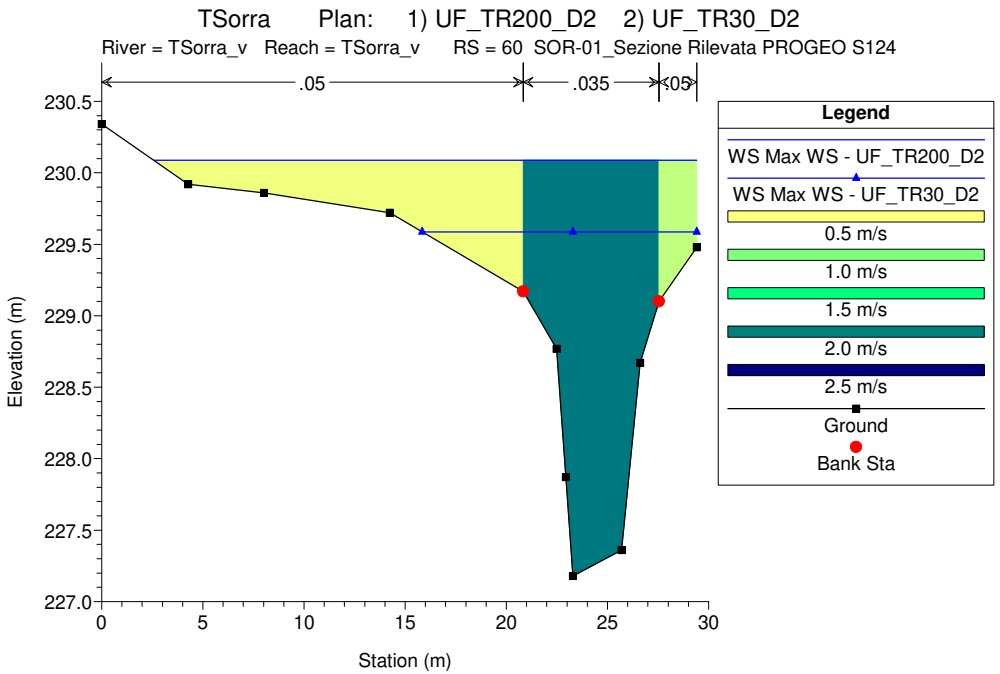

TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 155 BR
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 155 BR
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.8 m/s
0.9 m/s
1.0 m/s
1.1 m/s
1.2 m/s
1.3 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 150 SOR-12_TSOR070
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 140 SOR-11_TSOR080
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Bank Sta


TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 120 SOR-10_TSOR100
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 115 BR
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 115 BR
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 110 SOR-09_TSOR110
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta


TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 106 SOR-08_Sezione Rilevata PROGEO S117
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
Ground
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 100 SOR-07_TSOR120
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 95 BR
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
2.0 m/s
2.2 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 95 BR
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Ineff
Bank Sta


TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 90 SOR-06_TSOR130
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 88 SOR-05_Sezione Rilevata PROGEO S120
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra Reach = TSorra RS = 86 SOR-04_Sezione Rilevata PROGEO S121
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
Ground
Levee
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra_v Reach = TSorra_v RS = 80 SOR-03_Sezione Rilevata PROGEO S122
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.8 m/s
0.9 m/s
1.0 m/s
1.1 m/s
1.2 m/s
1.3 m/s
Ground
Levee
Bank Sta


TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra_v Reach = TSorra_v RS = 70 SOR-02_Sezione Rilevata PROGEO S123
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Levee
Bank Sta


TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = TSorra_v Reach = TSorra_v RS = 60 SOR-01_Sezione Rilevata PROGEO S124
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "T. Sorra"

T. SORRA

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 2h

Dati idraulici

HEC-RAS Profile: Max WS

River	Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
					(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
TSorra_v	TSorra_v	80	Max WS	UF_TR200_D2	32.66	227.29	230.30	229.28	230.35	0.001302	1.30	0.82		33.89	23.68	0.30
TSorra_v	TSorra_v	80	Max WS	UF_TR30_D2	17.26	227.29	229.80	229.00	229.83	0.001069	1.01	0.62		22.87	20.39	0.27
TSorra_v	TSorra_v	79.999			Lat Struct											
TSorra_v	TSorra_v	79.998			Lat Struct											
TSorra_v	TSorra_v	70	Max WS	UF_TR200_D2	32.03	227.17	230.11	229.92	230.33	0.004163	2.34	0.35	0.85	19.61	22.67	0.53
TSorra_v	TSorra_v	70	Max WS	UF_TR30_D2	17.26	227.17	229.62	229.07	229.84	0.004677	2.11		0.45	9.65	14.71	0.54
TSorra_v	TSorra_v	60	Max WS	UF_TR200_D2	32.03	227.18	230.09	229.52	230.27	0.002771	2.03	0.55	0.74	21.82	26.85	0.46
TSorra_v	TSorra_v	60	Max WS	UF_TR30_D2	17.25	227.18	229.59	228.84	229.72	0.002758	1.67	0.37	0.44	11.57	13.58	0.44
TSorra	TSorra	210	Max WS	UF_TR200_D2	15.26	235.87	237.75	237.53	237.99	0.006319	2.27	0.85		7.69	8.63	0.64
TSorra	TSorra	210	Max WS	UF_TR30_D2	8.70	235.87	237.50	237.08	237.64	0.004379	1.69	0.44		5.61	8.00	0.52
TSorra	TSorra	209.999			Lat Struct											
TSorra	TSorra	209.998			Lat Struct											
TSorra	TSorra	200	Max WS	UF_TR200_D2	13.84	235.60	237.63	237.19	237.73	0.002593	1.55	0.74		10.90	11.13	0.43
TSorra	TSorra	200	Max WS	UF_TR30_D2	8.70	235.60	237.36	236.85	237.43	0.002391	1.32	0.52		7.93	10.74	0.40
TSorra	TSorra	198	Max WS	UF_TR200_D2	10.55	234.72	237.67	236.33	237.74	0.000790	1.14	0.02	0.34	10.28	7.00	0.26
TSorra	TSorra	198	Max WS	UF_TR30_D2	8.22	234.72	237.36	236.14	237.42	0.000897	1.09	0.02	0.23	8.09	7.00	0.27
TSorra	TSorra	197			Bridge											
TSorra	TSorra	196	Max WS	UF_TR200_D2	10.41	234.91	236.58	236.20	236.91	0.006896	2.56			4.07	3.91	0.66
TSorra	TSorra	196	Max WS	UF_TR30_D2	5.78	234.91	236.44	235.82	236.57	0.002886	1.56			3.71	3.73	0.42
TSorra	TSorra	195.95			Lat Struct											
TSorra	TSorra	195.5			Lat Struct											
TSorra	TSorra	190	Max WS	UF_TR200_D2	9.09	234.93	236.70	236.18	236.84	0.004395	1.65			5.51	4.88	0.50
TSorra	TSorra	190	Max WS	UF_TR30_D2	6.99	234.93	236.57	236.03	236.67	0.003638	1.44			4.85	4.63	0.45
TSorra	TSorra	180	Max WS	UF_TR200_D2	8.86	233.61	236.63	235.20	236.63	0.000133	0.42	0.14	0.23	39.24	58.29	0.09
TSorra	TSorra	180	Max WS	UF_TR30_D2	4.68	233.61	236.53	234.81	236.53	0.000051	0.25	0.08	0.13	33.79	53.47	0.06
TSorra	TSorra	175			Bridge											
TSorra	TSorra	170	Max WS	UF_TR200_D2	8.50	234.04	235.87	235.36	236.01	0.004514	1.74		0.76	5.82	6.27	0.45
TSorra	TSorra	170	Max WS	UF_TR30_D2	7.00	234.04	235.44	235.22	235.79	0.010080	2.63			2.66	4.92	0.75
TSorra	TSorra	169.999			Lat Struct											
TSorra	TSorra	160	Max WS	UF_TR200_D2	11.31	233.15	235.61	234.78	235.66	0.001314	1.02			11.07	7.78	0.27
TSorra	TSorra	160	Max WS	UF_TR30_D2	6.74	233.15	235.20	234.55	235.23	0.001311	0.86			7.88	7.78	0.27
TSorra	TSorra	155			Bridge											
TSorra	TSorra	150	Max WS	UF_TR200_D2	11.77	232.94	235.56	234.67	235.60	0.000681	0.89		0.39	14.34	9.56	0.22
TSorra	TSorra	150	Max WS	UF_TR30_D2	6.74	232.94	235.03	234.30	235.06	0.000800	0.77		0.28	9.26	9.56	0.23
TSorra	TSorra	140	Max WS	UF_TR200_D2	9.40	232.59	235.56	233.53	235.58	0.000221	0.56		0.18	20.31	17.13	0.12
TSorra	TSorra	140	Max WS	UF_TR30_D2	6.49	232.59	235.02	233.34	235.03	0.000287	0.56		0.07	11.75	7.88	0.13
TSorra	TSorra	120	Max WS	UF_TR200_D2	25.83	232.50	235.29	234.79	235.67	0.005259	2.73			9.45	8.56	0.63
TSorra	TSorra	120	Max WS	UF_TR30_D2	16.30	232.50	234.80	234.36	235.07	0.005688	2.33			7.00	7.16	0.63
TSorra	TSorra	115			Bridge											
TSorra	TSorra	110	Max WS	UF_TR200_D2	25.83	231.51	234.08	233.28	234.36	0.002629	2.37			10.92	12.37	0.51
TSorra	TSorra	110	Max WS	UF_TR30_D2	16.23	231.51	233.87	232.91	234.01	0.001444	1.64			9.89	11.45	0.37
TSorra	TSorra	106	Max WS	UF_TR200_D2	24.63	231.34	234.13	233.05	234.19	0.000810	1.13	0.30	0.39	25.57	21.83	0.27
TSorra	TSorra	106	Max WS	UF_TR30_D2	16.16	231.34	233.89	232.79	233.93	0.000606	0.89	0.15	0.26	20.37	21.83	0.23
TSorra	TSorra	100	Max WS	UF_TR200_D2	22.92	231.25	234.08	233.10	234.20	0.001610	1.57		0.51	15.25	7.88	0.34
TSorra	TSorra	100	Max WS	UF_TR30_D2	16.11	231.25	233.85	232.75	233.92	0.001134	1.24		0.37	13.43	7.88	0.29
TSorra	TSorra	95			Bridge											
TSorra	TSorra	90	Max WS	UF_TR200_D2	22.89	230.67	232.72	232.90	233.88	0.017003	4.76			4.81	25.30	1.16
TSorra	TSorra	90	Max WS	UF_TR30_D2	16.10	230.67	232.35	232.51	233.28	0.018970	4.27			3.77	21.46	1.18
TSorra	TSorra	88	Max WS	UF_TR200_D2	22.62	230.26	232.44	232.30	233.00	0.010540	3.34	0.89	0.86	7.27	5.25	0.84
TSorra	TSorra	88	Max WS	UF_TR30_D2	16.10	230.26	232.10	232.00	232.57	0.012119	3.06	0.81	0.46	5.47	5.25	0.86
TSorra	TSorra	86	Max WS	UF_TR200_D2	30.98	229.21	231.40	231.51	232.21	0.017589	3.98	0.83	0.13	7.88	6.29	1.06
TSorra	TSorra	86	Max WS	UF_TR30_D2	16.96	229.21	230.91	230.90	231.45	0.016933	3.26			5.21	4.76	1.00

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "T. Sorra"

AFFLUENTE T. SORRA

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 2h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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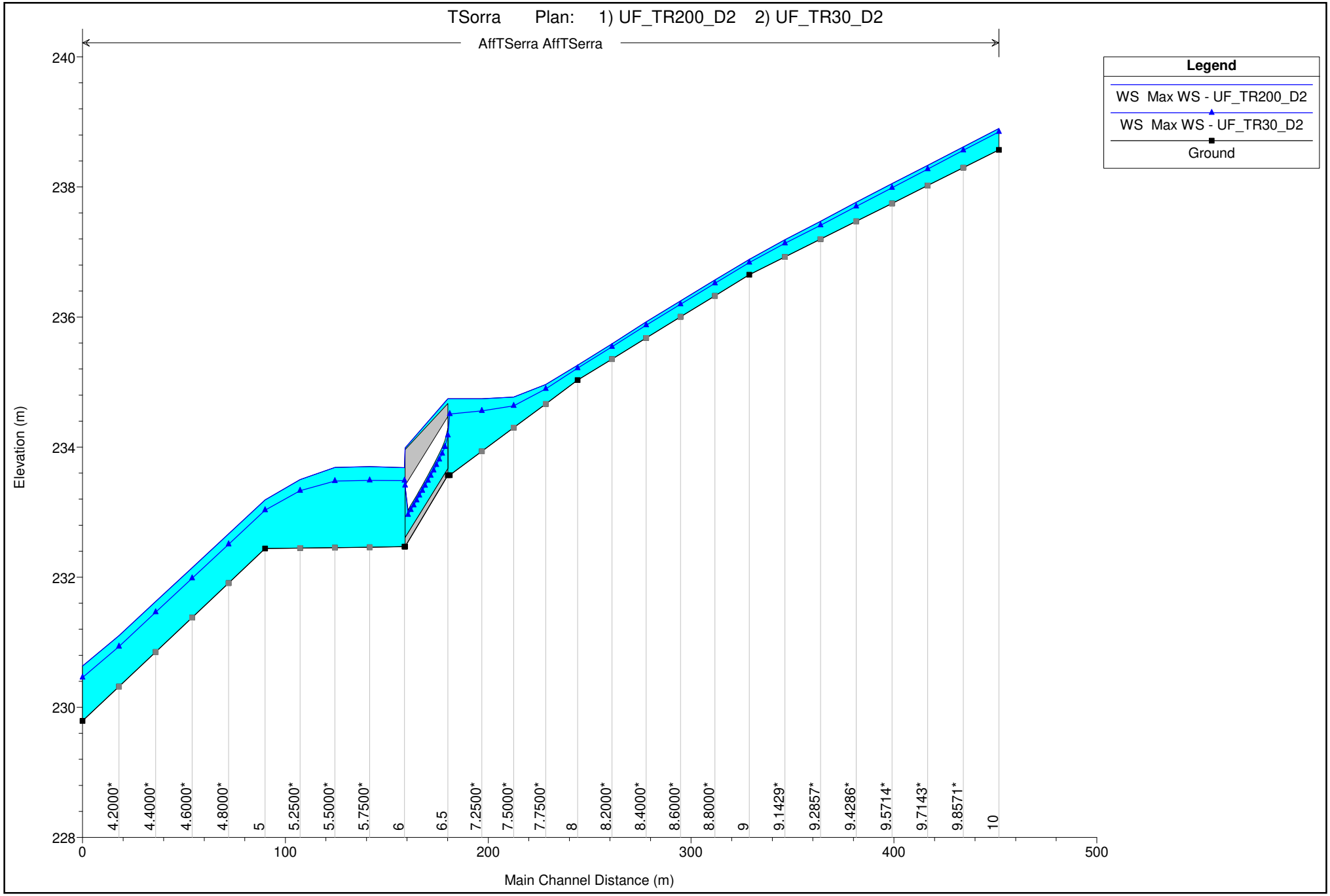
MODELLAZIONE HEC-RAS 5.0.3 "T. Sorra"

AFFLUENTE T. SORRA

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 2h

Profilo longitudinale


TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
AffTSerra AffTSerra
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
Ground
Elevation (m)
240
238
236
234
232
230
228
0
100
200
300
400
500
Main Channel Distance (m)
4.2000*
4.4000*
4.6000*
4.8000*
5
5.2500*
5.5000*
5.7500*
6
6.5
7.2500*
7.5000*
7.7500*
8
8.2000*
8.4000*
8.6000*
8.8000*
9
9.1429*
9.2857*
9.4286*
9.5714*
9.7143*
9.8571*
10

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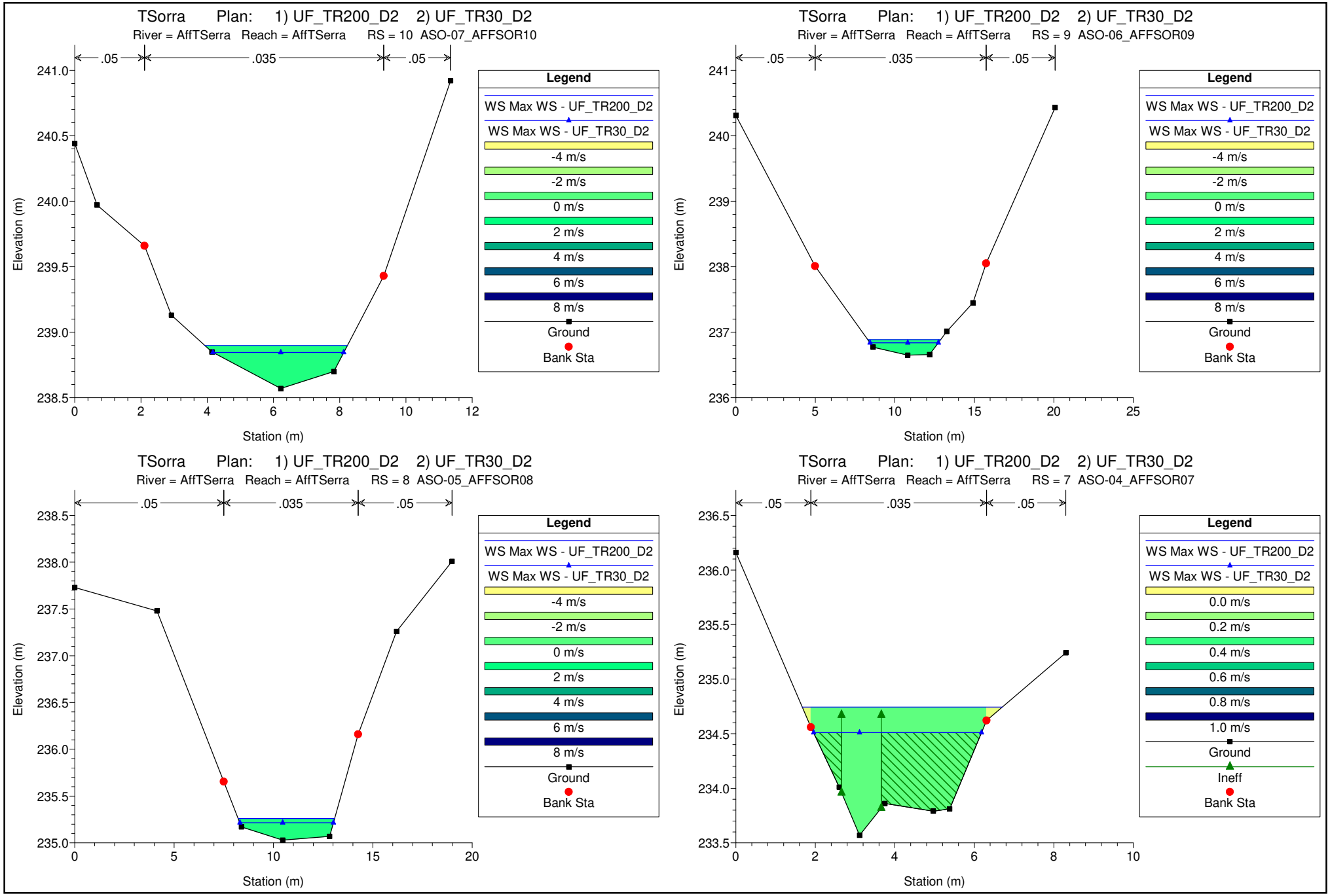
MODELLAZIONE HEC-RAS 5.0.3 "T. Sorra"

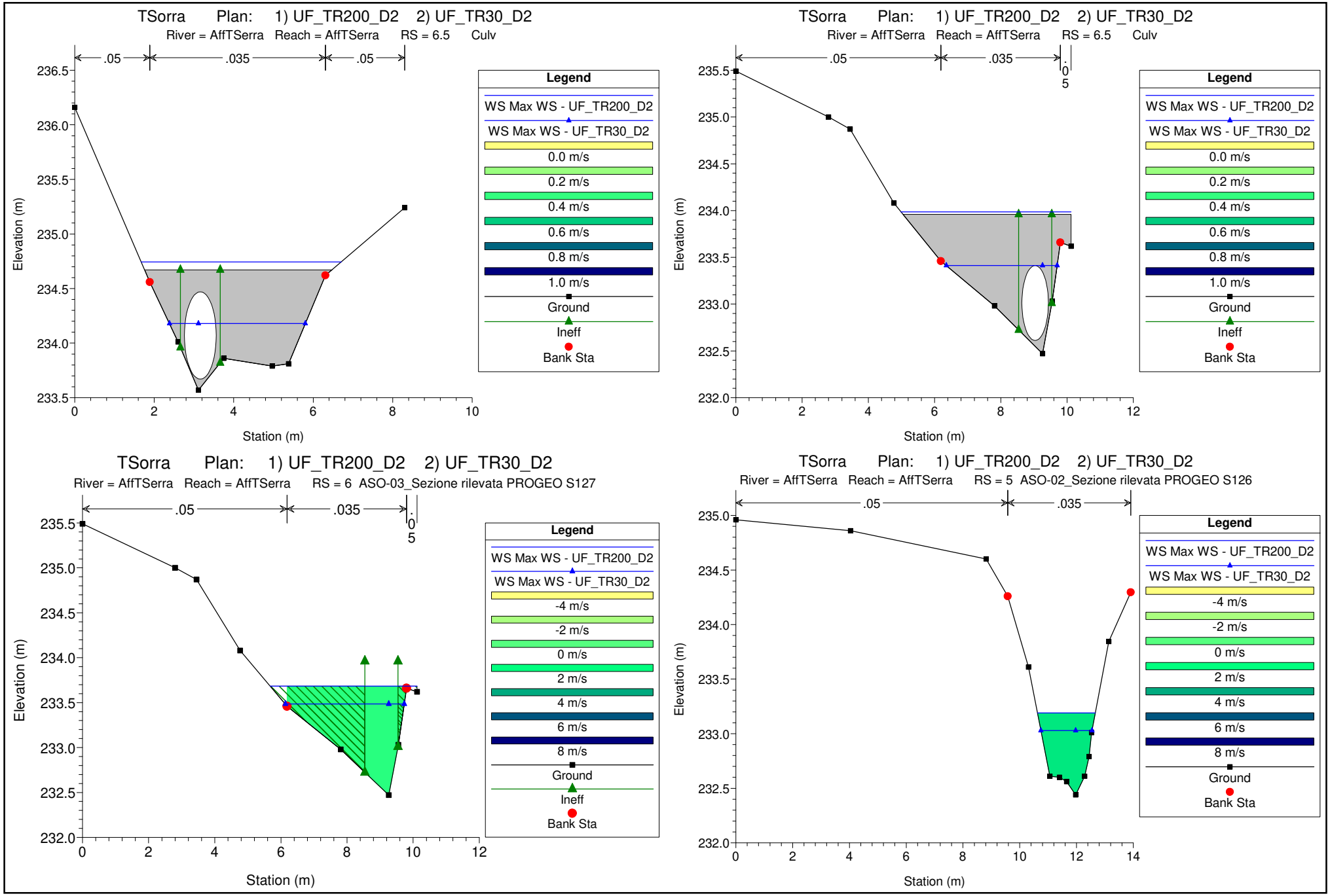
AFFLUENTE T. SORRA

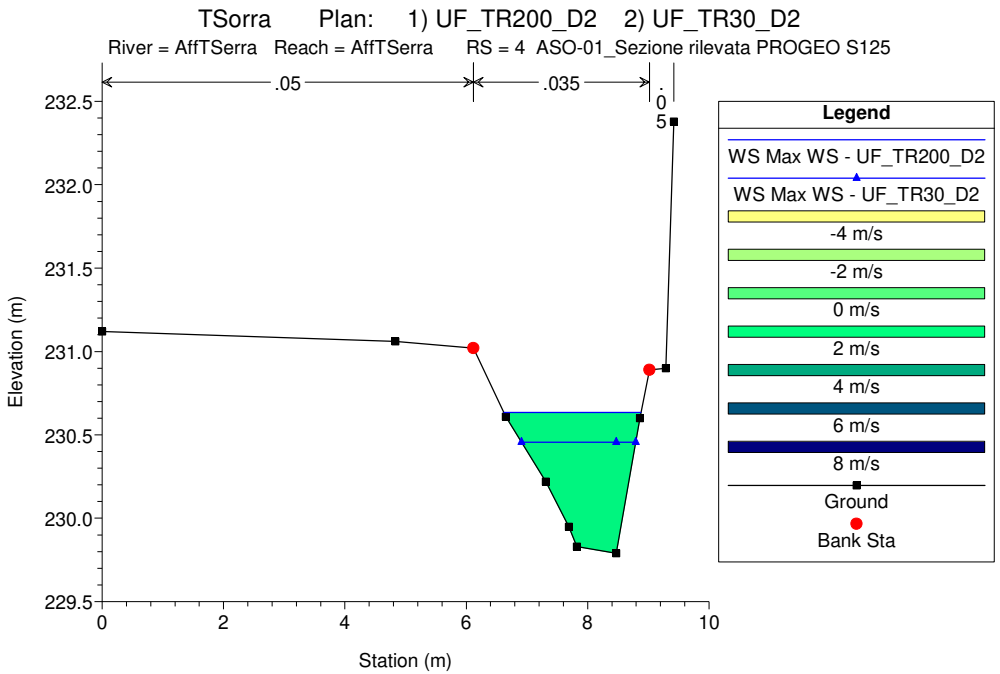
MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 2h

Sezioni Trasversali (da monte verso valle)


TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = AffTSerra Reach = AffTSerra RS = 10 ASO-07_AFFSOR10
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = AffTSerra Reach = AffTSerra RS = 9 ASO-06_AFFSOR09
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = AffTSerra Reach = AffTSerra RS = 8 ASO-05_AFFSOR08
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = AffTSerra Reach = AffTSerra RS = 7 ASO-04_AFFSOR07
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta


TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = AffTSerra Reach = AffTSerra RS = 6.5 Culv
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = AffTSerra Reach = AffTSerra RS = 6.5 Culv
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = AffTSerra Reach = AffTSerra RS = 6 ASO-03_Sezione rilevata PROGEO S127
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = AffTSerra Reach = AffTSerra RS = 5 ASO-02_Sezione rilevata PROGEO S126
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta


TSorra Plan: 1) UF_TR200_D2 2) UF_TR30_D2
River = AffTSerra Reach = AffTSerra RS = 4 ASO-01_Sezione rilevata PROGEO S125
.05
.035
.0
5
Elevation (m)
232.5
232.0
231.5
231.0
230.5
230.0
229.5
0
2
4
6
8
10
Station (m)
Legend
WS Max WS - UF_TR200_D2
WS Max WS - UF_TR30_D2
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta

ProGeo Engineering S.r.l.
via Don Luigi Sturzo, 43/A - 52100 - Arezzo
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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.3 "T. Sorra"

AFFLUENTE T. SORRA

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 2h

Dati idraulici

HEC-RAS Plan: UF_TR30_D2 River: AffTSerra Reach: AffTSerra Profile: Max WS

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
AffTSerra	10	Max WS	0.70	238.57	238.85	238.83	238.91	0.016826	1.09			0.64	3.95	0.87
AffTSerra	9.999		Lat Struct											
AffTSerra	9.998		Lat Struct											
AffTSerra	9	Max WS	0.70	236.65	236.84	236.84	236.91	0.025087	1.19			0.59	4.30	1.03
AffTSerra	8	Max WS	0.70	235.03	235.21	235.21	235.28	0.021140	1.09			0.64	4.71	0.94
AffTSerra	7	Max WS	0.70	233.57	234.51		234.55	0.001717	0.89			0.78	4.23	0.32
AffTSerra	6.5		Culvert											
AffTSerra	6	Max WS	0.70	232.47	233.48	233.00	233.52	0.001586	0.83			0.85	3.60	0.29
AffTSerra	5	Max WS	1.60	232.44	233.03	233.07	233.28	0.029408	2.24			0.72	1.80	1.13
AffTSerra	4	Max WS	1.60	229.79	230.46	230.45	230.67	0.023376	2.03			0.79	1.88	1.00

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ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "T. Tressa"

T. TRESSA

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 3 e 5h

Profilo longitudinale
Sezioni Trasversali
Dati idraulici

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ALLEGATI

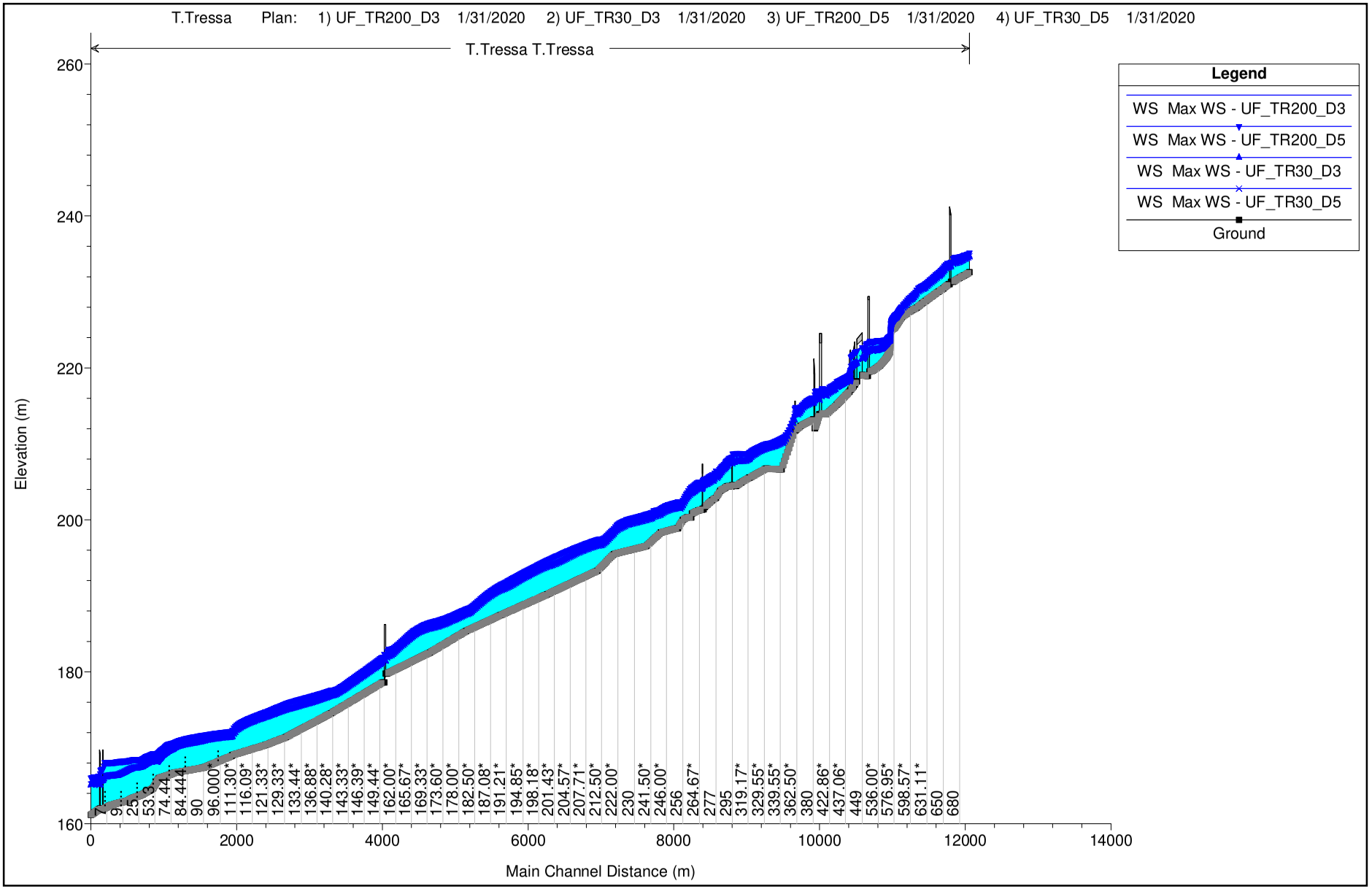
MODELLAZIONE HEC-RAS 5.0.7 "T. Tressa"

T. TRESSA

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 3 e 5h

Profilo longitudinale


T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
T.Tressa T.Tressa
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
Ground
Elevation (m)
Main Channel Distance (m)
160
180
200
220
240
260
0
2000
4000
6000
8000
10000
12000
14000

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ALLEGATI

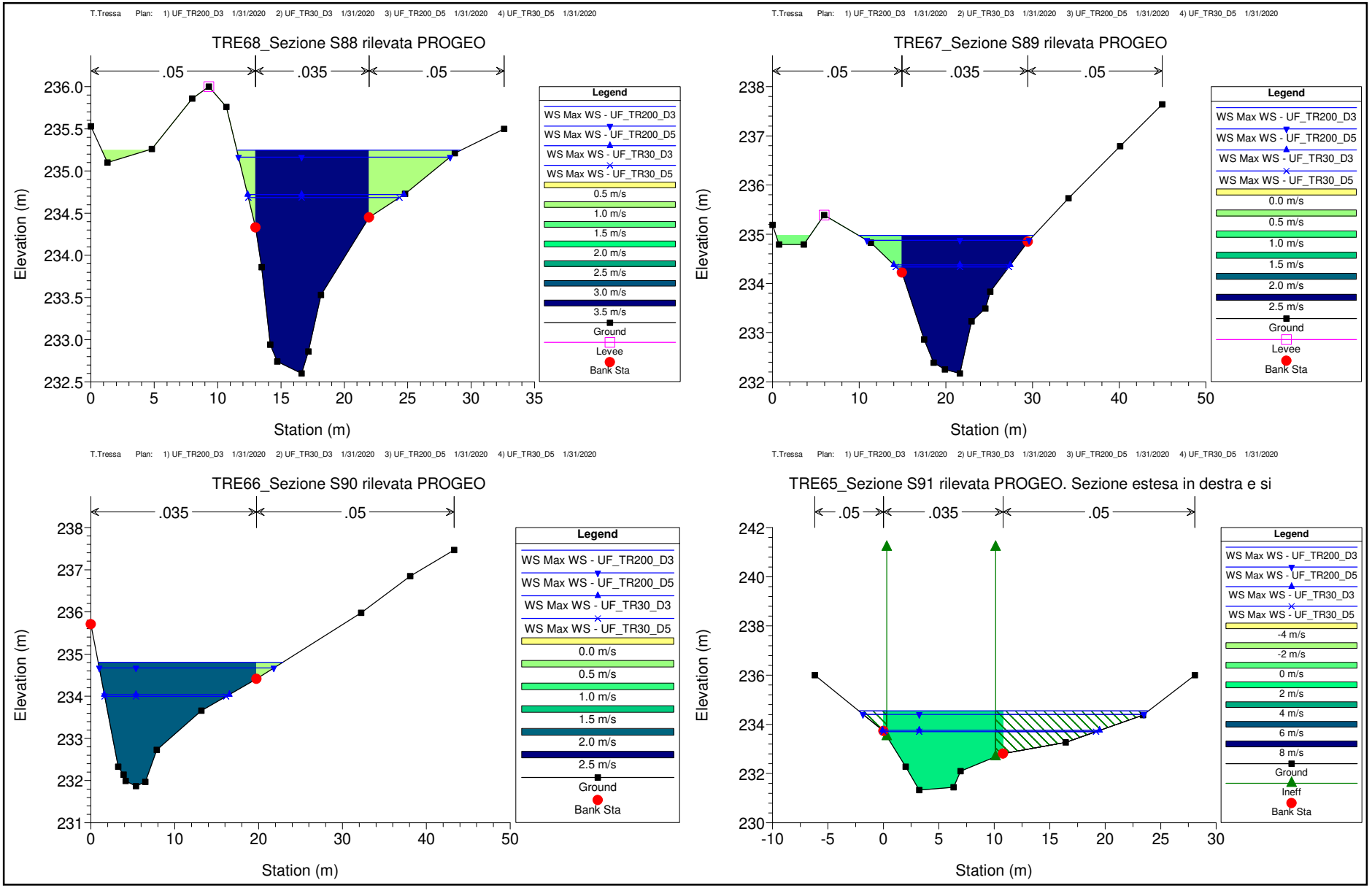
MODELLAZIONE HEC-RAS 5.0.7 "T. Tressa"

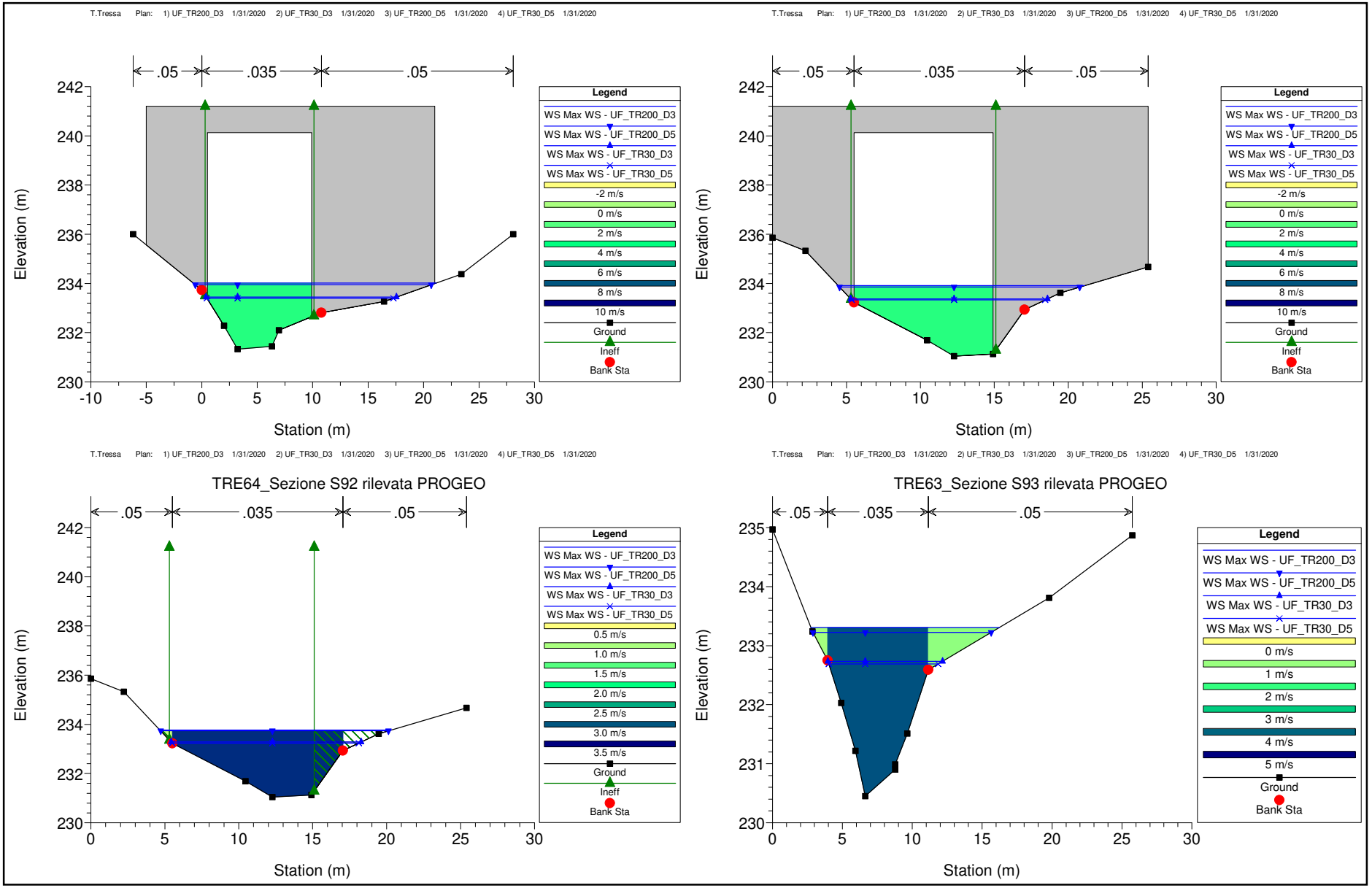
T. TRESSA

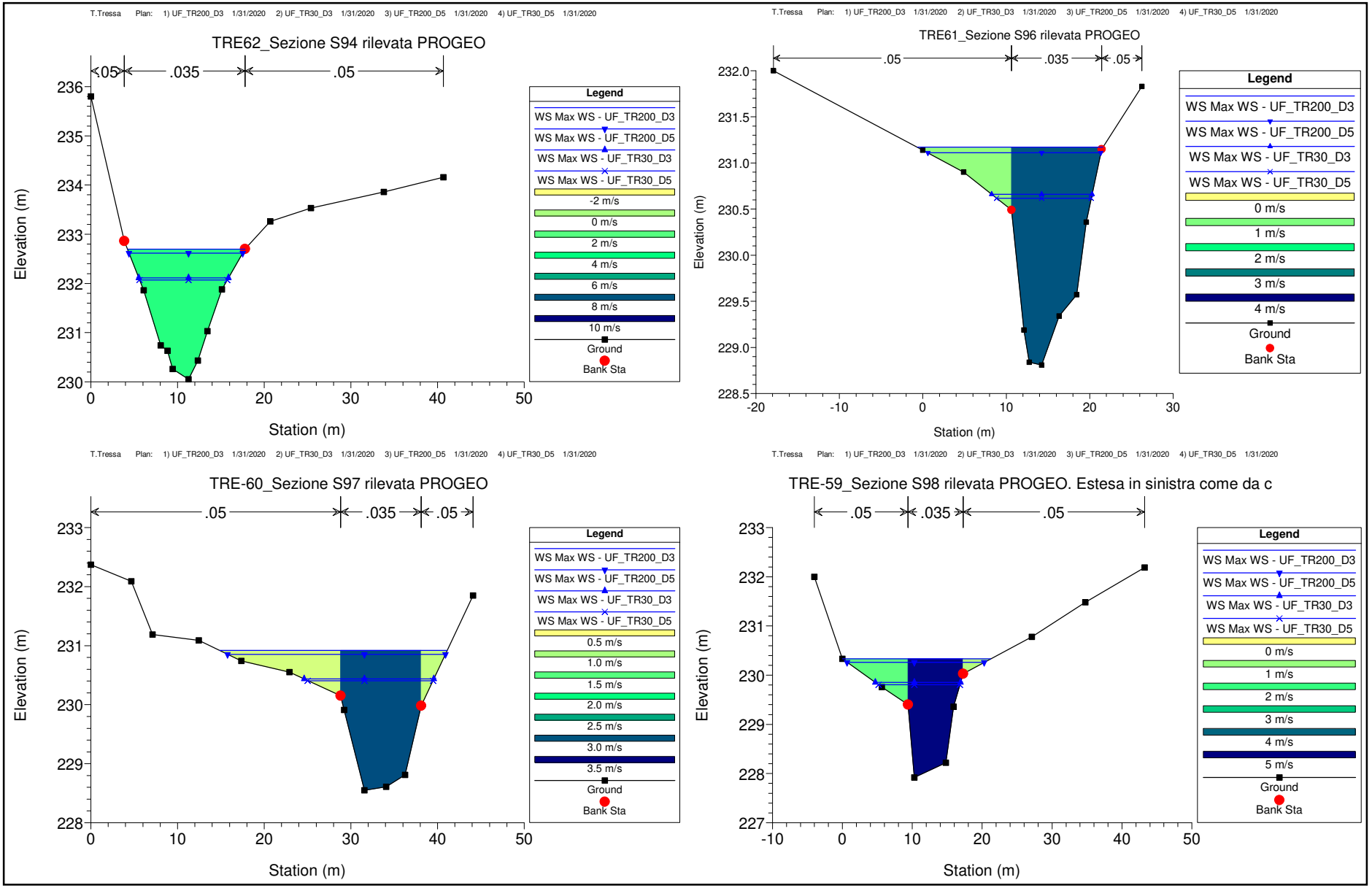
MODELLAZIONE PER TR=30 e 200 anni

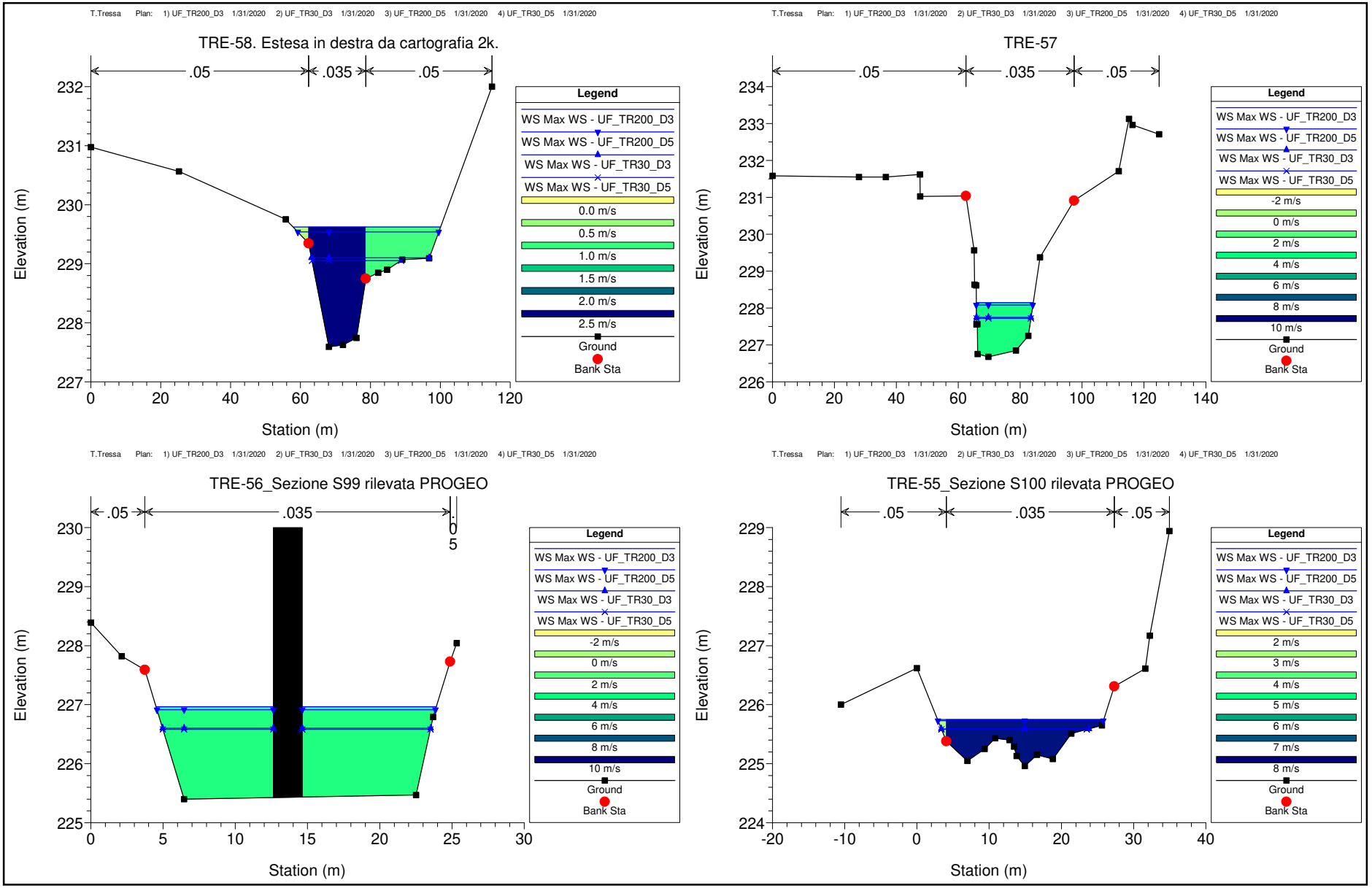
DURATE DI PIOGGIA: 3 e 5h

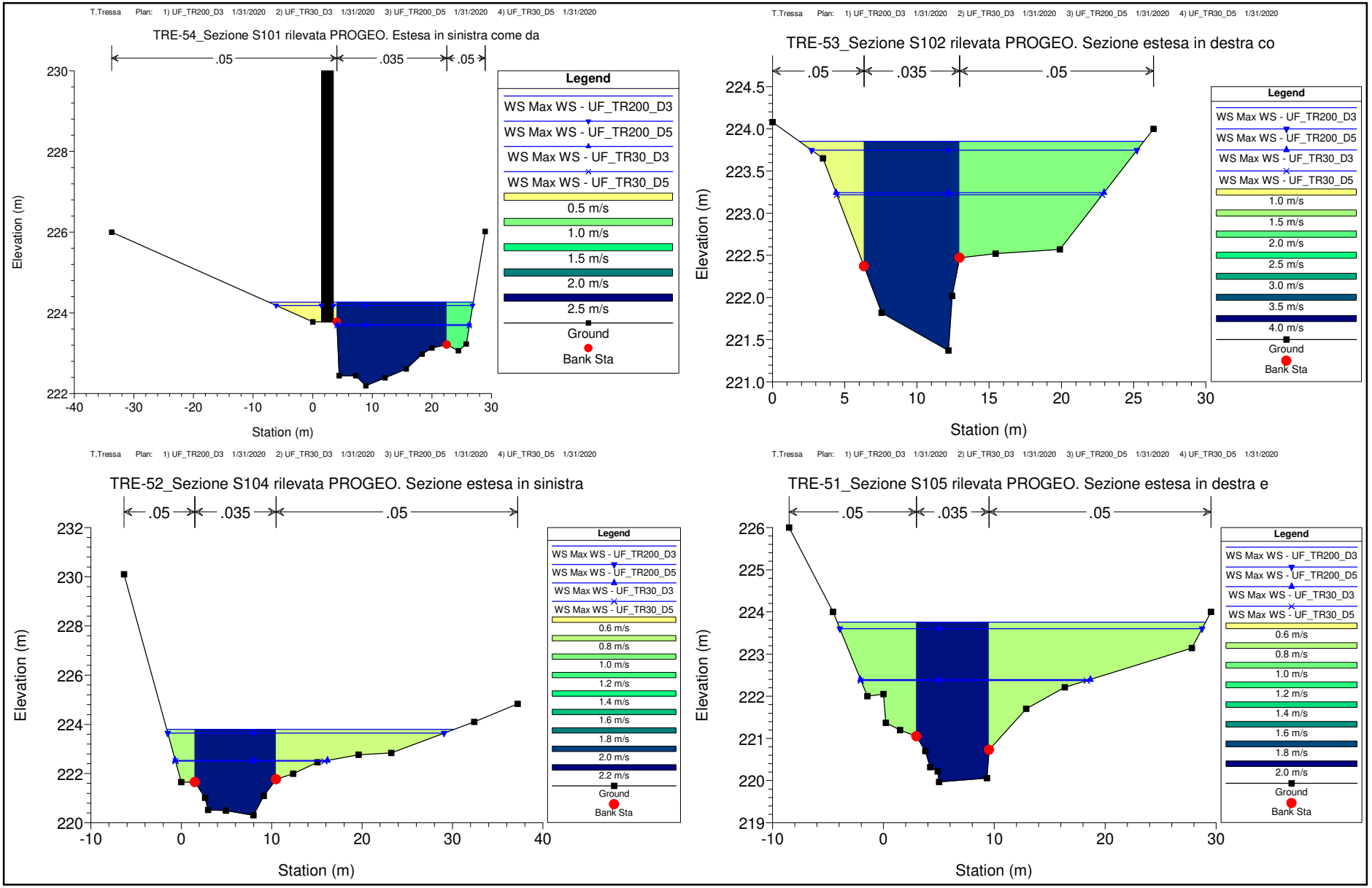
Sezioni Trasversali (da monte verso valle)

