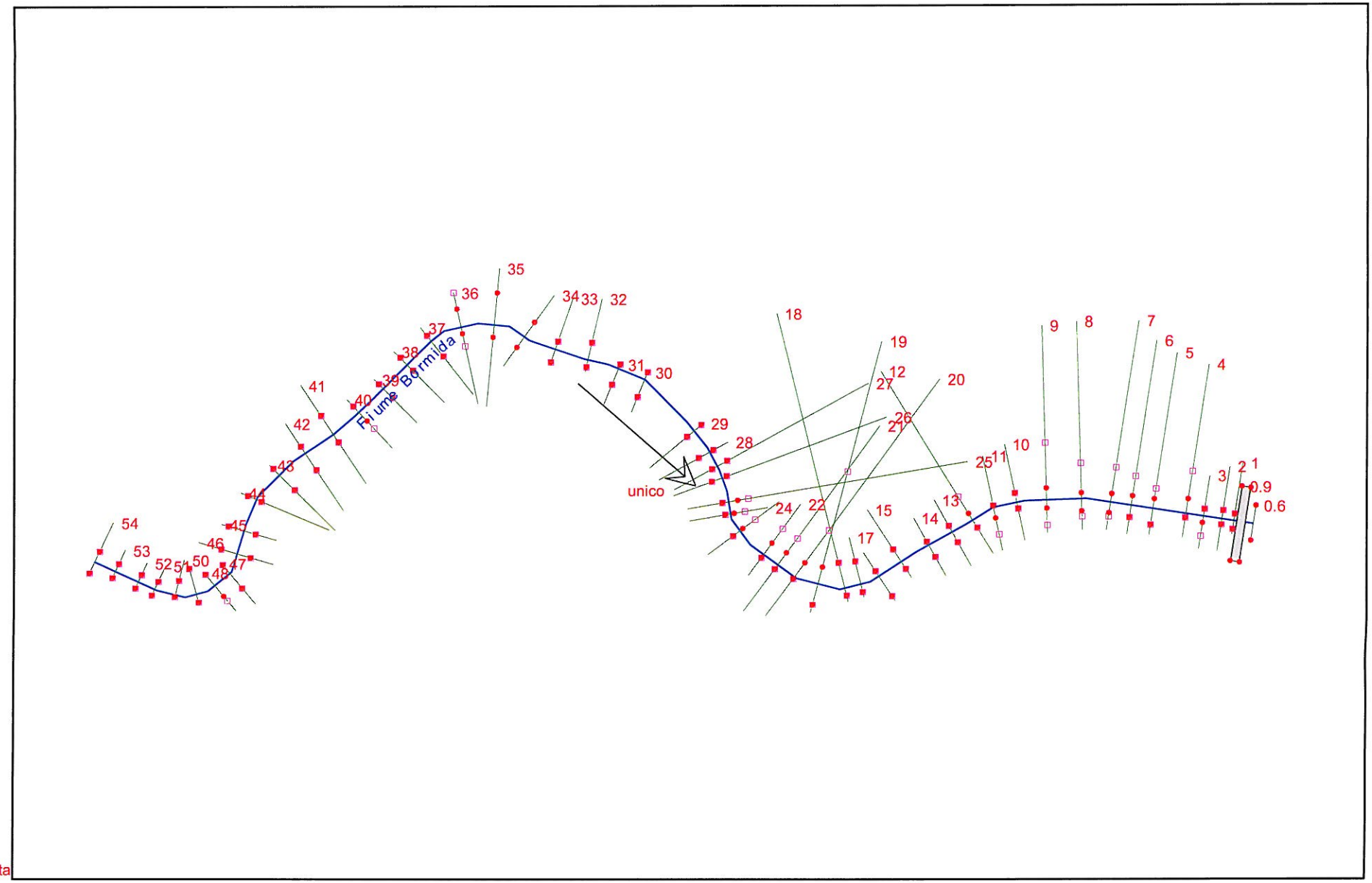
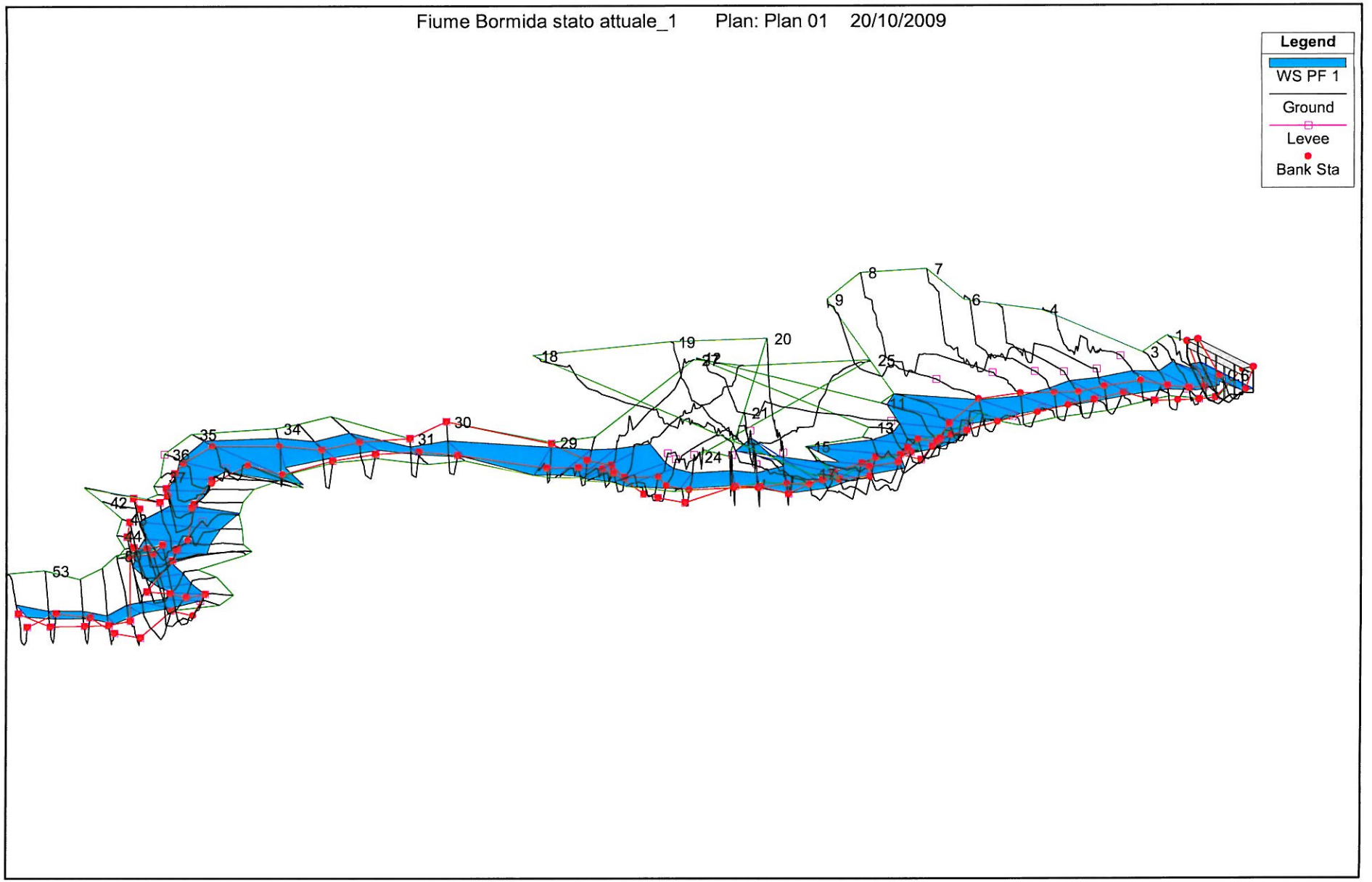