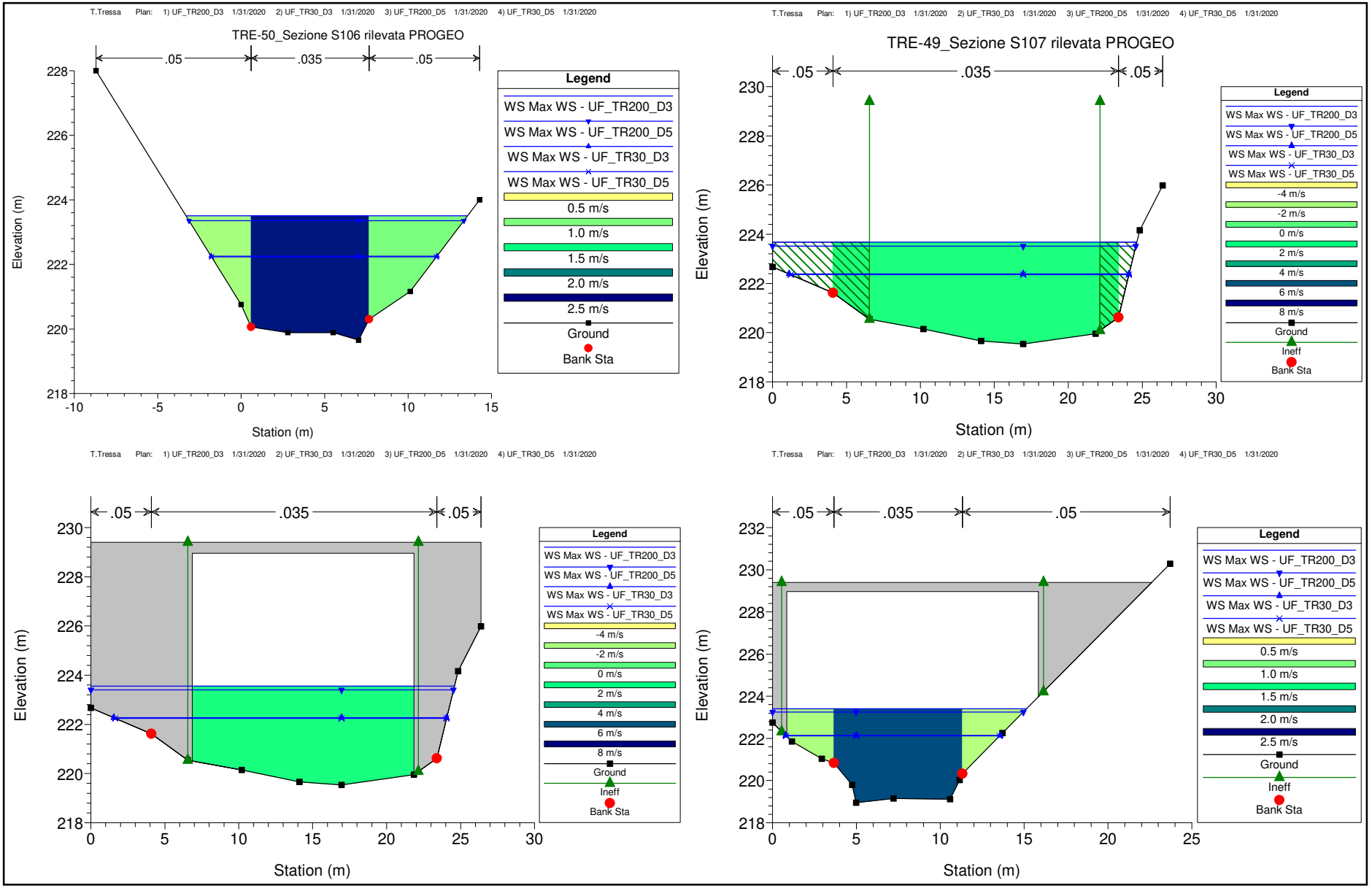

T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE68_Sezione S88 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE67_Sezione S89 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE66_Sezione S90 rilevata PROGEO
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE65_Sezione S91 rilevata PROGEO. Sezione estesa in destra e si
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta

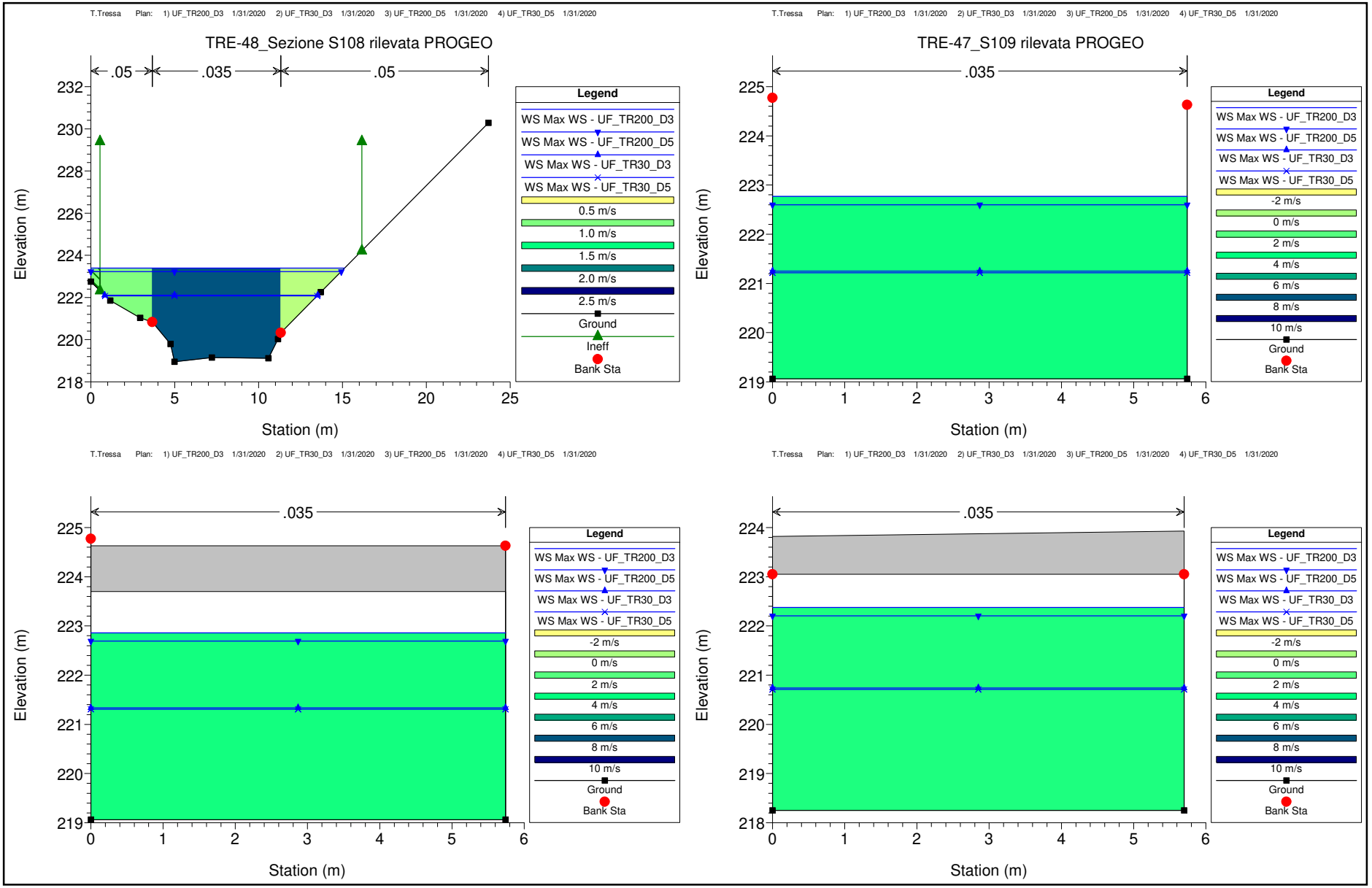

T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE64_Sezione S92 rilevata PROGEO
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE63_Sezione S93 rilevata PROGEO
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s

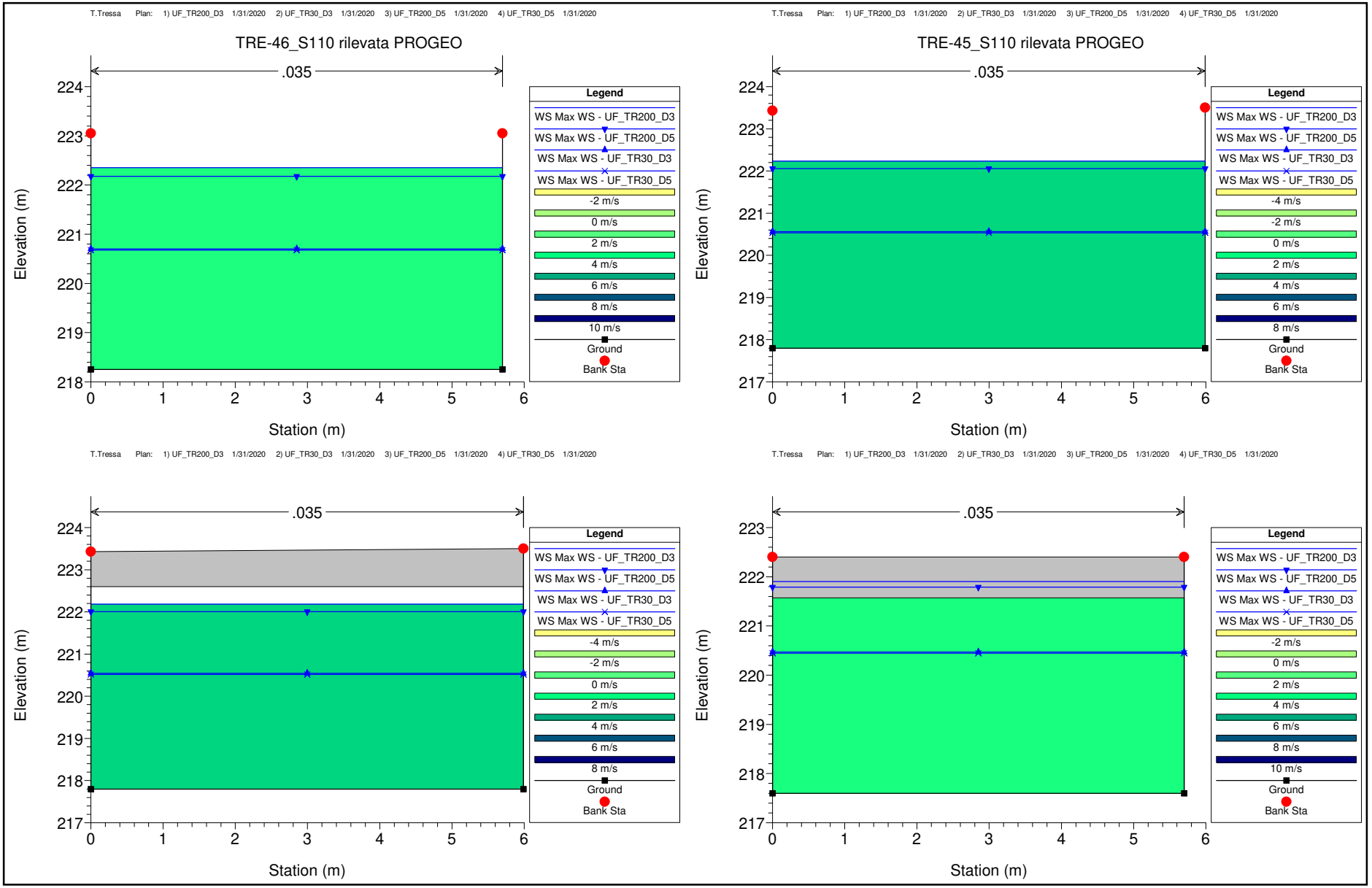

T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE62_Sezione S94 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE61_Sezione S96 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-60_Sezione S97 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-59_Sezione S98 rilevata PROGEO. Estesa in sinistra come da c
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
Ground
Bank Sta


T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-58. Estesa in destra da cartografia 2k.
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-57
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-56_Sezione S99 rilevata PROGEO
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-55_Sezione S100 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
2 m/s
3 m/s
4 m/s
5 m/s
6 m/s
7 m/s
8 m/s
Ground
Bank Sta


T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-54_Sezione S101 rilevata PROGEO. Estesa in sinistra come da
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-53_Sezione S102 rilevata PROGEO. Sezione estesa in destra co
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
4.0 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-52_Sezione S104 rilevata PROGEO. Sezione estesa in sinistra
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
2.0 m/s
2.2 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-51_Sezione S105 rilevata PROGEO. Sezione estesa in destra e
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
2.0 m/s
Ground
Bank Sta


T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-50_Sezione S106 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-49_Sezione S107 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Ineff
Bank Sta


T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-48_Sezione S108 rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-47_S109 rilevata PROGEO
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta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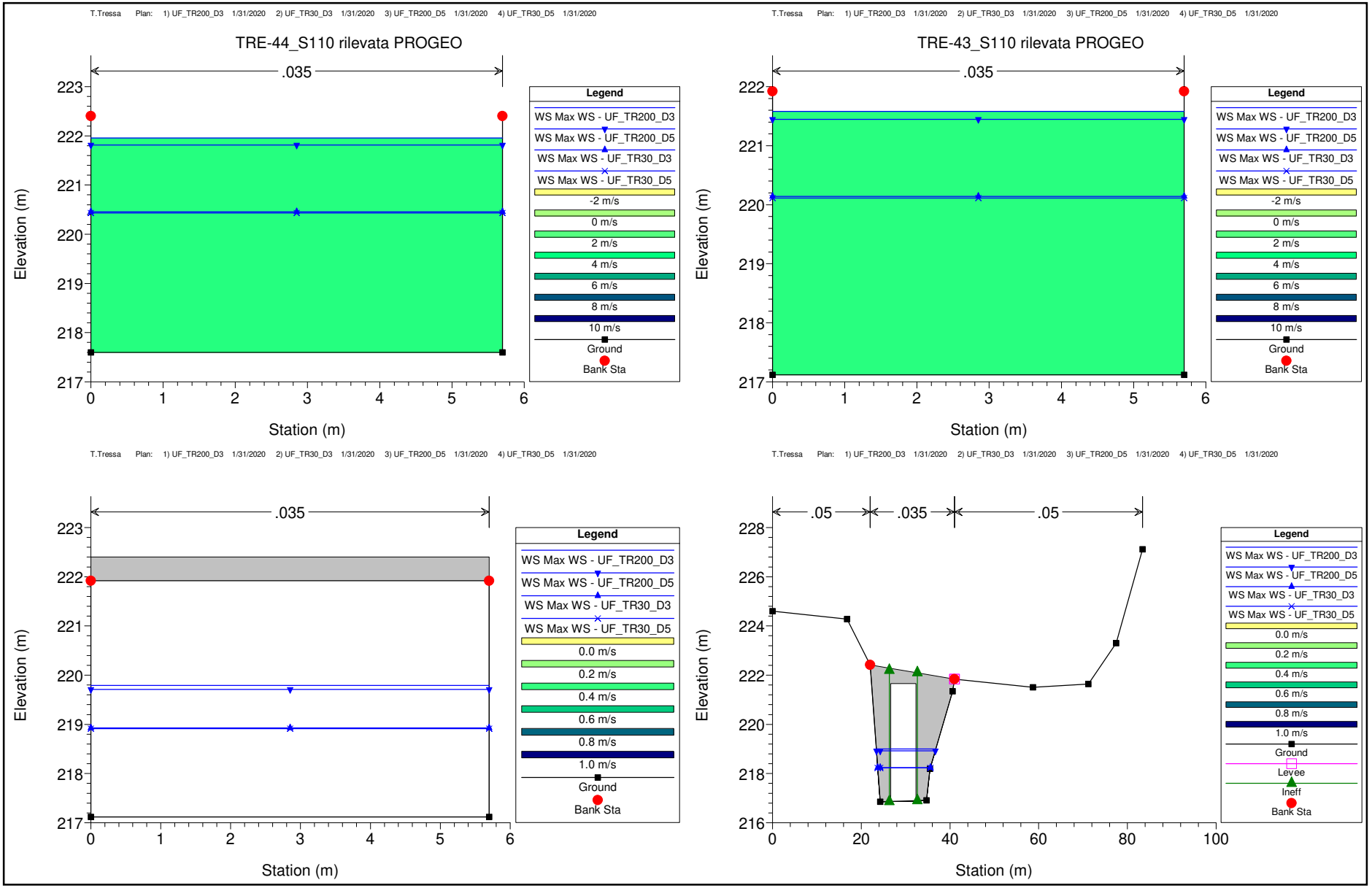
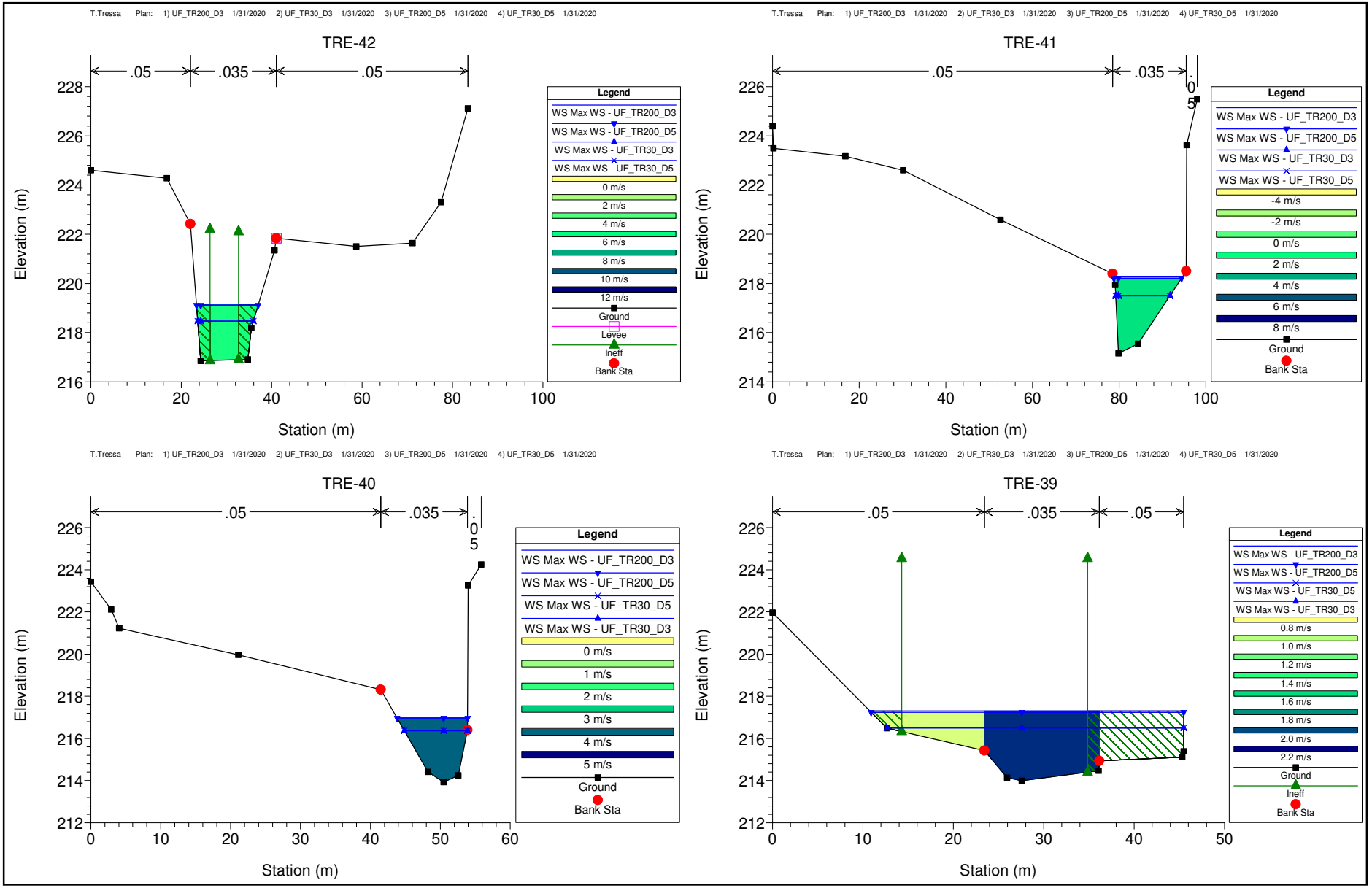
TRE-46_S110 rilevata PROGEO
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-45_S110 rilevata PROGEO
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta


T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-44_S110 rilevata PROGEO
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-43_S110 rilevata PROGEO
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Ineff
Bank Sta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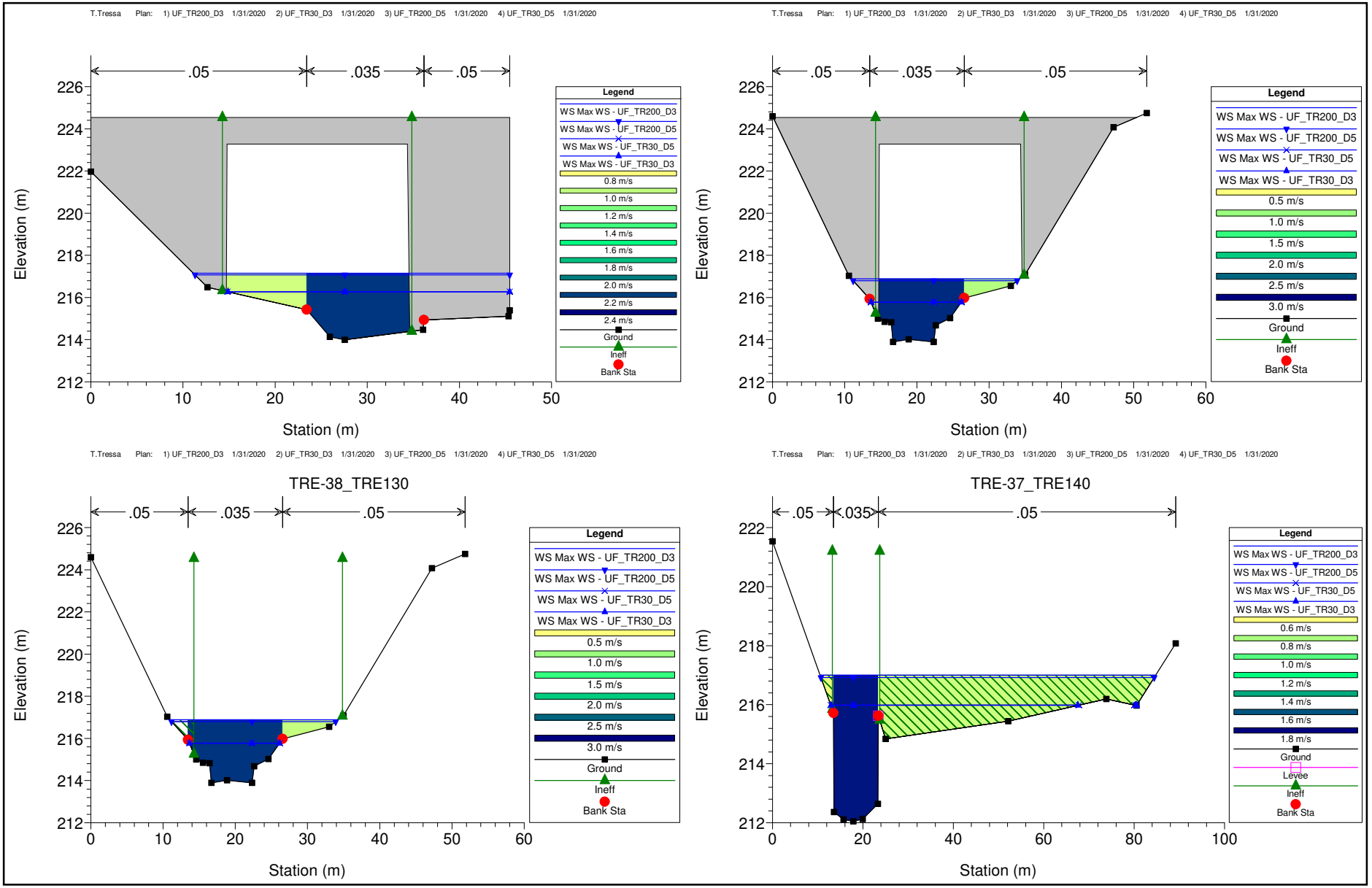
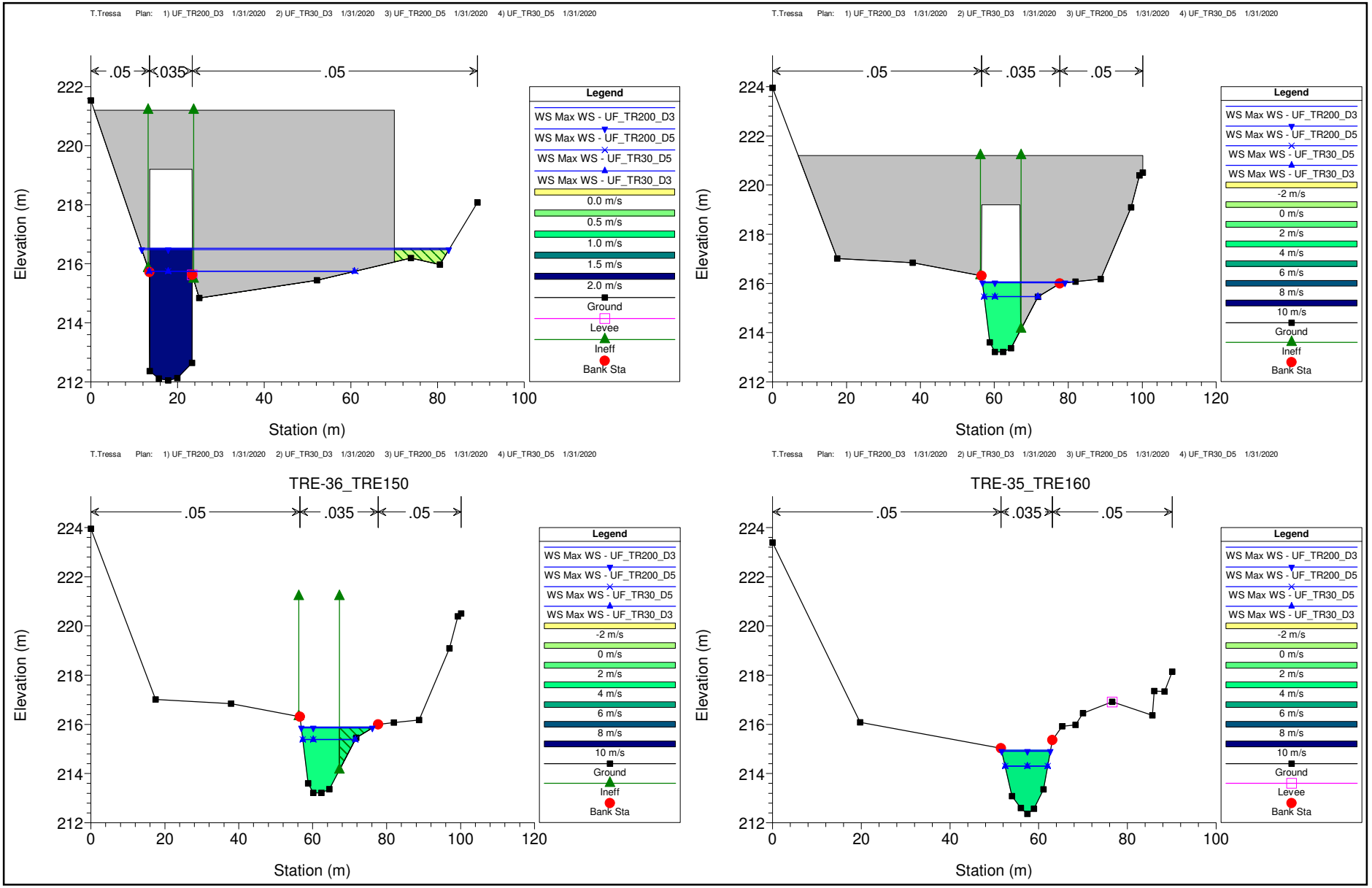
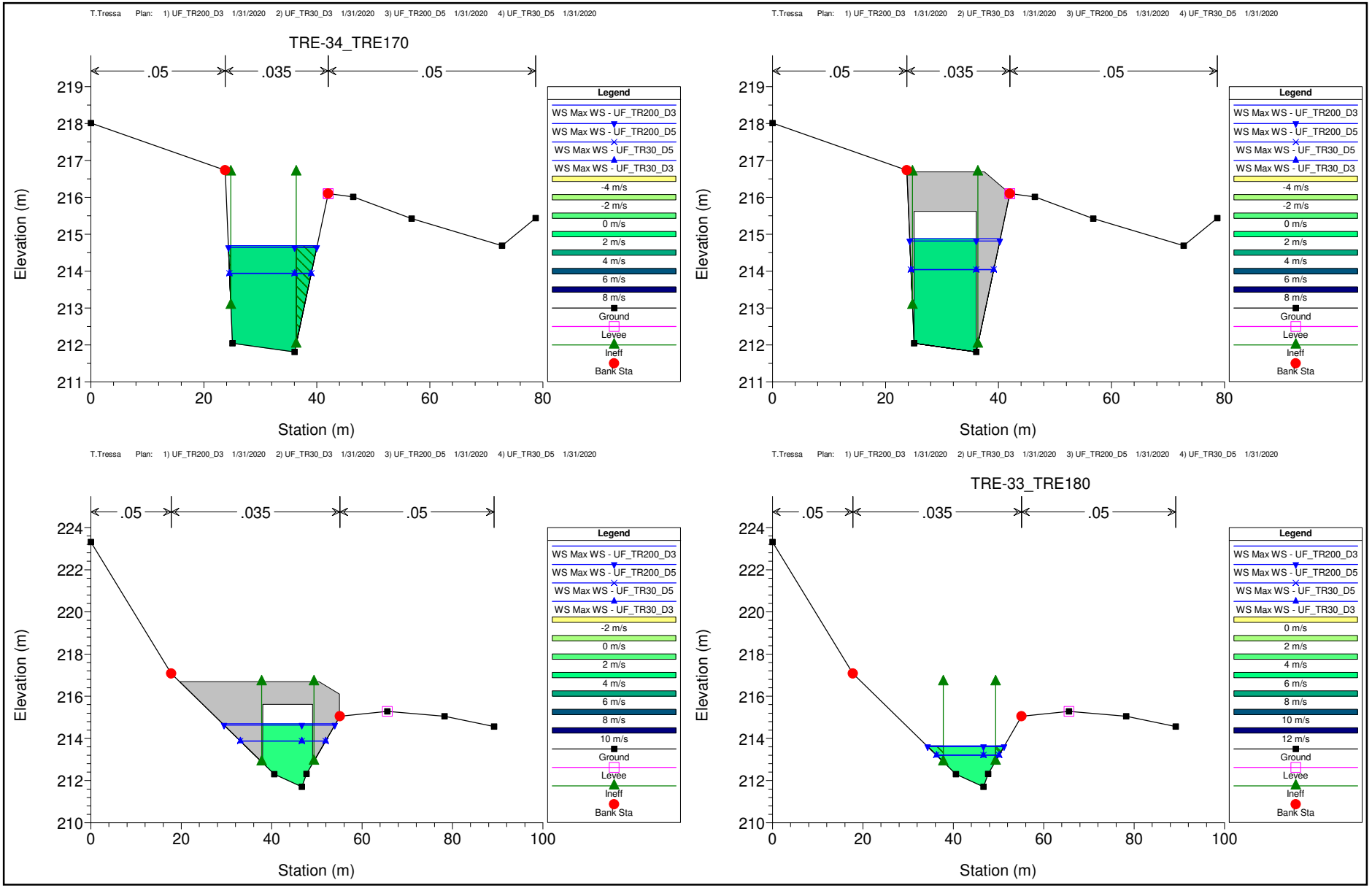
TRE-42
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-41
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-40
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-39
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
2.0 m/s
2.2 m/s
Ground
Ineff
Bank Sta


T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
2.0 m/s
2.2 m/s
2.4 m/s
Ground
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-38_TRE130
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-37_TRE140
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
Ground
Levee
Ineff
Bank Sta