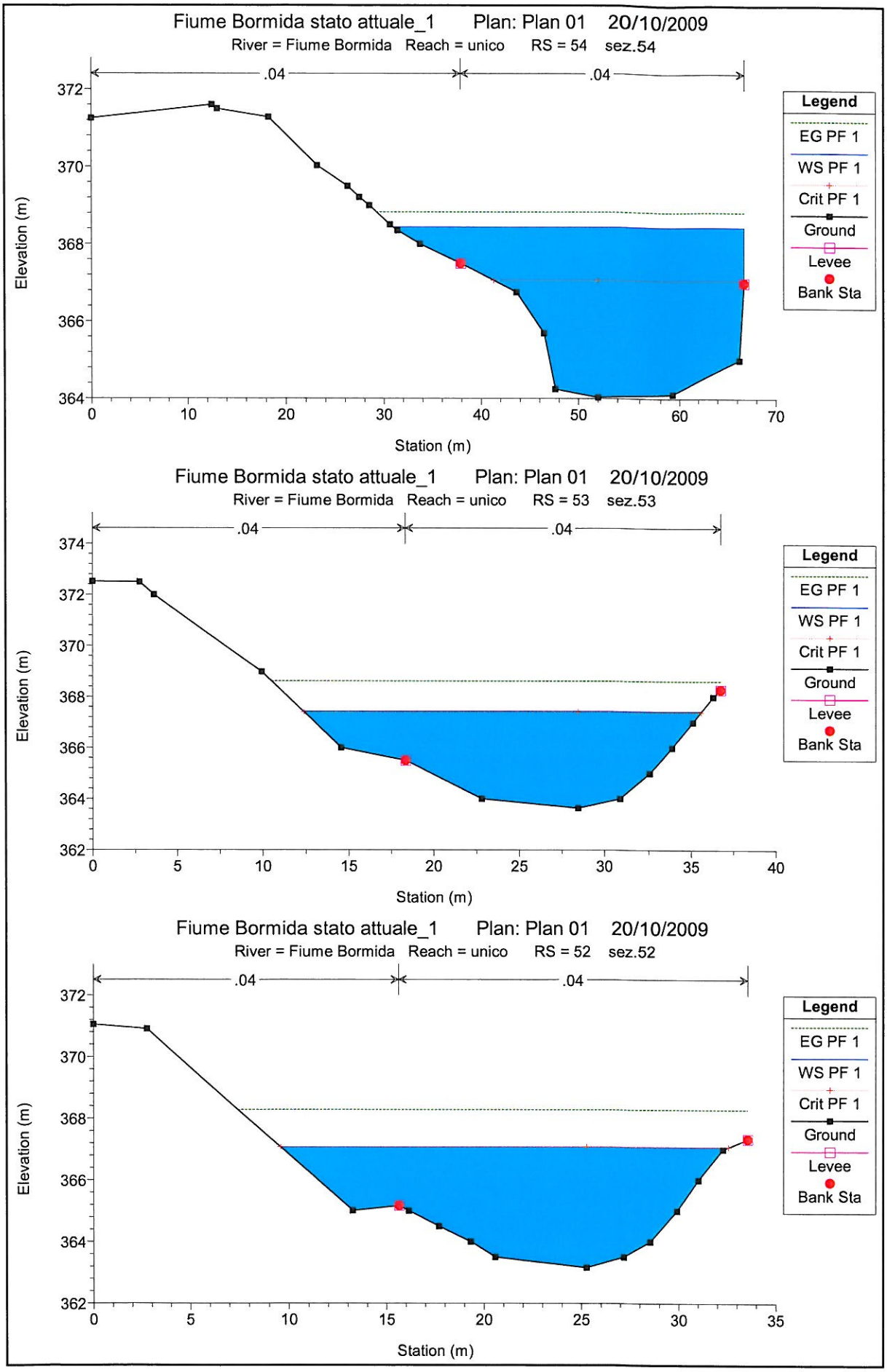
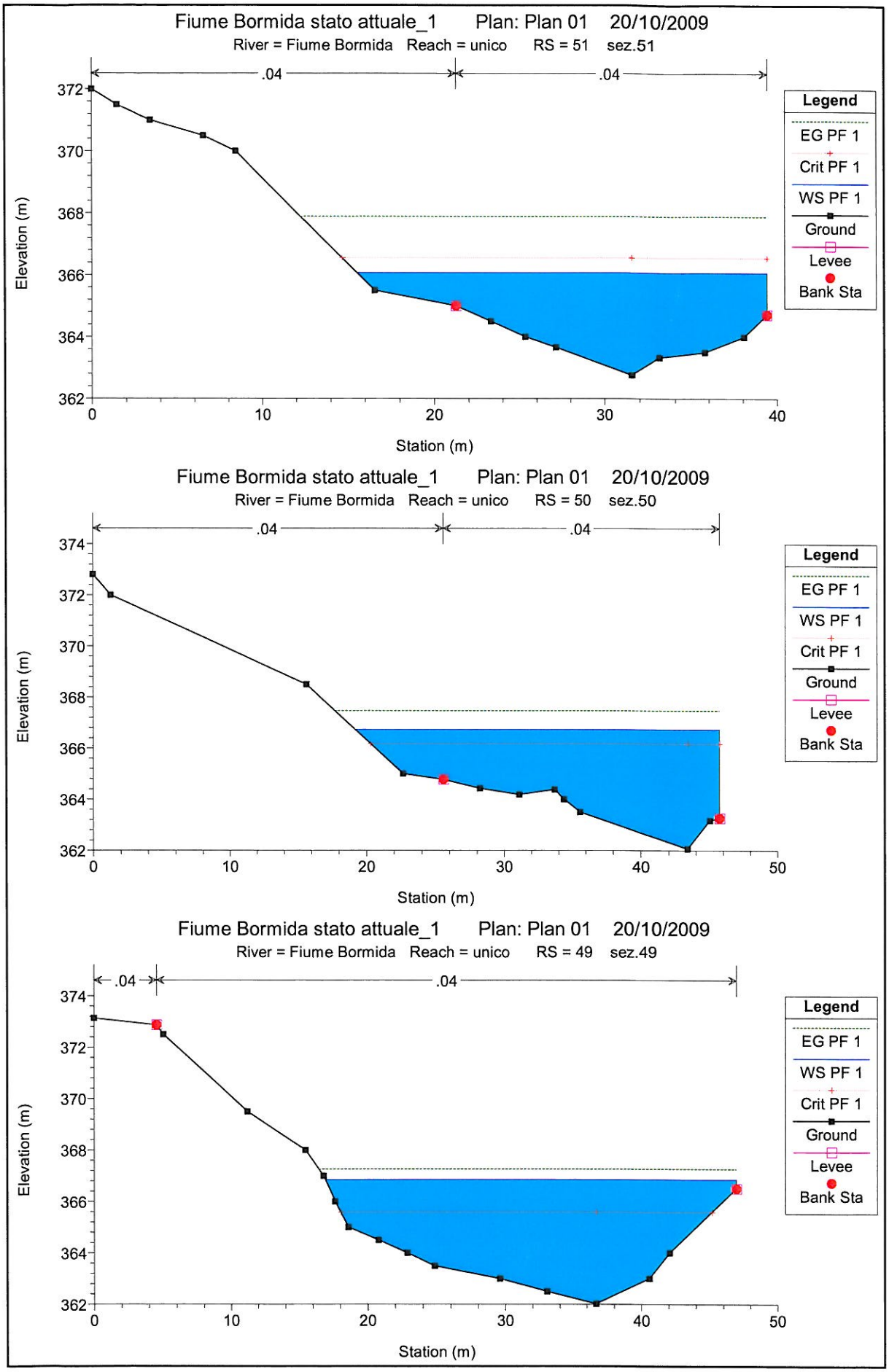
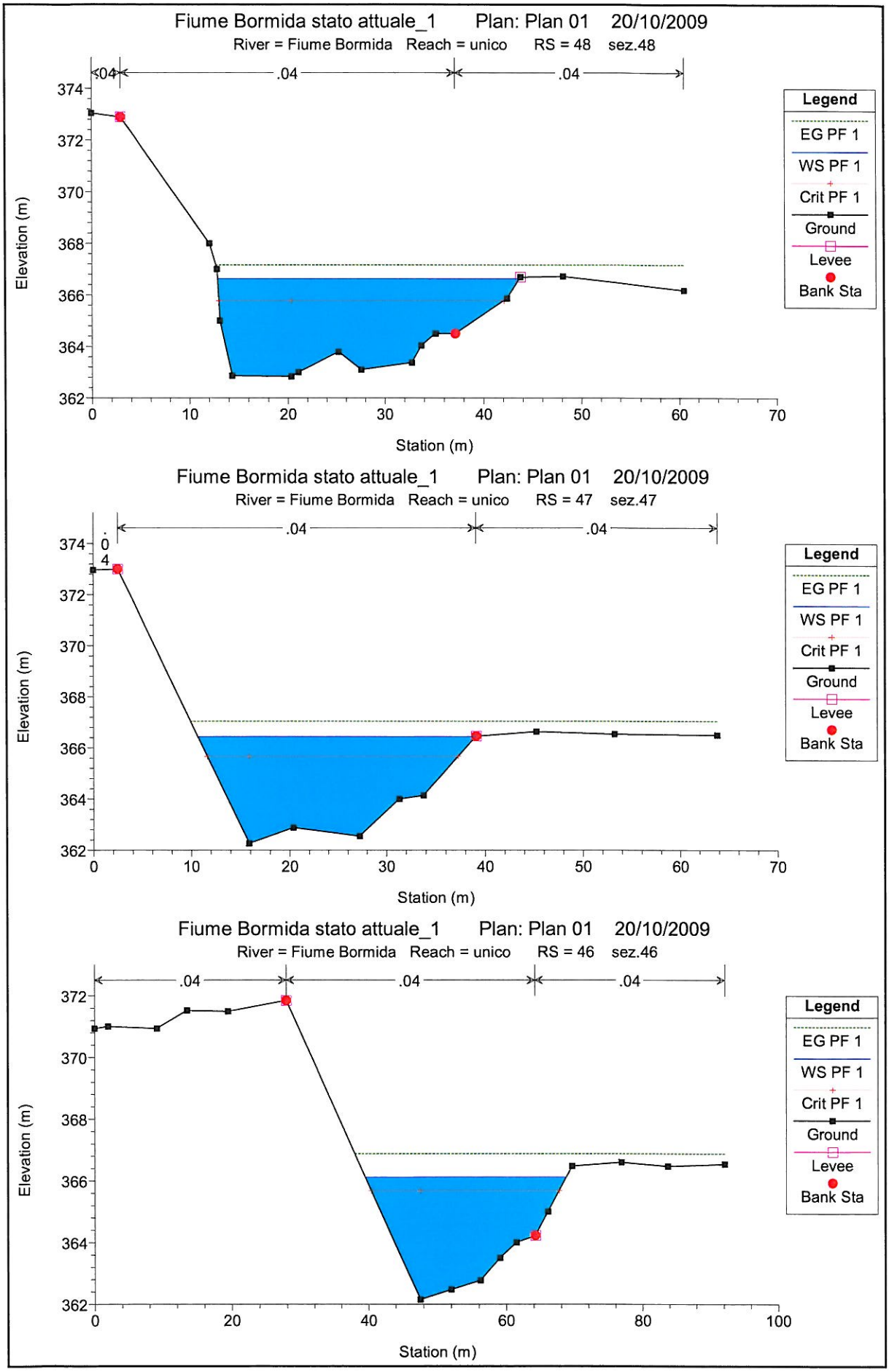