T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Levee
Ineff
Bank Sta
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
TRE-36_TRE150
TRE-35_TRE160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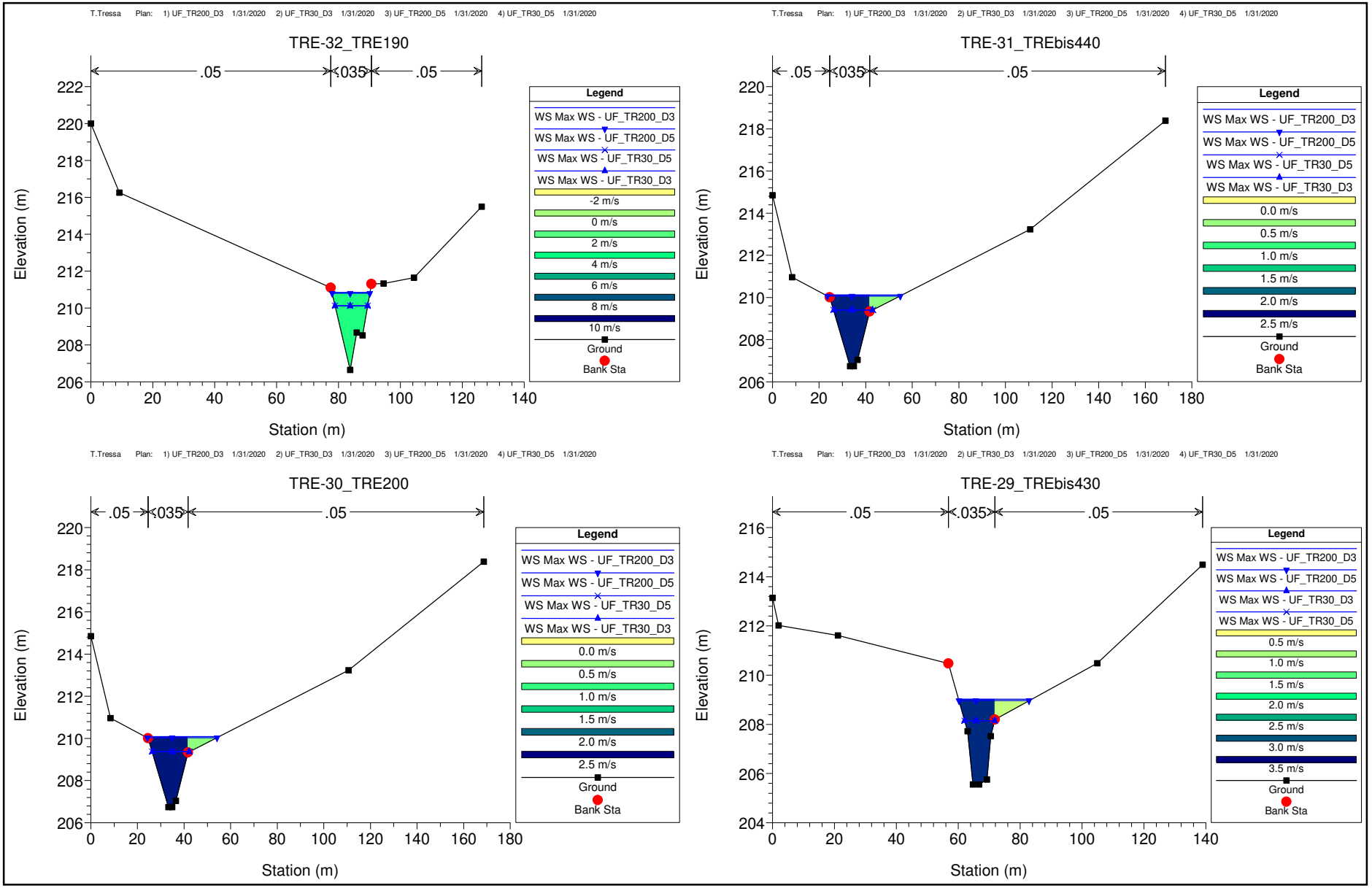
TRE-34_TRE170
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-33_TRE180
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Levee
Ineff
Bank Sta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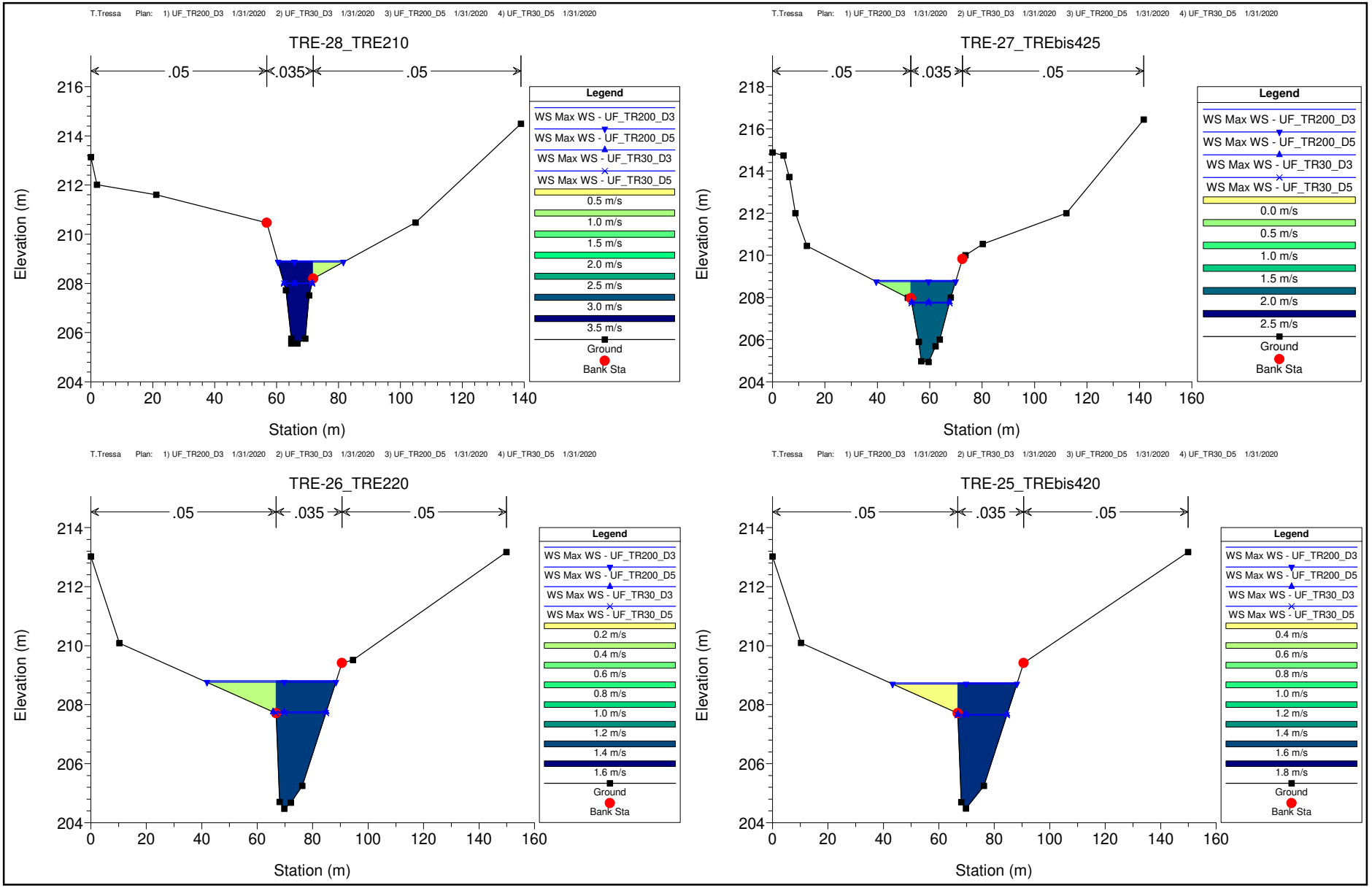
TRE-32_TRE190
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-31_TREbis440
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-30_TRE200
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-29_TREbis430
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta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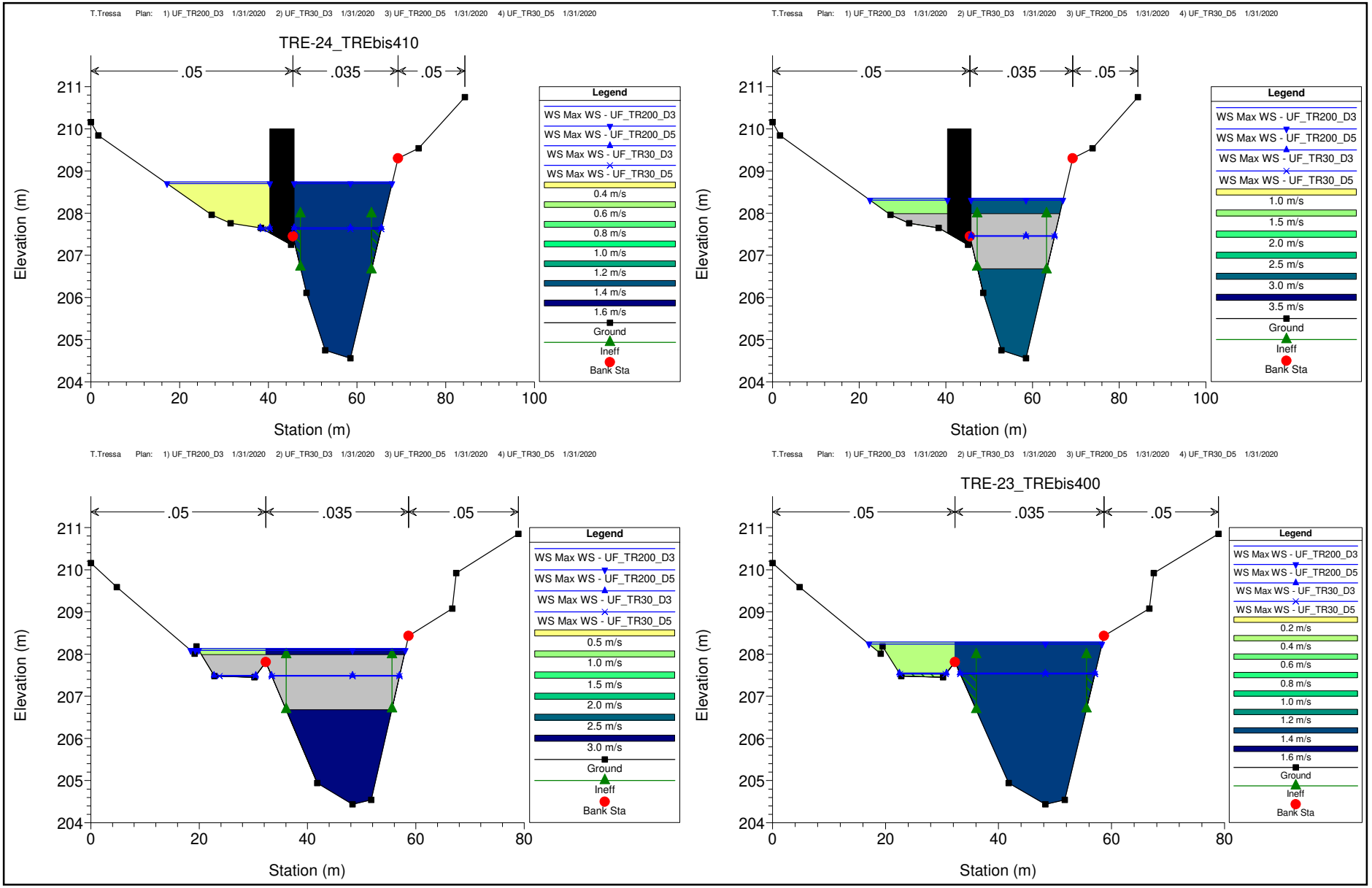
TRE-28_TRE210
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-27_TREbis425
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-26_TRE220
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-25_TREbis420
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
Ground
Bank Sta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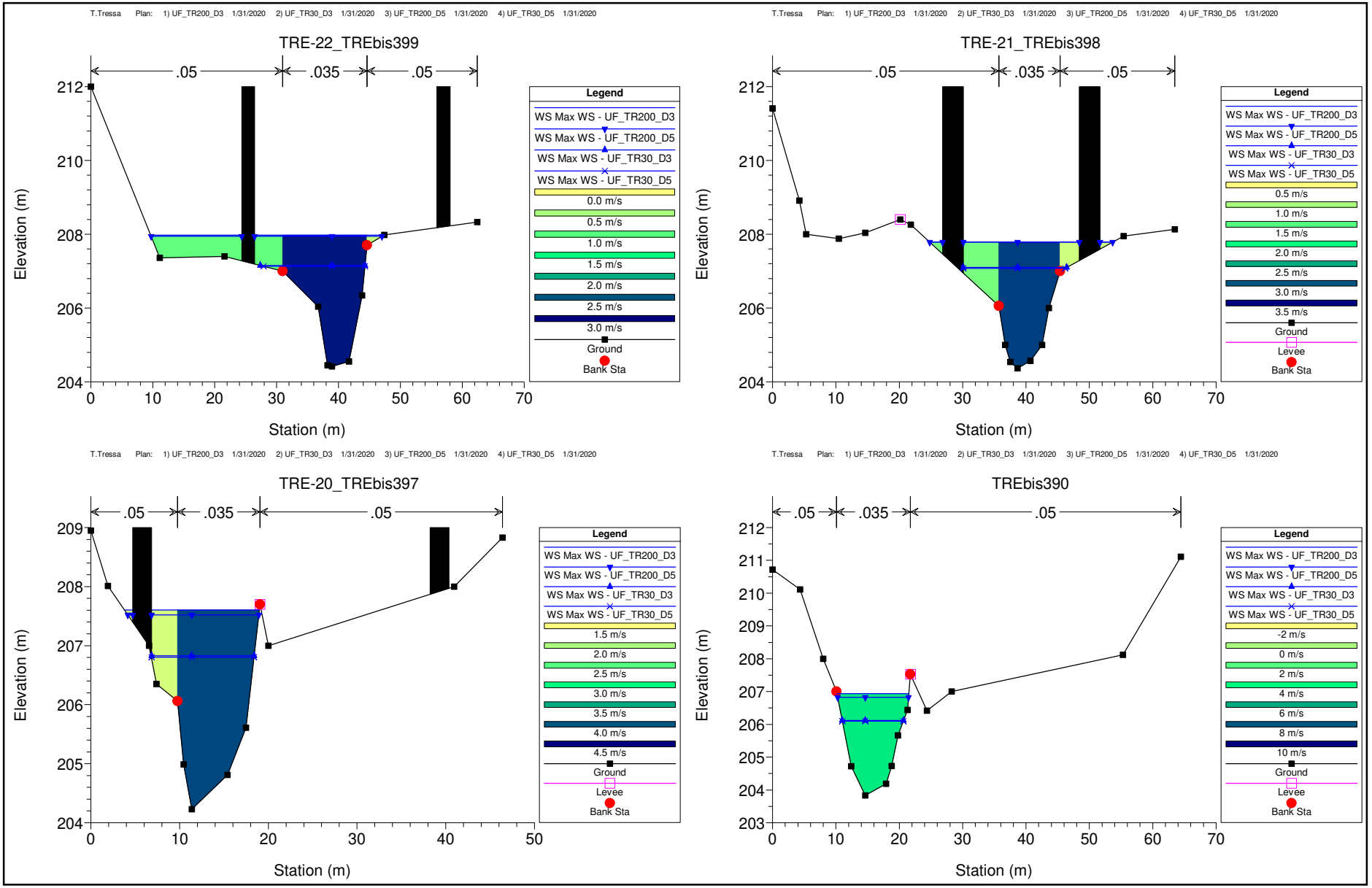
TRE-24_TREbis410
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-23_TREbis400
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
Ground
Ineff
Bank Sta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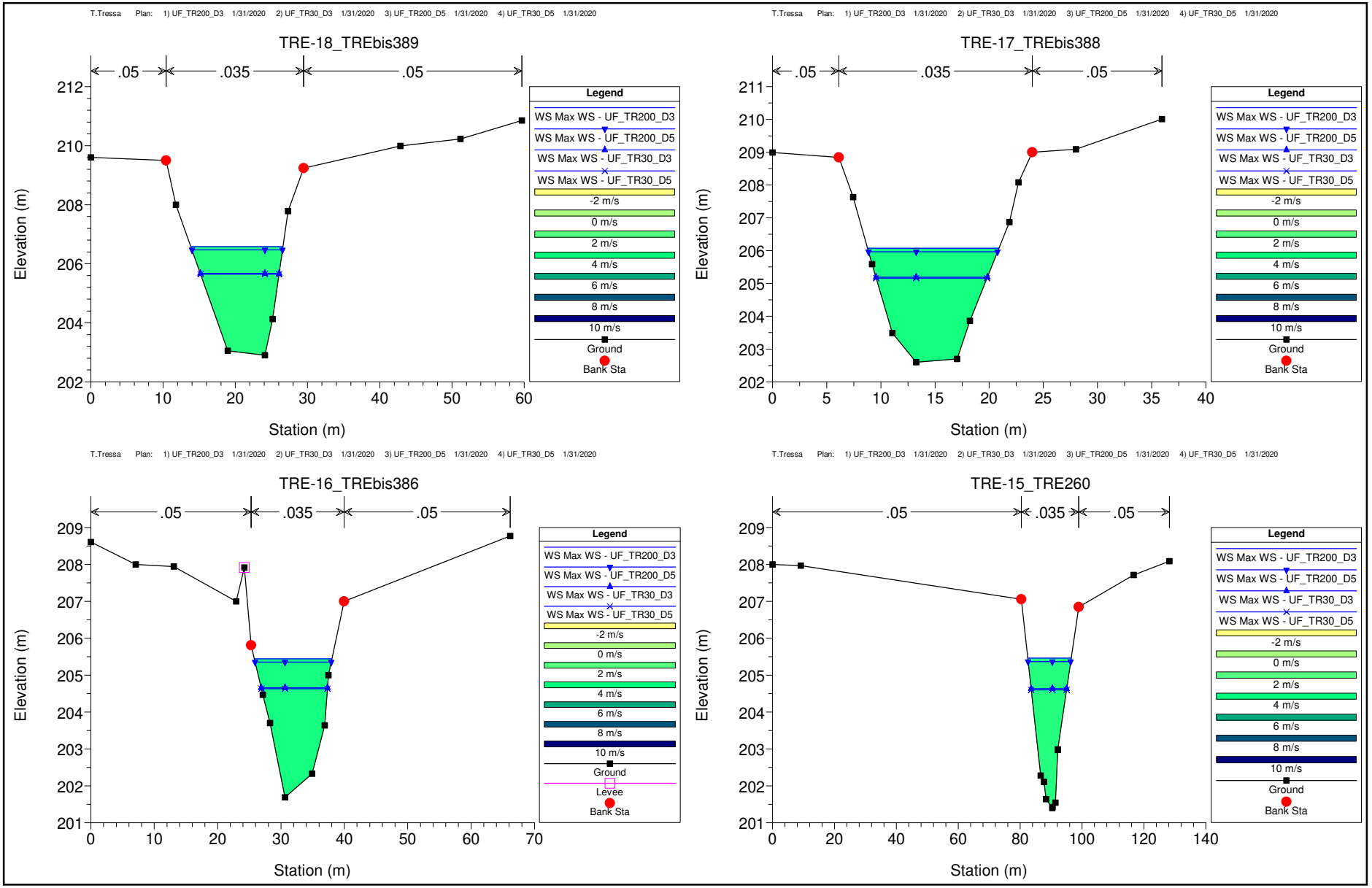
TRE-22_TREbis399
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-21_TREbis398
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-20_TREbis397
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
4.0 m/s
4.5 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TREbis390
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta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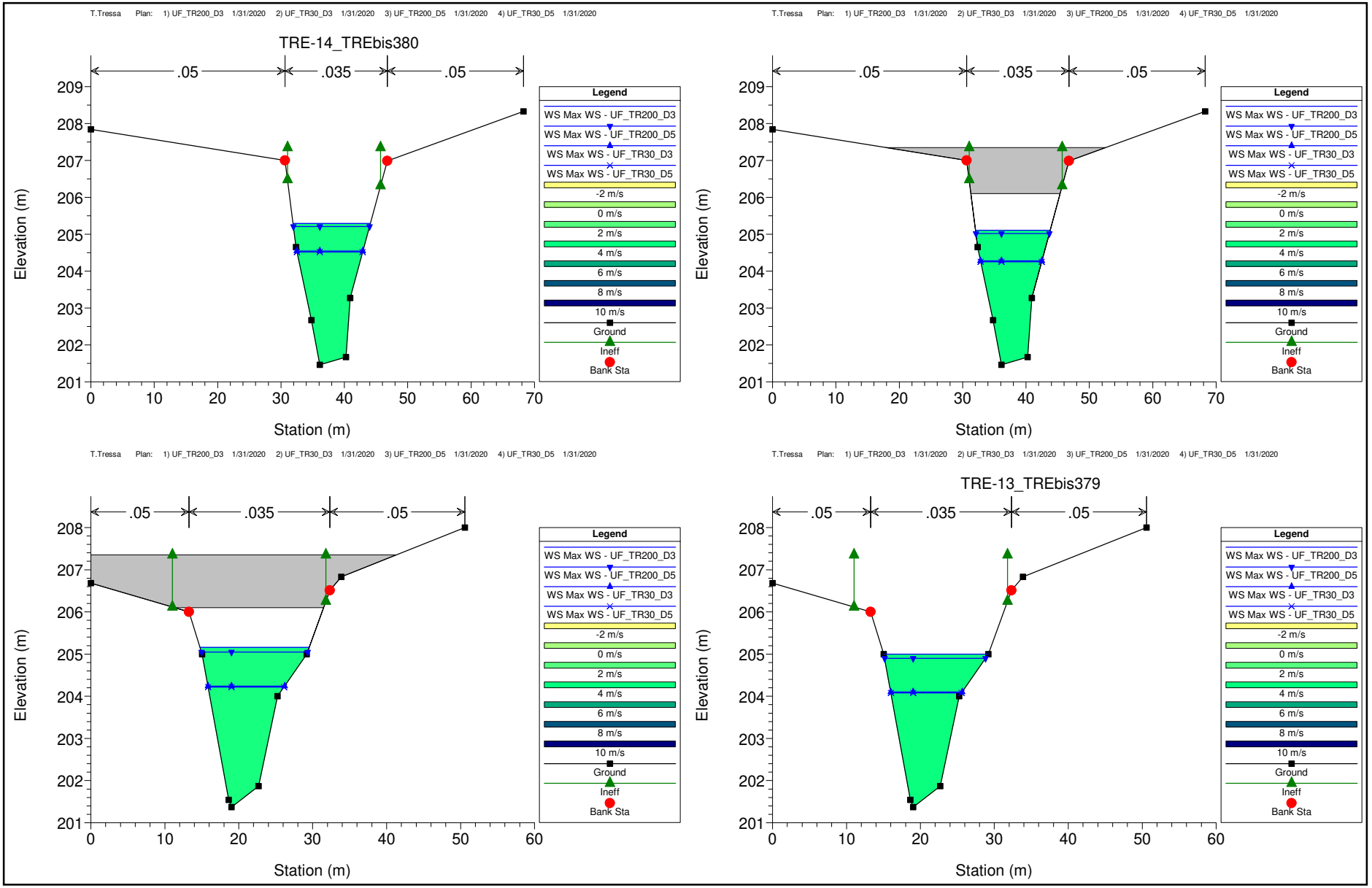
TRE-18_TREbis389
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-17_TREbis388
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-16_TREbis386
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-15_TRE260
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta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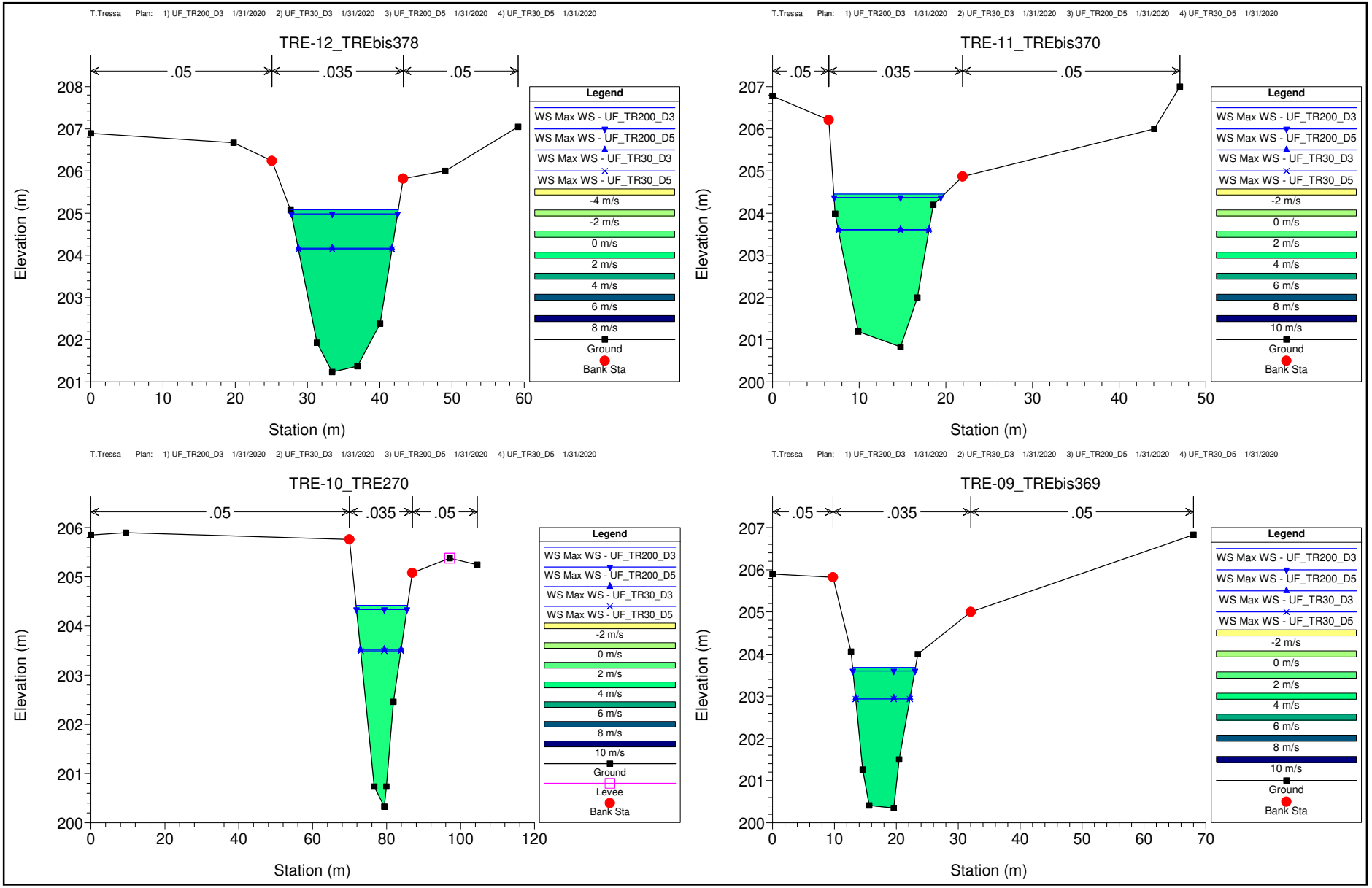
TRE-14_TREbis380
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Ineff
Bank Sta
TRE-13_TREbis379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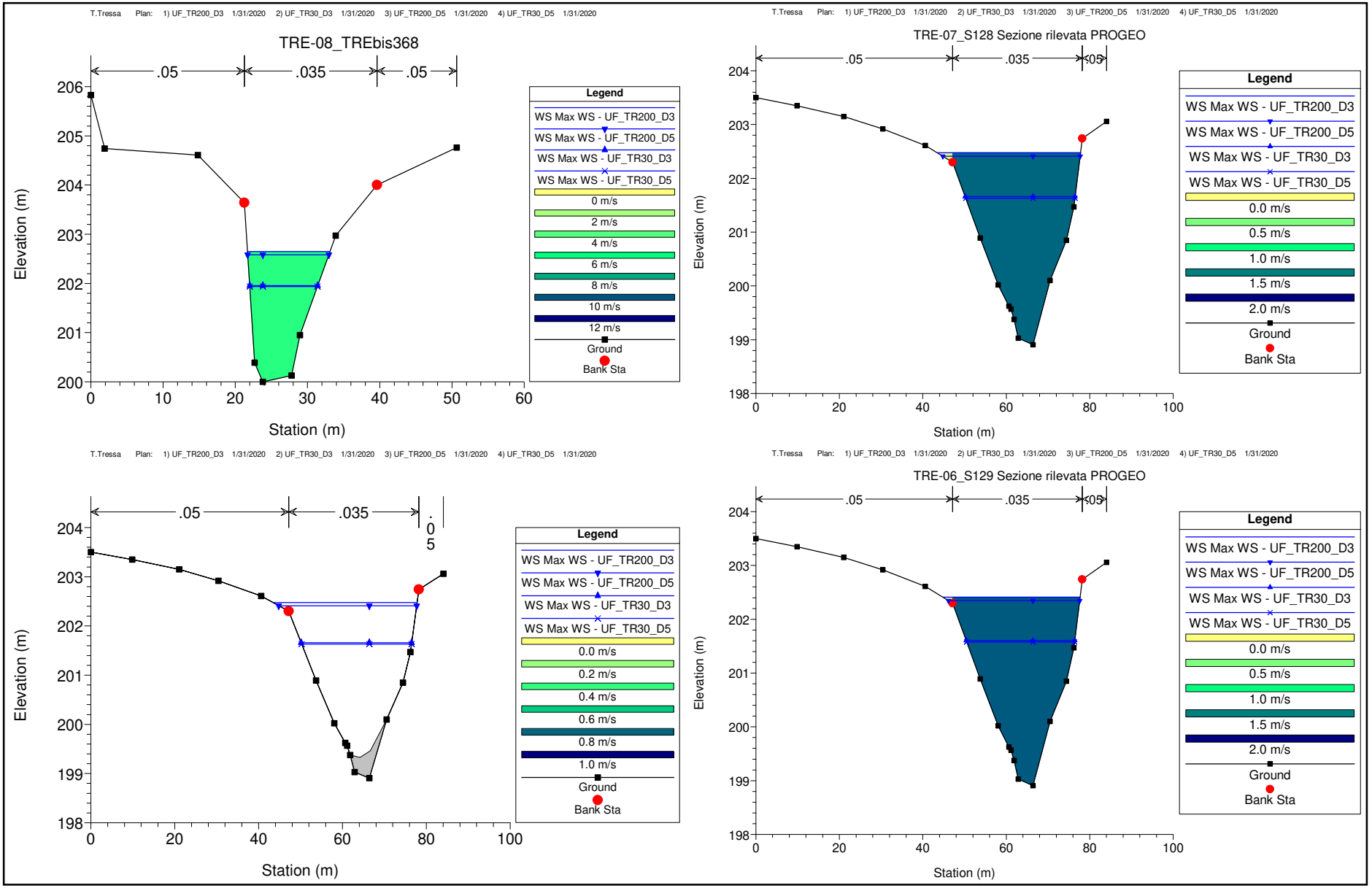
TRE-12_TREbis378
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-11_TREbis370
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-10_TRE270
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-09_TREbis369
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta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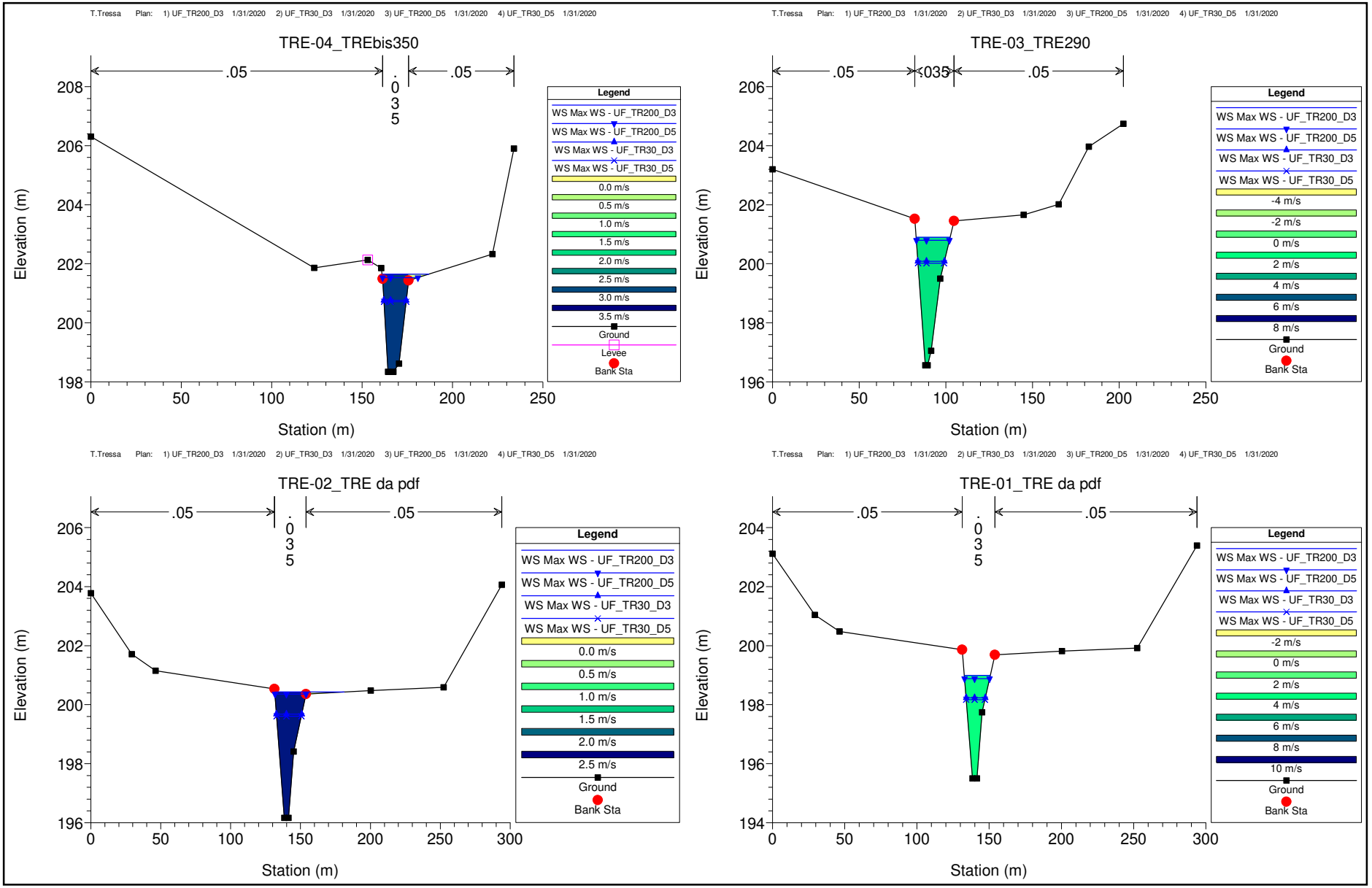
TRE-08_TREbis368
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-07_S128 Sezione rilevata PROGEO
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-06_S129 Sezione rilevata PROGEO
.05
.035
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Bank Sta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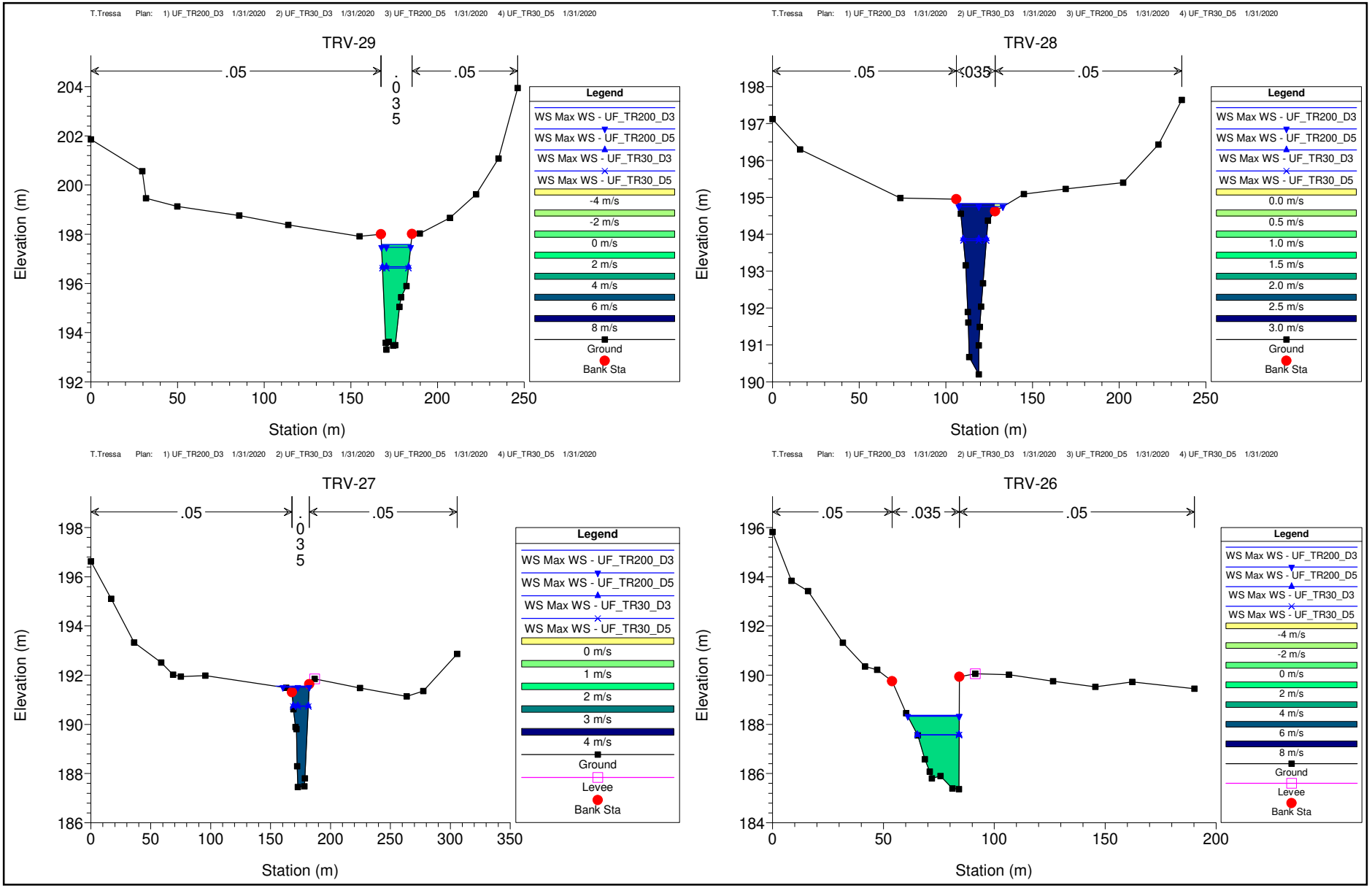
TRE-04_TREbis350
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-03_TRE290
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-02_TRE da pdf
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRE-01_TRE da pdf
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Bank Sta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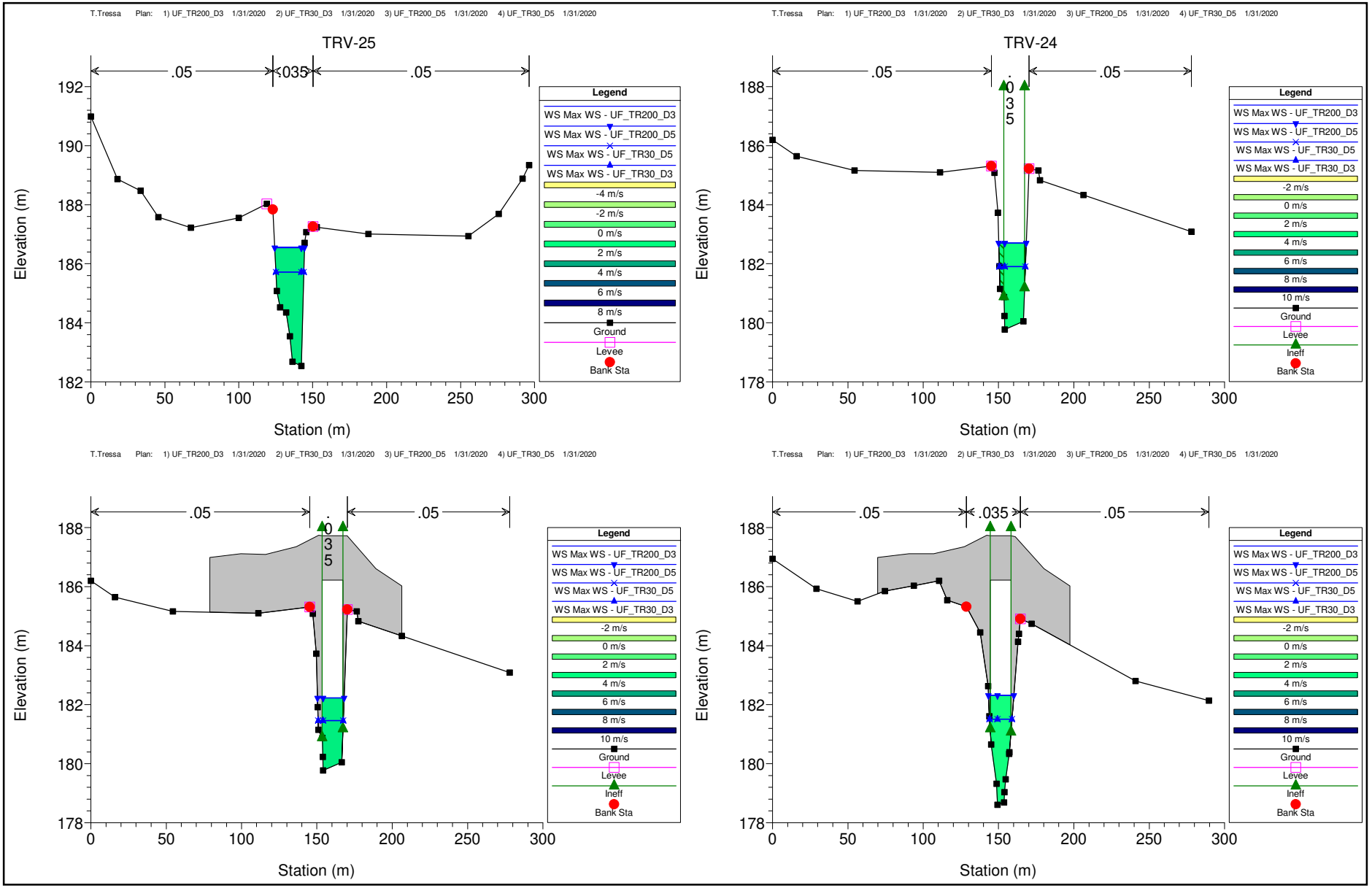
TRV-29
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-28
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-27
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-26
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta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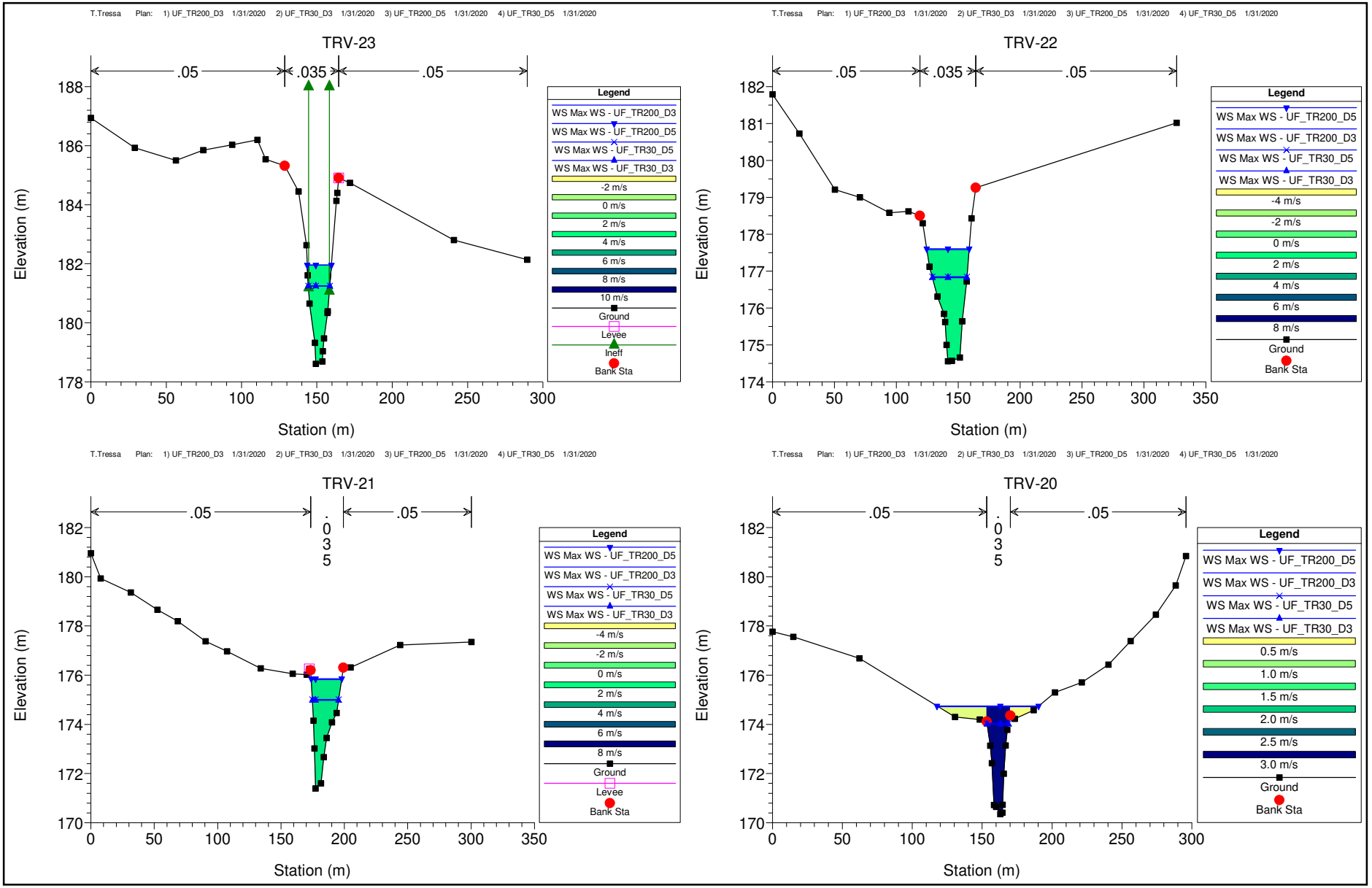
TRV-25
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-24
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Ineff
Bank Sta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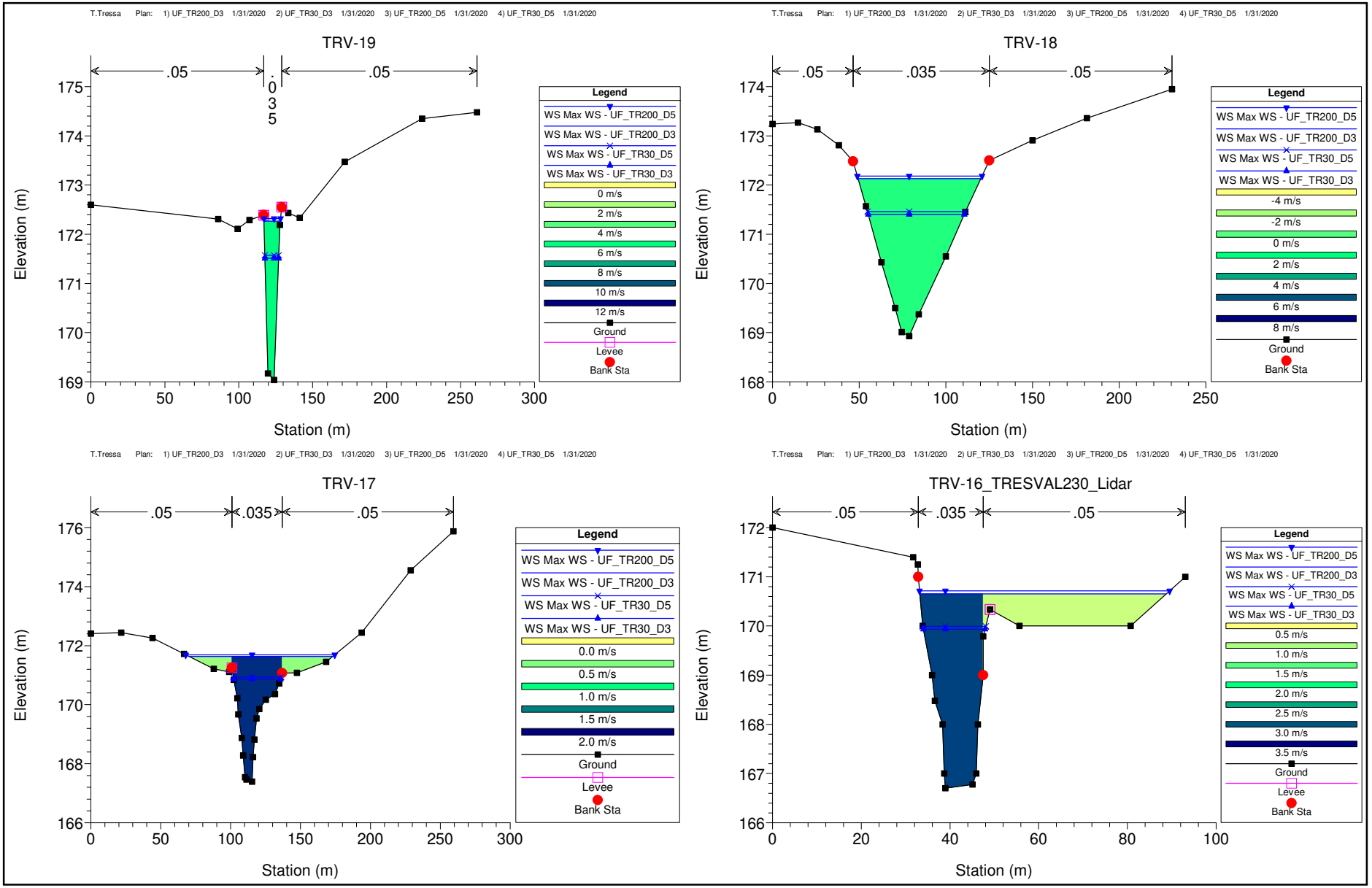
TRV-23
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-22
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-21
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-20
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Bank Sta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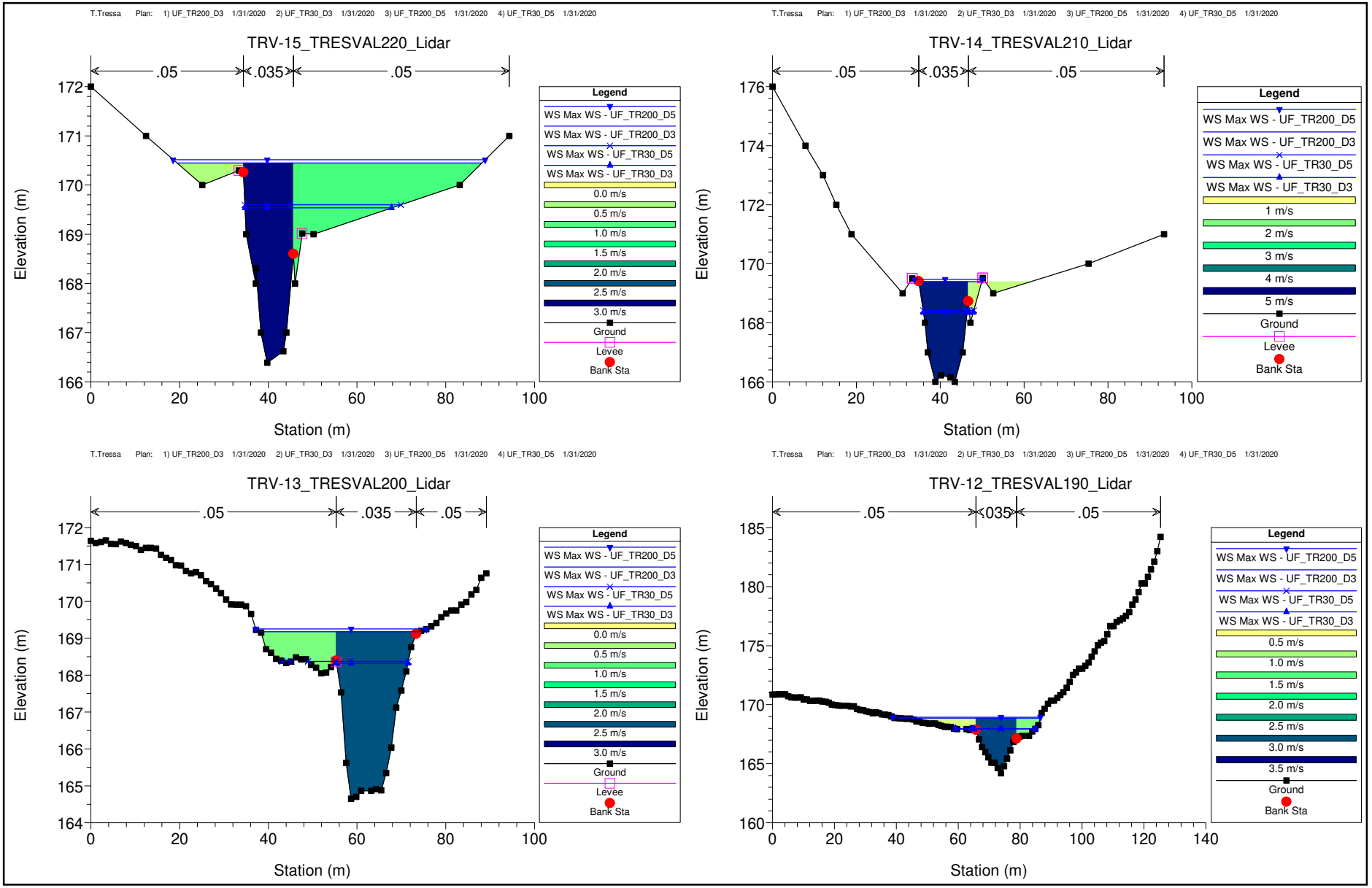
TRV-19
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-18
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-4 m/s
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
Ground
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-17
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-16_TRESVAL230_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Levee
Bank Sta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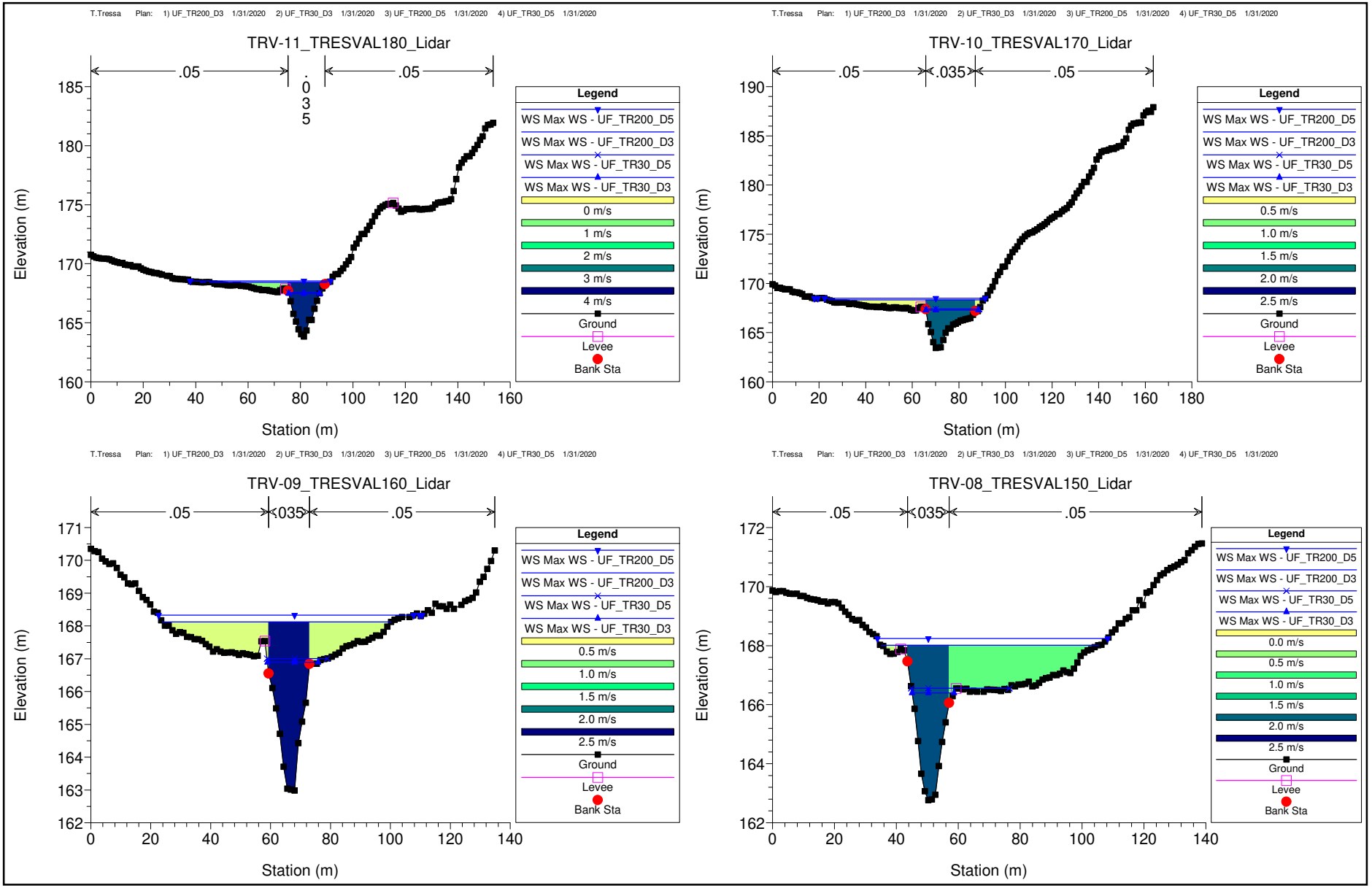
TRV-15_TRESVAL220_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-14_TRESVAL210_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
1 m/s
2 m/s
3 m/s
4 m/s
5 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-13_TRESVAL200_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-12_TRESVAL190_Lidar
.05
035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
3.0 m/s
3.5 m/s
Ground
Bank Sta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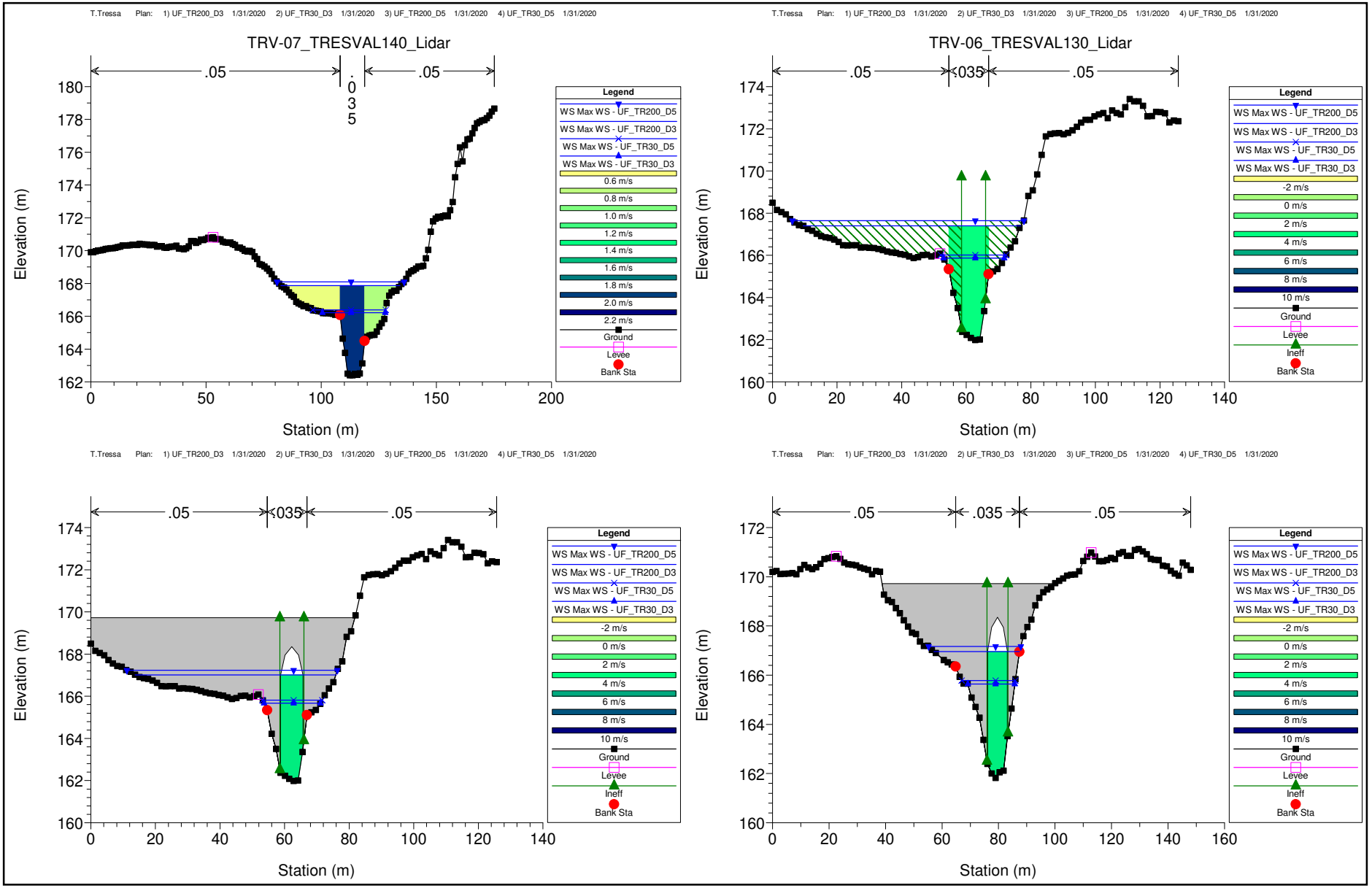
TRV-11_TRESVAL180_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-10_TRESVAL170_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-09_TRESVAL160_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-08_TRESVAL150_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.0 m/s
0.5 m/s
1.0 m/s
1.5 m/s
2.0 m/s
2.5 m/s
Ground
Levee
Bank Sta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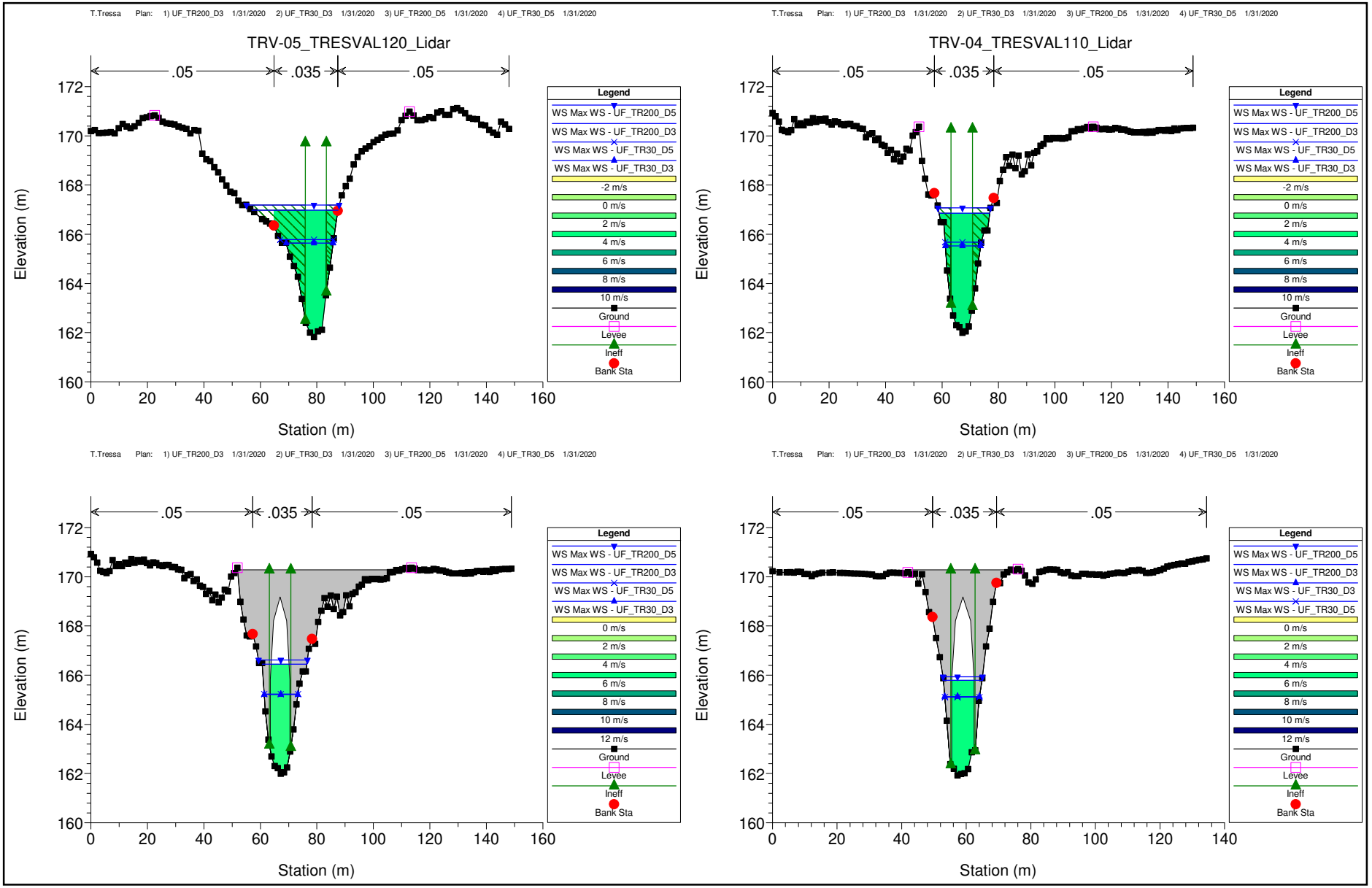
TRV-07_TRESVAL140_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0.6 m/s
0.8 m/s
1.0 m/s
1.2 m/s
1.4 m/s
1.6 m/s
1.8 m/s
2.0 m/s
2.2 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-06_TRESVAL130_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Ineff
Bank Sta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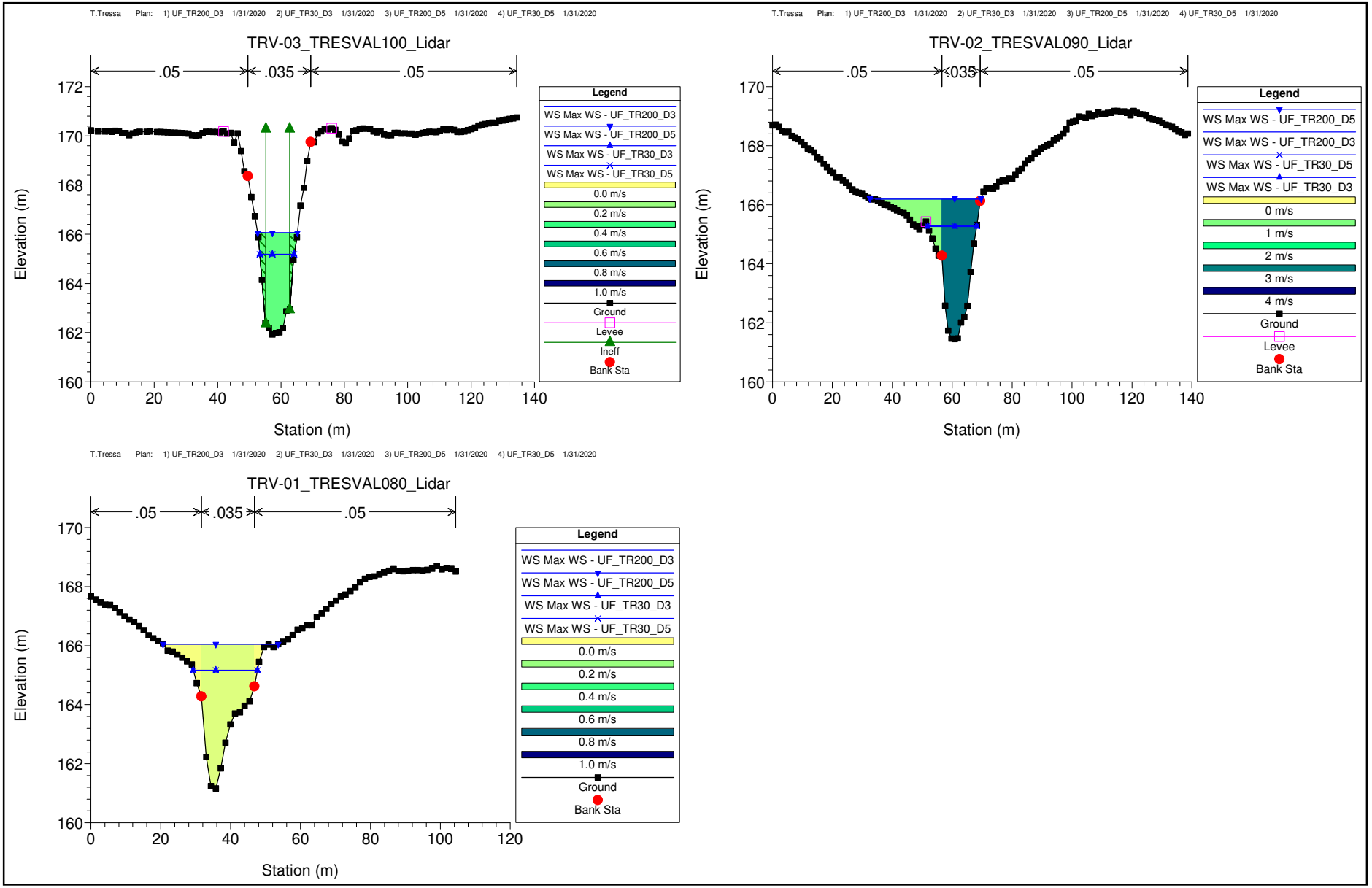
TRV-05_TRESVAL120_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-04_TRESVAL110_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
-2 m/s
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0 m/s
2 m/s
4 m/s
6 m/s
8 m/s
10 m/s
12 m/s
Ground
Levee
Ineff
Bank Sta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TRV-03_TRESVAL100_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Levee
Ineff
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-02_TRESVAL090_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR30_D5
WS Max WS - UF_TR30_D3
0 m/s
1 m/s
2 m/s
3 m/s
4 m/s
Ground
Levee
Bank Sta
T.Tressa Plan: 1) UF_TR200_D3 1/31/2020 2) UF_TR30_D3 1/31/2020 3) UF_TR200_D5 1/31/2020 4) UF_TR30_D5 1/31/2020
TRV-01_TRESVAL080_Lidar
.05
.035
.05
Elevation (m)
Station (m)
Legend
WS Max WS - UF_TR200_D3
WS Max WS - UF_TR200_D5
WS Max WS - UF_TR30_D3
WS Max WS - UF_TR30_D5
0.0 m/s
0.2 m/s
0.4 m/s
0.6 m/s
0.8 m/s
1.0 m/s
Ground
Bank Sta