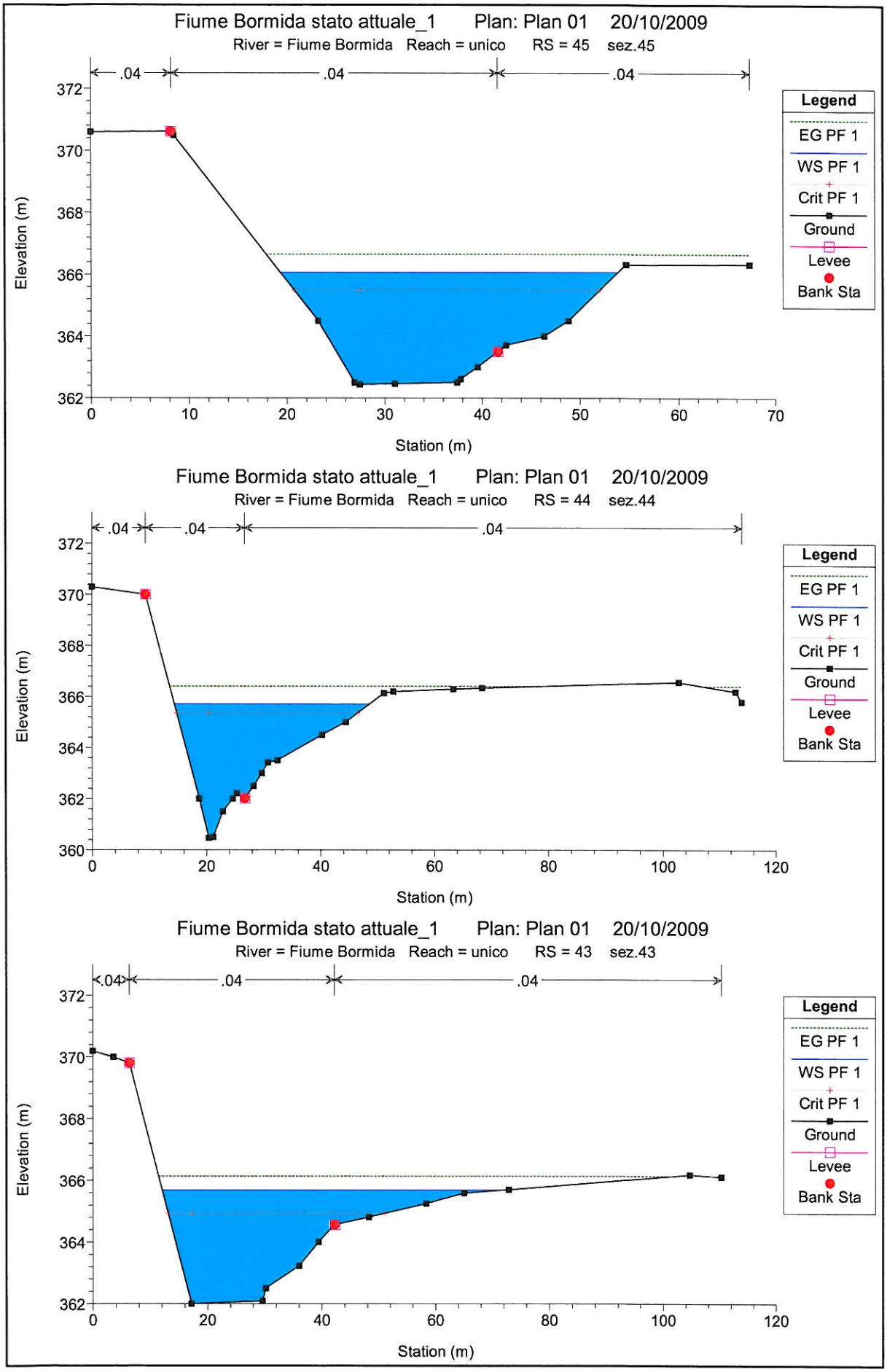

Partial GIS data

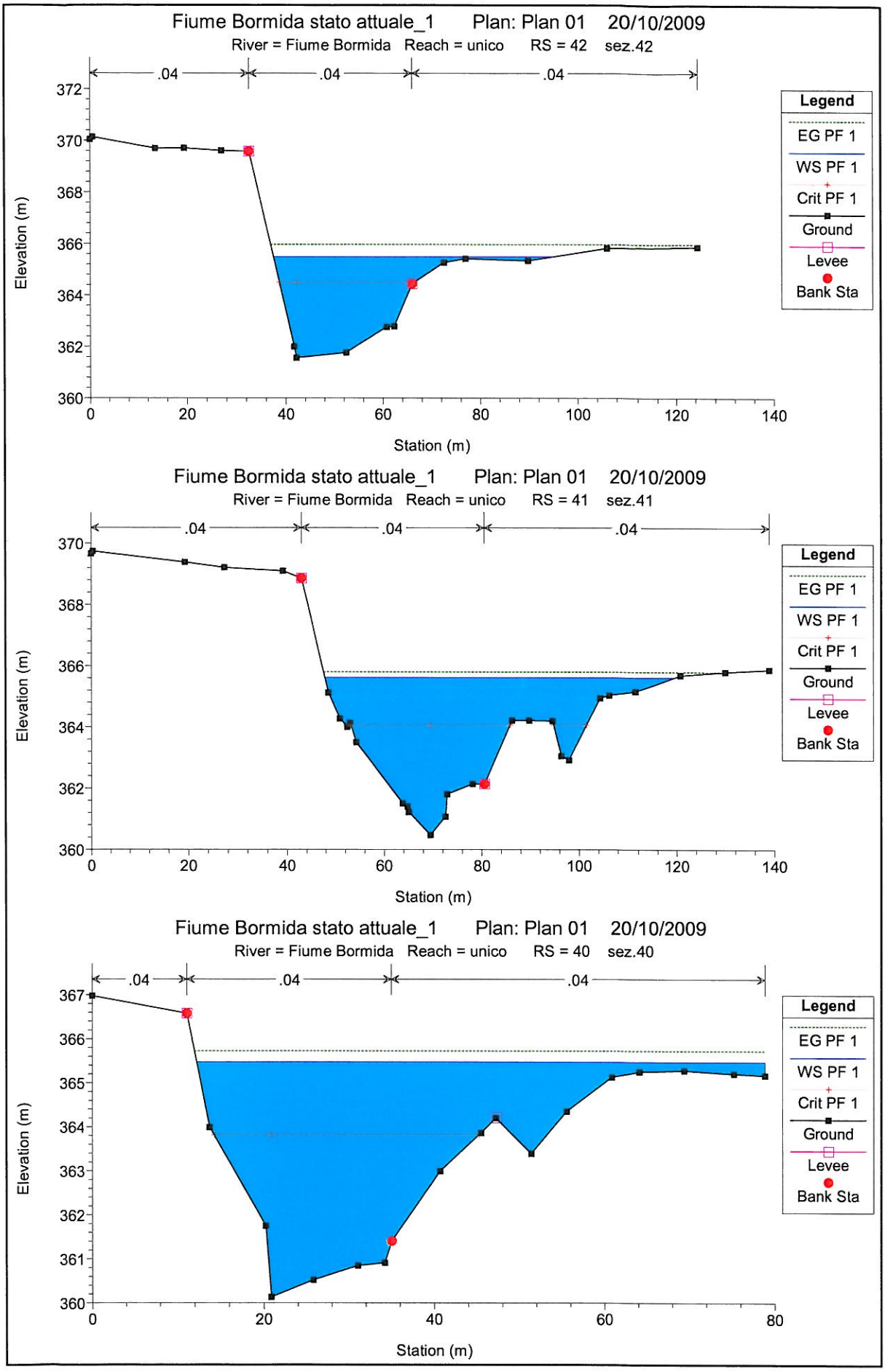

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
Legend
WS PF 1
Ground
Levee
Bank Sta
1
3
4
6
7
8
9
18
19
20
25
30
29
31
34
35
36
42
53