ProGeo Engineering S.r.l.
via Don Luigi Sturzo, 43/A - 52100 - Arezzo
tel. 0575 324114 - fax. 0575 406473 - email: info@progeo.arezzo.it

ALLEGATI

MODELLAZIONE HEC-RAS 5.0.7 "T. Tressa"

T. TRESSA

MODELLAZIONE PER TR=30 e 200 anni

DURATE DI PIOGGIA: 3 e 5h

Dati idraulici

HEC-RAS River: T.Tressa Reach: T.Tressa Profile: Max WS

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
T.Tressa	700	Max WS	UF_TR200_D3	59.70	232.60	235.25	235.16	235.83	0.007741	3.46	0.94	0.96	19.85	17.68	0.82
T.Tressa	700	Max WS	UF_TR30_D3	32.70	232.60	234.72	234.55	235.12	0.008091	2.82	0.54	0.47	12.01	12.32	0.79
T.Tressa	700	Max WS	UF_TR200_D5	54.90	232.60	235.16	235.07	235.72	0.007786	3.37	0.88	0.91	18.45	16.69	0.82
T.Tressa	700	Max WS	UF_TR30_D5	31.10	232.60	234.69	234.51	235.07	0.008049	2.76	0.51	0.43	11.59	11.91	0.79
T.Tressa	690	Max WS	UF_TR200_D3	59.70	232.17	234.98	234.50	235.28	0.004317	2.48	0.64	0.21	25.40	20.20	0.62
T.Tressa	690	Max WS	UF_TR30_D3	32.69	232.17	234.38	233.93	234.61	0.004609	2.12	0.25		15.49	13.45	0.61
T.Tressa	690	Max WS	UF_TR200_D5	54.89	232.17	234.88	234.41	235.18	0.004552	2.44	0.62	0.07	23.45	18.70	0.63
T.Tressa	690	Max WS	UF_TR30_D5	31.10	232.17	234.34	233.89	234.56	0.004585	2.08	0.20		14.95	13.03	0.61
T.Tressa	680	Max WS	UF_TR200_D3	59.70	231.87	234.81	234.21	235.02	0.003189	2.05		0.38	29.67	22.03	0.53
T.Tressa	680	Max WS	UF_TR30_D3	32.67	231.87	234.04	233.68	234.27	0.005699	2.11			15.49	14.92	0.66
T.Tressa	680	Max WS	UF_TR200_D5	54.88	231.87	234.67	234.13	234.89	0.003644	2.07		0.31	26.74	20.81	0.56
T.Tressa	680	Max WS	UF_TR30_D5	31.10	231.87	234.00	233.64	234.22	0.005756	2.10			14.82	14.48	0.66
T.Tressa	670	Max WS	UF_TR200_D3	59.69	231.33	234.54	233.61	234.85	0.002471	2.44			24.46	26.10	0.49
T.Tressa	670	Max WS	UF_TR30_D3	32.67	231.33	233.76	233.06	233.95	0.002619	1.95			16.74	19.56	0.48
T.Tressa	670	Max WS	UF_TR200_D5	54.88	231.33	234.41	233.52	234.69	0.002520	2.37			23.12	25.33	0.49
T.Tressa	670	Max WS	UF_TR30_D5	31.10	231.33	233.70	233.02	233.89	0.002632	1.92			16.23	19.13	0.48
T.Tressa	665			Bridge											
T.Tressa	660	Max WS	UF_TR200_D3	59.69	231.04	233.77	233.43	234.30	0.005698	3.24	0.82		18.50	15.65	0.75
T.Tressa	660	Max WS	UF_TR30_D3	32.67	231.04	233.28	232.83	233.57	0.004547	2.38	0.10		13.73	12.85	0.64
T.Tressa	660	Max WS	UF_TR200_D5	54.13	231.04	233.74	233.33	234.19	0.004962	2.99	0.73		18.18	15.41	0.69
T.Tressa	660	Max WS	UF_TR30_D5	31.10	231.04	233.24	232.79	233.52	0.004561	2.34	0.03		13.31	12.63	0.63
T.Tressa	650	Max WS	UF_TR200_D3	59.69	230.45	233.31	233.43	234.18	0.011890	4.21	0.89	1.09	15.80	13.48	0.98
T.Tressa	650	Max WS	UF_TR30_D3	32.67	230.45	232.73	232.70	233.33	0.012761	3.44		0.39	9.57	8.20	0.95
T.Tressa	650	Max WS	UF_TR200_D5	55.72	230.45	233.23	233.34	234.08	0.012222	4.14	0.80	1.02	14.72	12.76	0.98
T.Tressa	650	Max WS	UF_TR30_D5	31.10	230.45	232.69	232.64	233.27	0.012791	3.38		0.30	9.23	7.83	0.95
T.Tressa	640	Max WS	UF_TR200_D3	59.69	230.05	232.70	232.50	233.19	0.008440	3.12			19.10	13.56	0.84
T.Tressa	640	Max WS	UF_TR30_D3	32.67	230.05	232.11	231.89	232.48	0.008129	2.70			12.10	10.36	0.80
T.Tressa	640	Max WS	UF_TR200_D5	54.87	230.05	232.61	232.40	233.09	0.008316	3.05			18.00	13.11	0.83
T.Tressa	640	Max WS	UF_TR30_D5	31.10	230.05	232.07	231.84	232.43	0.008052	2.66			11.69	10.14	0.79
T.Tressa	630	Max WS	UF_TR200_D3	59.68	228.81	231.17	231.13	231.71	0.008454	3.34	0.84	0.09	20.48	22.21	0.85
T.Tressa	630	Max WS	UF_TR30_D3	32.65	228.81	230.66	230.46	231.05	0.008191	2.77	0.35		11.97	12.03	0.80
T.Tressa	630	Max WS	UF_TR200_D5	54.87	228.81	231.11	231.03	231.62	0.008192	3.22	0.78		19.18	20.73	0.83
T.Tressa	630	Max WS	UF_TR30_D5	31.08	228.81	230.62	230.43	231.00	0.008262	2.73	0.29		11.47	11.33	0.80
T.Tressa	620	Max WS	UF_TR200_D3	59.35	228.55	230.92	230.75	231.35	0.005329	3.05	0.74	0.85	24.31	26.24	0.70
T.Tressa	620	Max WS	UF_TR30_D3	32.13	228.55	230.44	230.06	230.72	0.004776	2.38	0.38	0.50	14.27	14.97	0.63
T.Tressa	620	Max WS	UF_TR200_D5	54.74	228.55	230.85	230.60	231.27	0.005225	2.95	0.68	0.81	22.68	25.15	0.69
T.Tressa	620	Max WS	UF_TR30_D5	30.90	228.55	230.41	230.03	230.68	0.004742	2.34	0.35	0.48	13.85	14.46	0.63
T.Tressa	610	Max WS	UF_TR200_D3	78.15	227.92	230.33	230.69	231.47	0.017076	4.95	1.58	0.74	19.32	21.21	1.17
T.Tressa	610	Max WS	UF_TR30_D3	43.46	227.92	229.85	230.04	230.66	0.015898	4.02	0.94		11.64	12.21	1.08
T.Tressa	610	Max WS	UF_TR200_D5	71.88	227.92	230.26	230.61	231.35	0.016941	4.80	1.49	0.62	17.90	19.62	1.16
T.Tressa	610	Max WS	UF_TR30_D5	41.30	227.92	229.81	229.99	230.60	0.015995	3.97	0.87		11.07	11.64	1.08
T.Tressa	600	Max WS	UF_TR200_D3	76.72	227.59	229.62	229.39	229.90	0.004273	2.50	0.35	0.92	39.23	42.18	0.63
T.Tressa	600	Max WS	UF_TR30_D3	43.45	227.59	229.10	228.91	229.39	0.006377	2.43		0.40	19.81	33.68	0.73
T.Tressa	600	Max WS	UF_TR200_D5	71.48	227.59	229.54	229.35	229.82	0.004643	2.51	0.29	0.88	35.78	40.33	0.65
T.Tressa	600	Max WS	UF_TR30_D5	41.30	227.59	229.05	228.86	229.34	0.006536	2.41		0.49	18.50	25.47	0.74
T.Tressa	590	Max WS	UF_TR200_D3	78.13	226.67	228.15	228.13	228.75	0.012222	3.44			22.69	18.36	0.99
T.Tressa	590	Max WS	UF_TR30_D3	43.45	226.67	227.75	227.72	228.15	0.012448	2.81			15.47	17.63	0.96
T.Tressa	590	Max WS	UF_TR200_D5	72.09	226.67	228.08	228.07	228.65	0.012178	3.34			21.56	18.25	0.98
T.Tressa	590	Max WS	UF_TR30_D5	41.30	226.67	227.72	227.69	228.11	0.012366	2.75			15.01	17.59	0.95
T.Tressa	580	Max WS	UF_TR200_D3	78.13	225.40	226.97	226.84	227.50	0.011249	3.25			24.06	17.41	0.88
T.Tressa	580	Max WS	UF_TR30_D3	43.45	225.40	226.60	226.40	226.90	0.008278	2.43			17.91	16.57	0.75
T.Tressa	580	Max WS	UF_TR200_D5	72.48	225.40	226.91	226.78	227.41	0.010797	3.13			23.17	17.28	0.86
T.Tressa	580	Max WS	UF_TR30_D5	41.53	225.40	226.58	226.37	226.87	0.007997	2.36			17.57	16.53	0.73
T.Tressa	570	Max WS	UF_TR200_D3	78.13	224.96	225.75	226.39	228.82	0.213956	7.79	2.91		10.17	23.01	3.68
T.Tressa	570	Max WS	UF_TR30_D3	43.45	224.96	225.59	226.03	227.79	0.231294	6.57	2.08		6.66	20.46	3.64
T.Tressa	570	Max WS	UF_TR200_D5	72.76	224.96	225.73	226.34	228.64	0.213735	7.58	2.80		9.73	22.90	3.66
T.Tressa	570	Max WS	UF_TR30_D5	41.71	224.96	225.58	226.01	227.74	0.231708	6.51	2.02		6.45	20.11	3.63
T.Tressa	560	Max WS	UF_TR200_D3	78.08	222.19	224.26	223.83	224.53	0.003944	2.39	0.52	1.15	37.01	32.23	0.60
T.Tressa	560	Max WS	UF_TR30_D3	43.54	222.19	223.71	223.46	223.92	0.005329	2.11		0.91	21.75	22.20	0.65
T.Tressa	560	Max WS	UF_TR200_D5	72.82	222.19	224.18	223.78	224.45	0.004092	2.36	0.48	1.13	34.58	30.97	0.60
T.Tressa	560	Max WS	UF_TR30_D5	42.52	222.19	223.68	223.45	223.90	0.005467	2.11		0.90	21.25	22.17	0.66
T.Tressa	550	Max WS	UF_TR200_D3	77.91	221.37	223.85	223.73	224.39	0.007424	3.77	1.14	1.73	29.45	23.86	0.83
T.Tressa	550	Max WS	UF_TR30_D3	43.45	221.37	223.24	223.26	223.74	0.009748	3.44	1.07	1.40	16.76	18.54	0.90
T.Tressa	550	Max WS	UF_TR200_D5	73.01	221.37	223.75	223.65	224.30	0.008076	3.80	1.20	1.72	27.02	22.53	0.86
T.Tressa	550	Max WS	UF_TR30_D5	41.95	221.37	223.22	223.24	223.71	0.009783	3.41	1.05	1.37	16.28	18.36	0.90
T.Tressa	540	Max WS	UF_TR200_D3	77.91	220.30	223.80	222.72	223.98	0.001416	2.13	0.84	0.76	52.56	31.82	0.39
T.Tressa	540	Max WS	UF_TR30_D3	43.41	220.30	222.53	222.12	222.84	0.004066	2.53	0.93	0.65	19.77	16.84	0.60
T.Tressa	540	Max WS	UF_TR200_D5	73.32	220.30	223.64	222.66	223.84	0.001579	2.17	0.86	0.75	47.73	30.57	0.41
T.Tressa	540	Max WS	UF_TR30_D5	42.13	220.30	222.51	222.09	222.81	0.004015	2.49	0.91	0.65	19.39	16.48	0.60
T.Tressa	530	Max WS	UF_TR200_D3	77.91	219.97	223.75	222.51	223.88	0.001021	1.95	0.84	0.79	63.25	33.22	0.33
T.Tressa	530	Max WS	UF_TR30_D3	43.41	219.97	222.40	221.82	222.65	0.003017	2.44	0.89	0.79	24.27	20.74	0.52
T.Tressa	530	Max WS	UF_TR200_D5	73.51	219.97	223.60	222.44	223.74	0.001133	2.00	0.85	0.78	58.16	32.67	0.35
T.Tressa	530	Max WS	UF_TR30_D5	42.24	219.97	222.37	221.79	222.62	0.003009	2.42	0.87	0.79	23.71	20.36	0.52
T.Tressa	520	Max WS	UF_TR200_D3	77.91	219.66	223.51	222.08	223.75	0.001364	2.41	0.85	1.01	42.73	16.86	0.41
T.Tressa	520	Max WS	UF_TR30_D3	43.41	219.66	222.26	221.44	222.48	0.002064	2.24	0.75	0.92	23.77	13.54	0.47
T.Tressa	520	Max WS	UF_TR200_D5	73.70	219.66	223.36	222.01	223.60	0.001431	2.40	0.84	1.01	40.25	16.47	0.41
T.Tressa	520	Max WS	UF_TR30_D5	42.36	219.66	222.23	221.41	222.45	0.002040	2.21	0.74	0.91	23.44	13.47	0.46
T.Tressa	510	Max WS	UF_TR200_D3	77.91	219.54	223.67	221.27	223.76	0.000370	1.33			58.77	24.63	0.22
T.Tressa	510	Max WS	UF_TR30_D3	43.41	219.54	222.38	220.83	222.45	0.000466	1.12			38.62	22.98	0.23
T.Tressa	510	Max WS	UF_TR200_D5	73.85	219.54	223.52	221.22	223.61	0.000382	1.31			56.38	24.57	0.22
T.Tressa	510	Max WS	UF_TR30_D5	42.46	219.54	222.35	220.82	222.42	0.000463	1.11			38.18	22.86	0.23
T.Tressa	505			Bridge											
T.Tressa	500	Max WS	UF_TR200_D3	77.91	218.95	223.39	221.59	223.60	0.001180	2.17	0.99	0.77	42.88	15.13	0.34

HEC-RAS River: T.Tressa Reach: T.Tressa Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
T.Tressa	500	Max WS	UF_TR30_D3	43.41	218.95	222.10	220.84	222.28	0.001555	1.93	0.60	0.62	25.20	12.70	0.37
T.Tressa	500	Max WS	UF_TR200_D5	73.85	218.95	223.23	221.51	223.44	0.001234	2.17	0.96	0.76	40.59	14.93	0.35
T.Tressa	500	Max WS	UF_TR30_D5	42.46	218.95	222.08	220.81	222.26	0.001535	1.91	0.59	0.61	24.91	12.64	0.37
T.Tressa	450	Max WS	UF_TR200_D3	77.91	219.06	222.77	221.71	223.45	0.008649	3.66			21.28	5.74	0.61
T.Tressa	450	Max WS	UF_TR30_D3	43.41	219.06	221.25	220.86	221.86	0.010939	3.45			12.57	5.74	0.75
T.Tressa	450	Max WS	UF_TR200_D5	74.07	219.06	222.60	221.63	223.28	0.008830	3.65			20.30	5.74	0.62
T.Tressa	450	Max WS	UF_TR30_D5	42.68	219.06	221.22	220.84	221.82	0.011031	3.45			12.38	5.74	0.75
T.Tressa	449			Bridge											
T.Tressa	448	Max WS	UF_TR200_D3	77.91	218.25	222.35	220.92	222.92	0.006802	3.33			23.38	5.70	0.53
T.Tressa	448	Max WS	UF_TR30_D3	43.41	218.25	220.70	220.05	221.19	0.008175	3.11			13.98	5.70	0.63
T.Tressa	448	Max WS	UF_TR200_D5	74.05	218.25	222.18	220.83	222.74	0.006862	3.31			22.39	5.70	0.53
T.Tressa	448	Max WS	UF_TR30_D5	42.68	218.25	220.68	220.03	221.16	0.008124	3.08			13.84	5.70	0.63
T.Tressa	446	Max WS	UF_TR200_D3	77.91	217.80	222.23	220.38	222.67	0.004861	2.93			26.56	5.99	0.44
T.Tressa	446	Max WS	UF_TR30_D3	43.41	217.80	220.56	219.54	220.91	0.005199	2.62			16.55	5.99	0.50
T.Tressa	446	Max WS	UF_TR200_D5	74.17	217.80	222.06	220.29	222.49	0.004890	2.91			25.49	5.99	0.45
T.Tressa	446	Max WS	UF_TR30_D5	42.74	217.80	220.54	219.53	220.88	0.005176	2.61			16.38	5.99	0.50
T.Tressa	445			Bridge											
T.Tressa	444	Max WS	UF_TR200_D3	77.91	217.60	221.96	220.27	222.46	0.005843	3.14			24.82	5.70	0.48
T.Tressa	444	Max WS	UF_TR30_D3	43.41	217.60	220.46	219.40	220.82	0.005427	2.67			16.28	5.70	0.50
T.Tressa	444	Max WS	UF_TR200_D5	74.17	217.60	221.82	220.18	222.30	0.005751	3.09			24.03	5.70	0.48
T.Tressa	444	Max WS	UF_TR30_D5	42.74	217.60	220.43	219.38	220.79	0.005386	2.65			16.13	5.70	0.50
T.Tressa	442	Max WS	UF_TR200_D3	77.91	217.12	221.58		222.06	0.005496	3.06			25.43	5.70	0.46
T.Tressa	442	Max WS	UF_TR30_D3	43.41	217.12	220.14		220.47	0.004671	2.52			17.22	5.70	0.46
T.Tressa	442	Max WS	UF_TR200_D5	74.34	217.12	221.44		221.91	0.005414	3.02			24.65	5.70	0.46
T.Tressa	442	Max WS	UF_TR30_D5	42.84	217.12	220.11		220.44	0.004656	2.51			17.07	5.70	0.46
T.Tressa	441			Culvert											
T.Tressa	440	Max WS	UF_TR200_D3	77.89	216.86	219.15	219.39	220.67	0.012246	5.46			14.28	13.73	1.16
T.Tressa	440	Max WS	UF_TR30_D3	43.41	216.86	218.47	218.58	219.43	0.012474	4.34			10.00	12.35	1.10
T.Tressa	440	Max WS	UF_TR200_D5	74.31	216.86	219.11	219.30	220.54	0.011871	5.30			14.01	13.64	1.14
T.Tressa	440	Max WS	UF_TR30_D5	42.83	216.86	218.47	218.56	219.41	0.012233	4.29			9.98	12.34	1.09
T.Tressa	430	Max WS	UF_TR200_D3	76.62	215.15	218.29	217.68	218.65	0.004875	2.66			28.78	16.04	0.63
T.Tressa	430	Max WS	UF_TR30_D3	42.28	215.15	217.51	217.06	217.80	0.005350	2.38			17.77	12.55	0.64
T.Tressa	430	Max WS	UF_TR200_D5	75.11	215.15	218.21	217.65	218.59	0.005279	2.73			27.50	15.63	0.66
T.Tressa	430	Max WS	UF_TR30_D5	43.26	215.15	217.49	217.08	217.80	0.005841	2.47			17.50	12.47	0.67
T.Tressa	420	Max WS	UF_TR200_D3	82.86	213.93	217.01	216.86	217.84	0.009908	4.04		0.05	20.52	10.16	0.91
T.Tressa	420	Max WS	UF_TR30_D3	46.00	213.93	216.36	216.12	216.89	0.008650	3.21			14.33	9.01	0.81
T.Tressa	420	Max WS	UF_TR200_D5	80.05	213.93	216.96	216.81	217.77	0.009871	3.99		0.05	20.06	10.08	0.90
T.Tressa	420	Max WS	UF_TR30_D5	46.23	213.93	216.37	216.12	216.89	0.008679	3.22			14.36	9.02	0.81
T.Tressa	410	Max WS	UF_TR200_D3	83.07	213.99	217.30	216.12	217.50	0.001273	2.08	0.90		47.34	34.70	0.38
T.Tressa	410	Max WS	UF_TR30_D3	46.20	213.99	216.49	215.50	216.64	0.001340	1.73	0.53		30.65	32.83	0.37
T.Tressa	410	Max WS	UF_TR200_D5	80.34	213.99	217.24	216.08	217.44	0.001291	2.07	0.88		46.06	34.56	0.38
T.Tressa	410	Max WS	UF_TR30_D5	46.41	213.99	216.50	215.50	216.64	0.001342	1.73	0.53		30.74	32.84	0.37
T.Tressa	405			Bridge											
T.Tressa	400	Max WS	UF_TR200_D3	82.89	213.89	216.89	216.23	217.26	0.003452	2.74		0.79	33.22	23.30	0.57
T.Tressa	400	Max WS	UF_TR30_D3	48.65	213.89	215.77	215.67	216.29	0.010461	3.19			15.26	12.50	0.90
T.Tressa	400	Max WS	UF_TR200_D5	80.28	213.89	216.80	216.18	217.18	0.003746	2.79		0.75	31.42	22.73	0.59
T.Tressa	400	Max WS	UF_TR30_D5	46.41	213.89	215.78	215.63	216.24	0.009362	3.02			15.34	12.52	0.85
T.Tressa	390	Max WS	UF_TR200_D3	82.83	212.05	217.00	214.17	217.16	0.000901	1.75	0.65	0.72	47.80	74.26	0.26
T.Tressa	390	Max WS	UF_TR30_D3	46.29	212.05	215.98	213.54	216.06	0.000641	1.26	0.16	0.27	37.02	54.91	0.21
T.Tressa	390	Max WS	UF_TR200_D5	80.40	212.05	216.92	214.13	217.08	0.000899	1.73	0.62	0.69	46.97	73.75	0.26
T.Tressa	390	Max WS	UF_TR30_D5	46.54	212.05	215.98	213.55	216.07	0.000644	1.26	0.17	0.27	37.10	55.42	0.21
T.Tressa	385			Bridge											
T.Tressa	380	Max WS	UF_TR200_D3	83.16	213.22	215.90	215.53	216.57	0.006555	3.64			22.83	19.65	0.78
T.Tressa	380	Max WS	UF_TR30_D3	46.28	213.22	215.38	214.88	215.73	0.004438	2.62			17.63	14.19	0.63
T.Tressa	380	Max WS	UF_TR200_D5	80.78	213.22	215.86	215.50	216.52	0.006501	3.60			22.45	19.22	0.78
T.Tressa	380	Max WS	UF_TR30_D5	46.53	213.22	215.39	214.88	215.74	0.004428	2.63			17.71	14.22	0.63
T.Tressa	370	Max WS	UF_TR200_D3	85.46	212.36	214.95	215.05	215.95	0.013648	4.43			19.27	11.04	1.07
T.Tressa	370	Max WS	UF_TR30_D3	46.63	212.36	214.30	214.34	215.00	0.013628	3.72			12.52	9.57	1.04
T.Tressa	370	Max WS	UF_TR200_D5	82.29	212.36	214.91	215.00	215.89	0.013646	4.39			18.76	10.94	1.07
T.Tressa	370	Max WS	UF_TR30_D5	46.98	212.36	214.30	214.35	215.01	0.013617	3.73			12.59	9.58	1.04
T.Tressa	360	Max WS	UF_TR200_D3	85.26	211.81	214.69	213.71	215.06	0.002503	2.67			31.88	15.73	0.52
T.Tressa	360	Max WS	UF_TR30_D3	46.75	211.81	213.93	213.13	214.14	0.002207	2.03			23.09	14.47	0.46
T.Tressa	360	Max WS	UF_TR200_D5	82.27	211.81	214.64	213.67	214.99	0.002497	2.63			31.23	15.64	0.51
T.Tressa	360	Max WS	UF_TR30_D5	47.15	211.81	213.94	213.13	214.15	0.002212	2.03			23.19	14.49	0.46
T.Tressa	355			Bridge											
T.Tressa	350	Max WS	UF_TR200_D3	85.23	211.71	213.64	214.00	215.03	0.022117	5.22			16.31	17.12	1.41
T.Tressa	350	Max WS	UF_TR30_D3	46.75	211.71	213.20	213.42	214.09	0.023109	4.16			11.23	13.84	1.35
T.Tressa	350	Max WS	UF_TR200_D5	82.26	211.71	213.61	213.96	214.96	0.022080	5.15			15.98	16.90	1.40
T.Tressa	350	Max WS	UF_TR30_D5	47.15	211.71	213.21	213.43	214.10	0.023067	4.18			11.29	13.88	1.35
T.Tressa	340	Max WS	UF_TR200_D3	85.88	206.64	210.85	210.33	211.39	0.006462	3.27			26.25	12.33	0.72
T.Tressa	340	Max WS	UF_TR30_D3	47.06	206.64	210.11	209.60	210.46	0.005676	2.64			17.82	10.54	0.65
T.Tressa	340	Max WS	UF_TR200_D5	82.79	206.64	210.79	210.28	211.33	0.006418	3.23			25.63	12.21	0.71
T.Tressa	340	Max WS	UF_TR30_D5	47.63	206.64	210.12	209.61	210.48	0.005690	2.65			17.96	10.57	0.65
T.Tressa	335	Max WS	UF_TR200_D3	86.98	206.74	210.12	209.30	210.39	0.002733	2.34	0.15	0.56	41.37	32.83	0.52
T.Tressa	335	Max WS	UF_TR30_D3	47.62	206.74	209.40	208.68	209.60	0.002923	1.98		0.11	24.04	16.69	0.51
T.Tressa	335	Max WS	UF_TR200_D5	83.65	206.74	210.07	209.26	210.34	0.002746	2.31	0.10	0.54	39.90	31.24	0.52
T.Tressa	335	Max WS	UF_TR30_D5	48.22	206.74	209.41	208.69	209.61	0.002928	1.99		0.13	24.25	16.94	0.51
T.Tressa	330	Max WS	UF_TR200_D3	86.92	206.74	210.08	209.31	210.37	0.002924	2.39	0.11	0.56	40.14	31.54	0.53
T.Tressa	330	Max WS	UF_TR30_D3	47.64	206.74	209.36	208.68	209.57	0.003158	2.04		0.07	23.40	15.90	0.53
T.Tressa	330	Max WS	UF_TR200_D5	83.68	206.74	210.04	209.27	210.31	0.002948	2.37	0.06	0.54	38.72	29.93	0.53
T.Tressa	330	Max WS	UF_TR30_D5	48.24	206.74	209.37	208.69	209.59	0.003162	2.05		0.08	23.59	16.14	0.53

HEC-RAS River: T.Tressa Reach: T.Tressa Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
T.Tressa	325	Max WS	UF_TR200_D3	87.94	205.56	209.02	208.63	209.53	0.005812	3.25		0.84	30.64	23.59	0.70
T.Tressa	325	Max WS	UF_TR30_D3	48.25	205.56	208.15	207.65	208.59	0.006846	2.93			16.44	9.68	0.72
T.Tressa	325	Max WS	UF_TR200_D5	84.42	205.56	208.96	208.55	209.47	0.005844	3.23		0.80	29.33	22.64	0.70
T.Tressa	325	Max WS	UF_TR30_D5	48.80	205.56	208.15	207.67	208.60	0.007004	2.97			16.44	9.68	0.73
T.Tressa	320	Max WS	UF_TR200_D3	87.99	205.56	208.92	208.65	209.51	0.006943	3.46		0.84	28.25	21.96	0.76
T.Tressa	320	Max WS	UF_TR30_D3	48.28	205.56	208.00	207.68	208.54	0.008807	3.24			14.92	9.06	0.81
T.Tressa	320	Max WS	UF_TR200_D5	84.44	205.56	208.87	208.57	209.45	0.006920	3.42		0.80	27.15	21.11	0.76
T.Tressa	320	Max WS	UF_TR30_D5	48.83	205.56	208.00	207.70	208.55	0.009045	3.28			14.90	9.05	0.82
T.Tressa	315	Max WS	UF_TR200_D3	88.34	204.94	208.80	207.52	209.01	0.001740	2.03	0.48		48.23	31.14	0.41
T.Tressa	315	Max WS	UF_TR30_D3	48.59	204.94	207.77	206.86	207.96	0.002336	1.90			25.64	14.48	0.45
T.Tressa	315	Max WS	UF_TR200_D5	84.93	204.94	208.75	207.47	208.95	0.001720	2.00	0.46		46.71	30.24	0.41
T.Tressa	315	Max WS	UF_TR30_D5	49.11	204.94	207.74	206.87	207.93	0.002519	1.95			25.13	14.36	0.47
T.Tressa	310	Max WS	UF_TR200_D3	88.90	204.48	208.81	206.88	208.91	0.000785	1.43	0.38		72.62	47.92	0.28
T.Tressa	310	Max WS	UF_TR30_D3	48.77	204.48	207.76	206.26	207.85	0.000951	1.31	0.05		37.25	19.21	0.29
T.Tressa	310	Max WS	UF_TR200_D5	85.25	204.48	208.76	206.83	208.86	0.000771	1.41	0.36		70.21	46.52	0.28
T.Tressa	310	Max WS	UF_TR30_D5	49.28	204.48	207.72	206.27	207.81	0.001023	1.35	0.02		36.55	18.19	0.30
T.Tressa	305	Max WS	UF_TR200_D3	99.80	204.48	208.74	207.04	208.87	0.001101	1.67	0.43		68.99	45.92	0.33
T.Tressa	305	Max WS	UF_TR30_D3	55.27	204.48	207.67	206.40	207.80	0.001403	1.56			35.46	17.82	0.35
T.Tressa	305	Max WS	UF_TR200_D5	93.81	204.48	208.70	206.96	208.83	0.001022	1.60	0.40		67.23	44.87	0.32
T.Tressa	305	Max WS	UF_TR30_D5	54.43	204.48	207.65	206.38	207.77	0.001414	1.56			34.96	17.71	0.35
T.Tressa	300	Max WS	UF_TR200_D3	99.93	204.56	208.74	206.88	208.84	0.000783	1.48	0.44		79.85	45.89	0.28
T.Tressa	300	Max WS	UF_TR30_D3	55.34	204.56	207.65	206.30	207.76	0.000893	1.46			37.79	21.89	0.30
T.Tressa	300	Max WS	UF_TR200_D5	93.93	204.56	208.70	206.82	208.80	0.000725	1.41	0.41		78.07	45.27	0.27
T.Tressa	300	Max WS	UF_TR30_D5	54.49	204.56	207.62	206.29	207.73	0.000901	1.46			37.34	21.25	0.31
T.Tressa	295			Bridge											
T.Tressa	290	Max WS	UF_TR200_D3	99.93	204.44	208.29	206.54	208.39	0.000768	1.43	0.39		76.53	41.80	0.29
T.Tressa	290	Max WS	UF_TR30_D3	55.34	204.44	207.55	205.98	207.62	0.000577	1.19			46.53	32.23	0.25
T.Tressa	290	Max WS	UF_TR200_D5	93.99	204.44	208.24	206.47	208.33	0.000727	1.38	0.37		74.41	41.25	0.28
T.Tressa	290	Max WS	UF_TR30_D5	54.49	204.44	207.53	205.97	207.60	0.000577	1.18			46.09	31.88	0.25
T.Tressa	288	Max WS	UF_TR200_D3	99.66	204.42	207.97	207.64	208.35	0.004170	2.87	0.92	0.34	43.44	35.58	0.61
T.Tressa	288	Max WS	UF_TR30_D3	55.47	204.42	207.15	206.85	207.56	0.006926	2.82	0.30		19.91	16.92	0.74
T.Tressa	288	Max WS	UF_TR200_D5	94.16	204.42	207.94	207.58	208.29	0.003946	2.77	0.88	0.31	42.35	35.20	0.59
T.Tressa	288	Max WS	UF_TR30_D5	54.61	204.42	207.13	206.83	207.54	0.007038	2.82	0.27		19.55	16.40	0.75
T.Tressa	286	Max WS	UF_TR200_D3	91.12	204.37	207.79	207.28	208.24	0.003892	3.13	1.29	0.79	35.19	22.38	0.61
T.Tressa	286	Max WS	UF_TR30_D3	55.51	204.37	207.10	206.65	207.48	0.004618	2.78	0.94	0.18	22.20	16.32	0.64
T.Tressa	286	Max WS	UF_TR200_D5	90.16	204.37	207.79	207.27	208.23	0.003829	3.10	1.28	0.78	35.11	22.32	0.61
T.Tressa	286	Max WS	UF_TR30_D5	54.64	204.37	207.08	206.63	207.45	0.004681	2.78	0.92	0.15	21.83	16.08	0.64
T.Tressa	284	Max WS	UF_TR200_D3	101.24	204.23	207.61	207.35	208.41	0.007852	4.09	1.73		27.09	13.09	0.82
T.Tressa	284	Max WS	UF_TR30_D3	55.55	204.23	206.83	206.61	207.38	0.007451	3.33	1.11		17.76	11.56	0.78
T.Tressa	284	Max WS	UF_TR200_D5	95.86	204.23	207.52	207.27	208.30	0.007852	4.02	1.70		25.99	12.63	0.82
T.Tressa	284	Max WS	UF_TR30_D5	54.69	204.23	206.81	206.59	207.35	0.007490	3.32	1.09		17.52	11.54	0.78
T.Tressa	279	Max WS	UF_TR200_D3	104.53	203.83	206.94	206.93	207.96	0.011802	4.47			23.36	11.36	1.00
T.Tressa	279	Max WS	UF_TR30_D3	55.75	203.83	206.12	206.11	206.86	0.012379	3.82			14.60	9.69	0.99
T.Tressa	279	Max WS	UF_TR200_D5	95.24	203.83	206.83	206.80	207.78	0.011511	4.32			22.07	11.20	0.98
T.Tressa	279	Max WS	UF_TR30_D5	54.86	203.83	206.10	206.10	206.84	0.012398	3.81			14.41	9.64	0.99
T.Tressa	277	Max WS	UF_TR200_D3	102.36	202.90	206.58	205.76	207.08	0.004615	3.14			32.59	12.76	0.63
T.Tressa	277	Max WS	UF_TR30_D3	55.90	202.90	205.67	204.94	206.00	0.004113	2.56			21.80	10.91	0.58
T.Tressa	277	Max WS	UF_TR200_D5	95.28	202.90	206.47	205.65	206.94	0.004513	3.06			31.16	12.54	0.62
T.Tressa	277	Max WS	UF_TR30_D5	55.00	202.90	205.65	204.92	205.98	0.004107	2.55			21.55	10.86	0.58
T.Tressa	275	Max WS	UF_TR200_D3	102.27	202.60	206.08	205.54	206.72	0.006283	3.54			28.85	12.13	0.73
T.Tressa	275	Max WS	UF_TR30_D3	56.05	202.60	205.19	204.72	205.64	0.005987	2.97			18.90	10.28	0.70
T.Tressa	275	Max WS	UF_TR200_D5	95.54	202.60	205.97	205.43	206.58	0.006196	3.46			27.58	11.91	0.73
T.Tressa	275	Max WS	UF_TR30_D5	55.13	202.60	205.16	204.70	205.61	0.006006	2.96			18.65	10.23	0.70
T.Tressa	273	Max WS	UF_TR200_D3	102.28	201.69	205.44	204.89	206.08	0.006328	3.53			29.01	12.24	0.73
T.Tressa	273	Max WS	UF_TR30_D3	56.36	201.69	204.66	204.09	205.06	0.005118	2.80			20.17	10.47	0.64
T.Tressa	273	Max WS	UF_TR200_D5	96.00	201.69	205.35	204.80	205.96	0.006167	3.44			27.92	12.01	0.72
T.Tressa	273	Max WS	UF_TR30_D5	55.41	201.69	204.63	204.07	205.03	0.005140	2.79			19.89	10.43	0.64
T.Tressa	270	Max WS	UF_TR200_D3	102.07	201.40	205.46	204.76	205.97	0.005116	3.16			32.34	14.05	0.66
T.Tressa	270	Max WS	UF_TR30_D3	56.41	201.40	204.63	203.94	204.97	0.004507	2.60			21.73	11.50	0.60
T.Tressa	270	Max WS	UF_TR200_D5	95.58	201.40	205.37	204.66	205.85	0.005012	3.08			31.02	13.76	0.66
T.Tressa	270	Max WS	UF_TR30_D5	55.45	201.40	204.60	203.92	204.94	0.004533	2.59			21.41	11.42	0.60
T.Tressa	268	Max WS	UF_TR200_D3	102.27	201.46	205.29	204.76	205.93	0.006645	3.54			28.85	12.21	0.74
T.Tressa	268	Max WS	UF_TR30_D3	56.43	201.46	204.54	203.88	204.93	0.005160	2.77			20.38	10.43	0.63
T.Tressa	268	Max WS	UF_TR200_D5	94.69	201.46	205.21	204.64	205.80	0.006273	3.40			27.84	12.01	0.71
T.Tressa	268	Max WS	UF_TR30_D5	55.46	201.46	204.52	203.85	204.90	0.005166	2.76			20.11	10.35	0.63
T.Tressa	267.5			Bridge											
T.Tressa	266	Max WS	UF_TR200_D3	102.26	201.37	205.00	204.76	205.72	0.008833	3.75			27.27	14.16	0.86
T.Tressa	266	Max WS	UF_TR30_D3	56.42	201.37	204.10	203.85	204.69	0.008851	3.41			16.53	9.67	0.83
T.Tressa	266	Max WS	UF_TR200_D5	96.11	201.37	204.90	204.66	205.60	0.008877	3.71			25.88	13.67	0.86
T.Tressa	266	Max WS	UF_TR30_D5	55.47	201.37	204.08	203.83	204.67	0.008808	3.40			16.32	9.56	0.83
T.Tressa	264	Max WS	UF_TR200_D3	102.41	201.23	205.08	203.90	205.42	0.002719	2.57			39.80	14.91	0.50
T.Tressa	264	Max WS	UF_TR30_D3	56.58	201.23	204.17	203.18	204.39	0.002423	2.09			27.02	12.99	0.46
T.Tressa	264	Max WS	UF_TR200_D5	96.34	201.23	204.98	203.82	205.31	0.002661	2.51			38.36	14.70	0.50
T.Tressa	264	Max WS	UF_TR30_D5	55.61	201.23	204.14	203.16	204.36	0.002420	2.08			26.70	12.93	0.46
T.Tressa	262	Max WS	UF_TR200_D3	102.64	200.83	204.45	203.78	205.04	0.005807	3.38			30.36	12.76	0.70
T.Tressa	262	Max WS	UF_TR30_D3	56.85	200.83	203.61	202.97	203.99	0.004659	2.73			20.84	10.46	0.62
T.Tressa	262	Max WS	UF_TR200_D5	96.73	200.83	204.37	203.68	204.93	0.005545	3.30			29.31	12.30	0.68
T.Tressa	262	Max WS	UF_TR30_D5	55.85	200.83	203.59	202.95	203.96	0.004650	2.71			20.59	10.42	0.62
T.Tressa	260	Max WS	UF_TR200_D3	102.68	200.33	204.42	203.85	204.98	0.005826	3.32			30.94	13.95	0.71
T.Tressa	260	Max WS	UF_TR30_D3	56.88	200.33	203.52	203.01	203.94	0.005834	2.88			19.73	10.98	0.69
T.Tressa	260	Max WS	UF_TR200_D5	96.77	200.33	204.33	203.74	204.87	0.005751	3.26			29.73	13.66	0.70
T.Tressa	260	Max WS	UF_TR30_D5	55.87	200.33	203.49	202.97	203.92	0.005843	2.87			19.45	10.89	0.69

HEC-RAS River: T.Tressa Reach: T.Tressa Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
T.Tressa	258	Max WS	UF_TR200_D3	102.87	200.35	203.68	203.55	204.67	0.010996	4.40			23.36	10.16	0.93
T.Tressa	258	Max WS	UF_TR30_D3	57.05	200.35	202.95	202.66	203.57	0.008683	3.46			16.47	8.79	0.81
T.Tressa	258	Max WS	UF_TR200_D5	97.00	200.35	203.60	203.45	204.54	0.010776	4.31			22.53	10.01	0.92
T.Tressa	258	Max WS	UF_TR30_D5	56.02	200.35	202.94	202.64	203.54	0.008593	3.43			16.31	8.76	0.80
T.Tressa	256	Max WS	UF_TR200_D3	103.02	200.00	202.65	202.93	203.98	0.018751	5.10			20.21	11.45	1.23
T.Tressa	256	Max WS	UF_TR30_D3	57.22	200.00	201.96	202.15	202.95	0.019178	4.42			12.96	9.44	1.20
T.Tressa	256	Max WS	UF_TR200_D5	97.12	200.00	202.58	202.84	203.85	0.018457	4.99			19.45	11.26	1.21
T.Tressa	256	Max WS	UF_TR30_D5	56.18	200.00	201.93	202.13	202.92	0.019257	4.40			12.76	9.38	1.21
T.Tressa	250	Max WS	UF_TR200_D3	102.54	198.91	202.48	201.20	202.61	0.001236	1.60	0.14		64.20	34.36	0.35
T.Tressa	250	Max WS	UF_TR30_D3	57.39	198.91	201.66	200.71	201.76	0.001457	1.42			40.33	26.36	0.37
T.Tressa	250	Max WS	UF_TR200_D5	97.78	198.91	202.41	201.16	202.54	0.001242	1.58	0.10		62.03	32.90	0.35
T.Tressa	250	Max WS	UF_TR30_D5	56.35	198.91	201.63	200.69	201.73	0.001478	1.42			39.61	26.19	0.37
T.Tressa	249			Inl Struct											
T.Tressa	248	Max WS	UF_TR200_D3	102.16	198.91	202.41	201.20	202.55	0.001358	1.65	0.11		61.99	32.87	0.37
T.Tressa	248	Max WS	UF_TR30_D3	57.39	198.91	201.60	200.71	201.72	0.001613	1.48			38.90	26.02	0.39
T.Tressa	248	Max WS	UF_TR200_D5	97.79	198.91	202.35	201.16	202.48	0.001376	1.63	0.06		59.96	31.43	0.37
T.Tressa	248	Max WS	UF_TR30_D5	56.35	198.91	201.58	200.69	201.69	0.001639	1.48			38.19	25.85	0.39
T.Tressa	245	Max WS	UF_TR200_D3	104.64	198.34	201.65	201.00	202.14	0.004618	3.12	0.23	0.31	34.69	25.90	0.65
T.Tressa	245	Max WS	UF_TR30_D3	57.95	198.34	200.76	200.27	201.14	0.005090	2.70			21.43	12.41	0.66
T.Tressa	245	Max WS	UF_TR200_D5	100.09	198.34	201.53	200.94	202.04	0.005066	3.15	0.10	0.19	31.98	19.52	0.68
T.Tressa	245	Max WS	UF_TR30_D5	56.91	198.34	200.71	200.25	201.10	0.005333	2.74			20.79	12.27	0.67
T.Tressa	240	Max WS	UF_TR200_D3	115.21	196.56	200.90	199.93	201.26	0.003483	2.66			43.37	19.62	0.57
T.Tressa	240	Max WS	UF_TR30_D3	64.37	196.56	200.08	199.11	200.33	0.002994	2.22			29.06	15.31	0.51
T.Tressa	240	Max WS	UF_TR200_D5	106.68	196.56	200.79	199.81	201.13	0.003386	2.58			41.29	19.06	0.56
T.Tressa	240	Max WS	UF_TR30_D5	61.91	196.56	200.02	199.07	200.27	0.003006	2.20			28.11	14.98	0.51
T.Tressa	230	Max WS	UF_TR200_D3	115.82	196.17	200.43	199.40	200.72	0.002834	2.39		0.11	49.28	49.57	0.52
T.Tressa	230	Max WS	UF_TR30_D3	64.75	196.17	199.68	198.60	199.88	0.002387	1.96			33.06	18.13	0.46
T.Tressa	230	Max WS	UF_TR200_D5	105.34	196.17	200.36	199.26	200.62	0.002618	2.26			46.65	22.26	0.50
T.Tressa	230	Max WS	UF_TR30_D5	62.33	196.17	199.61	198.54	199.80	0.002461	1.97			31.70	17.66	0.47
T.Tressa	220	Max WS	UF_TR200_D3	125.96	195.50	198.99	198.85	199.75	0.009334	3.86			32.64	17.98	0.91
T.Tressa	220	Max WS	UF_TR30_D3	70.97	195.50	198.23	198.04	198.83	0.009134	3.42			20.74	13.31	0.88
T.Tressa	220	Max WS	UF_TR200_D5	115.97	195.50	198.88	198.73	199.61	0.009260	3.78			30.67	17.30	0.91
T.Tressa	220	Max WS	UF_TR30_D5	67.29	195.50	198.17	197.97	198.75	0.009064	3.38			19.90	12.92	0.87
T.Tressa	210	Max WS	UF_TR200_D3	126.70	193.31	197.58	196.51	197.97	0.003208	2.77			45.77	17.05	0.54
T.Tressa	210	Max WS	UF_TR30_D3	71.17	193.31	196.68	195.80	196.94	0.002997	2.28			31.23	15.12	0.51
T.Tressa	210	Max WS	UF_TR200_D5	117.01	193.31	197.47	196.40	197.83	0.003097	2.67			43.80	16.80	0.53
T.Tressa	210	Max WS	UF_TR30_D5	67.82	193.31	196.62	195.73	196.88	0.002946	2.23			30.37	14.99	0.50
T.Tressa	200	Max WS	UF_TR200_D3	128.81	190.20	194.83	193.78	195.24	0.004506	2.85		0.30	45.84	28.98	0.63
T.Tressa	200	Max WS	UF_TR30_D3	71.72	190.20	193.87	192.84	194.18	0.003419	2.46			29.18	13.42	0.53
T.Tressa	200	Max WS	UF_TR200_D5	121.51	190.20	194.75	193.68	195.15	0.004446	2.80		0.21	43.64	25.59	0.62
T.Tressa	200	Max WS	UF_TR30_D5	69.42	190.20	193.83	192.80	194.13	0.003367	2.43			28.62	13.26	0.53
T.Tressa	190	Max WS	UF_TR200_D3	130.86	187.45	191.55	190.81	192.14	0.005095	3.39	0.25		39.49	27.95	0.66
T.Tressa	190	Max WS	UF_TR30_D3	72.46	187.45	190.75	189.78	191.11	0.004004	2.63			27.52	12.65	0.57
T.Tressa	190	Max WS	UF_TR200_D5	125.72	187.45	191.51	190.74	192.07	0.004955	3.32	0.25		38.40	21.88	0.65
T.Tressa	190	Max WS	UF_TR30_D5	71.00	187.45	190.73	189.76	191.08	0.003947	2.60			27.26	12.59	0.57
T.Tressa	180	Max WS	UF_TR200_D3	132.72	185.37	188.36	187.74	188.78	0.004830	2.87			46.26	23.46	0.65
T.Tressa	180	Max WS	UF_TR30_D3	73.07	185.37	187.58	187.10	187.89	0.004747	2.46			29.69	18.88	0.63
T.Tressa	180	Max WS	UF_TR200_D5	129.01	185.37	188.33	187.70	188.74	0.004765	2.83			45.51	23.28	0.65
T.Tressa	180	Max WS	UF_TR30_D5	72.20	185.37	187.57	187.09	187.88	0.004707	2.45			29.52	18.83	0.62
T.Tressa	170	Max WS	UF_TR200_D3	134.62	182.54	186.56	185.44	186.88	0.002511	2.49			54.04	20.12	0.49
T.Tressa	170	Max WS	UF_TR30_D3	73.61	182.54	185.72	184.79	185.91	0.002208	1.96			37.62	18.81	0.44
T.Tressa	170	Max WS	UF_TR200_D5	132.33	182.54	186.54	185.42	186.85	0.002473	2.46			53.69	20.09	0.48
T.Tressa	170	Max WS	UF_TR30_D5	73.42	182.54	185.72	184.78	185.91	0.002191	1.95			37.65	18.81	0.44
T.Tressa	160	Max WS	UF_TR200_D3	137.10	179.77	182.71	182.14	183.38	0.004807	3.64			37.70	18.28	0.70
T.Tressa	160	Max WS	UF_TR30_D3	74.48	179.77	181.90	181.42	182.30	0.004561	2.80			26.56	17.33	0.65
T.Tressa	160	Max WS	UF_TR200_D5	136.34	179.77	182.70	182.13	183.37	0.004805	3.63			37.58	18.27	0.70
T.Tressa	160	Max WS	UF_TR30_D5	74.98	179.77	181.91	181.42	182.31	0.004562	2.81			26.66	17.34	0.65
T.Tressa	155			Bridge											
T.Tressa	150	Max WS	UF_TR200_D3	137.10	178.61	181.96	181.71	182.82	0.007347	4.12			33.24	15.99	0.85
T.Tressa	150	Max WS	UF_TR30_D3	74.48	178.61	181.25	180.96	181.76	0.006964	3.18			23.42	14.13	0.78
T.Tressa	150	Max WS	UF_TR200_D5	136.34	178.61	181.95	181.70	182.81	0.007287	4.11			33.21	15.98	0.85
T.Tressa	150	Max WS	UF_TR30_D5	74.98	178.61	181.26	180.97	181.77	0.006925	3.18			23.56	14.15	0.78
T.Tressa	140	Max WS	UF_TR200_D3	140.00	174.56	177.59	176.86	177.86	0.003118	2.30			60.82	34.14	0.55
T.Tressa	140	Max WS	UF_TR30_D3	75.48	174.56	176.82	176.26	177.03	0.003621	2.04			36.94	27.78	0.57
T.Tressa	140	Max WS	UF_TR200_D5	141.10	174.56	177.61	176.87	177.87	0.003062	2.29			61.55	34.29	0.55
T.Tressa	140	Max WS	UF_TR30_D5	76.86	174.56	176.85	176.28	177.06	0.003574	2.04			37.63	28.03	0.56
T.Tressa	130	Max WS	UF_TR200_D3	142.42	171.40	175.82	174.85	176.15	0.002941	2.53			56.21	24.00	0.53
T.Tressa	130	Max WS	UF_TR30_D3	76.13	171.40	174.97	174.04	175.18	0.002701	2.04			37.25	20.68	0.49
T.Tressa	130	Max WS	UF_TR200_D5	145.21	171.40	175.85	174.87	176.18	0.002934	2.55			57.04	24.14	0.53
T.Tressa	130	Max WS	UF_TR30_D5	78.40	171.40	175.02	174.07	175.23	0.002664	2.05			38.21	20.86	0.48
T.Tressa	120	Max WS	UF_TR200_D3	143.51	170.35	174.72	173.95	175.13	0.003642	2.97	0.65	0.54	63.78	71.30	0.59
T.Tressa	120	Max WS	UF_TR30_D3	76.55	170.35	174.01	172.86	174.29	0.003096	2.36			32.45	15.32	0.52
T.Tressa	120	Max WS	UF_TR200_D5	147.02	170.35	174.75	173.99	175.16	0.003622	2.99	0.67	0.56	65.89	72.76	0.59
T.Tressa	120	Max WS	UF_TR30_D5	79.19	170.35	174.04	172.91	174.34	0.003190	2.40			32.98	15.53	0.53
T.Tressa	110	Max WS	UF_TR200_D3	144.44	169.04	172.26	172.91	174.15	0.021459	6.08			23.75	11.05	1.32
T.Tressa	110	Max WS	UF_TR30_D3	76.98	169.04	171.51	171.71	172.67	0.017061	4.76			16.16	9.28	1.15
T.Tressa	110	Max WS	UF_TR200_D5	149.69	169.04	172.32	172.93	174.24	0.021758	6.15			24.35	11.28	1.34
T.Tressa	110	Max WS	UF_TR30_D5	80.53	169.04	171.57	171.78	172.75	0.017028	4.82			16.71	9.41	1.15
T.Tressa	100	Max WS	UF_TR200_D3	144.31	168.93	172.13	170.84	172.20	0.000911	1.21			118.81	70.77	0.30
T.Tressa	100	Max WS	UF_TR30_D3	76.75	168.93	171.40	170.39	171.46	0.000938	1.05			73.10	55.39	0.29
T.Tressa	100	Max WS	UF_TR200_D5	149.66	168.93	172.18	170.87	172.26	0.000900	1.22			122.66	71.92	0.30
T.Tressa	100	Max WS	UF_TR30_D5	80.53	168.93	171.46	170.42	171.52	0.000916	1.05			76.46	56.62	0.29
T.Tressa	90	Max WS	UF_TR200_D3	144.93	167.39	171.63	170.66	171.79	0.001638	1.82	0.38	0.43	97.88	102.47	0.40

HEC-RAS River: T.Tressa Reach: T.Tressa Profile: Max WS (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Vel Left	Vel Right	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m/s)	(m/s)	(m2)	(m)	
T.Tressa	90	Max WS	UF_TR30_D3	77.13	167.39	170.87	169.81	171.00	0.002196	1.64			47.17	33.40	0.44
T.Tressa	90	Max WS	UF_TR200_D5	151.76	167.39	171.69	170.71	171.85	0.001586	1.83	0.40	0.45	104.28	106.59	0.40
T.Tressa	90	Max WS	UF_TR30_D5	81.21	167.39	170.94	169.88	171.07	0.002124	1.64			49.51	34.04	0.43
T.Tressa	80	Max WS	UF_TR200_D3	146.40	166.70	170.65	169.93	171.09	0.003655	3.12		0.81	64.05	55.55	0.59
T.Tressa	80	Max WS	UF_TR30_D3	77.75	166.70	169.94	168.99	170.26	0.003120	2.50		0.10	31.13	13.90	0.53
T.Tressa	80	Max WS	UF_TR200_D5	154.19	166.70	170.71	170.02	171.15	0.003663	3.15		0.86	67.56	56.39	0.59
T.Tressa	80	Max WS	UF_TR30_D5	82.27	166.70	169.99	169.05	170.33	0.003257	2.58		0.14	31.92	14.18	0.54
T.Tressa	70	Max WS	UF_TR200_D3	146.73	166.39	170.45	170.13	170.77	0.003275	2.96	0.47	1.09	78.11	68.72	0.54
T.Tressa	70	Max WS	UF_TR30_D3	77.88	166.39	169.53	169.01	169.96	0.004927	2.99		0.71	32.27	33.05	0.64
T.Tressa	70	Max WS	UF_TR200_D5	154.72	166.39	170.52	170.18	170.84	0.003213	2.98	0.52	1.12	82.86	70.35	0.54
T.Tressa	70	Max WS	UF_TR30_D5	83.05	166.39	169.60	169.01	170.03	0.004995	3.06		0.75	34.43	35.16	0.65
T.Tressa	60	Max WS	UF_TR200_D3	147.40	166.00	169.40	169.40	170.54	0.010441	4.79		1.48	32.45	15.03	0.96
T.Tressa	60	Max WS	UF_TR30_D3	78.11	166.00	168.35	168.40	169.27	0.012942	4.25		0.60	18.50	11.29	1.02
T.Tressa	60	Max WS	UF_TR200_D5	155.57	166.00	169.47	169.79	170.67	0.010528	4.90	0.21	1.54	33.61	16.17	0.97
T.Tressa	60	Max WS	UF_TR30_D5	83.23	166.00	168.42	168.48	169.39	0.013188	4.36		0.69	19.29	11.60	1.03
T.Tressa	50	Max WS	UF_TR200_D3	147.63	164.65	169.18	167.79	169.48	0.002180	2.52	0.78	0.09	67.88	36.19	0.46
T.Tressa	50	Max WS	UF_TR30_D3	78.27	164.65	168.33	166.83	168.52	0.001732	1.96			39.89	16.10	0.40
T.Tressa	50	Max WS	UF_TR200_D5	156.05	164.65	169.25	167.89	169.57	0.002218	2.58	0.82	0.14	70.64	38.45	0.47
T.Tressa	50	Max WS	UF_TR30_D5	83.44	164.65	168.37	166.91	168.59	0.001856	2.04	0.27		41.85	24.43	0.41
T.Tressa	40	Max WS	UF_TR200_D3	147.93	164.19	168.85	168.28	169.28	0.003059	3.09	0.73	1.23	63.79	45.71	0.56
T.Tressa	40	Max WS	UF_TR30_D3	78.37	164.19	167.95	167.22	168.29	0.003478	2.62	0.12	0.75	32.26	25.13	0.56
T.Tressa	40	Max WS	UF_TR200_D5	156.47	164.19	168.93	168.35	169.36	0.003061	3.15	0.77	1.27	67.45	47.62	0.56
T.Tressa	40	Max WS	UF_TR30_D5	83.27	164.19	167.96	167.31	168.34	0.003879	2.78	0.14	0.79	32.44	25.45	0.60
T.Tressa	30	Max WS	UF_TR200_D3	147.96	163.83	168.43	168.37	169.08	0.005853	3.71	0.87	0.30	49.85	47.06	0.73
T.Tressa	30	Max WS	UF_TR30_D3	78.59	163.83	167.49	166.97	168.01	0.006142	3.22			24.44	11.76	0.71
T.Tressa	30	Max WS	UF_TR200_D5	156.49	163.83	168.55	168.53	169.18	0.005461	3.68	0.87	0.37	55.68	53.61	0.71
T.Tressa	30	Max WS	UF_TR30_D5	84.30	163.83	167.58	167.07	168.13	0.006307	3.30			25.55	12.09	0.72
T.Tressa	20	Max WS	UF_TR200_D3	145.96	163.45	168.32	167.13	168.53	0.001578	2.13	0.57	0.62	89.14	66.57	0.40
T.Tressa	20	Max WS	UF_TR30_D3	78.81	163.45	167.29	166.47	167.50	0.002549	2.02		0.20	39.12	22.49	0.48
T.Tressa	20	Max WS	UF_TR200_D5	155.81	163.45	168.49	167.22	168.68	0.001388	2.08	0.62	0.59	100.50	70.54	0.38
T.Tressa	20	Max WS	UF_TR30_D5	84.30	163.45	167.41	166.54	167.62	0.002398	2.03	0.04	0.30	41.71	22.93	0.46
T.Tressa	10	Max WS	UF_TR200_D3	146.19	162.98	168.12	166.94	168.37	0.001721	2.45	0.64	0.69	92.55	76.36	0.42
T.Tressa	10	Max WS	UF_TR30_D3	78.88	162.98	166.89	165.98	167.22	0.003374	2.56	0.30	0.13	30.93	16.94	0.54
T.Tressa	10	Max WS	UF_TR200_D5	156.22	162.98	168.33	167.12	168.54	0.001439	2.33	0.69	0.64	109.20	86.17	0.39
T.Tressa	10	Max WS	UF_TR30_D5	84.51	162.98	167.01	166.08	167.35	0.003260	2.61	0.36	0.24	33.04	20.14	0.54
T.Tressa	9	Max WS	UF_TR200_D3	146.67	162.77	168.02	167.08	168.18	0.001276	2.12	0.25	0.79	106.26	70.36	0.36
T.Tressa	9	Max WS	UF_TR30_D3	78.93	162.77	166.40	165.66	166.83	0.004416	2.91		0.41	27.34	13.58	0.62
T.Tressa	9	Max WS	UF_TR200_D5	156.81	162.77	168.24	167.19	168.39	0.001057	2.01	0.35	0.78	122.70	74.40	0.33
T.Tressa	9	Max WS	UF_TR30_D5	84.36	162.77	166.56	165.76	166.99	0.004097	2.90		0.26	30.69	31.64	0.60
T.Tressa	8	Max WS	UF_TR200_D3	146.64	162.40	167.86	165.93	168.02	0.000860	2.05	0.66	0.85	108.97	51.71	0.30
T.Tressa	8	Max WS	UF_TR30_D3	78.90	162.40	166.22	164.89	166.44	0.001686	2.15	0.14	0.87	43.08	27.29	0.39
T.Tressa	8	Max WS	UF_TR200_D5	156.77	162.40	168.10	166.03	168.25	0.000772	2.01	0.68	0.82	121.75	55.20	0.29
T.Tressa	8	Max WS	UF_TR30_D5	84.33	162.40	166.39	165.01	166.60	0.001554	2.14	0.25	0.90	47.89	31.60	0.38
T.Tressa	7	Max WS	UF_TR200_D3	146.64	161.98	167.40	165.73	168.17	0.002447	3.88			37.84	67.44	0.55
T.Tressa	7	Max WS	UF_TR30_D3	78.91	161.98	165.87	164.58	166.32	0.002349	2.99			26.41	18.84	0.51
T.Tressa	7	Max WS	UF_TR200_D5	156.76	161.98	167.64	165.89	168.44	0.002404	3.96			39.60	71.70	0.55
T.Tressa	7	Max WS	UF_TR30_D5	84.37	161.98	166.02	164.68	166.50	0.002333	3.06			27.55	20.09	0.51
T.Tressa	6.5			Bridge											
T.Tressa	6	Max WS	UF_TR200_D3	146.64	161.82	166.97	165.65	167.87	0.003049	4.18			35.09	30.47	0.61
T.Tressa	6	Max WS	UF_TR30_D3	78.91	161.82	165.64	164.50	166.14	0.002661	3.13			25.20	16.61	0.54
T.Tressa	6	Max WS	UF_TR200_D5	156.76	161.82	167.19	165.81	168.12	0.003012	4.28			36.65	32.83	0.61
T.Tressa	6	Max WS	UF_TR30_D5	84.37	161.82	165.78	164.59	166.31	0.002648	3.21			26.27	18.89	0.54
T.Tressa	5	Max WS	UF_TR200_D3	146.64	161.99	166.86	165.73	167.80	0.003310	4.30			34.09	17.98	0.65
T.Tressa	5	Max WS	UF_TR30_D3	78.91	161.99	165.53	164.59	166.08	0.003075	3.28			24.03	12.51	0.59
T.Tressa	5	Max WS	UF_TR200_D5	156.76	161.99	167.07	165.88	168.06	0.003233	4.39			35.73	18.60	0.64
T.Tressa	5	Max WS	UF_TR30_D5	84.37	161.99	165.68	164.69	166.25	0.003022	3.36			25.14	12.80	0.59
T.Tressa	4.5			Bridge											
T.Tressa	4	Max WS	UF_TR200_D3	8.96	161.93	166.06	162.72	166.06	0.000021	0.31			28.78	12.50	0.05
T.Tressa	4	Max WS	UF_TR30_D3	57.01	161.93	165.18	164.05	165.52	0.002024	2.57			22.16	10.84	0.48
T.Tressa	4	Max WS	UF_TR200_D5	7.19	161.93	166.05	162.63	166.06	0.000014	0.25			28.75	12.49	0.04
T.Tressa	4	Max WS	UF_TR30_D5	51.71	161.93	165.18	163.94	165.46	0.001668	2.33			22.15	10.83	0.44
T.Tressa	3	Max WS	UF_TR200_D3	146.62	161.45	166.18	165.18	166.63	0.003129	3.12	0.89	0.11	58.43	35.56	0.55
T.Tressa	3	Max WS	UF_TR30_D3	78.87	161.45	165.26	164.07	165.57	0.002583	2.46	0.72		34.14	16.40	0.48
T.Tressa	3	Max WS	UF_TR200_D5	156.75	161.45	166.21	165.30	166.72	0.003472	3.30	0.92	0.15	59.50	37.14	0.58
T.Tressa	3	Max WS	UF_TR30_D5	84.31	161.45	165.28	164.17	165.62	0.002895	2.61	0.77		34.42	16.49	0.51
T.Tressa	2	Max WS	UF_TR200_D3	3.16	161.16	166.05	161.82	166.05	0.000001	0.06	0.02	0.01	55.51	32.95	0.01
T.Tressa	2	Max WS	UF_TR30_D3	3.15	161.16	165.17	161.82	165.17	0.000004	0.09	0.02	0.02	34.94	18.37	0.02
T.Tressa	2	Max WS	UF_TR200_D5	3.16	161.16	166.05	161.82	166.05	0.000001	0.06	0.02	0.01	55.51	32.95	0.01
T.Tressa	2	Max WS	UF_TR30_D5	3.15	161.16	165.17	161.82	165.17	0.000004	0.09	0.02	0.02	34.94	18.37	0.02

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ALLEGATI

MODELLAZIONE EPA-SWMM 5.1 "San Miniato"

Fosso Bolgione e Fosso Castagno (tratti tombati)

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 1h

Dati idraulici

ProGeo Engineering S.r.l.
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ALLEGATI

MODELLAZIONE EPA-SWMM 5.1 "San Miniato"

Fosso Bolgione e Fosso Castagno (tratti tombati)

MODELLAZIONE PER 30 anni

DURATE DI PIOGGIA: 1h

Dati idraulici

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.012)

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Element Count

****

Number of rain gages 0

Number of subcatchments ... 0

Number of nodes 42

Number of links 41

Number of pollutants 0

Number of land uses 0

****

Node Summary

****

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	299.69	5.00	0.0	
J2	JUNCTION	299.38	3.28	0.0	Yes
J4	JUNCTION	299.39	3.00	0.0	Yes
J5	JUNCTION	298.12	2.50	0.0	Yes
J6	JUNCTION	297.81	2.50	0.0	Yes
J7	JUNCTION	297.63	2.50	0.0	Yes
J8	JUNCTION	297.59	2.50	0.0	Yes
J9	JUNCTION	297.76	2.50	0.0	Yes
J10	JUNCTION	297.46	2.50	0.0	Yes
J11	JUNCTION	297.08	2.50	0.0	Yes
J12	JUNCTION	296.95	2.50	0.0	Yes
J13	JUNCTION	296.84	2.50	0.0	Yes
J14	JUNCTION	296.67	2.50	0.0	Yes
J15	JUNCTION	296.65	2.50	0.0	Yes

J16	JUNCTION	296.48	2.50	0.0	Yes
J17	JUNCTION	296.26	2.50	0.0	Yes
J18	JUNCTION	295.95	2.50	0.0	Yes
J19	JUNCTION	295.70	2.50	0.0	Yes
J20	JUNCTION	295.38	2.50	0.0	Yes
J21	JUNCTION	295.09	2.50	0.0	Yes
J22	JUNCTION	294.30	4.00	0.0	Yes
J24	JUNCTION	294.03	4.00	0.0	Yes
J25	JUNCTION	294.08	3.00	0.0	Yes
J27	JUNCTION	301.38	4.62	0.0	Yes
J30	JUNCTION	286.29	2.25	0.0	
J31	JUNCTION	293.05	3.00	0.0	Yes
J32	JUNCTION	292.03	3.00	0.0	Yes
J33	JUNCTION	291.25	3.00	0.0	Yes
J34	JUNCTION	288.76	3.00	0.0	Yes
J35	JUNCTION	286.53	3.00	0.0	Yes
J36	JUNCTION	302.40	6.00	0.0	Yes
J37	JUNCTION	302.13	6.00	0.0	
J38	JUNCTION	301.76	6.00	0.0	
J39	JUNCTION	301.00	6.00	0.0	
J40	JUNCTION	299.91	6.00	0.0	
J41	JUNCTION	300.09	6.00	0.0	
J42	JUNCTION	300.77	3.53	0.0	Yes
J43	JUNCTION	300.30	4.00	0.0	Yes
J44	JUNCTION	299.65	4.60	0.0	Yes
J45	JUNCTION	298.77	3.20	0.0	Yes
J47	JUNCTION	298.29	3.20	0.0	Yes
OUT1	OUTFALL	286.26	2.25	0.0	

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Link Summary

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Name	From Node	To Node	Type	Length	%Slope	Roughness
C1	J1	J2	CONDUIT	5.7	0.5236	0.0180
C4	J4	J5	CONDUIT	30.5	4.1675	0.0180
C5	J5	J6	CONDUIT	9.1	3.4086	0.0180
C6	J6	J7	CONDUIT	8.4	2.1433	0.0180
C7	J7	J8	CONDUIT	4.8	0.8334	0.0180
C8	J8	J9	CONDUIT	4.6	-3.6663	0.0180
C9	J9	J10	CONDUIT	6.6	4.5227	0.0180
C10	J10	J11	CONDUIT	36.4	1.0449	0.0180
C11	J11	J12	CONDUIT	10.8	1.2094	0.0180
C12	J12	J13	CONDUIT	10.8	1.0205	0.0180
C13	J13	J14	CONDUIT	19.0	0.8948	0.0180
C14	J14	J15	CONDUIT	2.0	1.0001	0.0180
C15	J15	J16	CONDUIT	21.0	0.8096	0.0180
C16	J16	J17	CONDUIT	48.0	0.4583	0.0180
C17	J17	J18	CONDUIT	81.0	0.3827	0.0180
C18	J18	J19	CONDUIT	63.0	0.3968	0.0180
C19	J19	J20	CONDUIT	25.0	1.2801	0.0180
C20	J20	J21	CONDUIT	33.0	0.8788	0.0180
C21	J21	J22	CONDUIT	21.0	0.4286	0.0180
C24	J24	J25	CONDUIT	5.4	-0.9311	0.0180
C29	J2	J4	CONDUIT	3.5	-0.2857	0.0180
C30	J22	J24	CONDUIT	18.5	1.4596	0.0180
C31	J30	OUT1	CONDUIT	2.0	1.5002	0.0180
C32	J25	J31	CONDUIT	60.0	1.7169	0.0180
C33	J31	J32	CONDUIT	59.7	1.7088	0.0180
C34	J32	J33	CONDUIT	45.4	1.7168	0.0180
C35	J33	J34	CONDUIT	145.0	1.7175	0.0180
C36	J34	J35	CONDUIT	129.5	1.7219	0.0180
C37	J35	J30	CONDUIT	14.8	1.6273	0.0180
C38	J36	J37	CONDUIT	18.3	1.4756	0.0350

C39	J37	J38	CONDUIT	10.1	3.6658	0.0350
C40	J38	J39	CONDUIT	0.5	152.0000	0.0350
C41	J39	J41	CONDUIT	0.5	182.0000	0.0250
C42	J41	J40	CONDUIT	9.2	1.9633	0.0250
C43	J40	J1	CONDUIT	4.4	4.9949	0.0250
C44	J27	J42	CONDUIT	38.1	1.6000	0.0170
C45	J42	J43	CONDUIT	48.9	0.9618	0.0170
C46	J43	J44	CONDUIT	53.0	1.2274	0.0170
C47	J44	J45	CONDUIT	49.0	1.7962	0.0170
C48	J45	J47	CONDUIT	105.8	0.4535	0.0170
C50	J47	J18	CONDUIT	46.3	5.0648	0.0170

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Cross Section Summary

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Conduit	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels	Full Flow
C1	RECT_CLOSED	3.00	8.10	0.71	2.70	1	25.93
C4	RECT_CLOSED	2.50	15.00	0.88	6.00	1	156.53
C5	RECT_CLOSED	2.50	11.25	0.80	4.50	1	99.75
C6	RECT_CLOSED	2.50	11.25	0.80	4.50	1	79.10
C7	RECT_CLOSED	2.50	11.25	0.80	4.50	1	49.32
C8	RECT_CLOSED	2.50	11.25	0.80	4.50	1	103.45
C9	RECT_CLOSED	2.50	11.25	0.80	4.50	1	114.90
C10	RECT_CLOSED	2.50	10.00	0.77	4.00	1	47.68
C11	RECT_CLOSED	2.50	10.00	0.77	4.00	1	51.30
C12	RECT_CLOSED	2.50	10.00	0.77	4.00	1	47.12
C13	RECT_CLOSED	2.50	10.00	0.77	4.00	1	44.13
C14	RECT_CLOSED	2.50	10.00	0.77	4.00	1	46.65
C15	RECT_CLOSED	2.50	10.00	0.77	4.00	1	41.97
C16	RECT_CLOSED	2.50	10.00	0.77	4.00	1	31.58
C17	RECT_CLOSED	2.50	7.00	0.66	2.80	1	18.25
C18	RECT_CLOSED	2.50	7.00	0.66	2.80	1	18.58

C19	RECT_CLOSED	2.50	6.75	0.65	2.70	1	31.81
C20	RECT_CLOSED	2.50	6.75	0.65	2.70	1	26.36
C21	RECT_CLOSED	2.50	6.75	0.65	2.70	1	18.41
C24	RECT_CLOSED	2.50	7.00	0.66	2.80	1	28.46
C29	RECT_CLOSED	3.00	8.40	0.72	2.80	1	20.12
C30	CIRCULAR	4.00	12.57	1.00	4.00	1	84.36
C31	RECT_CLOSED	2.25	6.07	0.61	2.70	1	29.86
C32	RECT_OPEN	3.00	7.95	0.92	2.65	1	54.72
C33	RECT_CLOSED	3.00	7.95	0.70	2.65	1	45.68
C34	RECT_CLOSED	3.00	7.95	0.70	2.65	1	45.78
C35	RECT_CLOSED	3.00	7.95	0.70	2.65	1	45.79
C36	RECT_CLOSED	3.00	7.95	0.70	2.65	1	45.85
C37	RECT_CLOSED	2.25	6.07	0.61	2.70	1	31.10
C38	S79	5.93	112.23	2.56	35.40	1	728.81
C39	S80	4.83	75.50	1.84	33.28	1	621.10
C40	S81	4.25	55.94	1.72	33.58	1	2825.90
C41	S82	5.01	58.39	0.85	33.58	1	2816.81
C42	S82_BIS	5.92	60.86	0.84	33.58	1	304.26
C43	S83	5.00	40.36	0.38	30.09	1	188.45
C44	CIRCULAR	1.50	1.77	0.38	1.50	1	6.84
C45	CIRCULAR	1.50	1.77	0.38	1.50	1	5.30
C46	CIRCULAR	1.50	1.77	0.38	1.50	1	5.99
C47	CIRCULAR	1.50	1.77	0.38	1.50	1	7.25
C48	CIRCULAR	1.50	1.77	0.38	1.50	1	3.64
C50	CIRCULAR	1.50	1.77	0.38	1.50	1	12.17

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Transect Summary

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Transect S79

Area:

0.0013	0.0042	0.0080	0.0120	0.0163
0.0209	0.0258	0.0309	0.0363	0.0420
0.0480	0.0542	0.0607	0.0674	0.0745
0.0821	0.0903	0.0992	0.1086	0.1186
0.1293	0.1405	0.1524	0.1662	0.1856
0.2095	0.2358	0.2630	0.2910	0.3198
0.3496	0.3799	0.4106	0.4419	0.4735
0.5057	0.5383	0.5715	0.6053	0.6398
0.6745	0.7096	0.7449	0.7805	0.8164
0.8526	0.8890	0.9257	0.9627	1.0000

Hrad:

0.0268	0.0550	0.0908	0.1255	0.1575
0.1873	0.2154	0.2421	0.2676	0.2922
0.3160	0.3391	0.3617	0.3837	0.3996
0.4102	0.4210	0.4330	0.4533	0.4786
0.5023	0.5247	0.5541	0.5800	0.5813
0.5751	0.5736	0.5777	0.5853	0.5955
0.6079	0.6229	0.6394	0.6571	0.6757
0.6950	0.7143	0.7337	0.7533	0.7735
0.7953	0.8174	0.8398	0.8623	0.8850
0.9079	0.9308	0.9539	0.9769	1.0000

Width:

0.0605	0.0936	0.1046	0.1118	0.1191
0.1264	0.1337	0.1409	0.1482	0.1555
0.1627	0.1700	0.1773	0.1845	0.1957
0.2111	0.2276	0.2440	0.2602	0.2762
0.2921	0.3081	0.3325	0.4384	0.5842
0.6934	0.7140	0.7363	0.7603	0.7843
0.8037	0.8159	0.8281	0.8404	0.8526

0.8648 0.8802 0.8963 0.9123 0.9259

0.9333 0.9407 0.9481 0.9555 0.9629

0.9703 0.9778 0.9852 0.9926 1.0000

Transect S80

Area:

0.0006 0.0018 0.0033 0.0052 0.0075

0.0103 0.0135 0.0171 0.0212 0.0258

0.0309 0.0363 0.0422 0.0485 0.0552

0.0623 0.0699 0.0779 0.0864 0.0954

0.1049 0.1152 0.1267 0.1392 0.1525

0.1663 0.1819 0.2007 0.2210 0.2419

0.2635 0.2883 0.3230 0.3587 0.3958

0.4337 0.4719 0.5105 0.5495 0.5888

0.6285 0.6685 0.7089 0.7496 0.7906

0.8319 0.8735 0.9154 0.9576 1.0000

Hrad:

0.0317 0.0624 0.0889 0.1136 0.1374

0.1589 0.1802 0.2019 0.2238 0.2460

0.2697 0.2933 0.3168 0.3402 0.3634

0.3866 0.4087 0.4291 0.4498 0.4708

0.4921 0.5228 0.5486 0.5709 0.5925

0.6138 0.6332 0.6498 0.6674 0.6865

0.7065 0.7147 0.7020 0.6943 0.6928

0.7013 0.7137 0.7289 0.7463 0.7653

0.7856 0.8068 0.8289 0.8517 0.8755

0.8998 0.9245 0.9494 0.9746 1.0000

Width:

0.0224 0.0316 0.0407 0.0499 0.0591

0.0695 0.0804 0.0913 0.1022 0.1131

0.1231 0.1329 0.1428 0.1526 0.1624

0.1723 0.1827 0.1943 0.2059 0.2175

0.2290 0.2552 0.2816 0.3045 0.3186

0.3327 0.4171 0.4668 0.4839 0.4992

0.5145 0.8090 0.8231 0.8548 0.8862

0.8944 0.9027 0.9109 0.9191 0.9274

0.9356 0.9439 0.9521 0.9602 0.9668

0.9734 0.9801 0.9867 0.9934 1.0000

Transect S82

Area:

0.0023 0.0067 0.0111 0.0155 0.0199

0.0243 0.0287 0.0331 0.0375 0.0419

0.0463 0.0507 0.0554 0.0604 0.0659

0.0720 0.0789 0.0866 0.0951 0.1045

0.1146 0.1256 0.1374 0.1501 0.1635

0.1780 0.1936 0.2103 0.2282 0.2471

0.2672 0.2884 0.3107 0.3341 0.3587

0.3843 0.4111 0.4390 0.4681 0.5005

0.5381 0.5821 0.6296 0.6785 0.7287

0.7803 0.8332 0.8874 0.9430 1.0000

Hrad:

0.0580 0.1582 0.2455 0.3222 0.3901

0.4508 0.5052 0.5544 0.5990 0.6396

0.6769 0.7143 0.7560 0.7906 0.8302

0.8643 0.8904 0.9094 0.9232 0.9333

0.9410 0.9473 0.9526 0.9576 0.9622

0.9640 0.9652 0.9664 0.9679 0.9698

0.9724 0.9757 0.9797 0.9846 0.9901

0.9965 1.0036 1.0113 1.0170 0.9704

0.9419 0.9083 0.9115 0.9182 0.9275

0.9391 0.9524 0.9671 0.9831 1.0000

Width:

0.0762 0.0763 0.0763 0.0763 0.0764

0.0764 0.0764 0.0764 0.0765 0.0765

0.0765 0.0780 0.0841 0.0902 0.1008

0.1125 0.1264 0.1407 0.1550 0.1693

0.1836 0.1978 0.2121 0.2264 0.2415

0.2609 0.2803 0.2997 0.3192 0.3386

0.3580 0.3774 0.3969 0.4163 0.4357

0.4551 0.4745 0.4940 0.5172 0.6088

0.6961 0.8130 0.8364 0.8598 0.8831

0.9065 0.9299 0.9533 0.9766 1.0000

Transect S82_BIS

Area:

0.0050 0.0100 0.0150 0.0200 0.0250

0.0300 0.0350 0.0400 0.0450 0.0500

0.0550 0.0600 0.0650 0.0700 0.0750

0.0800 0.0850 0.0901 0.0955 0.1014

0.1080 0.1157 0.1244 0.1342 0.1451

0.1572 0.1703 0.1845 0.1999 0.2166

0.2349 0.2547 0.2759 0.2987 0.3229

0.3487 0.3759 0.4047 0.4350 0.4667

0.5003 0.5398 0.5867 0.6404 0.6958

0.7530 0.8121 0.8729 0.9355 1.0000

Hrad:

0.1283 0.2366 0.3292 0.4094 0.4795

0.5412 0.5960 0.6450 0.6891 0.7289

0.7651 0.7981 0.8284 0.8562 0.8819

0.9056 0.9277 0.9534 0.9836 1.0117

1.0428 1.0648 1.0780 1.0847 1.0868

1.0860 1.0835 1.0802 1.0761 1.0694

1.0623 1.0556 1.0497 1.0449 1.0415

1.0395 1.0389 1.0398 1.0421 1.0457

1.0450 0.9817 0.9341 0.9325 0.9361

0.9437 0.9544 0.9677 0.9830 1.0000

Width:

0.0765 0.0765 0.0765 0.0765 0.0765

0.0765 0.0765 0.0765 0.0765 0.0765

0.0765 0.0765 0.0765 0.0765 0.0765

0.0765 0.0765 0.0790 0.0862 0.0953

0.1092 0.1249 0.1418 0.1587 0.1756

0.1925 0.2094 0.2263 0.2448 0.2678

0.2908 0.3137 0.3367 0.3596 0.3826

0.4056 0.4285 0.4515 0.4745 0.4974

0.5497 0.6561 0.8066 0.8342 0.8618

0.8895 0.9171 0.9447 0.9724 1.0000

Transect S83

Area:

0.0086 0.0172 0.0259 0.0345 0.0431

0.0517 0.0603 0.0690 0.0776 0.0862

0.0948 0.1035 0.1121 0.1207 0.1293

0.1379 0.1466 0.1552 0.1638 0.1724

0.1810 0.1897 0.1983 0.2069 0.2155

0.2242 0.2328 0.2414 0.2500 0.2586

0.2673 0.2761 0.2882 0.3060 0.3285

0.3544 0.3826 0.4128 0.4451 0.4797

0.5170 0.5571 0.5999 0.6454 0.6937

0.7450 0.8003 0.8603 0.9274 1.0000

Hrad:

0.0883 0.1674 0.2388 0.3035 0.3625

0.4164 0.4659 0.5115 0.5536 0.5927

0.6290 0.6628 0.6944 0.7240 0.7518

0.7779 0.8025 0.8257 0.8476 0.8684

0.8881 0.9067 0.9245 0.9414 0.9575

0.9728 0.9875 1.0015 1.0149 1.0278

1.0401 1.0506 0.9372 0.9068 0.8077

0.7387 0.7604 0.7842 0.8098 0.8305

0.8509 0.8736 0.8984 0.9250 0.9532

0.9702 0.9843 0.9812 0.9709 1.0000

Width:

0.1157 0.1157 0.1157 0.1157 0.1157

0.1157 0.1157 0.1157 0.1157 0.1157

0.1157 0.1157 0.1157 0.1157 0.1157

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0.1157 0.1311 0.2068 0.2696 0.3310

0.3633 0.3915 0.4197 0.4479 0.4821

0.5188 0.5556 0.5923 0.6290 0.6658

0.7149 0.7705 0.8497 0.9474 1.0000

Transect S81

Area:

0.0005 0.0019 0.0039 0.0063 0.0093

0.0128 0.0168 0.0213 0.0264 0.0319

0.0380 0.0447 0.0520 0.0599 0.0685

0.0776 0.0874 0.0978 0.1089 0.1205

0.1328 0.1460 0.1599 0.1748 0.1904

0.2069 0.2243 0.2424 0.2615 0.2813

0.3020 0.3236 0.3460 0.3692 0.3933

0.4182 0.4440 0.4722 0.5043 0.5405

0.5818 0.6242 0.6676 0.7121 0.7575

0.8040 0.8515 0.9000 0.9495 1.0000

Hrad:

0.0238 0.0522 0.0801 0.1061 0.1308

0.1548 0.1783 0.2014 0.2243 0.2471

0.2666 0.2863 0.3064 0.3270 0.3478

0.3689 0.3902 0.4116 0.4332 0.4549

0.4844 0.5157 0.5443 0.5709 0.5958

0.6191 0.6413 0.6625 0.6897 0.7204

0.7495 0.7771 0.8036 0.8289 0.8532

0.8766 0.8980 0.9132 0.9183 0.9205

0.9174 0.9195 0.9243 0.9313 0.9400

0.9501 0.9613 0.9735 0.9864 1.0000

Width:

0.0197 0.0332 0.0436 0.0536 0.0635

0.0735 0.0835 0.0934 0.1034 0.1133

0.1252 0.1373 0.1495 0.1616 0.1737

0.1858 0.1979 0.2101 0.2222 0.2343

0.2492 0.2657 0.2822 0.2987 0.3152

0.3316 0.3481 0.3646 0.3811 0.3975

0.4140 0.4305 0.4470 0.4634 0.4799

0.4964 0.5164 0.5931 0.6672 0.7699

0.8215 0.8414 0.8612 0.8810 0.9009

0.9207 0.9405 0.9603 0.9802 1.0000

****

NOTE: The summary statistics displayed in this report are

based on results found at every computational time step,

not just on results from each reporting time step.