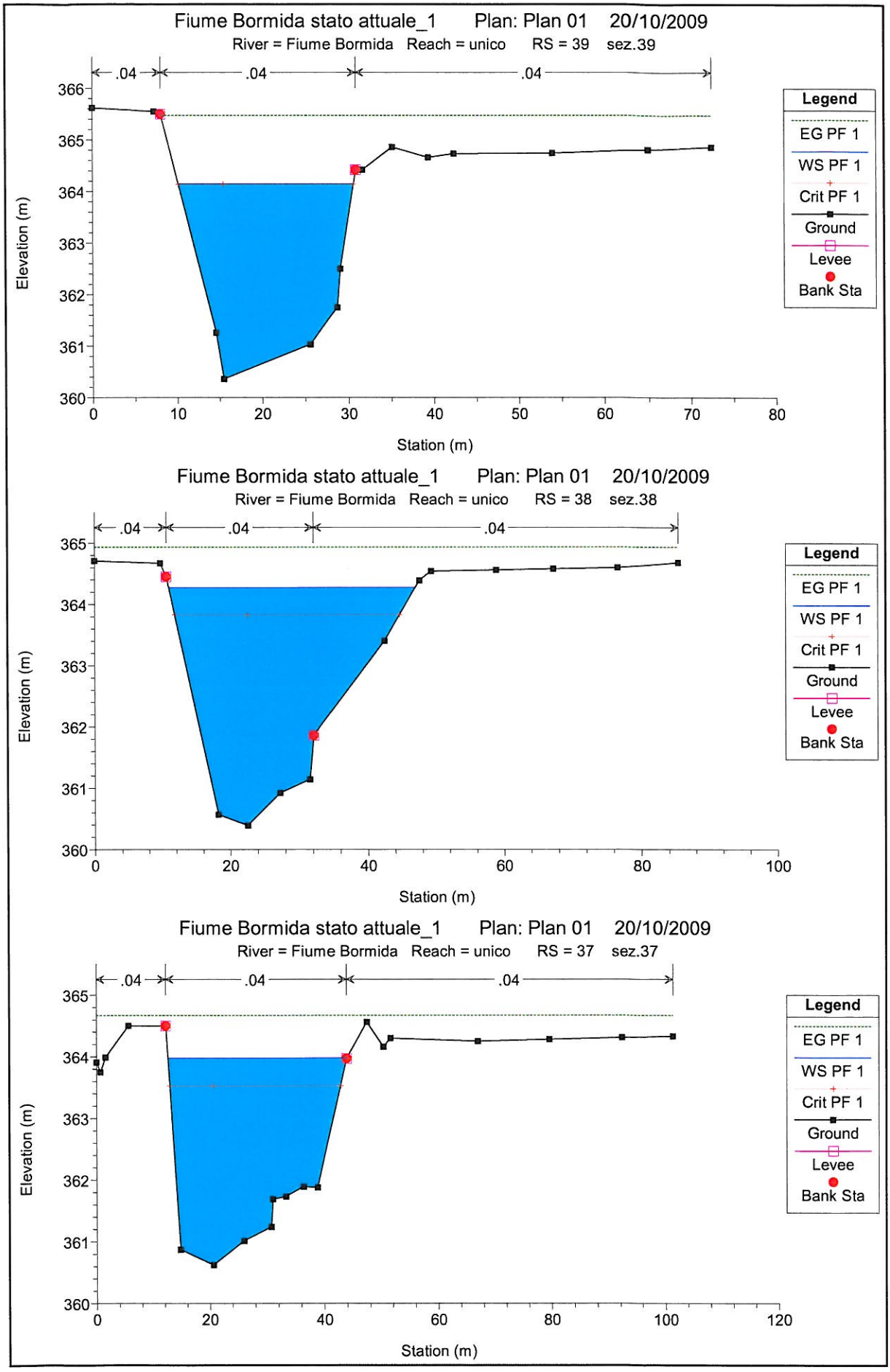

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 54 sez.54
.04
.04
Elevation (m)
372
370
368
366
364
0
10
20
30
40
50
60
70
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 53 sez.53
.04
.04
Elevation (m)
374
372
370
368
366
364
362
0
5
10
15
20
25
30
35
40
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 52 sez.52
.04
.04
Elevation (m)
372
370
368
366
364
362
0
5
10
15
20
25
30
35
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta

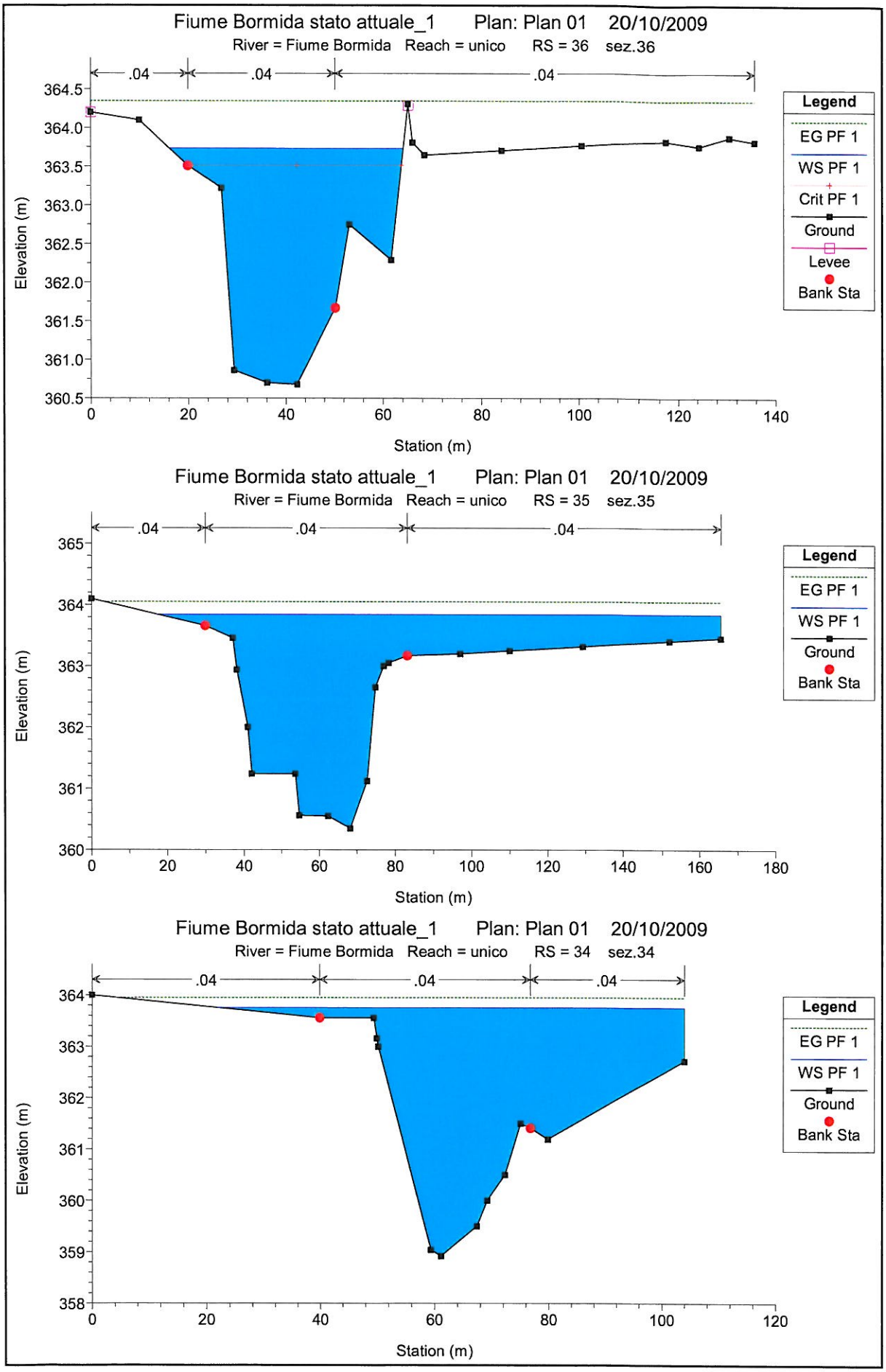

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 51 sez.51
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Levee
Bank Sta
Elevation (m)
372
370
368
366
364
362
0
10
20
30
40
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 50 sez.50
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
374
372
370
368
366
364
362
0
10
20
30
40
50
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 49 sez.49
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
374
372
370
368
366
364
362
0
10
20
30
40
50
Station (m)

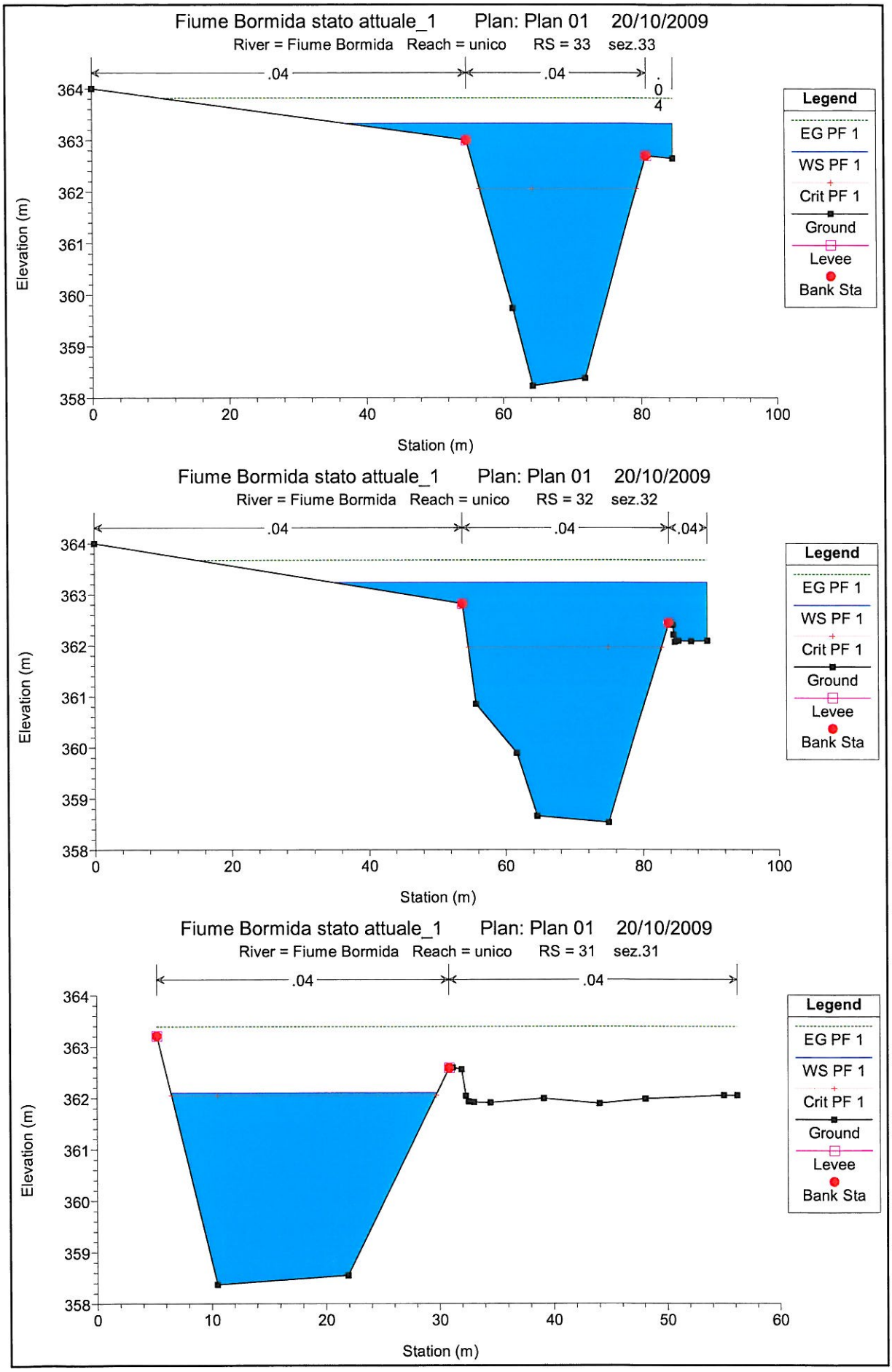

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 48 sez.48
.04
.04
.04
Elevation (m)
374
372
370
368
366
364
362
0
10
20
30
40
50
60
70
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 47 sez.47
.04
.04
.04
Elevation (m)
374
372
370
368
366
364
362
0
10
20
30
40
50
60
70
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 46 sez.46
.04
.04
.04
Elevation (m)
372
370
368
366
364
362
0
20
40
60
80
100
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta

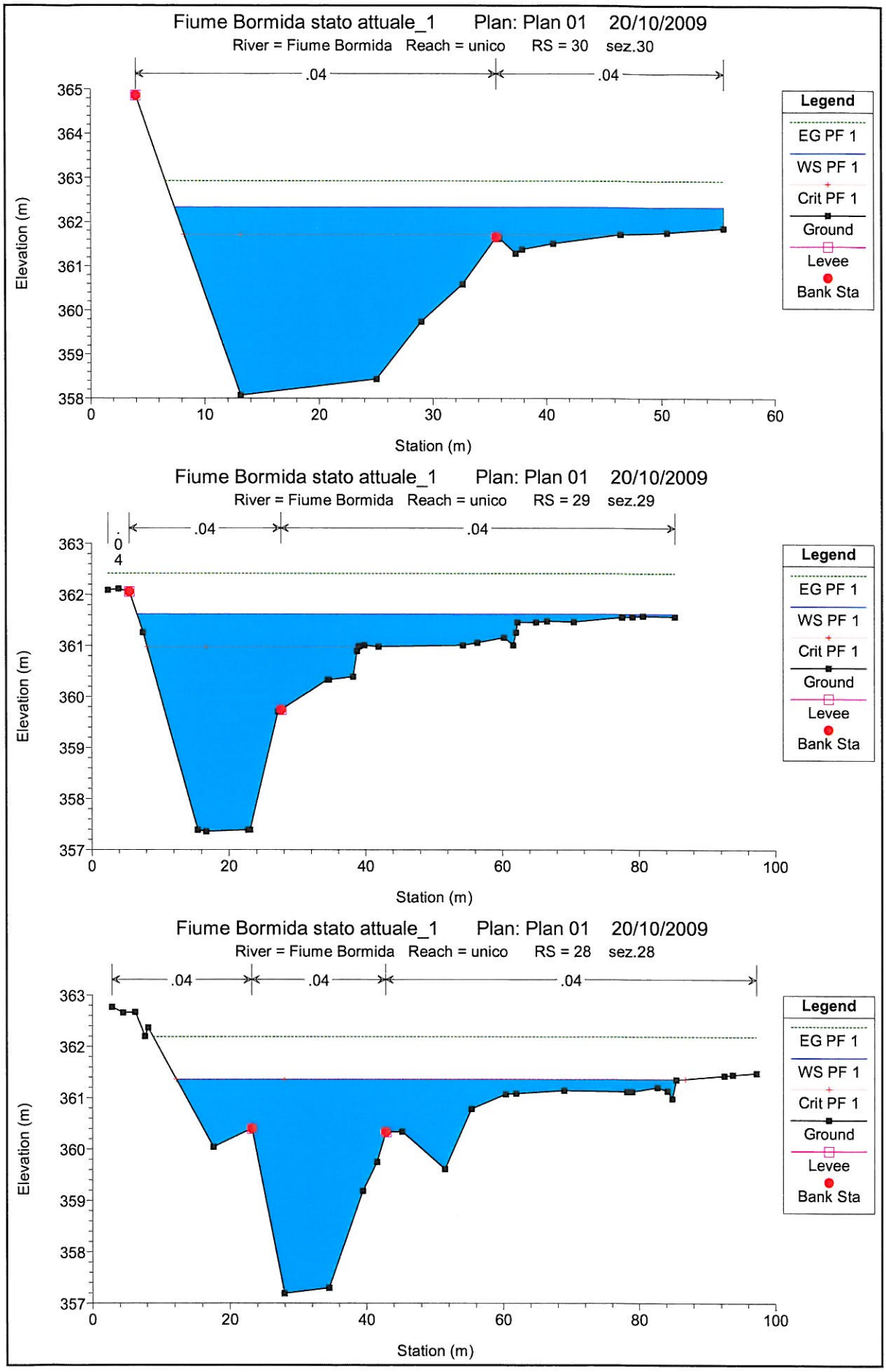

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 45 sez.45
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
372
370
368
366
364
362
0
10
20
30
40
50
60
70
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 44 sez.44
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
372
370
368
366
364
362
360
0
20
40
60
80
100
120
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 43 sez.43
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
372
370
368
366
364
362
0
20
40
60
80
100
120
Station (m)

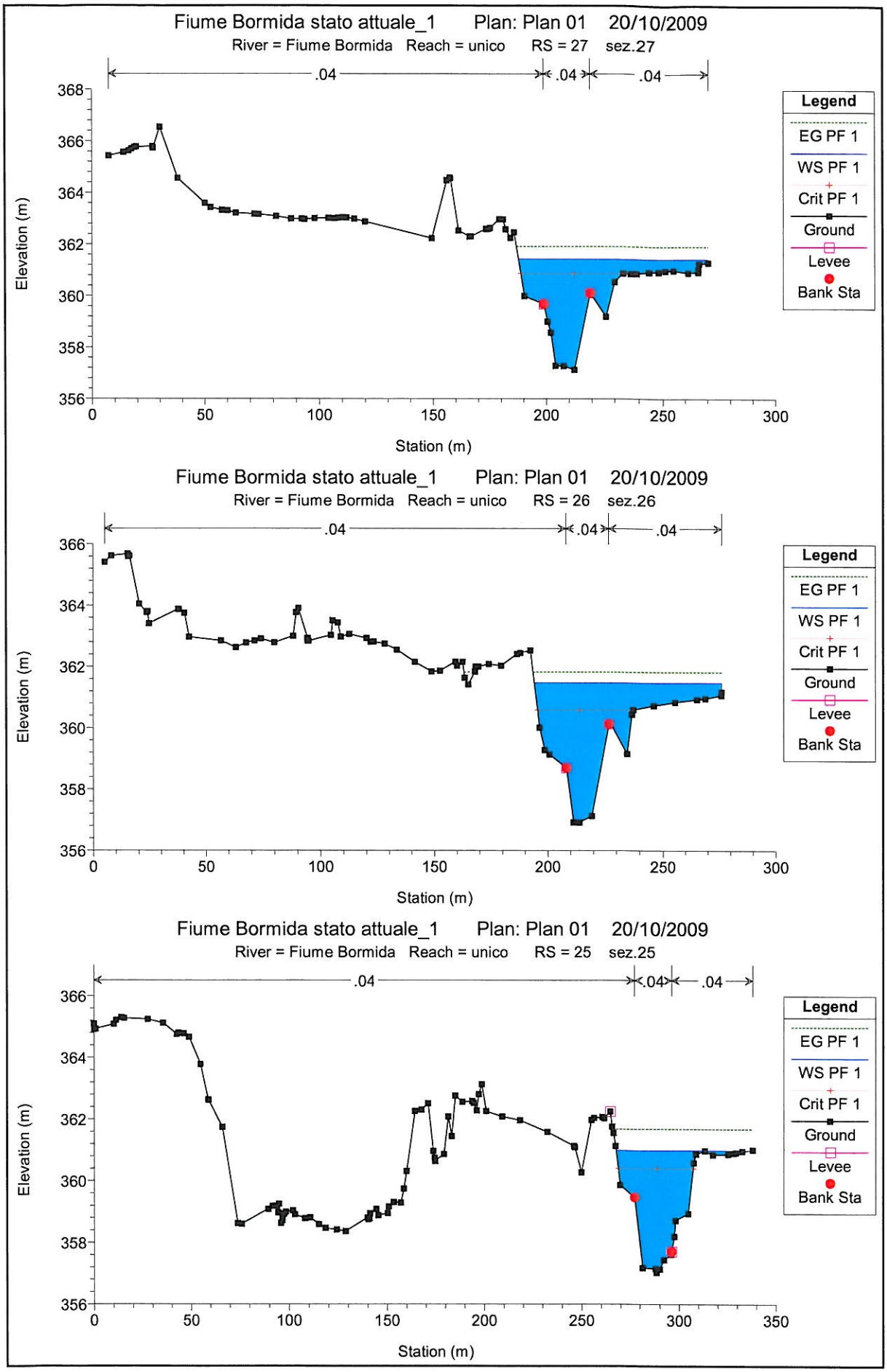

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 42 sez.42
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 41 sez.41
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 40 sez.40