****

****

Analysis Options

****

Flow Units ..... CMS

Process Models:

Rainfall/Runoff ..... NO

RDII ..... NO

Snowmelt ..... NO

Groundwater ..... NO

Flow Routing ..... YES

Ponding Allowed ..... NO

Water Quality ..... NO

Flow Routing Method ..... DYNWAVE

Starting Date 01/29/2018 00:00:00

Ending Date 01/29/2018 06:00:00

Antecedent Dry Days 0.0

Report Time Step 00:05:00

Routing Time Step ..... 0.75 sec

Variable Time Step ..... YES

Maximum Trials 8

Number of Threads 1

Head Tolerance ..... 0.001500 m

**********	Volume	Volume
Flow Routing Continuity	hectare-m	10^6 ltr
**********	---	---
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	0.000	0.000
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	7.240	72.399
External Outflow	7.190	71.898
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.050	0.504
Continuity Error (%)	-0.003	

****

Time-Step Critical Elements

****

Link C31 (38.69%)

****

Highest Flow Instability Indexes

****

Link C41 (38)

Link C40 (12)

Link C42 (11)

Link C24 (5)

Link C32 (4)

****

Routing Time Step Summary

****

Minimum Time Step : 0.06 sec

Average Time Step : 0.65 sec

Maximum Time Step : 0.75 sec

Percent in Steady State : 0.00

Average Iterations per Step : 2.40

Percent Not Converging : 0.41

****

Node Depth Summary

****

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Time of Max Occurrence days hr:min	Reported Max Depth Meters
J1	JUNCTION	0.21	1.12	300.81	0 01:05	1.12
J2	JUNCTION	0.12	0.53	299.91	0 01:05	0.53
J4	JUNCTION	0.05	0.28	299.67	0 01:05	0.28
J5	JUNCTION	0.08	0.42	298.54	0 01:05	0.42
J6	JUNCTION	0.10	0.56	298.37	0 01:05	0.56
J7	JUNCTION	0.23	0.67	298.30	0 01:05	0.67
J8	JUNCTION	0.26	0.68	298.27	0 01:05	0.68
J9	JUNCTION	0.08	0.47	298.23	0 01:05	0.47
J10	JUNCTION	0.12	0.69	298.15	0 01:05	0.69
J11	JUNCTION	0.14	0.91	297.99	0 01:03	0.90
J12	JUNCTION	0.16	1.06	298.01	0 01:02	1.05
J13	JUNCTION	0.18	1.18	298.02	0 01:02	1.17
J14	JUNCTION	0.21	1.37	298.04	0 01:02	1.36
J15	JUNCTION	0.21	1.39	298.04	0 01:02	1.38
J16	JUNCTION	0.25	1.57	298.05	0 01:02	1.56

J17	JUNCTION	0.32	1.78	298.04	0	01:02	1.77
J18	JUNCTION	0.56	2.02	297.97	0	01:02	2.01
J19	JUNCTION	0.45	1.71	297.41	0	01:02	1.71
J20	JUNCTION	0.47	1.73	297.11	0	01:02	1.73
J21	JUNCTION	0.54	1.84	296.93	0	01:03	1.84
J22	JUNCTION	0.55	1.72	296.02	0	01:02	1.71
J24	JUNCTION	0.55	1.80	295.83	0	01:02	1.80
J25	JUNCTION	0.40	1.53	295.61	0	01:02	1.52
J27	JUNCTION	0.55	3.02	304.40	0	00:55	2.25
J30	JUNCTION	0.40	1.44	287.73	0	01:03	1.44
J31	JUNCTION	0.41	1.56	294.61	0	01:02	1.55
J32	JUNCTION	0.41	1.58	293.61	0	01:02	1.57
J33	JUNCTION	0.39	1.45	292.70	0	01:03	1.44
J34	JUNCTION	0.40	1.56	290.32	0	01:03	1.55
J35	JUNCTION	0.47	1.77	288.30	0	01:03	1.77
J36	JUNCTION	0.19	0.92	303.32	0	01:05	0.92
J37	JUNCTION	0.23	1.03	303.16	0	01:05	1.03
J38	JUNCTION	0.11	0.44	302.20	0	01:05	0.44
J39	JUNCTION	0.05	0.25	301.25	0	01:05	0.25
J40	JUNCTION	0.16	0.93	300.84	0	01:05	0.93
J41	JUNCTION	0.16	0.89	300.98	0	01:05	0.89
J42	JUNCTION	0.63	3.21	303.98	0	00:55	2.45
J43	JUNCTION	0.60	3.00	303.30	0	00:55	2.32
J44	JUNCTION	0.57	2.80	302.45	0	00:55	2.27
J45	JUNCTION	0.75	2.84	301.61	0	00:55	2.44
J47	JUNCTION	0.39	0.94	299.23	0	01:00	0.94
OUT1	OUTFALL	0.40	1.44	287.70	0	01:03	1.44

****

Node Inflow Summary

****

Node	Type	Maximum Lateral Inflow CMS	Maximum Total Inflow CMS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 ltr	Total Inflow Volume 10^6 ltr	Flow Balance Error Percent
J1	JUNCTION	0.000	7.499	0 01:05	0	18.9	0.000
J2	JUNCTION	0.051	7.546	0 01:05	0.131	19	0.000
J4	JUNCTION	0.116	7.654	0 01:05	0.297	19.3	-0.000
J5	JUNCTION	0.135	7.780	0 01:05	0.346	19.6	0.000
J6	JUNCTION	0.060	7.836	0 01:05	0.153	19.8	-0.000
J7	JUNCTION	0.045	7.878	0 01:05	0.115	19.9	0.020
J8	JUNCTION	0.032	7.908	0 01:05	0.0824	20	0.019
J9	JUNCTION	0.038	7.944	0 01:05	0.0985	20.1	0.001
J10	JUNCTION	0.147	8.080	0 01:05	0.376	20.5	0.000
J11	JUNCTION	0.161	8.230	0 01:05	0.411	20.9	-0.001
J12	JUNCTION	0.073	8.306	0 01:05	0.188	21.1	-0.000
J13	JUNCTION	0.102	8.404	0 01:05	0.26	21.3	0.000
J14	JUNCTION	0.072	8.480	0 01:05	0.183	21.5	-0.000
J15	JUNCTION	0.078	8.575	0 01:05	0.201	21.7	0.000
J16	JUNCTION	0.235	8.778	0 01:05	0.603	22.3	0.000
J17	JUNCTION	0.440	9.197	0 01:04	1.13	23.4	0.001
J18	JUNCTION	0.491	16.935	0 01:02	1.26	62	0.100
J19	JUNCTION	0.300	17.224	0 01:02	0.768	62.7	0.040
J20	JUNCTION	0.198	17.414	0 01:02	0.507	63.2	0.028
J21	JUNCTION	0.184	17.592	0 01:02	0.472	63.6	0.044
J22	JUNCTION	0.135	17.721	0 01:03	0.345	63.9	0.007
J24	JUNCTION	0.081	17.800	0 01:03	0.208	64.1	0.010
J25	JUNCTION	0.223	18.016	0 01:03	0.571	64.7	0.026
J27	JUNCTION	5.850	5.850	0 01:05	33	33	0.018
J30	JUNCTION	0.000	20.805	0 01:03	0	71.9	0.008

J31	JUNCTION	0.408	18.409	0	01:02	1.05	65.7	0.044
J32	JUNCTION	0.358	18.759	0	01:02	0.918	66.6	0.039
J33	JUNCTION	0.649	19.385	0	01:02	1.66	68.3	0.067
J34	JUNCTION	1.377	20.711	0	01:03	3.53	71.7	0.091
J35	JUNCTION	0.101	20.806	0	01:03	0.258	71.9	0.053
J36	JUNCTION	7.500	7.500	0	01:05	18.9	18.9	-0.000
J37	JUNCTION	0.000	7.499	0	01:05	0	18.9	0.000
J38	JUNCTION	0.000	7.499	0	01:05	0	18.9	0.003
J39	JUNCTION	0.000	7.499	0	01:05	0	18.9	-0.002
J40	JUNCTION	0.000	7.499	0	01:05	0	18.9	-0.001
J41	JUNCTION	0.000	7.507	0	01:05	0	18.9	-0.000
J42	JUNCTION	0.331	6.089	0	01:05	0.806	33.8	0.055
J43	JUNCTION	0.270	6.284	0	01:05	0.656	34.5	0.060
J44	JUNCTION	0.270	6.482	0	01:00	0.657	35.1	0.051
J45	JUNCTION	0.410	6.892	0	01:00	0.997	36.1	0.114
J47	JUNCTION	0.525	7.416	0	01:00	1.28	37.3	0.055
OUT1	OUTFALL	0.000	20.805	0	01:03	0	71.9	0.000

****

Node Surcharge Summary

****

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Meters	Min. Depth Below Rim Meters
J27	JUNCTION	0.26	1.518	1.602
J42	JUNCTION	0.29	1.708	0.322
J43	JUNCTION	0.30	1.501	0.999
J44	JUNCTION	0.34	1.302	1.798
J45	JUNCTION	0.45	1.344	0.356

****

Node Flooding Summary

****

No nodes were flooded.

****

Outfall Loading Summary

****

Outfall Node	Flow Freq Pcnt	Avg Flow CMS	Max Flow CMS	Total Volume 10^6 ltr
OUT1	98.37	4.093	20.805	71.897
System	98.37	4.093	20.805	71.897

****

Link Flow Summary

****

Link	Type	Maximum |Flow| CMS	Time of Max Occurrence days hr:min	Maximum |Veloc| m/sec	Max/ Full Flow	Max/ Full Depth
C1	CONDUIT	7.499	0 01:05	2.72	0.29	0.34
C4	CONDUIT	7.654	0 01:05	3.65	0.05	0.14
C5	CONDUIT	7.780	0 01:05	3.54	0.08	0.20
C6	CONDUIT	7.836	0 01:05	2.84	0.10	0.25

C7	CONDUIT	7.878	0	01:05	2.59	0.16	0.27
C8	CONDUIT	7.909	0	01:05	3.04	0.08	0.23
C9	CONDUIT	7.945	0	01:05	3.08	0.07	0.23
C10	CONDUIT	8.081	0	01:05	2.73	0.17	0.32
C11	CONDUIT	8.238	0	01:05	2.51	0.16	0.39
C12	CONDUIT	8.310	0	01:05	2.31	0.18	0.45
C13	CONDUIT	8.414	0	01:05	2.08	0.19	0.51
C14	CONDUIT	8.503	0	01:05	1.96	0.18	0.55
C15	CONDUIT	8.561	0	01:05	1.72	0.20	0.59
C16	CONDUIT	8.790	0	01:05	1.32	0.28	0.67
C17	CONDUIT	9.226	0	01:06	1.75	0.51	0.76
C18	CONDUIT	16.934	0	01:02	3.24	0.91	0.75
C19	CONDUIT	17.224	0	01:02	3.70	0.54	0.69
C20	CONDUIT	17.415	0	01:02	3.61	0.66	0.72
C21	CONDUIT	17.592	0	01:03	3.75	0.96	0.69
C24	CONDUIT	17.801	0	01:03	3.82	0.63	0.67
C29	CONDUIT	7.546	0	01:05	6.68	0.38	0.13
C30	CONDUIT	17.722	0	01:03	3.37	0.21	0.44
C31	CONDUIT	20.805	0	01:03	5.35	0.70	0.64
C32	CONDUIT	18.015	0	01:02	4.41	0.33	0.51
C33	CONDUIT	18.413	0	01:02	4.43	0.40	0.52
C34	CONDUIT	18.760	0	01:02	4.68	0.41	0.50
C35	CONDUIT	19.391	0	01:03	4.86	0.42	0.50
C36	CONDUIT	20.710	0	01:03	4.69	0.45	0.56
C37	CONDUIT	20.805	0	01:03	4.80	0.67	0.71
C38	CHANNEL	7.499	0	01:05	2.07	0.01	0.17
C39	CHANNEL	7.499	0	01:05	6.27	0.01	0.15
C40	CHANNEL	7.499	0	01:05	20.64	0.00	0.08
C41	CHANNEL	7.507	0	01:05	5.58	0.00	0.11
C42	CHANNEL	7.499	0	01:05	3.19	0.02	0.15
C43	CHANNEL	7.499	0	01:05	2.10	0.04	0.21
C44	CONDUIT	5.850	0	01:05	3.57	0.86	1.00
C45	CONDUIT	6.089	0	01:05	3.53	1.15	1.00
C46	CONDUIT	6.284	0	01:05	3.85	1.05	1.00
C47	CONDUIT	6.483	0	01:00	3.67	0.89	1.00

C48	CONDUIT	6.892	0	01:00	4.48	1.89	0.81
C50	CONDUIT	7.404	0	01:00	6.03	0.61	0.81

****

Flow Classification Summary

****

Conduit	Adjusted /Actual Length	Up Dry	Down Dry	Sub Dry	Sup Crit	Up Crit	Down Crit	Norm Ltd	Inlet Ctrl
		Fraction of Time in Flow Class							
C1	1.00	0.03	0.00	0.00	0.00	0.00	0.97	0.00	0.00
C4	1.00	0.03	0.03	0.00	0.54	0.41	0.00	0.96	0.00
C5	1.00	0.03	0.00	0.00	0.26	0.71	0.00	0.78	0.00
C6	1.00	0.03	0.00	0.00	0.75	0.21	0.00	0.78	0.00
C7	1.00	0.03	0.00	0.00	0.86	0.10	0.00	0.00	0.00
C8	1.00	0.04	0.00	0.00	0.74	0.23	0.00	0.00	0.00
C9	1.00	0.04	0.00	0.00	0.55	0.41	0.00	0.77	0.00
C10	1.00	0.04	0.00	0.00	0.64	0.33	0.00	0.78	0.00
C11	1.00	0.04	0.00	0.00	0.68	0.29	0.00	0.70	0.00
C12	1.00	0.04	0.00	0.00	0.72	0.24	0.00	0.68	0.00
C13	1.00	0.04	0.00	0.00	0.76	0.20	0.00	0.73	0.00
C14	1.00	0.04	0.00	0.00	0.80	0.16	0.00	0.57	0.00
C15	1.00	0.04	0.00	0.00	0.96	0.00	0.00	0.73	0.00
C16	1.00	0.04	0.00	0.00	0.96	0.00	0.00	0.76	0.00
C17	1.00	0.00	0.04	0.00	0.96	0.00	0.00	0.78	0.00
C18	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
C19	1.00	0.00	0.00	0.00	0.15	0.84	0.00	0.00	0.00
C20	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00
C21	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.00
C24	1.00	0.01	0.00	0.00	0.50	0.49	0.00	0.00	0.00
C29	1.00	0.03	0.00	0.00	0.59	0.38	0.00	0.00	0.00
C30	1.00	0.01	0.00	0.00	0.07	0.92	0.00	0.00	0.00

C31	1.00	0.02	0.00	0.00	0.00	0.98	0.00	0.00	0.40	0.00
C32	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00
C33	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00
C34	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00
C35	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00
C36	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.71	0.00
C37	1.00	0.01	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00
C38	1.00	0.02	0.00	0.00	0.97	0.00	0.00	0.00	0.82	0.00
C39	1.00	0.03	0.00	0.00	0.56	0.42	0.00	0.00	0.82	0.00
C40	1.00	0.03	0.00	0.00	0.05	0.92	0.00	0.00	0.07	0.00
C41	1.00	0.03	0.03	0.00	0.00	0.94	0.00	0.00	0.86	0.00
C42	1.00	0.03	0.00	0.00	0.58	0.39	0.00	0.00	0.72	0.00
C43	1.00	0.03	0.00	0.00	0.97	0.00	0.00	0.00	0.79	0.00
C44	1.00	0.00	0.00	0.00	0.07	0.93	0.00	0.00	0.80	0.00
C45	1.00	0.00	0.00	0.00	0.08	0.92	0.00	0.00	0.89	0.00
C46	1.00	0.00	0.00	0.00	0.09	0.91	0.00	0.00	0.07	0.00
C47	1.00	0.00	0.00	0.00	0.12	0.88	0.00	0.00	0.82	0.00
C48	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
C50	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.31	0.00

****

Conduit Surcharge Summary

****

Conduit	Hours Full: Both Ends	Hours Full: Upstream	Hours Full: Dnstream	Hours Above Full: Normal Flow	Capacity Limited
C44	0.26	0.26	0.29	0.01	0.01
C45	0.29	0.29	0.30	0.32	0.29
C46	0.30	0.30	0.34	0.20	0.20
C47	0.34	0.34	0.45	0.01	0.01
C48	0.01	0.45	0.01	0.73	0.01

C50	0.01	0.01	0.52	0.01	0.01

Analysis begun on: Fri Apr 06 15:59:21 2018

Analysis ended on: Fri Apr 06 15:59:23 2018

Total elapsed time: 00:00:02

ProGeo Engineering S.r.l.
via Don Luigi Sturzo, 43/A - 52100 - Arezzo
tel. 0575 324114 - fax. 0575 406473 - email: info@progeo.arezzo.it

ALLEGATI

MODELLAZIONE EPA-SWMM 5.1 "San Miniato"

Fosso Bolgione e Fosso Castagno (tratti tombati)

MODELLAZIONE PER 200 anni

DURATE DI PIOGGIA: 1h

Dati idraulici

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.012)

****

Element Count

****

Number of rain gages 0

Number of subcatchments ... 0

Number of nodes 42

Number of links 41

Number of pollutants 0

Number of land uses 0

****

Node Summary

****

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	299.69	5.00	0.0	
J2	JUNCTION	299.38	3.28	0.0	Yes
J4	JUNCTION	299.39	3.00	0.0	Yes
J5	JUNCTION	298.12	3.00	0.0	Yes
J6	JUNCTION	297.81	3.00	0.0	Yes
J7	JUNCTION	297.63	2.50	0.0	Yes
J8	JUNCTION	297.59	2.50	0.0	Yes
J9	JUNCTION	297.76	2.50	0.0	Yes
J10	JUNCTION	297.46	2.50	0.0	Yes
J11	JUNCTION	297.08	2.50	0.0	Yes
J12	JUNCTION	296.95	2.50	0.0	Yes
J13	JUNCTION	296.84	2.50	0.0	Yes
J14	JUNCTION	296.67	2.50	0.0	Yes
J15	JUNCTION	296.65	2.50	0.0	Yes

J16	JUNCTION	296.48	2.50	0.0	Yes
J17	JUNCTION	296.26	2.50	0.0	Yes
J18	JUNCTION	295.95	2.50	0.0	Yes
J19	JUNCTION	295.70	2.50	0.0	Yes
J20	JUNCTION	295.38	2.50	0.0	Yes
J21	JUNCTION	295.09	2.50	0.0	Yes
J22	JUNCTION	294.30	4.00	0.0	Yes
J24	JUNCTION	294.03	4.00	0.0	Yes
J25	JUNCTION	294.08	3.00	0.0	Yes
J27	JUNCTION	301.38	4.62	0.0	Yes
J30	JUNCTION	286.29	2.25	0.0	
J31	JUNCTION	293.05	3.00	0.0	Yes
J32	JUNCTION	292.03	3.00	0.0	Yes
J33	JUNCTION	291.25	3.00	0.0	Yes
J34	JUNCTION	288.76	3.00	0.0	Yes
J35	JUNCTION	286.53	3.00	0.0	Yes
J36	JUNCTION	302.40	6.00	0.0	Yes
J37	JUNCTION	302.13	6.00	0.0	
J38	JUNCTION	301.76	6.00	0.0	
J39	JUNCTION	301.00	6.00	0.0	
J40	JUNCTION	299.91	6.00	0.0	
J41	JUNCTION	300.09	6.00	0.0	
J42	JUNCTION	300.77	3.53	0.0	Yes
J43	JUNCTION	300.30	4.00	0.0	Yes
J44	JUNCTION	299.65	4.60	0.0	Yes
J45	JUNCTION	298.77	3.20	0.0	Yes
J47	JUNCTION	298.29	3.20	0.0	Yes
OUT1	OUTFALL	286.26	2.25	0.0	

****

Link Summary

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Name	From Node	To Node	Type	Length	%Slope	Roughness
C1	J1	J2	CONDUIT	5.7	0.5236	0.0180
C4	J4	J5	CONDUIT	30.5	4.1675	0.0180
C5	J5	J6	CONDUIT	9.1	3.4086	0.0180
C6	J6	J7	CONDUIT	8.4	2.1433	0.0180
C7	J7	J8	CONDUIT	4.8	0.8334	0.0180
C8	J8	J9	CONDUIT	4.6	-3.6663	0.0180
C9	J9	J10	CONDUIT	6.6	4.5227	0.0180
C10	J10	J11	CONDUIT	36.4	1.0449	0.0180
C11	J11	J12	CONDUIT	10.8	1.2094	0.0180
C12	J12	J13	CONDUIT	10.8	1.0205	0.0180
C13	J13	J14	CONDUIT	19.0	0.8948	0.0180
C14	J14	J15	CONDUIT	2.0	1.0001	0.0180
C15	J15	J16	CONDUIT	21.0	0.8096	0.0180
C16	J16	J17	CONDUIT	48.0	0.4583	0.0180
C17	J17	J18	CONDUIT	81.0	0.3827	0.0180
C18	J18	J19	CONDUIT	63.0	0.3968	0.0180
C19	J19	J20	CONDUIT	25.0	1.2801	0.0180
C20	J20	J21	CONDUIT	33.0	0.8788	0.0180
C21	J21	J22	CONDUIT	21.0	0.4286	0.0180
C24	J24	J25	CONDUIT	5.4	-0.9311	0.0180
C29	J2	J4	CONDUIT	3.5	-0.2857	0.0180
C30	J22	J24	CONDUIT	18.5	1.4596	0.0180
C31	J30	OUT1	CONDUIT	2.0	1.5002	0.0180
C32	J25	J31	CONDUIT	60.0	1.7169	0.0180
C33	J31	J32	CONDUIT	59.7	1.7088	0.0180
C34	J32	J33	CONDUIT	45.4	1.7168	0.0180
C35	J33	J34	CONDUIT	145.0	1.7175	0.0180
C36	J34	J35	CONDUIT	129.5	1.7219	0.0180
C37	J35	J30	CONDUIT	14.8	1.6273	0.0180
C38	J36	J37	CONDUIT	18.3	1.4756	0.0350

C39	J37	J38	CONDUIT	10.1	3.6658	0.0350
C40	J38	J39	CONDUIT	0.5	152.0000	0.0350
C41	J39	J41	CONDUIT	0.5	182.0000	0.0250
C42	J41	J40	CONDUIT	9.2	1.9633	0.0250
C43	J40	J1	CONDUIT	4.4	4.9949	0.0250
C44	J27	J42	CONDUIT	38.1	1.6000	0.0170
C45	J42	J43	CONDUIT	48.9	0.9618	0.0170
C46	J43	J44	CONDUIT	53.0	1.2274	0.0170
C47	J44	J45	CONDUIT	49.0	1.7962	0.0170
C48	J45	J47	CONDUIT	105.8	0.4535	0.0170
C50	J47	J18	CONDUIT	46.3	5.0648	0.0170

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Cross Section Summary

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Conduit	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels	Full Flow
C1	RECT_CLOSED	3.00	8.10	0.71	2.70	1	25.93
C4	RECT_CLOSED	3.00	18.60	1.01	6.20	1	212.51
C5	RECT_CLOSED	3.00	13.50	0.90	4.50	1	129.10
C6	RECT_CLOSED	2.50	11.25	0.80	4.50	1	79.10
C7	RECT_CLOSED	2.50	11.25	0.80	4.50	1	49.32
C8	RECT_CLOSED	2.50	11.25	0.80	4.50	1	103.45
C9	RECT_CLOSED	2.50	11.25	0.80	4.50	1	114.90
C10	RECT_CLOSED	2.50	10.00	0.77	4.00	1	47.68
C11	RECT_CLOSED	2.50	10.00	0.77	4.00	1	51.30
C12	RECT_CLOSED	2.50	10.00	0.77	4.00	1	47.12
C13	RECT_CLOSED	2.50	10.00	0.77	4.00	1	44.13
C14	RECT_CLOSED	2.50	10.00	0.77	4.00	1	46.65
C15	RECT_CLOSED	2.50	10.00	0.77	4.00	1	41.97
C16	RECT_CLOSED	2.50	10.00	0.77	4.00	1	31.58
C17	RECT_CLOSED	2.50	7.00	0.66	2.80	1	18.25
C18	RECT_CLOSED	2.50	7.00	0.66	2.80	1	18.58

C19	RECT_CLOSED	2.50	6.75	0.65	2.70	1	31.81
C20	RECT_CLOSED	2.50	6.75	0.65	2.70	1	26.36
C21	RECT_CLOSED	2.50	6.75	0.65	2.70	1	18.41
C24	RECT_CLOSED	2.50	7.00	0.66	2.80	1	28.46
C29	RECT_CLOSED	3.00	8.40	0.72	2.80	1	20.12
C30	CIRCULAR	4.00	12.57	1.00	4.00	1	84.36
C31	RECT_CLOSED	2.25	6.07	0.61	2.70	1	29.86
C32	RECT_CLOSED	3.00	7.95	0.70	2.65	1	45.79
C33	RECT_CLOSED	3.00	7.95	0.70	2.65	1	45.68
C34	RECT_CLOSED	3.00	7.95	0.70	2.65	1	45.78
C35	RECT_CLOSED	3.00	7.95	0.70	2.65	1	45.79
C36	RECT_CLOSED	3.00	7.95	0.70	2.65	1	45.85
C37	RECT_CLOSED	2.25	6.07	0.61	2.70	1	31.10
C38	S79	5.93	112.23	2.56	35.40	1	728.81
C39	S80	4.83	75.50	1.84	33.28	1	621.10
C40	S81	4.25	55.94	1.72	33.58	1	2825.90
C41	S82	5.01	58.39	0.85	33.58	1	2816.81
C42	S82_BIS	5.92	60.86	0.84	33.58	1	304.26
C43	S83	5.00	40.36	0.38	30.09	1	188.45
C44	CIRCULAR	1.50	1.77	0.38	1.50	1	6.84
C45	CIRCULAR	1.50	1.77	0.38	1.50	1	5.30
C46	CIRCULAR	1.50	1.77	0.38	1.50	1	5.99
C47	CIRCULAR	1.50	1.77	0.38	1.50	1	7.25
C48	CIRCULAR	1.50	1.77	0.38	1.50	1	3.64
C50	CIRCULAR	1.50	1.77	0.38	1.50	1	12.17

****

Transect Summary

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Transect S79

Area:

0.0013	0.0042	0.0080	0.0120	0.0163
0.0209	0.0258	0.0309	0.0363	0.0420
0.0480	0.0542	0.0607	0.0674	0.0745
0.0821	0.0903	0.0992	0.1086	0.1186
0.1293	0.1405	0.1524	0.1662	0.1856
0.2095	0.2358	0.2630	0.2910	0.3198
0.3496	0.3799	0.4106	0.4419	0.4735
0.5057	0.5383	0.5715	0.6053	0.6398
0.6745	0.7096	0.7449	0.7805	0.8164
0.8526	0.8890	0.9257	0.9627	1.0000

Hrad:

0.0268	0.0550	0.0908	0.1255	0.1575
0.1873	0.2154	0.2421	0.2676	0.2922
0.3160	0.3391	0.3617	0.3837	0.3996
0.4102	0.4210	0.4330	0.4533	0.4786
0.5023	0.5247	0.5541	0.5800	0.5813
0.5751	0.5736	0.5777	0.5853	0.5955
0.6079	0.6229	0.6394	0.6571	0.6757
0.6950	0.7143	0.7337	0.7533	0.7735
0.7953	0.8174	0.8398	0.8623	0.8850
0.9079	0.9308	0.9539	0.9769	1.0000

Width:

0.0605	0.0936	0.1046	0.1118	0.1191
0.1264	0.1337	0.1409	0.1482	0.1555
0.1627	0.1700	0.1773	0.1845	0.1957
0.2111	0.2276	0.2440	0.2602	0.2762
0.2921	0.3081	0.3325	0.4384	0.5842
0.6934	0.7140	0.7363	0.7603	0.7843
0.8037	0.8159	0.8281	0.8404	0.8526

0.8648 0.8802 0.8963 0.9123 0.9259

0.9333 0.9407 0.9481 0.9555 0.9629

0.9703 0.9778 0.9852 0.9926 1.0000

Transect S80

Area:

0.0006 0.0018 0.0033 0.0052 0.0075

0.0103 0.0135 0.0171 0.0212 0.0258

0.0309 0.0363 0.0422 0.0485 0.0552

0.0623 0.0699 0.0779 0.0864 0.0954

0.1049 0.1152 0.1267 0.1392 0.1525

0.1663 0.1819 0.2007 0.2210 0.2419

0.2635 0.2883 0.3230 0.3587 0.3958

0.4337 0.4719 0.5105 0.5495 0.5888

0.6285 0.6685 0.7089 0.7496 0.7906

0.8319 0.8735 0.9154 0.9576 1.0000

Hrad:

0.0317 0.0624 0.0889 0.1136 0.1374

0.1589 0.1802 0.2019 0.2238 0.2460

0.2697 0.2933 0.3168 0.3402 0.3634

0.3866 0.4087 0.4291 0.4498 0.4708

0.4921 0.5228 0.5486 0.5709 0.5925

0.6138 0.6332 0.6498 0.6674 0.6865

0.7065 0.7147 0.7020 0.6943 0.6928

0.7013 0.7137 0.7289 0.7463 0.7653

0.7856 0.8068 0.8289 0.8517 0.8755

0.8998 0.9245 0.9494 0.9746 1.0000

Width:

0.0224 0.0316 0.0407 0.0499 0.0591

0.0695 0.0804 0.0913 0.1022 0.1131

0.1231 0.1329 0.1428 0.1526 0.1624

0.1723 0.1827 0.1943 0.2059 0.2175

0.2290 0.2552 0.2816 0.3045 0.3186

0.3327 0.4171 0.4668 0.4839 0.4992

0.5145 0.8090 0.8231 0.8548 0.8862

0.8944 0.9027 0.9109 0.9191 0.9274

0.9356 0.9439 0.9521 0.9602 0.9668

0.9734 0.9801 0.9867 0.9934 1.0000

Transect S82

Area:

0.0023 0.0067 0.0111 0.0155 0.0199

0.0243 0.0287 0.0331 0.0375 0.0419

0.0463 0.0507 0.0554 0.0604 0.0659

0.0720 0.0789 0.0866 0.0951 0.1045

0.1146 0.1256 0.1374 0.1501 0.1635

0.1780 0.1936 0.2103 0.2282 0.2471

0.2672 0.2884 0.3107 0.3341 0.3587

0.3843 0.4111 0.4390 0.4681 0.5005

0.5381 0.5821 0.6296 0.6785 0.7287

0.7803 0.8332 0.8874 0.9430 1.0000

Hrad:

0.0580 0.1582 0.2455 0.3222 0.3901

0.4508 0.5052 0.5544 0.5990 0.6396

0.6769 0.7143 0.7560 0.7906 0.8302

0.8643 0.8904 0.9094 0.9232 0.9333

0.9410 0.9473 0.9526 0.9576 0.9622

0.9640 0.9652 0.9664 0.9679 0.9698

0.9724 0.9757 0.9797 0.9846 0.9901

0.9965 1.0036 1.0113 1.0170 0.9704

0.9419 0.9083 0.9115 0.9182 0.9275

0.9391 0.9524 0.9671 0.9831 1.0000

Width:

0.0762 0.0763 0.0763 0.0763 0.0764

0.0764 0.0764 0.0764 0.0765 0.0765

0.0765 0.0780 0.0841 0.0902 0.1008

0.1125 0.1264 0.1407 0.1550 0.1693

0.1836 0.1978 0.2121 0.2264 0.2415

0.2609 0.2803 0.2997 0.3192 0.3386

0.3580 0.3774 0.3969 0.4163 0.4357

0.4551 0.4745 0.4940 0.5172 0.6088

0.6961 0.8130 0.8364 0.8598 0.8831

0.9065 0.9299 0.9533 0.9766 1.0000

Transect S82_BIS

Area:

0.0050 0.0100 0.0150 0.0200 0.0250

0.0300 0.0350 0.0400 0.0450 0.0500

0.0550 0.0600 0.0650 0.0700 0.0750

0.0800 0.0850 0.0901 0.0955 0.1014

0.1080 0.1157 0.1244 0.1342 0.1451

0.1572 0.1703 0.1845 0.1999 0.2166

0.2349 0.2547 0.2759 0.2987 0.3229

0.3487 0.3759 0.4047 0.4350 0.4667

0.5003 0.5398 0.5867 0.6404 0.6958

0.7530 0.8121 0.8729 0.9355 1.0000

Hrad:

0.1283 0.2366 0.3292 0.4094 0.4795

0.5412 0.5960 0.6450 0.6891 0.7289

0.7651 0.7981 0.8284 0.8562 0.8819

0.9056 0.9277 0.9534 0.9836 1.0117

1.0428 1.0648 1.0780 1.0847 1.0868

1.0860 1.0835 1.0802 1.0761 1.0694

1.0623 1.0556 1.0497 1.0449 1.0415

1.0395 1.0389 1.0398 1.0421 1.0457

1.0450 0.9817 0.9341 0.9325 0.9361

0.9437 0.9544 0.9677 0.9830 1.0000

Width:

0.0765 0.0765 0.0765 0.0765 0.0765

0.0765 0.0765 0.0765 0.0765 0.0765

0.0765 0.0765 0.0765 0.0765 0.0765

0.0765 0.0765 0.0790 0.0862 0.0953

0.1092 0.1249 0.1418 0.1587 0.1756

0.1925 0.2094 0.2263 0.2448 0.2678

0.2908 0.3137 0.3367 0.3596 0.3826

0.4056 0.4285 0.4515 0.4745 0.4974

0.5497 0.6561 0.8066 0.8342 0.8618

0.8895 0.9171 0.9447 0.9724 1.0000

Transect S83

Area:

0.0086 0.0172 0.0259 0.0345 0.0431

0.0517 0.0603 0.0690 0.0776 0.0862

0.0948 0.1035 0.1121 0.1207 0.1293

0.1379 0.1466 0.1552 0.1638 0.1724

0.1810 0.1897 0.1983 0.2069 0.2155

0.2242 0.2328 0.2414 0.2500 0.2586

0.2673 0.2761 0.2882 0.3060 0.3285

0.3544 0.3826 0.4128 0.4451 0.4797

0.5170 0.5571 0.5999 0.6454 0.6937

0.7450 0.8003 0.8603 0.9274 1.0000

Hrad:

0.0883 0.1674 0.2388 0.3035 0.3625

0.4164 0.4659 0.5115 0.5536 0.5927

0.6290 0.6628 0.6944 0.7240 0.7518

0.7779 0.8025 0.8257 0.8476 0.8684

0.8881 0.9067 0.9245 0.9414 0.9575

0.9728 0.9875 1.0015 1.0149 1.0278

1.0401 1.0506 0.9372 0.9068 0.8077

0.7387 0.7604 0.7842 0.8098 0.8305

0.8509 0.8736 0.8984 0.9250 0.9532

0.9702 0.9843 0.9812 0.9709 1.0000

Width:

0.1157 0.1157 0.1157 0.1157 0.1157

0.1157 0.1157 0.1157 0.1157 0.1157

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0.1157 0.1157 0.1157 0.1157 0.1157

0.1157 0.1311 0.2068 0.2696 0.3310

0.3633 0.3915 0.4197 0.4479 0.4821

0.5188 0.5556 0.5923 0.6290 0.6658

0.7149 0.7705 0.8497 0.9474 1.0000

Transect S81

Area:

0.0005 0.0019 0.0039 0.0063 0.0093

0.0128 0.0168 0.0213 0.0264 0.0319

0.0380 0.0447 0.0520 0.0599 0.0685

0.0776 0.0874 0.0978 0.1089 0.1205

0.1328 0.1460 0.1599 0.1748 0.1904

0.2069 0.2243 0.2424 0.2615 0.2813

0.3020 0.3236 0.3460 0.3692 0.3933

0.4182 0.4440 0.4722 0.5043 0.5405

0.5818 0.6242 0.6676 0.7121 0.7575

0.8040 0.8515 0.9000 0.9495 1.0000

Hrad:

0.0238 0.0522 0.0801 0.1061 0.1308

0.1548 0.1783 0.2014 0.2243 0.2471

0.2666 0.2863 0.3064 0.3270 0.3478

0.3689 0.3902 0.4116 0.4332 0.4549

0.4844 0.5157 0.5443 0.5709 0.5958

0.6191 0.6413 0.6625 0.6897 0.7204

0.7495 0.7771 0.8036 0.8289 0.8532

0.8766 0.8980 0.9132 0.9183 0.9205

0.9174 0.9195 0.9243 0.9313 0.9400

0.9501 0.9613 0.9735 0.9864 1.0000

Width:

0.0197 0.0332 0.0436 0.0536 0.0635

0.0735 0.0835 0.0934 0.1034 0.1133

0.1252 0.1373 0.1495 0.1616 0.1737

0.1858 0.1979 0.2101 0.2222 0.2343

0.2492 0.2657 0.2822 0.2987 0.3152

0.3316 0.3481 0.3646 0.3811 0.3975

0.4140 0.4305 0.4470 0.4634 0.4799

0.4964 0.5164 0.5931 0.6672 0.7699
0.8215 0.8414 0.8612 0.8810 0.9009
0.9207 0.9405 0.9603 0.9802 1.0000

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CMS
Process Models:
  Rainfall/Runoff ..... NO
  RDII ..... NO
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... YES
  Ponding Allowed ..... NO
  Water Quality ..... NO
Flow Routing Method ..... DYNWAVE
Starting Date 01/29/2018 00:00:00
Ending Date 01/29/2018 06:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Routing Time Step ..... 0.75 sec
Variable Time Step ..... YES
Maximum Trials 8
Number of Threads 1
Head Tolerance ..... 0.001500 m

**********	Volume	Volume
Flow Routing Continuity	hectare-m	10^6 ltr
**********	---	---
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	0.000	0.000
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	11.319	113.193
External Outflow	10.655	106.550
Flooding Loss	0.614	6.139
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.050	0.504
Continuity Error (%)	-0.001	

****

Time-Step Critical Elements

****

Link C31 (45.73%)

****

Highest Flow Instability Indexes

****

Link C41 (33)

Link C40 (17)

Link C42 (16)

Link C43 (6)

Link C24 (4)

****

Routing Time Step Summary

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Minimum Time Step : 0.50 sec

Average Time Step : 0.64 sec

Maximum Time Step : 0.75 sec

Percent in Steady State : 0.00

Average Iterations per Step : 2.36

Percent Not Converging : 0.59

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Node Depth Summary

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Time of Max Occurrence days hr:min	Reported Max Depth Meters
J1	JUNCTION	0.31	1.55	301.24	0 01:05	1.55
J2	JUNCTION	0.16	0.67	300.05	0 01:05	0.67
J4	JUNCTION	0.08	0.37	299.76	0 01:05	0.37
J5	JUNCTION	0.12	0.67	298.79	0 01:00	0.67
J6	JUNCTION	0.16	0.87	298.68	0 01:00	0.87
J7	JUNCTION	0.29	1.00	298.63	0 01:00	1.00
J8	JUNCTION	0.33	1.02	298.61	0 01:00	1.02
J9	JUNCTION	0.14	0.83	298.59	0 01:00	0.82
J10	JUNCTION	0.20	1.09	298.55	0 01:00	1.09
J11	JUNCTION	0.26	1.46	298.54	0 01:00	1.45
J12	JUNCTION	0.28	1.61	298.56	0 01:00	1.61
J13	JUNCTION	0.31	1.74	298.58	0 01:00	1.73
J14	JUNCTION	0.35	1.92	298.59	0 01:00	1.91
J15	JUNCTION	0.35	1.94	298.59	0 01:00	1.93
J16	JUNCTION	0.40	2.11	298.59	0 01:00	2.11

J17	JUNCTION	0.48	2.32	298.58	0	01:00	2.32
J18	JUNCTION	0.72	2.50	298.45	0	00:50	2.50
J19	JUNCTION	0.58	2.11	297.81	0	01:00	2.11
J20	JUNCTION	0.60	2.11	297.49	0	01:00	2.11
J21	JUNCTION	0.67	2.21	297.30	0	01:00	2.21
J22	JUNCTION	0.67	2.15	296.45	0	01:00	2.15
J24	JUNCTION	0.68	2.28	296.31	0	01:00	2.28
J25	JUNCTION	0.52	1.96	296.04	0	01:00	1.96
J27	JUNCTION	0.90	4.60	305.98	0	00:37	3.95
J30	JUNCTION	0.51	1.88	288.17	0	01:00	1.88
J31	JUNCTION	0.53	2.01	295.06	0	01:00	2.01
J32	JUNCTION	0.54	2.03	294.06	0	01:00	2.03
J33	JUNCTION	0.51	1.90	293.15	0	01:00	1.90
J34	JUNCTION	0.53	2.11	290.87	0	01:00	2.11
J35	JUNCTION	0.61	2.40	288.93	0	01:00	2.40
J36	JUNCTION	0.27	1.18	303.58	0	01:05	1.18
J37	JUNCTION	0.32	1.26	303.39	0	01:05	1.26
J38	JUNCTION	0.14	0.54	302.30	0	01:05	0.54
J39	JUNCTION	0.09	0.49	301.49	0	01:05	0.49
J40	JUNCTION	0.25	1.36	301.27	0	01:05	1.36
J41	JUNCTION	0.25	1.31	301.40	0	01:05	1.31
J42	JUNCTION	0.93	3.53	304.30	0	00:37	3.53
J43	JUNCTION	0.87	3.52	303.82	0	00:37	3.32
J44	JUNCTION	0.81	3.40	303.05	0	00:37	3.13
J45	JUNCTION	0.96	3.20	301.97	0	00:37	3.13
J47	JUNCTION	0.45	1.25	299.54	0	01:00	1.25
OUT1	OUTFALL	0.51	1.88	288.14	0	01:00	1.88

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Node Inflow Summary

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Node	Type	Maximum Lateral Inflow CMS	Maximum Total Inflow CMS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 ltr	Total Inflow Volume 10^6 ltr	Flow Balance Error Percent
J1	JUNCTION	0.000	12.199	0 01:05	0	33.7	-0.000
J2	JUNCTION	0.099	12.280	0 01:05	0.239	34	0.000
J4	JUNCTION	0.224	12.465	0 01:05	0.544	34.5	0.000
J5	JUNCTION	0.261	12.683	0 01:00	0.634	35.1	0.000
J6	JUNCTION	0.116	12.801	0 01:00	0.28	35.4	-0.000
J7	JUNCTION	0.087	12.889	0 01:00	0.211	35.6	0.011
J8	JUNCTION	0.062	12.952	0 01:00	0.151	35.8	0.011
J9	JUNCTION	0.074	13.026	0 01:00	0.181	35.9	0.000
J10	JUNCTION	0.284	13.307	0 01:00	0.688	36.6	0.000
J11	JUNCTION	0.311	13.631	0 01:00	0.754	37.4	-0.001
J12	JUNCTION	0.142	13.836	0 01:01	0.345	37.7	-0.000
J13	JUNCTION	0.197	14.028	0 01:00	0.477	38.2	0.000
J14	JUNCTION	0.139	14.188	0 01:00	0.336	38.5	-0.000
J15	JUNCTION	0.152	14.300	0 01:00	0.368	38.9	0.000
J16	JUNCTION	0.455	14.766	0 01:00	1.1	40	0.000
J17	JUNCTION	0.852	15.566	0 01:00	2.06	42.1	0.000
J18	JUNCTION	0.951	25.198	0 01:00	2.3	90.7	0.067
J19	JUNCTION	0.581	22.274	0 01:00	1.41	89.4	0.028
J20	JUNCTION	0.383	22.656	0 01:00	0.928	90.3	0.019
J21	JUNCTION	0.356	23.012	0 01:00	0.864	91.2	0.031
J22	JUNCTION	0.261	23.272	0 01:00	0.632	91.8	0.005
J24	JUNCTION	0.158	23.429	0 01:00	0.382	92.2	0.007
J25	JUNCTION	0.432	23.860	0 01:00	1.05	93.2	0.018
J27	JUNCTION	8.890	8.890	0 01:05	42.5	42.5	0.015
J30	JUNCTION	0.000	29.424	0 01:00	0	107	0.006

J31	JUNCTION	0.790	24.648	0	01:00	1.92	95.1	0.031
J32	JUNCTION	0.694	25.337	0	01:00	1.68	96.7	0.027
J33	JUNCTION	1.257	26.590	0	01:00	3.05	99.8	0.046
J34	JUNCTION	2.667	29.247	0	01:00	6.47	106	0.061
J35	JUNCTION	0.195	29.429	0	01:00	0.472	107	0.036
J36	JUNCTION	12.200	12.200	0	01:05	33.7	33.7	-0.003
J37	JUNCTION	0.000	12.199	0	01:05	0	33.7	0.003
J38	JUNCTION	0.000	12.199	0	01:05	0	33.7	0.001
J39	JUNCTION	0.000	12.199	0	01:05	0	33.7	-0.003
J40	JUNCTION	0.000	12.199	0	01:05	0	33.7	-0.000
J41	JUNCTION	0.000	12.199	0	01:05	0	33.7	0.002
J42	JUNCTION	0.534	9.258	0	01:05	1.37	43.8	0.043
J43	JUNCTION	0.434	7.236	0	01:15	1.11	41.4	0.051
J44	JUNCTION	0.435	7.350	0	01:15	1.12	42.5	0.042
J45	JUNCTION	0.660	7.908	0	01:00	1.69	44.2	0.095
J47	JUNCTION	0.846	8.753	0	01:00	2.17	46.3	0.045
OUT1	OUTFALL	0.000	29.424	0	01:00	0	107	0.000

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Node Surcharge Summary

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Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Meters	Min. Depth Below Rim Meters
J18	JUNCTION	0.32	0.000	0.000
J27	JUNCTION	0.70	3.104	0.016
J42	JUNCTION	0.72	2.030	0.000
J43	JUNCTION	0.72	2.021	0.479
J44	JUNCTION	0.75	1.897	1.203
J45	JUNCTION	0.81	1.700	0.000

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Node Flooding Summary

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Flooding refers to all water that overflows a node, whether it ponds or not.

Node	Hours Flooded	Maximum Rate CMS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 ltr	Maximum Ponded Depth Meters
J18	0.32	3.504	0 01:00	2.600	0.000
J42	0.57	2.806	0 01:00	3.539	0.000
J45	0.01	0.044	0 00:37	0.000	0.000

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Outfall Loading Summary

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Outfall Node	Flow Freq Pcnt	Avg Flow CMS	Max Flow CMS	Total Volume 10^6 ltr
OUT1	98.46	6.080	29.424	106.550
System	98.46	6.080	29.424	106.550

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Link Flow Summary

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Link	Type	Maximum |Flow| CMS	Time of Max Occurrence days	hr:min	Maximum |Veloc| m/sec	Max/ Full Flow	Max/ Full Depth
C1	CONDUIT	12.199	0	01:05	3.20	0.47	0.47
C4	CONDUIT	12.465	0	01:05	3.88	0.06	0.17
C5	CONDUIT	12.687	0	01:00	3.69	0.10	0.26
C6	CONDUIT	12.803	0	01:00	3.06	0.16	0.37
C7	CONDUIT	12.890	0	01:00	2.84	0.26	0.40
C8	CONDUIT	12.953	0	01:00	3.12	0.13	0.37
C9	CONDUIT	13.028	0	01:00	3.12	0.11	0.38
C10	CONDUIT	13.327	0	01:00	2.76	0.28	0.51
C11	CONDUIT	13.700	0	01:01	2.52	0.27	0.61
C12	CONDUIT	13.837	0	01:00	2.33	0.29	0.67
C13	CONDUIT	14.054	0	01:00	2.12	0.32	0.73
C14	CONDUIT	14.153	0	01:00	2.00	0.30	0.77
C15	CONDUIT	14.323	0	01:00	2.23	0.34	0.81
C16	CONDUIT	14.741	0	01:00	1.72	0.47	0.89
C17	CONDUIT	15.585	0	01:01	2.31	0.85	0.96
C18	CONDUIT	21.831	0	01:09	3.43	1.17	0.92
C19	CONDUIT	22.274	0	01:00	3.94	0.70	0.84
C20	CONDUIT	22.656	0	01:00	3.89	0.86	0.86
C21	CONDUIT	23.012	0	01:00	4.10	1.25	0.83
C24	CONDUIT	23.429	0	01:00	3.98	0.82	0.85
C29	CONDUIT	12.280	0	01:05	8.41	0.61	0.17
C30	CONDUIT	23.272	0	01:00	3.38	0.28	0.55
C31	CONDUIT	29.424	0	01:00	5.79	0.99	0.84
C32	CONDUIT	23.860	0	01:00	4.58	0.52	0.66
C33	CONDUIT	24.647	0	01:00	4.63	0.54	0.67
C34	CONDUIT	25.338	0	01:00	4.89	0.55	0.66
C35	CONDUIT	26.589	0	01:00	5.07	0.58	0.67
C36	CONDUIT	29.236	0	01:00	4.97	0.64	0.75
C37	CONDUIT	29.424	0	01:00	5.28	0.95	0.92

C38	CHANNEL	12.199	0	01:05	2.49	0.02	0.21
C39	CHANNEL	12.199	0	01:05	7.11	0.02	0.19
C40	CHANNEL	12.199	0	01:05	20.65	0.00	0.12
C41	CHANNEL	12.199	0	01:05	5.73	0.00	0.18
C42	CHANNEL	12.199	0	01:05	3.55	0.04	0.23
C43	CHANNEL	12.199	0	01:05	2.41	0.06	0.29
C44	CONDUIT	8.890	0	01:05	5.03	1.30	1.00
C45	CONDUIT	7.122	0	01:15	4.03	1.34	1.00
C46	CONDUIT	7.236	0	01:15	4.09	1.21	1.00
C47	CONDUIT	7.350	0	01:15	4.16	1.01	1.00
C48	CONDUIT	7.908	0	01:00	4.85	2.17	0.92
C50	CONDUIT	8.753	0	01:00	6.03	0.72	0.92

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Flow Classification Summary

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	Adjusted	---------- Fraction of Time in Flow Class ----------								
	/Actual	Up	Down	Sub	Sup	Up	Down	Norm	Inlet	
Conduit	Length	Dry	Dry	Dry	Crit	Crit	Crit	Crit	Ltd	Ctrl
C1	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
C4	1.00	0.00	0.02	0.00	0.51	0.46	0.00	0.00	1.00	0.00
C5	1.00	0.00	0.00	0.00	0.25	0.75	0.00	0.00	0.79	0.00
C6	1.00	0.00	0.00	0.00	0.76	0.24	0.00	0.00	0.79	0.00
C7	1.00	0.00	0.00	0.00	0.96	0.04	0.00	0.00	0.00	0.00
C8	1.00	0.00	0.00	0.00	0.74	0.26	0.00	0.00	0.00	0.00
C9	1.00	0.00	0.00	0.00	0.58	0.42	0.00	0.00	0.78	0.00
C10	1.00	0.00	0.00	0.00	0.70	0.30	0.00	0.00	0.76	0.00
C11	1.00	0.00	0.00	0.00	0.71	0.28	0.00	0.00	0.68	0.00
C12	1.00	0.00	0.00	0.00	0.74	0.25	0.00	0.00	0.66	0.00
C13	1.00	0.00	0.00	0.00	0.77	0.22	0.00	0.00	0.72	0.00
C14	1.00	0.00	0.00	0.00	0.81	0.19	0.00	0.00	0.55	0.00

C15	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.71	0.00
C16	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.78	0.00
C17	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.78	0.00
C18	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
C19	1.00	0.00	0.00	0.00	0.20	0.79	0.00	0.00	0.00	0.00
C20	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
C21	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.00	0.00
C24	1.00	0.01	0.00	0.00	0.53	0.46	0.00	0.00	0.00	0.00
C29	1.00	0.00	0.00	0.00	0.56	0.44	0.00	0.00	0.00	0.00
C30	1.00	0.01	0.00	0.00	0.15	0.84	0.00	0.00	0.00	0.00
C31	1.00	0.01	0.00	0.00	0.00	0.98	0.00	0.00	0.42	0.00
C32	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00
C33	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00
C34	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00
C35	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00
C36	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.66	0.00
C37	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00
C38	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.82	0.00
C39	1.00	0.00	0.00	0.00	0.53	0.47	0.00	0.00	0.84	0.00
C40	1.00	0.00	0.00	0.00	0.04	0.96	0.00	0.00	0.13	0.00
C41	1.00	0.00	0.03	0.00	0.00	0.97	0.00	0.00	0.84	0.00
C42	1.00	0.00	0.00	0.00	0.62	0.38	0.00	0.00	0.73	0.00
C43	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.79	0.00
C44	1.00	0.00	0.00	0.00	0.16	0.84	0.00	0.00	0.77	0.00
C45	1.00	0.00	0.00	0.00	0.16	0.84	0.00	0.00	0.82	0.00
C46	1.00	0.00	0.00	0.00	0.17	0.83	0.00	0.00	0.07	0.00
C47	1.00	0.00	0.00	0.00	0.18	0.82	0.00	0.00	0.79	0.00
C48	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
C50	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.31	0.00

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Conduit Surcharge Summary

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Conduit	Hours Full: Both Ends	Hours Full: Upstream	Hours Full: Dnstream	Hours Above Full	Capacity Limited
				Normal Flow	
C18	0.01	0.01	0.01	0.55	0.01
C21	0.01	0.01	0.01	0.58	0.01
C37	0.01	0.27	0.01	0.01	0.01
C44	0.70	0.70	0.72	0.51	0.51
C45	0.71	0.72	0.72	0.73	0.71
C46	0.72	0.72	0.75	0.69	0.69
C47	0.75	0.75	0.81	0.57	0.57
C48	0.01	0.81	0.01	0.97	0.01
C50	0.01	0.01	0.83	0.01	0.01

Analysis begun on: Fri Apr 06 15:58:41 2018

Analysis ended on: Fri Apr 06 15:58:44 2018

Total elapsed time: 00:00:03

ProGeo Engineering S.r.l.
via Don Luigi Sturzo, 43/A - 52100 - Arezzo
tel. 0575 324114 - fax. 0575 406473 - email: info@progeo.arezzo.it

ALLEGATI

MODELLAZIONE EPA-SWMM 5.1 "Fosso Riluogo (monte)"

Riluogo -monte- (tratti tombati)

MODELLAZIONE PER TR=30 e 200 ANNI

DURATA DI PIOGGIA: 1h

Dati idraulici

ProGeo Engineering S.r.l.
via Don Luigi Sturzo, 43/A - 52100 - Arezzo
tel. 0575 324114 - fax. 0575 406473 - email: info@progeo.arezzo.it

ALLEGATI

MODELLAZIONE EPA-SWMM 5.1 "Fosso Riluogo (monte)"

Riluogo -monte- (tratti tombati)

MODELLAZIONE PER 30 anni

DURATE DI PIOGGIA: 1h

Dati idraulici

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.012)

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Element Count

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Number of rain gages 0

Number of subcatchments ... 0

Number of nodes 45

Number of links 44

Number of pollutants 0

Number of land uses 0

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Node Summary

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Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J86	JUNCTION	259.88	6.95	0.0	Yes
J85	JUNCTION	258.68	9.18	0.0	Yes
J84	JUNCTION	258.11	9.18	0.0	Yes
J83	JUNCTION	257.47	3.53	0.0	Yes
J69	JUNCTION	256.15	3.85	0.0	Yes
J68	JUNCTION	254.85	5.15	0.0	Yes
J67	JUNCTION	254.66	5.74	0.0	Yes
J66	JUNCTION	254.46	6.34	0.0	Yes
J65.5	JUNCTION	253.90	6.60	0.0	Yes
J65	JUNCTION	253.46	5.94	0.0	Yes
J64.5	JUNCTION	250.30	2.80	0.0	Yes
J64.4	JUNCTION	249.50	3.50	0.0	Yes
J64	JUNCTION	249.00	2.80	0.0	Yes
J63.5	JUNCTION	247.70	3.30	0.0	Yes

J63	JUNCTION	246.45	2.85	0.0	Yes
J62	JUNCTION	245.05	4.25	0.0	Yes
J61	JUNCTION	241.06	3.20	0.0	Yes
J60.5	JUNCTION	239.05	3.20	0.0	Yes
J60	JUNCTION	236.75	3.45	0.0	Yes
J59.5	JUNCTION	235.00	4.45	0.0	Yes
J59	JUNCTION	233.60	3.50	0.0	Yes
J58	JUNCTION	232.60	4.20	0.0	Yes
J57.7	JUNCTION	231.50	4.00	0.0	Yes
J57.5	JUNCTION	231.30	4.00	0.0	Yes
J57.3	JUNCTION	230.20	3.20	0.0	Yes
J57	JUNCTION	229.60	3.40	0.0	Yes
J55	JUNCTION	223.30	8.21	0.0	Yes
J55.5	JUNCTION	224.90	6.50	0.0	Yes
J56	JUNCTION	225.00	6.50	0.0	Yes
J56.5	JUNCTION	226.20	6.10	0.0	Yes
J82	JUNCTION	223.59	8.21	0.0	Yes
J2	JUNCTION	257.47	2.92	0.0	Yes
J81	JUNCTION	221.94	5.43	0.0	Yes
J80	JUNCTION	220.60	5.43	0.0	Yes
J79	JUNCTION	220.24	4.30	0.0	Yes
J51.5	JUNCTION	220.20	4.94	0.0	Yes
J51.3	JUNCTION	218.77	4.60	0.0	
J51.2	JUNCTION	217.85	4.60	0.0	
J51	JUNCTION	216.33	7.96	0.0	
N04	JUNCTION	223.03	2.30	0.0	Yes
N03	JUNCTION	221.53	2.30	0.0	
N02.9	JUNCTION	221.42	2.30	0.0	
N02.8	JUNCTION	221.31	2.30	0.0	
N02.1	JUNCTION	220.83	2.30	0.0	
OUT1	OUTFALL	216.24	5.82	0.0	

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Link Summary

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Name	From Node	To Node	Type	Length	%Slope	Roughness
C3	J2	J69	CONDUIT	43.0	3.0712	0.0180
C4	J69	J68	CONDUIT	1.0	130.0000	0.0180
C5	J68	J67	CONDUIT	50.0	0.3800	0.0180
C6	J67	J66	CONDUIT	33.0	0.6061	0.0180
C7	J66	J65.5	CONDUIT	80.0	0.7000	0.0180
C8	J65.5	J65	CONDUIT	68.0	0.6471	0.0180
C9	J65	J64.5	CONDUIT	173.0	1.8269	0.0180
C10	J64.5	J64.4	CONDUIT	42.0	1.9051	0.0180
C11	J64.4	J64	CONDUIT	48.0	1.0417	0.0180
C12	J64	J63.5	CONDUIT	148.0	0.8784	0.0180
C13	J63.5	J63	CONDUIT	56.0	2.2327	0.0180
C14	J63	J62	CONDUIT	1.0	140.0000	0.0180
C15	J62	J61	CONDUIT	135.0	2.9568	0.0180
C16	J61	J60.5	CONDUIT	135.0	1.4891	0.0180
C17	J60.5	J60	CONDUIT	154.5	1.4888	0.0180
C18	J60	J59.5	CONDUIT	90.0	1.9448	0.0180
C19	J59.5	J59	CONDUIT	70.0	2.0004	0.0180
C20	J59	J58	CONDUIT	1.0507792170.0735		0.0180
C21	J58	J57.7	CONDUIT	68.0	1.6179	0.0180
C22	J57.7	J57.5	CONDUIT	30.0	0.6667	0.0180
C23	J57.5	J57.3	CONDUIT	120.0	0.9167	0.0180
C24	J57.3	J57	CONDUIT	76.0	0.7895	0.0180
C25	J57	J56.5	CONDUIT	137.0	2.4825	0.0180
C26	J56.5	J56	CONDUIT	42.0	2.8583	0.0180
C27	J56	J55.5	CONDUIT	10.0	1.0001	0.0180
C28	J55.5	J55	CONDUIT	90.0	1.7781	0.0180
C29	J86	J85	CONDUIT	76.6	1.5606	0.0350
C30	J85	J84	CONDUIT	39.7	1.4370	0.0350
C31	J84	J83	CONDUIT	31.6	2.0264	0.0350
C32	J83	J2	CONDUIT	2.0	0.0152	0.0350

C33	J55	J82	CONDUIT	99.0	-0.2929	0.0350
C34	J82	J81	CONDUIT	70.3	2.3467	0.0100
C35	J81	J80	CONDUIT	145.3	0.9220	0.0350
C36	J80	J79	CONDUIT	14.3	2.5183	0.0350
C37	J79	J51.5	CONDUIT	15.3	0.2608	0.0350
C38	J51.5	J51.3	CONDUIT	87.0	1.6439	0.0180
C39	J51.3	J51.2	CONDUIT	57.8	1.5908	0.0180
C40	J51.2	J51	CONDUIT	100.0	1.5202	0.0180
C41	J51	OUT1	CONDUIT	10.0	0.9000	0.0350
C42	N04	N03	CONDUIT	6.0	25.8199	0.0180
C43	N03	N02.9	CONDUIT	20.0	0.5500	0.0180
C44	N02.9	N02.8	CONDUIT	20.0	0.5500	0.0180
C45	N02.8	N02.1	CONDUIT	91.5	0.5244	0.0180
C46	N02.1	J51.2	CONDUIT	30.2	9.9027	0.0180

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Cross Section Summary

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Conduit	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels	Full Flow
C3	RECT_CLOSED	2.20	9.90	0.74	4.50	1	78.79
C4	MODBASKETHANDLE	3.50	13.58	0.97	4.50	1	840.01
C5	MODBASKETHANDLE	3.50	13.58	0.97	4.50	1	45.42
C6	MODBASKETHANDLE	2.65	5.85	0.64	2.45	1	18.77
C7	RECT_CLOSED	2.70	16.20	0.93	6.00	1	71.81
C8	RECT_CLOSED	2.70	16.20	0.93	6.00	1	69.04
C9	RECT_CLOSED	2.60	5.85	0.60	2.25	1	31.36
C10	RECT_CLOSED	2.60	5.85	0.60	2.25	1	32.03
C11	RECT_CLOSED	2.60	5.85	0.60	2.25	1	23.68
C12	RECT_CLOSED	2.60	5.85	0.60	2.25	1	21.75
C13	RECT_CLOSED	2.60	5.85	0.60	2.25	1	34.67
C14	RECT_CLOSED	2.60	5.85	0.60	2.25	1	274.54
C15	RECT_CLOSED	2.60	5.85	0.60	2.25	1	39.90

C16	RECT_CLOSED	3.20	5.76	0.58	1.80	1	27.04
C17	RECT_CLOSED	3.20	5.76	0.58	1.80	1	27.04
C18	RECT_CLOSED	3.20	6.40	0.62	2.00	1	35.88
C19	RECT_CLOSED	3.20	6.40	0.62	2.00	1	36.39
C20	RECT_CLOSED	3.20	6.40	0.62	2.00	1	579767.30
C21	RECT_CLOSED	3.20	6.40	0.62	2.00	1	32.73
C22	RECT_CLOSED	3.20	6.72	0.63	2.10	1	22.50
C23	RECT_CLOSED	3.20	6.72	0.63	2.10	1	26.38
C24	RECT_CLOSED	3.20	6.72	0.63	2.10	1	24.48
C25	RECT_CLOSED	3.20	6.72	0.63	2.10	1	43.42
C26	RECT_CLOSED	3.20	6.72	0.63	2.10	1	46.59
C27	RECT_CLOSED	2.20	5.72	0.60	2.60	1	22.51
C28	RECT_CLOSED	2.20	5.72	0.60	2.60	1	30.01
C29	s16	6.95	89.85	2.10	42.51	1	526.35
C30	s17	9.18	198.79	3.62	42.38	1	1605.33
C31	s18	3.53	31.24	1.28	21.35	1	150.20
C32	s19	2.92	42.52	0.87	38.65	1	13.67
C33	s20	8.21	178.07	4.34	39.22	1	733.08
C34	s21	5.28	63.40	2.32	23.06	1	1700.72
C35	S22	5.43	54.39	2.09	30.35	1	244.29
C36	S23	4.30	24.27	1.75	11.95	1	159.90
C37	S23	4.30	24.27	1.75	11.95	1	51.45
C38	RECT_CLOSED	2.10	6.09	0.61	2.90	1	31.17
C39	RECT_CLOSED	3.00	9.00	0.75	3.00	1	52.07
C40	RECT_CLOSED	3.00	9.00	0.75	3.00	1	50.90
C41	S24	5.82	47.48	2.20	21.88	1	217.78
C42	RECT_CLOSED	2.30	8.05	0.69	3.50	1	178.15
C43	RECT_CLOSED	2.30	4.83	0.55	2.10	1	13.34
C44	RECT_CLOSED	2.30	4.83	0.55	2.10	1	13.34
C45	RECT_CLOSED	2.30	4.83	0.55	2.10	1	13.03
C46	RECT_CLOSED	2.30	4.83	0.55	2.10	1	56.62

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Transect Summary

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Transect s16

Area:

0.0036	0.0076	0.0117	0.0160	0.0204
0.0250	0.0297	0.0347	0.0399	0.0454
0.0513	0.0576	0.0643	0.0714	0.0790
0.0871	0.0957	0.1049	0.1146	0.1247
0.1354	0.1465	0.1581	0.1701	0.1826
0.1955	0.2091	0.2235	0.2387	0.2548
0.2718	0.2896	0.3081	0.3273	0.3473
0.3679	0.3896	0.4139	0.4412	0.4725
0.5082	0.5485	0.5961	0.6471	0.7002
0.7555	0.8131	0.8731	0.9354	1.0000

Hrad:

0.0570	0.1078	0.1514	0.1897	0.2239
0.2549	0.2832	0.3085	0.3305	0.3511
0.3717	0.3925	0.4129	0.4321	0.4503
0.4687	0.4879	0.5078	0.5281	0.5584
0.5888	0.6183	0.6471	0.6752	0.7028
0.7312	0.7721	0.8096	0.8441	0.8759
0.9055	0.9332	0.9597	0.9852	1.0098
1.0336	1.0500	1.0592	1.0632	1.0586
1.0494	1.0369	1.0068	0.9972	0.9918
0.9897	0.9897	0.9916	0.9951	1.0000

Width:

0.0591	0.0614	0.0638	0.0662	0.0686
0.0709	0.0733	0.0766	0.0814	0.0871
0.0928	0.0985	0.1044	0.1114	0.1191
0.1272	0.1352	0.1432	0.1513	0.1584
0.1654	0.1723	0.1792	0.1862	0.1931
0.2002	0.2124	0.2253	0.2382	0.2511
0.2640	0.2764	0.2870	0.2975	0.3081

0.3186 0.3483 0.3915 0.4418 0.5095

0.5773 0.6450 0.7582 0.7912 0.8242

0.8574 0.8931 0.9287 0.9644 1.0000

Transect s17

Area:

0.0021 0.0050 0.0084 0.0120 0.0161

0.0205 0.0253 0.0305 0.0360 0.0421

0.0487 0.0559 0.0637 0.0725 0.0851

0.1014 0.1185 0.1360 0.1539 0.1732

0.1947 0.2167 0.2389 0.2614 0.2843

0.3074 0.3309 0.3547 0.3788 0.4033

0.4280 0.4531 0.4785 0.5041 0.5301

0.5565 0.5831 0.6100 0.6373 0.6649

0.6928 0.7210 0.7495 0.7785 0.8094

0.8449 0.8833 0.9220 0.9609 1.0000

Hrad:

0.0363 0.0751 0.1085 0.1384 0.1658

0.1915 0.2155 0.2384 0.2605 0.2777

0.2955 0.3140 0.3329 0.3543 0.3622

0.3621 0.3705 0.3841 0.4008 0.4234

0.4445 0.4674 0.4913 0.5157 0.5405

0.5653 0.5901 0.6149 0.6395 0.6639

0.6881 0.7121 0.7359 0.7594 0.7828

0.8059 0.8287 0.8513 0.8737 0.8959

0.9179 0.9396 0.9611 0.9766 0.9570

0.9287 0.9399 0.9598 0.9798 1.0000

Width:

0.0711 0.0802 0.0894 0.0988 0.1082

0.1175 0.1273 0.1373 0.1473 0.1621

0.1769 0.1917 0.2065 0.2671 0.3750

0.4313 0.4420 0.4527 0.4634 0.5387

0.5558 0.5638 0.5719 0.5799 0.5880

0.5960 0.6040 0.6121 0.6201 0.6282

0.6362 0.6442 0.6523 0.6603 0.6684

0.6764 0.6845 0.6925 0.7005 0.7086

0.7166 0.7247 0.7327 0.7568 0.8439

0.9610 0.9873 0.9916 0.9958 1.0000

Transect s18

Area:

0.0004 0.0030 0.0086 0.0171 0.0277

0.0385 0.0493 0.0601 0.0710 0.0819

0.0929 0.1039 0.1150 0.1262 0.1373

0.1486 0.1599 0.1712 0.1826 0.1940

0.2055 0.2170 0.2286 0.2402 0.2519

0.2636 0.2757 0.2887 0.3041 0.3214

0.3403 0.3609 0.3831 0.4071 0.4327

0.4600 0.4890 0.5196 0.5519 0.5858

0.6211 0.6577 0.6957 0.7351 0.7759

0.8180 0.8614 0.9062 0.9524 1.0000

Hrad:

0.0145 0.0375 0.0630 0.0888 0.1313

0.1772 0.2209 0.2626 0.3023 0.3403

0.3767 0.4116 0.4451 0.4773 0.5082

0.5380 0.5668 0.5945 0.6213 0.6472

0.6722 0.6965 0.7200 0.7428 0.7649

0.7865 0.8128 0.8367 0.8577 0.8739

0.8864 0.8959 0.9031 0.9084 0.9125

0.9157 0.9182 0.9205 0.9226 0.9262

0.9308 0.9363 0.9425 0.9492 0.9566

0.9644 0.9727 0.9814 0.9905 1.0000

Width:

0.0254 0.0857 0.1460 0.2063 0.2221

0.2231 0.2242 0.2252 0.2262 0.2272

0.2282 0.2293 0.2303 0.2313 0.2323

0.2333 0.2344 0.2354 0.2364 0.2374

0.2384 0.2394 0.2405 0.2415 0.2425

0.2437 0.2594 0.2866 0.3400 0.3747

0.4094 0.4442 0.4789 0.5136 0.5484

0.5831 0.6179 0.6526 0.6873 0.7171

0.7454 0.7737 0.8020 0.8303 0.8586

0.8869 0.9151 0.9434 0.9717 1.0000

Transect s19

Area:

0.0007 0.0027 0.0060 0.0107 0.0166

0.0231 0.0296 0.0362 0.0429 0.0496

0.0563 0.0631 0.0699 0.0767 0.0835

0.0904 0.0974 0.1043 0.1113 0.1184

0.1254 0.1325 0.1396 0.1468 0.1540

0.1613 0.1686 0.1760 0.1834 0.1908

0.1983 0.2059 0.2182 0.2431 0.2803

0.3214 0.3631 0.4055 0.4487 0.4932

0.5393 0.5884 0.6384 0.6888 0.7396

0.7908 0.8425 0.8946 0.9471 1.0000

Hrad:

0.0325 0.0650 0.0975 0.1300 0.1683

0.2271 0.2835 0.3380 0.3913 0.4425

0.4919 0.5394 0.5853 0.6296 0.6724

0.7138 0.7539 0.7927 0.8304 0.8670

0.9025 0.9370 0.9706 1.0029 1.0345

1.0653 1.0954 1.1249 1.1537 1.1819

1.2096 1.2426 1.2443 1.1681 1.0557

0.9775 0.9297 0.9015 0.8852 0.8762

0.8712 0.8581 0.8663 0.8786 0.8941

0.9121 0.9320 0.9535 0.9762 1.0000

Width:

0.0250 0.0501 0.0751 0.1002 0.1203

0.1220 0.1236 0.1251 0.1257 0.1264

0.1270 0.1276 0.1282 0.1288 0.1295

0.1301 0.1307 0.1313 0.1319 0.1326

0.1332 0.1338 0.1344 0.1353 0.1362

0.1371 0.1380 0.1389 0.1398 0.1407

0.1416 0.1464 0.3480 0.5884 0.7660

0.7786 0.7912 0.8038 0.8248 0.8516

0.8932 0.9365 0.9440 0.9520 0.9600

0.9680 0.9760 0.9840 0.9920 1.0000

Transect s20

Area:

0.0036 0.0080 0.0130 0.0185 0.0244

0.0308 0.0377 0.0453 0.0547 0.0672

0.0813 0.0964 0.1122 0.1289 0.1462

0.1643 0.1830 0.2024 0.2225 0.2433

0.2648 0.2867 0.3088 0.3311 0.3536

0.3762 0.3991 0.4221 0.4454 0.4688

0.4924 0.5162 0.5402 0.5645 0.5889

0.6135 0.6384 0.6634 0.6887 0.7142

0.7399 0.7658 0.7920 0.8184 0.8450

0.8719 0.8990 0.9298 0.9642 1.0000

Hrad:

0.0333 0.0610 0.0890 0.1149 0.1392

0.1621 0.1839 0.2067 0.2228 0.2298

0.2382 0.2494 0.2623 0.2760 0.2972

0.3179 0.3380 0.3576 0.3767 0.3953

0.4135 0.4358 0.4583 0.4810 0.5038

0.5265 0.5493 0.5721 0.5948 0.6175

0.6401 0.6626 0.6850 0.7072 0.7294

0.7515 0.7734 0.7952 0.8170 0.8385

0.8599 0.8811 0.9022 0.9232 0.9441

0.9648 0.9854 0.9999 1.0095 1.0000

Width:

0.1100 0.1319 0.1454 0.1582 0.1709

0.1837 0.1965 0.2298 0.3047 0.3722

0.4061 0.4275 0.4489 0.4703 0.4895

0.5086 0.5278 0.5467 0.5655 0.5842

0.6030 0.6085 0.6137 0.6189 0.6242

0.6294 0.6346 0.6399 0.6451 0.6503

0.6557 0.6614 0.6672 0.6729 0.6786

0.6843 0.6901 0.6958 0.7015 0.7077

0.7141 0.7204 0.7267 0.7330 0.7394

0.7457 0.7603 0.9196 0.9786 1.0000

Transect s21

Area:

0.0006 0.0025 0.0056 0.0099 0.0155

0.0224 0.0306 0.0424 0.0563 0.0710

0.0861 0.1017 0.1175 0.1337 0.1503

0.1671 0.1843 0.2018 0.2197 0.2379

0.2563 0.2749 0.2938 0.3129 0.3322

0.3518 0.3717 0.3920 0.4127 0.4338

0.4554 0.4774 0.4998 0.5226 0.5458

0.5695 0.5935 0.6180 0.6429 0.6682

0.6940 0.7201 0.7467 0.7761 0.8119

0.8486 0.8859 0.9237 0.9617 1.0000

Hrad:

0.0206 0.0413 0.0619 0.0826 0.1030

0.1235 0.1442 0.1347 0.1662 0.2015

0.2361 0.2698 0.3035 0.3361 0.3679

0.3989 0.4291 0.4585 0.4873 0.5160

0.5449 0.5732 0.6008 0.6279 0.6545

0.6802 0.7016 0.7227 0.7436 0.7643

0.7848 0.8051 0.8253 0.8453 0.8652

0.8850 0.9046 0.9241 0.9435 0.9629

0.9821 1.0012 1.0202 0.8736 0.8570

0.8817 0.9062 0.9363 0.9682 1.0000

Width:

0.0323 0.0645 0.0968 0.1290 0.1622

0.1960 0.2299 0.3494 0.3750 0.3876

0.3988 0.4093 0.4178 0.4263 0.4348

0.4432 0.4517 0.4602 0.4687 0.4764

0.4824 0.4883 0.4943 0.5002 0.5062

0.5124 0.5232 0.5341 0.5450 0.5559

0.5667 0.5776 0.5885 0.5993 0.6102

0.6211 0.6319 0.6428 0.6537 0.6645

0.6754 0.6863 0.6971 0.8801 0.9476

0.9629 0.9782 0.9869 0.9935 1.0000

Transect S22

Area:

0.0057 0.0123 0.0195 0.0274 0.0358

0.0447 0.0541 0.0640 0.0742 0.0848

0.0957 0.1070 0.1186 0.1305 0.1427

0.1552 0.1682 0.1817 0.1955 0.2098

0.2245 0.2397 0.2553 0.2713 0.2877

0.3046 0.3220 0.3398 0.3580 0.3767

0.3959 0.4159 0.4367 0.4583 0.4809

0.5045 0.5291 0.5547 0.5813 0.6089

0.6375 0.6671 0.6984 0.7321 0.7680

0.8065 0.8488 0.8949 0.9448 1.0000

Hrad:

0.0459 0.0883 0.1267 0.1627 0.1976

0.2308 0.2622 0.2923 0.3231 0.3525

0.3806 0.4076 0.4337 0.4591 0.4838

0.5063 0.5283 0.5500 0.5715 0.5927

0.6137 0.6346 0.6553 0.6758 0.6959

0.7156 0.7353 0.7550 0.7746 0.7941

0.8086 0.8193 0.8308 0.8411 0.8496

0.8592 0.8698 0.8812 0.8935 0.9064

0.9201 0.9310 0.9168 0.9070 0.9010

0.9177 0.9438 0.9656 0.9836 1.0000

Width:

0.1034 0.1143 0.1249 0.1346 0.1430

0.1509 0.1588 0.1667 0.1721 0.1775

0.1829 0.1883 0.1937 0.1989 0.2041

0.2110 0.2181 0.2252 0.2323 0.2394

0.2465 0.2535 0.2606 0.2677 0.2751

0.2826 0.2900 0.2975 0.3050 0.3125

0.3230 0.3364 0.3498 0.3645 0.3810

0.3975 0.4140 0.4305 0.4471 0.4636

0.4801 0.4988 0.5365 0.5743 0.6120

0.6653 0.7290 0.7926 0.8562 1.0000

Transect S23

Area:

0.0061 0.0141 0.0228 0.0324 0.0430

0.0543 0.0660 0.0780 0.0905 0.1033

0.1165 0.1300 0.1439 0.1582 0.1728

0.1877 0.2030 0.2187 0.2348 0.2511

0.2677 0.2847 0.3019 0.3195 0.3373

0.3555 0.3739 0.3927 0.4117 0.4311

0.4507 0.4707 0.4909 0.5114 0.5323

0.5534 0.5749 0.5966 0.6187 0.6410

0.6654 0.6940 0.7273 0.7633 0.8004

0.8384 0.8773 0.9173 0.9581 1.0000

Hrad:

0.0379 0.0784 0.1136 0.1436 0.1717

0.2046 0.2355 0.2646 0.2922 0.3187

0.3440 0.3683 0.3917 0.4142 0.4359

0.4570 0.4775 0.4975 0.5171 0.5367

0.5557 0.5744 0.5926 0.6104 0.6278

0.6449 0.6617 0.6782 0.6944 0.7104

0.7262 0.7417 0.7570 0.7722 0.7871

0.8019 0.8166 0.8311 0.8454 0.8596

0.8799 0.8994 0.9121 0.9231 0.9349

0.9472 0.9599 0.9730 0.9864 1.0000

Width:

0.1816 0.1970 0.2151 0.2385 0.2619

0.2711 0.2803 0.2895 0.2987 0.3071

0.3155 0.3239 0.3323 0.3407 0.3492

0.3576 0.3660 0.3744 0.3826 0.3897

0.3968 0.4039 0.4109 0.4180 0.4251

0.4322 0.4392 0.4463 0.4534 0.4605

0.4676 0.4746 0.4817 0.4888 0.4959

0.5030 0.5100 0.5171 0.5242 0.5313

0.6231 0.7309 0.8386 0.8634 0.8861

0.9089 0.9317 0.9545 0.9772 1.0000

Transect S24

Area:

0.0014 0.0054 0.0122 0.0207 0.0294

0.0384 0.0478 0.0575 0.0675 0.0779

0.0887 0.0998 0.1112 0.1230 0.1351

0.1476 0.1604 0.1736 0.1871 0.2010

0.2152 0.2297 0.2446 0.2599 0.2756

0.2928 0.3108 0.3296 0.3492 0.3696

0.3910 0.4134 0.4368 0.4611 0.4863

0.5124 0.5393 0.5668 0.5950 0.6240

0.6538 0.6844 0.7157 0.7477 0.7803

0.8135 0.8496 0.8981 0.9483 1.0000

Hrad:

0.0247 0.0495 0.0742 0.1146 0.1530

0.1878 0.2196 0.2493 0.2773 0.3038

0.3291 0.3532 0.3765 0.3989 0.4205

0.4416 0.4620 0.4820 0.5015 0.5206

0.5393 0.5577 0.5758 0.5936 0.5871

0.5995 0.6125 0.6262 0.6403 0.6523

0.6646 0.6776 0.6912 0.7054 0.7201

0.7396 0.7593 0.7791 0.7976 0.8163

0.8350 0.8539 0.8744 0.8956 0.9166

0.9376 0.9583 0.9664 0.9804 1.0000

Width:

0.0505 0.1010 0.1515 0.1607 0.1657

0.1711 0.1776 0.1841 0.1905 0.1970

0.2035 0.2100 0.2164 0.2229 0.2294

0.2359 0.2423 0.2488 0.2553 0.2618

0.2682 0.2747 0.2812 0.2876 0.3130

0.3280 0.3429 0.3579 0.3728 0.3904

0.4083 0.4262 0.4442 0.4621 0.4800

0.4933 0.5064 0.5195 0.5339 0.5483

0.5628 0.5772 0.5898 0.6018 0.6137

0.6257 0.7925 0.9278 0.9470 1.0000

****

NOTE: The summary statistics displayed in this report are

based on results found at every computational time step,

not just on results from each reporting time step.

****

****

Analysis Options

****

Flow Units ..... CMS

Process Models:

Rainfall/Runoff ..... NO

RDII ..... NO

Snowmelt ..... NO

Groundwater ..... NO

Flow Routing ..... YES

Ponding Allowed ..... NO

Water Quality ..... NO

Flow Routing Method ..... DYNWAVE

Starting Date 02/02/2018 00:00:00

Ending Date 02/02/2018 06:00:00

Antecedent Dry Days 0.0

Report Time Step 00:05:00

Routing Time Step ..... 0.10 sec

Variable Time Step ..... YES

Maximum Trials 8

Number of Threads 1

Head Tolerance ..... 0.001500 m

**********	Volume	Volume
Flow Routing Continuity	hectare-m	10^6 ltr
**********	---	---
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	0.000	0.000
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	24.978	249.785
External Outflow	24.858	248.587
Flooding Loss	0.000	0.002
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.116	1.160
Continuity Error (%)	0.014	

****

Time-Step Critical Elements

****

Link C14 (21.43%)

****

Highest Flow Instability Indexes

****

Link C32 (21)

Link C31 (16)

Link C3 (15)

Link C6 (9)

Link C22 (5)

****

Routing Time Step Summary

****

Minimum Time Step : 0.10 sec

Average Time Step : 0.10 sec

Maximum Time Step : 0.10 sec

Percent in Steady State : 0.00

Average Iterations per Step : 2.06

Percent Not Converging : 0.22

****

Node Depth Summary

****

Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Time of Max Occurrence days hr:min	Reported Max Depth Meters
J86	JUNCTION	0.55	1.68	261.55	0 02:10	1.68
J85	JUNCTION	0.50	1.41	260.09	0 02:10	1.41
J84	JUNCTION	0.52	1.37	259.48	0 02:10	1.36
J83	JUNCTION	0.67	1.78	259.25	0 02:10	1.76
J69	JUNCTION	0.11	0.54	256.69	0 02:08	0.53
J68	JUNCTION	0.54	1.81	256.66	0 02:08	1.80
J67	JUNCTION	0.62	1.97	256.63	0 02:10	1.95
J66	JUNCTION	0.32	1.00	255.46	0 02:11	0.99
J65.5	JUNCTION	0.36	1.23	255.13	0 02:09	1.23
J65	JUNCTION	0.52	1.66	255.12	0 02:09	1.66
J64.5	JUNCTION	0.59	1.95	252.25	0 02:09	1.95
J64.4	JUNCTION	0.70	2.25	251.75	0 02:12	2.24
J64	JUNCTION	0.74	2.31	251.31	0 02:07	2.30
J63.5	JUNCTION	0.56	1.71	249.41	0 02:08	1.68
J63	JUNCTION	0.14	0.51	246.96	0 02:08	0.50

J62	JUNCTION	0.51	1.63	246.68	0	02:08	1.60
J61	JUNCTION	0.86	2.82	243.88	0	02:08	2.81
J60.5	JUNCTION	0.89	2.89	241.94	0	02:09	2.88
J60	JUNCTION	0.74	2.34	239.09	0	02:10	2.34
J59.5	JUNCTION	0.76	2.38	237.38	0	02:10	2.38
J59	JUNCTION	0.44	2.44	236.04	0	02:10	2.44
J58	JUNCTION	0.90	3.45	236.05	0	02:09	3.45
J57.7	JUNCTION	1.05	3.66	235.16	0	02:09	3.61
J57.5	JUNCTION	1.01	3.50	234.80	0	02:09	3.44
J57.3	JUNCTION	1.01	3.13	233.33	0	02:09	3.09
J57	JUNCTION	0.72	2.33	231.93	0	02:11	2.30
J55	JUNCTION	1.20	2.37	225.67	0	02:09	2.35
J55.5	JUNCTION	0.75	6.50	231.40	0	02:10	2.74
J56	JUNCTION	0.84	3.01	228.01	0	02:10	2.91
J56.5	JUNCTION	0.73	2.54	228.74	0	02:08	2.48
J82	JUNCTION	0.50	1.07	224.66	0	02:09	1.06
J2	JUNCTION	0.23	0.68	258.15	0	02:10	0.67
J81	JUNCTION	0.85	2.17	224.11	0	02:10	2.17
J80	JUNCTION	0.89	2.55	223.15	0	02:10	2.54
J79	JUNCTION	1.00	2.86	223.10	0	02:10	2.85
J51.5	JUNCTION	0.73	2.74	222.94	0	02:10	2.72
J51.3	JUNCTION	0.69	2.10	220.87	0	02:10	2.09
J51.2	JUNCTION	0.80	2.26	220.11	0	02:11	2.25
J51	JUNCTION	1.11	2.47	218.80	0	02:11	2.47
N04	JUNCTION	0.08	0.14	223.17	0	02:10	0.14
N03	JUNCTION	0.37	0.71	222.24	0	02:10	0.71
N02.9	JUNCTION	0.37	0.70	222.12	0	02:10	0.70
N02.8	JUNCTION	0.37	0.68	221.99	0	02:10	0.68
N02.1	JUNCTION	0.14	0.27	221.10	0	02:10	0.27
OUT1	OUTFALL	1.05	2.41	218.65	0	02:11	2.40

****

Node Inflow Summary

****

Node	Type	Maximum Lateral Inflow CMS	Maximum Total Inflow CMS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 ltr	Total Inflow Volume 10^6 ltr	Flow Balance Error Percent
J86	JUNCTION	17.200	17.200	0 02:10	93.9	93.9	-0.000
J85	JUNCTION	0.835	18.000	0 02:10	4.94	98.8	0.007
J84	JUNCTION	0.309	18.292	0 02:10	1.83	101	0.011
J83	JUNCTION	0.146	18.457	0 02:10	0.86	101	-0.213
J69	JUNCTION	0.191	18.802	0 02:10	1.13	104	0.000
J68	JUNCTION	0.221	19.060	0 02:10	1.31	105	0.004
J67	JUNCTION	0.360	19.416	0 02:10	2.13	107	0.016
J66	JUNCTION	0.490	22.168	0 02:11	2.89	110	0.001
J65.5	JUNCTION	0.641	20.447	0 02:08	3.79	114	0.015
J65	JUNCTION	1.044	21.419	0 02:09	6.17	120	0.021
J64.5	JUNCTION	0.931	22.306	0 02:09	5.51	126	0.013
J64.4	JUNCTION	0.390	22.751	0 02:09	2.31	128	0.007
J64	JUNCTION	0.849	23.561	0 02:08	5.02	133	0.018
J63.5	JUNCTION	0.884	25.101	0 02:08	5.23	138	0.014
J63	JUNCTION	0.247	24.828	0 02:08	1.46	139	0.001
J62	JUNCTION	0.589	25.363	0 02:08	3.48	143	0.009
J61	JUNCTION	1.170	26.471	0 02:08	6.92	150	0.023
J60.5	JUNCTION	1.254	27.587	0 02:09	7.42	157	0.023
J60	JUNCTION	1.059	28.674	0 02:09	6.26	163	0.017
J59.5	JUNCTION	0.693	29.205	0 02:09	4.1	168	0.014
J59	JUNCTION	0.308	29.586	0 02:10	1.82	169	0.001
J58	JUNCTION	0.299	30.022	0 02:10	1.77	171	0.007
J57.7	JUNCTION	0.425	30.433	0 02:10	2.51	174	0.011
J57.5	JUNCTION	0.650	31.047	0 02:10	3.84	177	0.016
J57.3	JUNCTION	0.849	31.890	0 02:10	5.02	182	0.027

J57	JUNCTION	0.923	35.639	0	02:09	5.46	188	0.011
J55	JUNCTION	0.819	35.122	0	02:08	4.84	201	0.106
J55.5	JUNCTION	0.433	36.717	0	02:10	2.56	196	0.012
J56	JUNCTION	0.225	34.293	0	02:10	1.33	194	0.013
J56.5	JUNCTION	0.775	34.100	0	02:10	4.59	192	0.012
J82	JUNCTION	0.734	35.686	0	02:09	4.34	205	0.031
J2	JUNCTION	0.195	28.659	0	02:10	1.15	103	0.214
J81	JUNCTION	0.734	36.411	0	02:09	4.34	209	0.031
J80	JUNCTION	0.692	36.910	0	02:10	4.09	213	0.031
J79	JUNCTION	0.128	37.237	0	02:04	0.759	214	0.000
J51.5	JUNCTION	0.731	40.505	0	01:46	4.32	218	0.016
J51.3	JUNCTION	0.000	37.471	0	02:10	0	218	0.013
J51.2	JUNCTION	0.000	41.075	0	02:10	0	249	0.027
J51	JUNCTION	0.000	41.096	0	02:11	0	249	0.035
N04	JUNCTION	3.600	3.600	0	02:10	30.4	30.4	0.002
N03	JUNCTION	0.000	3.600	0	02:10	0	30.4	0.033
N02.9	JUNCTION	0.000	3.600	0	02:10	0	30.4	0.043
N02.8	JUNCTION	0.000	3.600	0	02:10	0	30.4	0.121
N02.1	JUNCTION	0.000	3.600	0	02:10	0	30.4	0.051
OUT1	OUTFALL	0.000	41.096	0	02:11	0	249	0.000

****

Node Surcharge Summary

****

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Meters	Min. Depth Below Rim Meters
J58	JUNCTION	0.19	0.249	0.751
J57.7	JUNCTION	0.33	0.456	0.344

J57.5	JUNCTION	0.28	0.297	0.503
J55.5	JUNCTION	0.45	4.300	0.000

****

Node Flooding Summary

****

Flooding refers to all water that overflows a node, whether it ponds or not.

Node	Hours Flooded	Maximum Rate CMS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 ltr	Maximum Ponded Depth Meters
J55.5	0.01	2.931	0 02:10	0.002	0.000

****

Outfall Loading Summary

****

Outfall Node	Flow Freq Pcnt	Avg Flow CMS	Max Flow CMS	Total Volume 10^6 ltr
OUT1	99.54	11.563	41.096	248.586
System	99.54	11.563	41.096	248.586

****

Link Flow Summary

****

Link	Type	Maximum |Flow| CMS	Time of Max Occurrence days	hr:min	Maximum |Veloc| m/sec	Max/ Full Flow	Max/ Full Depth
C3	CONDUIT	18.622	0	02:10	7.83	0.24	0.28
C4	CONDUIT	18.851	0	02:10	3.73	0.02	0.34
C5	CONDUIT	19.076	0	02:10	2.27	0.42	0.54
C6	CONDUIT	21.705	0	02:11	6.02	1.16	0.56
C7	CONDUIT	19.835	0	02:11	2.99	0.28	0.41
C8	CONDUIT	20.413	0	02:09	2.36	0.30	0.54
C9	CONDUIT	21.412	0	02:09	5.27	0.68	0.70
C10	CONDUIT	22.376	0	02:09	4.76	0.70	0.81
C11	CONDUIT	22.748	0	02:12	4.50	0.96	0.87
C12	CONDUIT	24.246	0	02:10	5.41	1.11	0.77
C13	CONDUIT	24.588	0	02:08	9.90	0.71	0.43
C14	CONDUIT	24.791	0	02:08	10.69	0.09	0.41
C15	CONDUIT	25.337	0	02:08	5.34	0.64	0.81
C16	CONDUIT	26.376	0	02:09	5.14	0.98	0.89
C17	CONDUIT	27.653	0	02:09	5.88	1.02	0.82
C18	CONDUIT	28.538	0	02:09	6.08	0.80	0.74
C19	CONDUIT	29.294	0	02:10	7.35	0.81	0.75
C20	CONDUIT	29.737	0	02:10	6.64	0.00	0.88
C21	CONDUIT	30.028	0	02:10	4.81	0.92	1.00
C22	CONDUIT	30.426	0	02:10	4.53	1.35	1.00
C23	CONDUIT	31.081	0	02:10	4.79	1.18	0.99
C24	CONDUIT	34.754	0	02:09	6.23	1.42	0.83
C25	CONDUIT	33.361	0	02:10	6.99	0.77	0.75
C26	CONDUIT	34.079	0	02:10	7.12	0.73	0.87
C27	CONDUIT	36.303	0	02:10	6.35	1.61	1.00
C28	CONDUIT	34.330	0	02:08	6.00	1.14	1.00

C29	CHANNEL	17.202	0	02:10	3.68	0.03	0.22
C30	CHANNEL	17.998	0	02:10	3.21	0.01	0.15
C31	CHANNEL	18.319	0	02:10	2.67	0.12	0.44
C32	CHANNEL	28.474	0	02:10	5.65	2.08	0.42
C33	CHANNEL	34.980	0	02:09	2.68	0.05	0.21
C34	CHANNEL	35.707	0	02:09	3.81	0.02	0.31
C35	CHANNEL	36.249	0	02:10	3.04	0.15	0.44
C36	CHANNEL	37.108	0	02:04	4.12	0.23	0.63
C37	CHANNEL	39.915	0	01:46	5.15	0.78	0.65
C38	CONDUIT	37.471	0	02:10	6.21	1.20	1.00
C39	CONDUIT	37.481	0	02:11	5.81	0.72	0.73
C40	CONDUIT	41.096	0	02:11	5.79	0.81	0.79
C41	CHANNEL	41.096	0	02:11	4.03	0.19	0.42
C42	CONDUIT	3.600	0	02:10	5.38	0.02	0.18
C43	CONDUIT	3.600	0	02:10	2.44	0.27	0.31
C44	CONDUIT	3.600	0	02:10	2.83	0.27	0.30
C45	CONDUIT	3.600	0	02:10	3.61	0.28	0.21
C46	CONDUIT	3.600	0	02:10	4.53	0.06	0.55

****

Flow Classification Summary

****

	Adjusted	---------- Fraction of Time in Flow Class ----------								
	/Actual	Up	Down	Sub	Sup	Up	Down	Norm	Inlet	
Conduit	Length	Dry	Dry	Dry	Crit	Crit	Crit	Crit	Ltd	Ctrl
C3	1.00	0.04	0.00	0.00	0.01	0.95	0.00	0.00	0.01	0.00
C4	1.00	0.04	0.00	0.00	0.00	0.95	0.00	0.00	0.74	0.00
C5	1.00	0.04	0.00	0.00	0.96	0.00	0.00	0.00	0.46	0.00
C6	1.00	0.04	0.00	0.00	0.05	0.91	0.00	0.00	0.03	0.00
C7	1.00	0.04	0.00	0.00	0.61	0.35	0.00	0.00	0.49	0.00
C8	1.00	0.04	0.00	0.00	0.96	0.00	0.00	0.00	0.63	0.00

C9	1.00	0.04	0.00	0.00	0.04	0.92	0.00	0.00	0.66	0.00
C10	1.00	0.04	0.00	0.00	0.03	0.93	0.00	0.00	0.49	0.00
C11	1.00	0.04	0.00	0.00	0.26	0.69	0.00	0.00	0.36	0.00
C12	1.00	0.04	0.00	0.00	0.05	0.91	0.00	0.00	0.18	0.00
C13	1.00	0.04	0.00	0.00	0.01	0.95	0.00	0.00	0.23	0.00
C14	1.00	0.04	0.00	0.00	0.00	0.96	0.00	0.00	0.77	0.00
C15	1.00	0.04	0.00	0.00	0.01	0.95	0.00	0.00	0.85	0.00
C16	1.00	0.04	0.00	0.00	0.11	0.85	0.00	0.00	0.58	0.00
C17	1.00	0.04	0.00	0.00	0.02	0.94	0.00	0.00	0.24	0.00
C18	1.00	0.04	0.00	0.00	0.02	0.94	0.00	0.00	0.66	0.00
C19	1.00	0.04	0.00	0.00	0.01	0.95	0.00	0.00	0.27	0.00
C20	1.00	0.04	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00
C21	1.00	0.04	0.00	0.00	0.24	0.72	0.00	0.00	0.44	0.00
C22	1.00	0.04	0.00	0.00	0.42	0.54	0.00	0.00	0.15	0.00
C23	1.00	0.04	0.00	0.00	0.41	0.55	0.00	0.00	0.43	0.00
C24	1.00	0.04	0.00	0.00	0.05	0.91	0.00	0.00	0.28	0.00
C25	1.00	0.04	0.00	0.00	0.01	0.95	0.00	0.00	0.14	0.00
C26	1.00	0.04	0.00	0.00	0.01	0.95	0.00	0.00	0.52	0.00
C27	1.00	0.04	0.00	0.00	0.10	0.85	0.00	0.00	0.76	0.00
C28	1.00	0.04	0.00	0.00	0.80	0.15	0.00	0.00	0.62	0.00
C29	1.00	0.04	0.03	0.00	0.70	0.23	0.00	0.00	0.49	0.00
C30	1.00	0.04	0.00	0.00	0.64	0.32	0.00	0.00	0.52	0.00
C31	1.00	0.04	0.00	0.00	0.85	0.10	0.00	0.00	0.37	0.00
C32	1.00	0.04	0.00	0.00	0.28	0.68	0.00	0.00	0.06	0.00
C33	1.00	0.04	0.00	0.00	0.96	0.00	0.00	0.00	0.05	0.00
C34	1.00	0.04	0.00	0.00	0.01	0.95	0.00	0.00	0.70	0.00
C35	1.00	0.04	0.00	0.00	0.96	0.00	0.00	0.00	0.39	0.00
C36	1.00	0.04	0.00	0.00	0.92	0.03	0.00	0.00	0.27	0.00
C37	1.00	0.04	0.00	0.00	0.24	0.72	0.00	0.00	0.02	0.00
C38	1.00	0.04	0.00	0.00	0.01	0.95	0.00	0.00	0.23	0.00
C39	1.00	0.00	0.05	0.00	0.11	0.84	0.00	0.00	0.48	0.00
C40	1.00	0.00	0.00	0.00	0.51	0.49	0.00	0.00	0.56	0.00
C41	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
C42	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00
C43	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.02	0.00

C44	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
C45	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
C46	1.00	0.00	0.00	0.00	0.51	0.49	0.00	0.00	0.99	0.00

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Conduit Surcharge Summary

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Conduit	Hours Full: Both Ends	Hours Full: Upstream	Hours Full: Dnstream	Hours Above Full: Normal Flow	Capacity Limited
C6	0.01	0.01	0.01	0.26	0.01
C12	0.01	0.01	0.01	0.44	0.01
C15	0.01	0.01	0.48	0.01	0.01
C17	0.01	0.01	0.01	0.20	0.01
C20	0.01	0.01	0.19	0.01	0.01
C21	0.19	0.19	0.33	0.01	0.01
C22	0.28	0.33	0.28	0.87	0.28
C23	0.01	0.28	0.01	0.62	0.01
C24	0.01	0.01	0.01	0.79	0.01
C27	0.45	0.79	0.45	1.03	0.45
C28	0.45	0.45	0.83	0.56	0.44
C32	0.01	0.01	0.01	0.79	0.01
C38	0.01	0.44	0.01	0.70	0.01

Analysis begun on: Fri Apr 06 15:57:42 2018

Analysis ended on: Fri Apr 06 15:57:55 2018

Total elapsed time: 00:00:13

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ALLEGATI

MODELLAZIONE EPA-SWMM 5.1 "Fosso Riluogo (monte)"

Riluogo -monte- (tratti tombati)

MODELLAZIONE PER 200 anni

DURATE DI PIOGGIA: 1h

Dati idraulici

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.012)

****

Element Count

****

Number of rain gages 0

Number of subcatchments ... 0

Number of nodes 45

Number of links 44

Number of pollutants 0

Number of land uses 0

****

Node Summary

****

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J86	JUNCTION	259.88	6.95	0.0	Yes
J85	JUNCTION	258.68	9.18	0.0	Yes
J84	JUNCTION	258.11	9.18	0.0	Yes
J83	JUNCTION	257.47	3.53	0.0	Yes
J69	JUNCTION	256.15	3.85	0.0	Yes
J68	JUNCTION	254.85	5.15	0.0	Yes
J67	JUNCTION	254.66	5.74	0.0	Yes
J66	JUNCTION	254.46	6.34	0.0	Yes
J65.5	JUNCTION	253.90	6.60	0.0	Yes
J65	JUNCTION	253.46	5.94	0.0	Yes
J64.5	JUNCTION	250.30	2.80	0.0	Yes
J64.4	JUNCTION	249.50	3.50	0.0	Yes
J64	JUNCTION	249.00	2.80	0.0	Yes

J63.5	JUNCTION	247.70	3.30	0.0	Yes
J63	JUNCTION	246.45	2.85	0.0	Yes
J62	JUNCTION	245.05	4.25	0.0	Yes
J61	JUNCTION	241.06	3.20	0.0	Yes
J60.5	JUNCTION	239.05	3.20	0.0	Yes
J60	JUNCTION	236.75	3.45	0.0	Yes
J59.5	JUNCTION	235.00	4.45	0.0	Yes
J59	JUNCTION	233.60	3.50	0.0	Yes
J58	JUNCTION	232.60	4.20	0.0	Yes
J57.7	JUNCTION	231.50	4.00	0.0	Yes
J57.5	JUNCTION	231.30	4.00	0.0	Yes
J57.3	JUNCTION	230.20	3.20	0.0	Yes
J57	JUNCTION	229.60	3.40	0.0	Yes
J55	JUNCTION	223.30	8.21	0.0	Yes
J55.5	JUNCTION	224.90	6.50	0.0	Yes
J56	JUNCTION	225.00	6.50	0.0	Yes
J56.5	JUNCTION	226.20	6.10	0.0	Yes
J82	JUNCTION	223.59	8.21	0.0	Yes
J2	JUNCTION	257.47	2.92	0.0	Yes
J81	JUNCTION	221.94	5.43	0.0	Yes
J80	JUNCTION	220.60	5.43	0.0	Yes
J79	JUNCTION	220.24	4.30	0.0	Yes
J51.5	JUNCTION	220.20	4.94	0.0	Yes
J51.3	JUNCTION	218.77	4.60	0.0	
J51.2	JUNCTION	217.85	4.60	0.0	
J51	JUNCTION	216.33	7.96	0.0	
N04	JUNCTION	223.03	2.30	0.0	Yes
N03	JUNCTION	221.53	2.30	0.0	
N02.9	JUNCTION	221.42	2.30	0.0	
N02.8	JUNCTION	221.31	2.30	0.0	
N02.1	JUNCTION	220.83	2.30	0.0	
OUT1	OUTFALL	216.24	5.82	0.0	

****

Link Summary

****

Name	From Node	To Node	Type	Length	%Slope	Roughness
C3	J2	J69	CONDUIT	43.0	3.0712	0.0180
C4	J69	J68	CONDUIT	1.0	130.0000	0.0180
C5	J68	J67	CONDUIT	50.0	0.3800	0.0180
C6	J67	J66	CONDUIT	33.0	0.6061	0.0180
C7	J66	J65.5	CONDUIT	80.0	0.7000	0.0180
C8	J65.5	J65	CONDUIT	68.0	0.6471	0.0180
C9	J65	J64.5	CONDUIT	173.0	1.8269	0.0180
C10	J64.5	J64.4	CONDUIT	42.0	1.9051	0.0180
C11	J64.4	J64	CONDUIT	48.0	1.0417	0.0180
C12	J64	J63.5	CONDUIT	148.0	0.8784	0.0180
C13	J63.5	J63	CONDUIT	56.0	2.2327	0.0180
C14	J63	J62	CONDUIT	1.0	140.0000	0.0180
C15	J62	J61	CONDUIT	135.0	2.9568	0.0180
C16	J61	J60.5	CONDUIT	135.0	1.4891	0.0180
C17	J60.5	J60	CONDUIT	154.5	1.4888	0.0180
C18	J60	J59.5	CONDUIT	90.0	1.9448	0.0180
C19	J59.5	J59	CONDUIT	70.0	2.0004	0.0180
C20	J59	J58	CONDUIT	1.0507792170.0735		0.0180
C21	J58	J57.7	CONDUIT	68.0	1.6179	0.0180
C22	J57.7	J57.5	CONDUIT	30.0	0.6667	0.0180
C23	J57.5	J57.3	CONDUIT	120.0	0.9167	0.0180
C24	J57.3	J57	CONDUIT	76.0	0.7895	0.0180
C25	J57	J56.5	CONDUIT	137.0	2.4825	0.0180
C26	J56.5	J56	CONDUIT	42.0	2.8583	0.0180
C27	J56	J55.5	CONDUIT	10.0	1.0001	0.0180
C28	J55.5	J55	CONDUIT	90.0	1.7781	0.0180
C29	J86	J85	CONDUIT	76.6	1.5606	0.0350
C30	J85	J84	CONDUIT	39.7	1.4370	0.0350
C31	J84	J83	CONDUIT	31.6	2.0264	0.0350
C32	J83	J2	CONDUIT	2.0	0.0152	0.0350

C33	J55	J82	CONDUIT	99.0	-0.2929	0.0350
C34	J82	J81	CONDUIT	70.3	2.3467	0.0100
C35	J81	J80	CONDUIT	145.3	0.9220	0.0350
C36	J80	J79	CONDUIT	14.3	2.5183	0.0350
C37	J79	J51.5	CONDUIT	15.3	0.2608	0.0350
C38	J51.5	J51.3	CONDUIT	87.0	1.6439	0.0180
C39	J51.3	J51.2	CONDUIT	57.8	1.5908	0.0180
C40	J51.2	J51	CONDUIT	100.0	1.5202	0.0180
C41	J51	OUT1	CONDUIT	10.0	0.9000	0.0350
C42	N04	N03	CONDUIT	6.0	25.8199	0.0180
C43	N03	N02.9	CONDUIT	20.0	0.5500	0.0180
C44	N02.9	N02.8	CONDUIT	20.0	0.5500	0.0180
C45	N02.8	N02.1	CONDUIT	91.5	0.5244	0.0180
C46	N02.1	J51.2	CONDUIT	30.2	9.9027	0.0180

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Cross Section Summary

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Conduit	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels	Full Flow
C3	RECT_CLOSED	2.20	9.90	0.74	4.50	1	78.79
C4	MODBASKETHANDLE	3.50	13.58	0.97	4.50	1	840.01
C5	MODBASKETHANDLE	3.50	13.58	0.97	4.50	1	45.42
C6	MODBASKETHANDLE	2.65	5.85	0.64	2.45	1	18.77
C7	RECT_CLOSED	2.70	16.20	0.93	6.00	1	71.81
C8	RECT_CLOSED	2.70	16.20	0.93	6.00	1	69.04
C9	RECT_CLOSED	2.60	5.85	0.60	2.25	1	31.36
C10	RECT_CLOSED	2.60	5.85	0.60	2.25	1	32.03
C11	RECT_CLOSED	2.60	5.85	0.60	2.25	1	23.68
C12	RECT_CLOSED	2.60	5.85	0.60	2.25	1	21.75
C13	RECT_CLOSED	2.60	5.85	0.60	2.25	1	34.67
C14	RECT_CLOSED	2.60	5.85	0.60	2.25	1	274.54
C15	RECT_CLOSED	2.60	5.85	0.60	2.25	1	39.90

C16	RECT_CLOSED	3.20	5.76	0.58	1.80	1	27.04
C17	RECT_CLOSED	3.20	5.76	0.58	1.80	1	27.04
C18	RECT_CLOSED	3.20	6.40	0.62	2.00	1	35.88
C19	RECT_CLOSED	3.20	6.40	0.62	2.00	1	36.39
C20	RECT_CLOSED	3.20	6.40	0.62	2.00	1	579767.30
C21	RECT_CLOSED	3.20	6.40	0.62	2.00	1	32.73
C22	RECT_CLOSED	3.20	6.72	0.63	2.10	1	22.50
C23	RECT_CLOSED	3.20	6.72	0.63	2.10	1	26.38
C24	RECT_CLOSED	3.20	6.72	0.63	2.10	1	24.48
C25	RECT_CLOSED	3.20	6.72	0.63	2.10	1	43.42
C26	RECT_CLOSED	3.20	6.72	0.63	2.10	1	46.59
C27	RECT_CLOSED	2.20	5.72	0.60	2.60	1	22.51
C28	RECT_CLOSED	2.20	5.72	0.60	2.60	1	30.01
C29	s16	6.95	89.85	2.10	42.51	1	526.35
C30	s17	9.18	198.79	3.62	42.38	1	1605.33
C31	s18	3.53	31.24	1.28	21.35	1	150.20
C32	s19	2.92	42.52	0.87	38.65	1	13.67
C33	s20	8.21	178.07	4.34	39.22	1	733.08
C34	s21	5.28	63.40	2.32	23.06	1	1700.72
C35	S22	5.43	54.39	2.09	30.35	1	244.29
C36	S23	4.30	24.27	1.75	11.95	1	159.90
C37	S23	4.30	24.27	1.75	11.95	1	51.45
C38	RECT_CLOSED	2.10	6.09	0.61	2.90	1	31.17
C39	RECT_CLOSED	3.00	9.00	0.75	3.00	1	52.07
C40	RECT_CLOSED	3.00	9.00	0.75	3.00	1	50.90
C41	S24	5.82	47.48	2.20	21.88	1	217.78
C42	RECT_CLOSED	2.30	8.05	0.69	3.50	1	178.15
C43	RECT_CLOSED	2.30	4.83	0.55	2.10	1	13.34
C44	RECT_CLOSED	2.30	4.83	0.55	2.10	1	13.34
C45	RECT_CLOSED	2.30	4.83	0.55	2.10	1	13.03
C46	RECT_CLOSED	2.30	4.83	0.55	2.10	1	56.62

****

Transect Summary

****

Transect s16

Area:

0.0036	0.0076	0.0117	0.0160	0.0204
0.0250	0.0297	0.0347	0.0399	0.0454
0.0513	0.0576	0.0643	0.0714	0.0790
0.0871	0.0957	0.1049	0.1146	0.1247
0.1354	0.1465	0.1581	0.1701	0.1826
0.1955	0.2091	0.2235	0.2387	0.2548
0.2718	0.2896	0.3081	0.3273	0.3473
0.3679	0.3896	0.4139	0.4412	0.4725
0.5082	0.5485	0.5961	0.6471	0.7002
0.7555	0.8131	0.8731	0.9354	1.0000

Hrad:

0.0570	0.1078	0.1514	0.1897	0.2239
0.2549	0.2832	0.3085	0.3305	0.3511
0.3717	0.3925	0.4129	0.4321	0.4503
0.4687	0.4879	0.5078	0.5281	0.5584
0.5888	0.6183	0.6471	0.6752	0.7028
0.7312	0.7721	0.8096	0.8441	0.8759
0.9055	0.9332	0.9597	0.9852	1.0098
1.0336	1.0500	1.0592	1.0632	1.0586
1.0494	1.0369	1.0068	0.9972	0.9918
0.9897	0.9897	0.9916	0.9951	1.0000

Width:

0.0591	0.0614	0.0638	0.0662	0.0686
0.0709	0.0733	0.0766	0.0814	0.0871
0.0928	0.0985	0.1044	0.1114	0.1191
0.1272	0.1352	0.1432	0.1513	0.1584
0.1654	0.1723	0.1792	0.1862	0.1931
0.2002	0.2124	0.2253	0.2382	0.2511
0.2640	0.2764	0.2870	0.2975	0.3081

0.3186 0.3483 0.3915 0.4418 0.5095

0.5773 0.6450 0.7582 0.7912 0.8242

0.8574 0.8931 0.9287 0.9644 1.0000

Transect s17

Area:

0.0021 0.0050 0.0084 0.0120 0.0161

0.0205 0.0253 0.0305 0.0360 0.0421

0.0487 0.0559 0.0637 0.0725 0.0851

0.1014 0.1185 0.1360 0.1539 0.1732

0.1947 0.2167 0.2389 0.2614 0.2843

0.3074 0.3309 0.3547 0.3788 0.4033

0.4280 0.4531 0.4785 0.5041 0.5301

0.5565 0.5831 0.6100 0.6373 0.6649

0.6928 0.7210 0.7495 0.7785 0.8094

0.8449 0.8833 0.9220 0.9609 1.0000

Hrad:

0.0363 0.0751 0.1085 0.1384 0.1658

0.1915 0.2155 0.2384 0.2605 0.2777

0.2955 0.3140 0.3329 0.3543 0.3622

0.3621 0.3705 0.3841 0.4008 0.4234

0.4445 0.4674 0.4913 0.5157 0.5405

0.5653 0.5901 0.6149 0.6395 0.6639

0.6881 0.7121 0.7359 0.7594 0.7828

0.8059 0.8287 0.8513 0.8737 0.8959

0.9179 0.9396 0.9611 0.9766 0.9570

0.9287 0.9399 0.9598 0.9798 1.0000

Width:

0.0711 0.0802 0.0894 0.0988 0.1082

0.1175 0.1273 0.1373 0.1473 0.1621

0.1769 0.1917 0.2065 0.2671 0.3750

0.4313 0.4420 0.4527 0.4634 0.5387

0.5558 0.5638 0.5719 0.5799 0.5880

0.5960 0.6040 0.6121 0.6201 0.6282

0.6362 0.6442 0.6523 0.6603 0.6684

0.6764 0.6845 0.6925 0.7005 0.7086

0.7166 0.7247 0.7327 0.7568 0.8439

0.9610 0.9873 0.9916 0.9958 1.0000

Transect s18

Area:

0.0004 0.0030 0.0086 0.0171 0.0277

0.0385 0.0493 0.0601 0.0710 0.0819

0.0929 0.1039 0.1150 0.1262 0.1373

0.1486 0.1599 0.1712 0.1826 0.1940

0.2055 0.2170 0.2286 0.2402 0.2519

0.2636 0.2757 0.2887 0.3041 0.3214

0.3403 0.3609 0.3831 0.4071 0.4327

0.4600 0.4890 0.5196 0.5519 0.5858

0.6211 0.6577 0.6957 0.7351 0.7759

0.8180 0.8614 0.9062 0.9524 1.0000

Hrad:

0.0145 0.0375 0.0630 0.0888 0.1313

0.1772 0.2209 0.2626 0.3023 0.3403

0.3767 0.4116 0.4451 0.4773 0.5082

0.5380 0.5668 0.5945 0.6213 0.6472

0.6722 0.6965 0.7200 0.7428 0.7649

0.7865 0.8128 0.8367 0.8577 0.8739

0.8864 0.8959 0.9031 0.9084 0.9125

0.9157 0.9182 0.9205 0.9226 0.9262

0.9308 0.9363 0.9425 0.9492 0.9566

0.9644 0.9727 0.9814 0.9905 1.0000

Width:

0.0254 0.0857 0.1460 0.2063 0.2221

0.2231 0.2242 0.2252 0.2262 0.2272

0.2282 0.2293 0.2303 0.2313 0.2323

0.2333 0.2344 0.2354 0.2364 0.2374

0.2384 0.2394 0.2405 0.2415 0.2425

0.2437 0.2594 0.2866 0.3400 0.3747

0.4094 0.4442 0.4789 0.5136 0.5484

0.5831 0.6179 0.6526 0.6873 0.7171

0.7454 0.7737 0.8020 0.8303 0.8586

0.8869 0.9151 0.9434 0.9717 1.0000

Transect s19

Area:

0.0007 0.0027 0.0060 0.0107 0.0166

0.0231 0.0296 0.0362 0.0429 0.0496

0.0563 0.0631 0.0699 0.0767 0.0835

0.0904 0.0974 0.1043 0.1113 0.1184

0.1254 0.1325 0.1396 0.1468 0.1540

0.1613 0.1686 0.1760 0.1834 0.1908

0.1983 0.2059 0.2182 0.2431 0.2803

0.3214 0.3631 0.4055 0.4487 0.4932

0.5393 0.5884 0.6384 0.6888 0.7396

0.7908 0.8425 0.8946 0.9471 1.0000

Hrad:

0.0325 0.0650 0.0975 0.1300 0.1683

0.2271 0.2835 0.3380 0.3913 0.4425

0.4919 0.5394 0.5853 0.6296 0.6724

0.7138 0.7539 0.7927 0.8304 0.8670

0.9025 0.9370 0.9706 1.0029 1.0345

1.0653 1.0954 1.1249 1.1537 1.1819

1.2096 1.2426 1.2443 1.1681 1.0557

0.9775 0.9297 0.9015 0.8852 0.8762

0.8712 0.8581 0.8663 0.8786 0.8941

0.9121 0.9320 0.9535 0.9762 1.0000

Width:

0.0250 0.0501 0.0751 0.1002 0.1203

0.1220 0.1236 0.1251 0.1257 0.1264

0.1270 0.1276 0.1282 0.1288 0.1295

0.1301 0.1307 0.1313 0.1319 0.1326

0.1332 0.1338 0.1344 0.1353 0.1362

0.1371 0.1380 0.1389 0.1398 0.1407

0.1416 0.1464 0.3480 0.5884 0.7660

0.7786 0.7912 0.8038 0.8248 0.8516

0.8932 0.9365 0.9440 0.9520 0.9600

0.9680 0.9760 0.9840 0.9920 1.0000

Transect s20

Area:

0.0036 0.0080 0.0130 0.0185 0.0244

0.0308 0.0377 0.0453 0.0547 0.0672

0.0813 0.0964 0.1122 0.1289 0.1462

0.1643 0.1830 0.2024 0.2225 0.2433

0.2648 0.2867 0.3088 0.3311 0.3536

0.3762 0.3991 0.4221 0.4454 0.4688

0.4924 0.5162 0.5402 0.5645 0.5889

0.6135 0.6384 0.6634 0.6887 0.7142

0.7399 0.7658 0.7920 0.8184 0.8450

0.8719 0.8990 0.9298 0.9642 1.0000

Hrad:

0.0333 0.0610 0.0890 0.1149 0.1392

0.1621 0.1839 0.2067 0.2228 0.2298

0.2382 0.2494 0.2623 0.2760 0.2972

0.3179 0.3380 0.3576 0.3767 0.3953

0.4135 0.4358 0.4583 0.4810 0.5038

0.5265 0.5493 0.5721 0.5948 0.6175

0.6401 0.6626 0.6850 0.7072 0.7294

0.7515 0.7734 0.7952 0.8170 0.8385

0.8599 0.8811 0.9022 0.9232 0.9441

0.9648 0.9854 0.9999 1.0095 1.0000

Width:

0.1100 0.1319 0.1454 0.1582 0.1709

0.1837 0.1965 0.2298 0.3047 0.3722

0.4061 0.4275 0.4489 0.4703 0.4895

0.5086 0.5278 0.5467 0.5655 0.5842

0.6030 0.6085 0.6137 0.6189 0.6242

0.6294 0.6346 0.6399 0.6451 0.6503

0.6557 0.6614 0.6672 0.6729 0.6786

0.6843 0.6901 0.6958 0.7015 0.7077

0.7141 0.7204 0.7267 0.7330 0.7394

0.7457 0.7603 0.9196 0.9786 1.0000

Transect s21

Area:

0.0006 0.0025 0.0056 0.0099 0.0155

0.0224 0.0306 0.0424 0.0563 0.0710

0.0861 0.1017 0.1175 0.1337 0.1503

0.1671 0.1843 0.2018 0.2197 0.2379

0.2563 0.2749 0.2938 0.3129 0.3322

0.3518 0.3717 0.3920 0.4127 0.4338

0.4554 0.4774 0.4998 0.5226 0.5458

0.5695 0.5935 0.6180 0.6429 0.6682

0.6940 0.7201 0.7467 0.7761 0.8119

0.8486 0.8859 0.9237 0.9617 1.0000

Hrad:

0.0206 0.0413 0.0619 0.0826 0.1030

0.1235 0.1442 0.1347 0.1662 0.2015

0.2361 0.2698 0.3035 0.3361 0.3679

0.3989 0.4291 0.4585 0.4873 0.5160

0.5449 0.5732 0.6008 0.6279 0.6545

0.6802 0.7016 0.7227 0.7436 0.7643

0.7848 0.8051 0.8253 0.8453 0.8652

0.8850 0.9046 0.9241 0.9435 0.9629

0.9821 1.0012 1.0202 0.8736 0.8570

0.8817 0.9062 0.9363 0.9682 1.0000

Width:

0.0323 0.0645 0.0968 0.1290 0.1622

0.1960 0.2299 0.3494 0.3750 0.3876

0.3988 0.4093 0.4178 0.4263 0.4348

0.4432 0.4517 0.4602 0.4687 0.4764

0.4824 0.4883 0.4943 0.5002 0.5062

0.5124 0.5232 0.5341 0.5450 0.5559

0.5667 0.5776 0.5885 0.5993 0.6102

0.6211 0.6319 0.6428 0.6537 0.6645

0.6754 0.6863 0.6971 0.8801 0.9476

0.9629 0.9782 0.9869 0.9935 1.0000

Transect S22

Area:

0.0057 0.0123 0.0195 0.0274 0.0358

0.0447 0.0541 0.0640 0.0742 0.0848

0.0957 0.1070 0.1186 0.1305 0.1427

0.1552 0.1682 0.1817 0.1955 0.2098

0.2245 0.2397 0.2553 0.2713 0.2877

0.3046 0.3220 0.3398 0.3580 0.3767

0.3959 0.4159 0.4367 0.4583 0.4809

0.5045 0.5291 0.5547 0.5813 0.6089

0.6375 0.6671 0.6984 0.7321 0.7680

0.8065 0.8488 0.8949 0.9448 1.0000

Hrad:

0.0459 0.0883 0.1267 0.1627 0.1976

0.2308 0.2622 0.2923 0.3231 0.3525

0.3806 0.4076 0.4337 0.4591 0.4838

0.5063 0.5283 0.5500 0.5715 0.5927

0.6137 0.6346 0.6553 0.6758 0.6959

0.7156 0.7353 0.7550 0.7746 0.7941

0.8086 0.8193 0.8308 0.8411 0.8496

0.8592 0.8698 0.8812 0.8935 0.9064

0.9201 0.9310 0.9168 0.9070 0.9010

0.9177 0.9438 0.9656 0.9836 1.0000

Width:

0.1034 0.1143 0.1249 0.1346 0.1430

0.1509 0.1588 0.1667 0.1721 0.1775

0.1829 0.1883 0.1937 0.1989 0.2041

0.2110 0.2181 0.2252 0.2323 0.2394

0.2465 0.2535 0.2606 0.2677 0.2751

0.2826 0.2900 0.2975 0.3050 0.3125

0.3230 0.3364 0.3498 0.3645 0.3810

0.3975 0.4140 0.4305 0.4471 0.4636

0.4801 0.4988 0.5365 0.5743 0.6120

0.6653 0.7290 0.7926 0.8562 1.0000

Transect S23

Area:

0.0061 0.0141 0.0228 0.0324 0.0430

0.0543 0.0660 0.0780 0.0905 0.1033

0.1165 0.1300 0.1439 0.1582 0.1728

0.1877 0.2030 0.2187 0.2348 0.2511

0.2677 0.2847 0.3019 0.3195 0.3373

0.3555 0.3739 0.3927 0.4117 0.4311

0.4507 0.4707 0.4909 0.5114 0.5323

0.5534 0.5749 0.5966 0.6187 0.6410

0.6654 0.6940 0.7273 0.7633 0.8004

0.8384 0.8773 0.9173 0.9581 1.0000

Hrad:

0.0379 0.0784 0.1136 0.1436 0.1717

0.2046 0.2355 0.2646 0.2922 0.3187

0.3440 0.3683 0.3917 0.4142 0.4359

0.4570 0.4775 0.4975 0.5171 0.5367

0.5557 0.5744 0.5926 0.6104 0.6278

0.6449 0.6617 0.6782 0.6944 0.7104

0.7262 0.7417 0.7570 0.7722 0.7871

0.8019 0.8166 0.8311 0.8454 0.8596

0.8799 0.8994 0.9121 0.9231 0.9349

0.9472 0.9599 0.9730 0.9864 1.0000

Width:

0.1816 0.1970 0.2151 0.2385 0.2619

0.2711 0.2803 0.2895 0.2987 0.3071

0.3155 0.3239 0.3323 0.3407 0.3492

0.3576 0.3660 0.3744 0.3826 0.3897

0.3968 0.4039 0.4109 0.4180 0.4251

0.4322 0.4392 0.4463 0.4534 0.4605

0.4676 0.4746 0.4817 0.4888 0.4959

0.5030 0.5100 0.5171 0.5242 0.5313

0.6231 0.7309 0.8386 0.8634 0.8861

0.9089 0.9317 0.9545 0.9772 1.0000

Transect S24

Area:

0.0014 0.0054 0.0122 0.0207 0.0294

0.0384 0.0478 0.0575 0.0675 0.0779

0.0887 0.0998 0.1112 0.1230 0.1351

0.1476 0.1604 0.1736 0.1871 0.2010

0.2152 0.2297 0.2446 0.2599 0.2756

0.2928 0.3108 0.3296 0.3492 0.3696

0.3910 0.4134 0.4368 0.4611 0.4863

0.5124 0.5393 0.5668 0.5950 0.6240

0.6538 0.6844 0.7157 0.7477 0.7803

0.8135 0.8496 0.8981 0.9483 1.0000

Hrad:

0.0247 0.0495 0.0742 0.1146 0.1530

0.1878 0.2196 0.2493 0.2773 0.3038

0.3291 0.3532 0.3765 0.3989 0.4205

0.4416 0.4620 0.4820 0.5015 0.5206

0.5393 0.5577 0.5758 0.5936 0.5871

0.5995 0.6125 0.6262 0.6403 0.6523

0.6646 0.6776 0.6912 0.7054 0.7201

0.7396 0.7593 0.7791 0.7976 0.8163

0.8350 0.8539 0.8744 0.8956 0.9166

0.9376 0.9583 0.9664 0.9804 1.0000

Width:

0.0505 0.1010 0.1515 0.1607 0.1657

0.1711 0.1776 0.1841 0.1905 0.1970

0.2035 0.2100 0.2164 0.2229 0.2294

0.2359 0.2423 0.2488 0.2553 0.2618

0.2682 0.2747 0.2812 0.2876 0.3130

0.3280 0.3429 0.3579 0.3728 0.3904

0.4083 0.4262 0.4442 0.4621 0.4800

0.4933 0.5064 0.5195 0.5339 0.5483

0.5628 0.5772 0.5898 0.6018 0.6137

0.6257 0.7925 0.9278 0.9470 1.0000

****

NOTE: The summary statistics displayed in this report are

based on results found at every computational time step,

not just on results from each reporting time step.

****

****

Analysis Options

****

Flow Units ..... CMS

Process Models:

Rainfall/Runoff ..... NO

RDII ..... NO

Snowmelt ..... NO

Groundwater ..... NO

Flow Routing ..... YES

Ponding Allowed ..... NO

Water Quality ..... NO

Flow Routing Method ..... DYNWAVE

Starting Date 02/02/2018 00:00:00

Ending Date 02/02/2018 06:00:00

Antecedent Dry Days 0.0

Report Time Step 00:05:00

Routing Time Step ..... 0.07 sec

Variable Time Step ..... YES

Maximum Trials 8

Number of Threads 1

Head Tolerance ..... 0.001500 m

**********	Volume	Volume
Flow Routing Continuity	hectare-m	10^6 ltr
**********	---	---
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	0.000	0.000
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	44.586	445.863
External Outflow	38.036	380.362
Flooding Loss	6.440	64.396
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	0.119	1.187
Continuity Error (%)	-0.018	

****

Time-Step Critical Elements

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Link C14 (31.85%)

****

Highest Flow Instability Indexes

****

Link C32 (23)

Link C31 (19)

Link C3 (9)

Link C6 (6)

Link C20 (5)

****

Routing Time Step Summary

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Minimum Time Step : 0.07 sec

Average Time Step : 0.08 sec

Maximum Time Step : 0.07 sec

Percent in Steady State : -0.00

Average Iterations per Step : 2.16

Percent Not Converging : 1.76

****

Node Depth Summary

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Node	Type	Average Depth Meters	Maximum Depth Meters	Maximum HGL Meters	Time of Max Occurrence days hr:min	Reported Max Depth Meters
J86	JUNCTION	0.78	2.22	262.09	0 02:10	2.22
J85	JUNCTION	0.71	1.93	260.61	0 02:10	1.93
J84	JUNCTION	0.75	2.02	260.13	0 02:12	2.01
J83	JUNCTION	0.97	2.60	260.07	0 02:12	2.51
J69	JUNCTION	0.31	2.17	258.32	0 02:03	2.13
J68	JUNCTION	0.88	5.15	260.00	0 01:57	3.65
J67	JUNCTION	0.96	5.74	260.40	0 01:57	3.77
J66	JUNCTION	0.62	6.34	260.80	0 01:57	3.36
J65.5	JUNCTION	0.75	6.60	260.50	0 01:55	3.79
J65	JUNCTION	0.94	5.94	259.40	0 01:54	4.10
J64.5	JUNCTION	0.95	2.80	253.10	0 01:29	2.80
J64.4	JUNCTION	1.07	3.50	253.00	0 01:27	3.01
J64	JUNCTION	1.06	2.80	251.80	0 01:28	2.80
J63.5	JUNCTION	0.76	1.93	249.63	0 01:27	1.90
J63	JUNCTION	0.24	0.72	247.17	0 01:27	0.71

J62	JUNCTION	0.73	1.96	247.01	0	01:27	1.95
J61	JUNCTION	1.23	3.20	244.26	0	01:26	3.20
J60.5	JUNCTION	1.22	3.15	242.20	0	01:25	3.10
J60	JUNCTION	1.03	2.71	239.46	0	01:58	2.69
J59.5	JUNCTION	1.09	2.90	237.90	0	01:59	2.89
J59	JUNCTION	0.89	3.20	236.80	0	01:59	3.19
J58	JUNCTION	1.43	4.19	236.79	0	01:59	4.17
J57.7	JUNCTION	1.53	4.00	235.50	0	01:22	4.00
J57.5	JUNCTION	1.45	4.00	235.30	0	01:22	3.88
J57.3	JUNCTION	1.34	3.20	233.40	0	01:30	3.20
J57	JUNCTION	0.99	2.55	232.15	0	02:12	2.53
J55	JUNCTION	1.40	2.52	225.82	0	01:47	2.52
J55.5	JUNCTION	1.20	6.50	231.40	0	01:20	3.54
J56	JUNCTION	1.30	3.80	228.80	0	02:13	3.72
J56.5	JUNCTION	1.11	3.29	229.49	0	01:54	3.29
J82	JUNCTION	0.61	1.20	224.79	0	01:47	1.19
J2	JUNCTION	0.35	1.45	258.92	0	02:12	1.34
J81	JUNCTION	1.10	2.64	224.58	0	02:01	2.64
J80	JUNCTION	1.33	3.86	224.46	0	02:00	3.79
J79	JUNCTION	1.50	4.30	224.54	0	01:53	4.30
J51.5	JUNCTION	1.28	4.68	224.88	0	01:56	4.53
J51.3	JUNCTION	0.96	2.53	221.30	0	02:03	2.51
J51.2	JUNCTION	1.08	2.71	220.56	0	02:02	2.70
J51	JUNCTION	1.36	2.82	219.15	0	02:03	2.82
N04	JUNCTION	0.09	0.20	223.23	0	02:10	0.20
N03	JUNCTION	0.47	1.12	222.65	0	02:07	1.12
N02.9	JUNCTION	0.46	1.11	222.53	0	02:05	1.09
N02.8	JUNCTION	0.46	1.07	222.38	0	02:07	1.03
N02.1	JUNCTION	0.18	0.42	221.25	0	02:07	0.41
OUT1	OUTFALL	1.30	2.75	218.99	0	02:03	2.75

****

Node Inflow Summary

****

Node	Type	Maximum Lateral Inflow CMS	Maximum Total Inflow CMS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 ltr	Total Inflow Volume 10^6 ltr	Flow Balance Error Percent
J86	JUNCTION	29.100	29.100	0 02:10	168	168	-0.000
J85	JUNCTION	1.721	30.493	0 02:10	9.08	177	0.004
J84	JUNCTION	0.636	31.049	0 02:05	3.36	181	0.006
J83	JUNCTION	0.300	31.806	0 02:06	1.58	182	-0.325
J69	JUNCTION	0.393	42.280	0 01:57	2.07	187	0.002
J68	JUNCTION	0.455	67.549	0 01:57	2.4	189	-0.039
J67	JUNCTION	0.741	36.927	0 02:12	3.91	192	-0.007
J66	JUNCTION	1.009	35.645	0 01:44	5.32	198	-0.013
J65.5	JUNCTION	1.321	37.647	0 02:13	6.97	205	0.017
J65	JUNCTION	2.151	38.671	0 02:13	11.3	216	0.025
J64.5	JUNCTION	1.919	39.100	0 02:03	10.1	226	0.007
J64.4	JUNCTION	0.803	28.259	0 02:00	4.24	203	0.002
J64	JUNCTION	1.750	30.008	0 02:00	9.23	212	0.009
J63.5	JUNCTION	1.821	29.020	0 01:27	9.61	209	0.010
J63	JUNCTION	0.509	29.099	0 01:27	2.68	212	0.001
J62	JUNCTION	1.214	29.863	0 02:00	6.4	218	0.006
J61	JUNCTION	2.410	32.273	0 02:00	12.7	231	0.015
J60.5	JUNCTION	2.584	31.065	0 01:25	13.6	232	0.016
J60	JUNCTION	2.183	32.909	0 02:00	11.5	243	0.012
J59.5	JUNCTION	1.428	34.023	0 01:59	7.53	251	0.009
J59	JUNCTION	0.634	34.645	0 01:59	3.34	254	0.001
J58	JUNCTION	0.616	35.279	0 01:59	3.25	258	0.004
J57.7	JUNCTION	0.875	36.148	0 01:59	4.61	262	0.007
J57.5	JUNCTION	1.339	33.544	0 02:15	7.06	259	0.010
J57.3	JUNCTION	1.750	34.762	0 01:38	9.23	268	0.017

J57	JUNCTION	1.901	37.094	0	01:38	10	277	0.009
J55	JUNCTION	1.687	40.329	0	02:00	8.9	302	0.072
J55.5	JUNCTION	0.893	38.642	0	02:00	4.71	293	0.002
J56	JUNCTION	0.464	37.750	0	02:00	2.45	288	0.007
J56.5	JUNCTION	1.598	37.787	0	01:37	8.43	286	0.010
J82	JUNCTION	1.512	41.945	0	01:55	7.97	309	0.021
J2	JUNCTION	0.402	78.125	0	02:12	2.12	185	0.334
J81	JUNCTION	1.925	43.963	0	01:54	10.2	319	0.021
J80	JUNCTION	1.425	45.839	0	01:55	7.52	327	0.021
J79	JUNCTION	0.265	56.745	0	02:14	1.4	328	0.002
J51.5	JUNCTION	1.506	56.314	0	02:13	7.94	336	0.006
J51.3	JUNCTION	0.000	46.708	0	02:00	0	336	0.009
J51.2	JUNCTION	0.000	53.003	0	02:05	0	381	0.018
J51	JUNCTION	0.000	52.726	0	02:03	0	380	0.023
N04	JUNCTION	6.500	6.500	0	02:10	44.9	44.9	0.002
N03	JUNCTION	0.000	6.500	0	02:10	0	44.9	0.022
N02.9	JUNCTION	0.000	6.619	0	02:05	0	44.9	0.029
N02.8	JUNCTION	0.000	6.819	0	02:05	0	44.9	0.084
N02.1	JUNCTION	0.000	7.041	0	02:07	0	44.9	0.033
OUT1	OUTFALL	0.000	52.718	0	02:03	0	380	0.000

****

Node Surcharge Summary

****

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Meters	Min. Depth Below Rim Meters
J68	JUNCTION	0.14	1.650	0.000
J67	JUNCTION	0.17	2.240	0.000
J66	JUNCTION	0.40	3.640	0.000

J65.5	JUNCTION	0.52	3.900	0.000
J65	JUNCTION	0.61	3.240	0.000
J64.5	JUNCTION	1.14	0.200	0.000
J64.4	JUNCTION	1.20	0.900	0.000
J64	JUNCTION	1.19	0.200	0.000
J61	JUNCTION	1.22	0.000	0.000
J58	JUNCTION	1.35	0.991	0.009
J57.7	JUNCTION	1.40	0.800	0.000
J57.5	JUNCTION	1.37	0.800	0.000
J57.3	JUNCTION	0.57	0.000	0.000
J55.5	JUNCTION	1.46	4.300	0.000
J56	JUNCTION	1.18	0.604	2.696
J56.5	JUNCTION	0.37	0.086	2.814
J79	JUNCTION	0.03	0.000	0.000
J51.5	JUNCTION	0.04	0.383	0.257

****

Node Flooding Summary

****

Flooding refers to all water that overflows a node, whether it ponds or not.

Node	Hours Flooded	Maximum Rate CMS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 ltr	Maximum Ponded Depth Meters
J68	0.01	26.804	0 01:58	0.216	0.000
J67	0.01	3.031	0 02:12	0.002	0.000
J66	0.01	2.565	0 02:12	0.002	0.000
J65.5	0.01	3.647	0 02:13	0.001	0.000
J65	0.01	4.569	0 01:54	0.006	0.000
J64.5	1.06	11.623	0 02:03	27.157	0.000
J64.4	0.01	1.124	0 01:27	0.000	0.000

J64	1.16	3.689	0	02:00	12.596	0.000
J61	1.22	4.540	0	02:00	12.783	0.000
J57.7	1.09	4.618	0	01:59	10.121	0.000
J57.5	0.01	0.306	0	01:22	0.000	0.000
J57.3	0.56	3.804	0	02:35	1.093	0.000
J55.5	0.01	1.403	0	01:23	0.000	0.000
J79	0.03	9.425	0	01:56	0.418	0.000

****

Outfall Loading Summary

****

Outfall Node	Flow Freq Pcnt	Avg Flow CMS	Max Flow CMS	Total Volume 10^6 ltr
OUT1	99.54	17.693	52.718	380.360
System	99.54	17.693	52.718	380.360

****

Link Flow Summary

****

Link	Type	Maximum |Flow| CMS	Time of Max Occurrence days hr:min	Maximum |Veloc| m/sec	Max/ Full Flow	Max/ Full Depth
C3	CONDUIT	34.682	0 02:12	8.28	0.44	0.79
C4	CONDUIT	67.095	0 01:57	6.35	0.08	0.81
C5	CONDUIT	36.354	0 02:12	2.94	0.80	1.00

C6	CONDUIT	34.783	0	02:12	7.43	1.85	1.00
C7	CONDUIT	36.649	0	02:13	3.06	0.51	1.00
C8	CONDUIT	37.042	0	02:13	2.43	0.54	1.00
C9	CONDUIT	37.283	0	02:05	6.37	1.19	1.00
C10	CONDUIT	27.686	0	02:33	4.91	0.86	1.00
C11	CONDUIT	28.259	0	02:00	4.83	1.19	1.00
C12	CONDUIT	27.854	0	01:27	5.61	1.28	0.87
C13	CONDUIT	28.773	0	01:27	9.90	0.83	0.51
C14	CONDUIT	29.060	0	01:27	10.66	0.11	0.51
C15	CONDUIT	29.863	0	02:00	5.84	0.75	0.88
C16	CONDUIT	29.460	0	01:25	5.32	1.09	0.99
C17	CONDUIT	30.765	0	01:25	6.05	1.14	0.91
C18	CONDUIT	32.598	0	01:56	6.10	0.91	0.88
C19	CONDUIT	34.011	0	01:59	7.35	0.93	0.95
C20	CONDUIT	34.664	0	01:59	6.63	0.00	1.00
C21	CONDUIT	35.273	0	01:59	5.51	1.08	1.00
C22	CONDUIT	32.588	0	02:30	4.85	1.45	1.00
C23	CONDUIT	33.406	0	02:15	5.05	1.27	1.00
C24	CONDUIT	35.756	0	02:28	6.24	1.46	0.89
C25	CONDUIT	36.572	0	01:37	6.94	0.84	0.89
C26	CONDUIT	37.358	0	02:10	6.95	0.80	1.00
C27	CONDUIT	37.750	0	02:00	6.60	1.68	1.00
C28	CONDUIT	38.642	0	02:00	6.75	1.29	1.00
C29	CHANNEL	29.098	0	02:10	4.14	0.06	0.30
C30	CHANNEL	30.511	0	02:10	3.30	0.02	0.21
C31	CHANNEL	31.556	0	02:12	3.48	0.21	0.65
C32	CHANNEL	77.812	0	02:12	9.11	5.69	0.66
C33	CHANNEL	40.443	0	01:55	2.79	0.06	0.23
C34	CHANNEL	42.060	0	01:54	3.80	0.02	0.36
C35	CHANNEL	44.422	0	01:55	2.93	0.18	0.60
C36	CHANNEL	56.548	0	02:14	4.17	0.35	0.94
C37	CHANNEL	55.164	0	02:13	5.19	1.07	1.00
C38	CONDUIT	46.708	0	02:00	7.67	1.50	1.00
C39	CONDUIT	46.519	0	02:00	5.98	0.89	0.87
C40	CONDUIT	52.726	0	02:03	6.37	1.04	0.92

C41	CHANNEL	52.718	0	02:03	4.29	0.24	0.48
C42	CONDUIT	6.500	0	02:10	5.39	0.04	0.29
C43	CONDUIT	6.619	0	02:05	2.97	0.50	0.48
C44	CONDUIT	6.819	0	02:05	3.08	0.51	0.47
C45	CONDUIT	7.041	0	02:07	4.58	0.54	0.32
C46	CONDUIT	6.832	0	02:07	4.52	0.12	0.59

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Flow Classification Summary

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	Adjusted	---------- Fraction of Time in Flow Class ----------								
	/Actual	Up	Down	Sub	Sup	Up	Down	Norm	Inlet	
Conduit	Length	Dry	Dry	Dry	Crit	Crit	Crit	Crit	Ltd	Ctrl
C3	1.00	0.03	0.00	0.00	0.01	0.97	0.00	0.00	0.02	0.00
C4	1.00	0.03	0.00	0.00	0.20	0.77	0.00	0.00	0.65	0.00
C5	1.00	0.03	0.00	0.00	0.97	0.00	0.00	0.00	0.42	0.00
C6	1.00	0.03	0.00	0.00	0.12	0.85	0.00	0.00	0.02	0.00
C7	1.00	0.03	0.00	0.00	0.69	0.28	0.00	0.00	0.45	0.00
C8	1.00	0.03	0.00	0.00	0.97	0.00	0.00	0.00	0.57	0.00
C9	1.00	0.03	0.00	0.00	0.13	0.84	0.00	0.00	0.59	0.00
C10	1.00	0.03	0.00	0.00	0.22	0.75	0.00	0.00	0.45	0.00
C11	1.00	0.03	0.00	0.00	0.35	0.62	0.00	0.00	0.32	0.00
C12	1.00	0.03	0.00	0.00	0.03	0.94	0.00	0.00	0.14	0.00
C13	1.00	0.03	0.00	0.00	0.00	0.97	0.00	0.00	0.33	0.00
C14	1.00	0.03	0.00	0.00	0.00	0.97	0.00	0.00	0.67	0.00
C15	1.00	0.03	0.00	0.00	0.00	0.97	0.00	0.00	0.71	0.00
C16	1.00	0.03	0.00	0.00	0.26	0.71	0.00	0.00	0.54	0.00
C17	1.00	0.03	0.00	0.00	0.01	0.96	0.00	0.00	0.15	0.00
C18	1.00	0.03	0.00	0.00	0.01	0.96	0.00	0.00	0.60	0.00
C19	1.00	0.03	0.00	0.00	0.01	0.97	0.00	0.00	0.16	0.00
C20	1.00	0.03	0.00	0.00	0.22	0.75	0.00	0.00	0.00	0.00

C21	1.00	0.03	0.00	0.00	0.32	0.65	0.00	0.00	0.40	0.00
C22	1.00	0.03	0.00	0.00	0.47	0.51	0.00	0.00	0.14	0.00
C23	1.00	0.03	0.00	0.00	0.45	0.53	0.00	0.00	0.38	0.00
C24	1.00	0.03	0.00	0.00	0.03	0.94	0.00	0.00	0.24	0.00
C25	1.00	0.03	0.00	0.00	0.01	0.97	0.00	0.00	0.11	0.00
C26	1.00	0.03	0.00	0.00	0.07	0.90	0.00	0.00	0.46	0.00
C27	1.00	0.03	0.00	0.00	0.26	0.71	0.00	0.00	0.66	0.00
C28	1.00	0.03	0.00	0.00	0.88	0.09	0.00	0.00	0.55	0.00
C29	1.00	0.03	0.01	0.00	0.65	0.31	0.00	0.00	0.46	0.00
C30	1.00	0.03	0.00	0.00	0.84	0.13	0.00	0.00	0.47	0.00
C31	1.00	0.03	0.00	0.00	0.91	0.06	0.00	0.00	0.31	0.00
C32	1.00	0.03	0.00	0.00	0.34	0.63	0.00	0.00	0.07	0.00
C33	1.00	0.03	0.00	0.00	0.97	0.00	0.00	0.00	0.04	0.00
C34	1.00	0.03	0.00	0.00	0.09	0.88	0.00	0.00	0.65	0.00
C35	1.00	0.03	0.00	0.00	0.97	0.00	0.00	0.00	0.29	0.00
C36	1.00	0.03	0.00	0.00	0.94	0.03	0.00	0.00	0.22	0.00
C37	1.00	0.03	0.00	0.00	0.37	0.60	0.00	0.00	0.02	0.00
C38	1.00	0.03	0.00	0.00	0.22	0.75	0.00	0.00	0.21	0.00
C39	1.00	0.00	0.03	0.00	0.08	0.89	0.00	0.00	0.43	0.00
C40	1.00	0.00	0.00	0.00	0.44	0.55	0.00	0.00	0.49	0.00
C41	1.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00
C42	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00
C43	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.02	0.00
C44	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.01	0.00
C45	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
C46	1.00	0.00	0.00	0.00	0.58	0.42	0.00	0.00	0.99	0.00

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Conduit Surcharge Summary

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Conduit	Hours Full: Both Ends	Hours Full: Upstream	Hours Above Full: Dnstream	Capacity Limited: Normal Flow	Capacity Limited
C4	0.01	0.01	0.14	0.01	0.01
C5	0.12	0.14	0.17	0.01	0.01
C6	0.41	0.48	0.41	1.36	0.41
C7	0.40	0.40	0.52	0.01	0.01
C8	0.52	0.52	0.61	0.01	0.01
C9	0.63	0.63	1.14	0.77	0.59
C10	1.14	1.14	1.20	0.01	0.01
C11	1.19	1.20	1.19	1.31	1.19
C12	0.01	1.19	0.01	1.44	0.01
C15	0.01	0.01	1.45	0.01	0.01
C16	0.01	1.22	0.01	1.31	0.01
C17	0.01	0.01	0.01	1.37	0.01
C20	0.01	0.01	1.35	0.01	0.01
C21	1.35	1.35	1.40	0.93	0.93
C22	1.37	1.40	1.37	1.66	1.37
C23	0.56	1.37	0.56	1.52	0.56
C24	0.01	0.56	0.01	1.61	0.01
C25	0.01	0.01	0.37	0.01	0.01
C26	0.37	0.37	1.18	0.01	0.01
C27	1.46	1.61	1.46	1.75	1.46
C28	1.46	1.46	1.64	1.50	1.45
C32	0.01	0.01	0.01	1.39	0.01
C36	0.01	0.01	0.03	0.01	0.01
C37	0.01	0.03	0.04	0.02	0.01

C38	1.31	1.54	1.31	1.57	1.31
C40	0.01	0.01	0.01	0.46	0.01
C46	0.01	0.01	1.22	0.01	0.01

Analysis begun on: Fri Apr 06 15:56:18 2018

Analysis ended on: Fri Apr 06 15:56:36 2018

Total elapsed time: 00:00:18