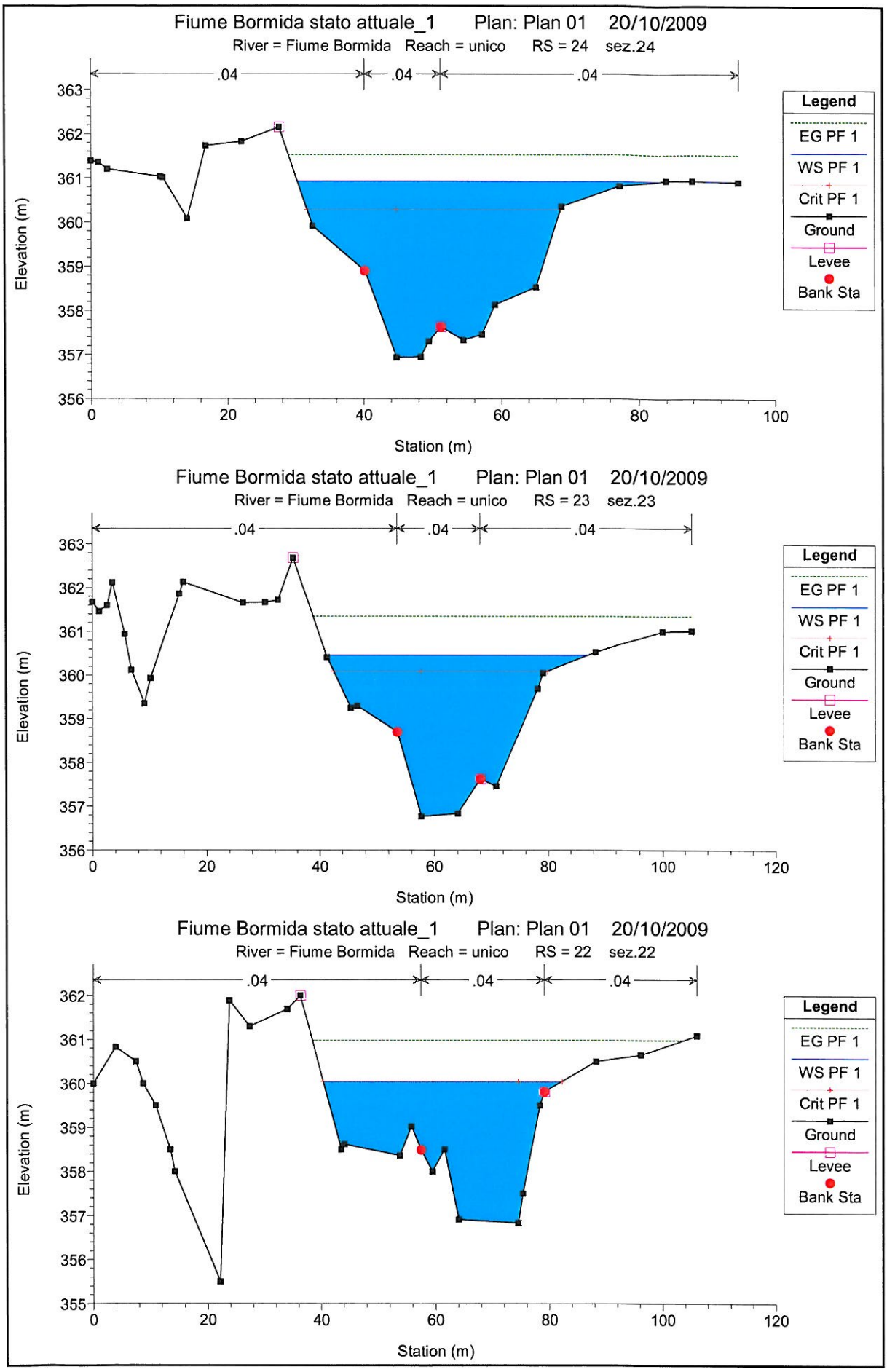

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 39 sez.39
.04
.04
.04
Elevation (m)
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 38 sez.38
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 37 sez.37

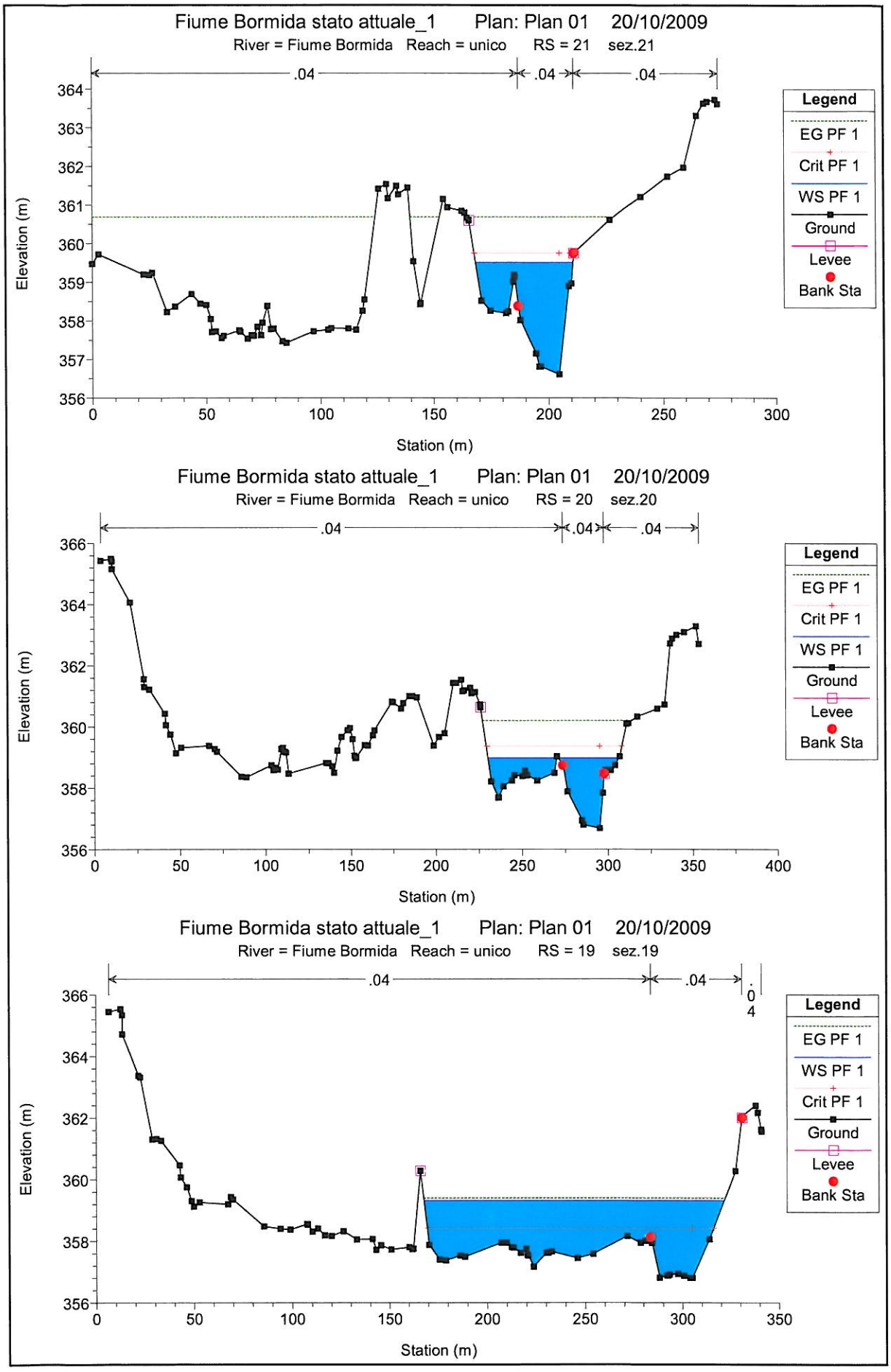

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 36 sez.36
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 35 sez.35
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 34 sez.34
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

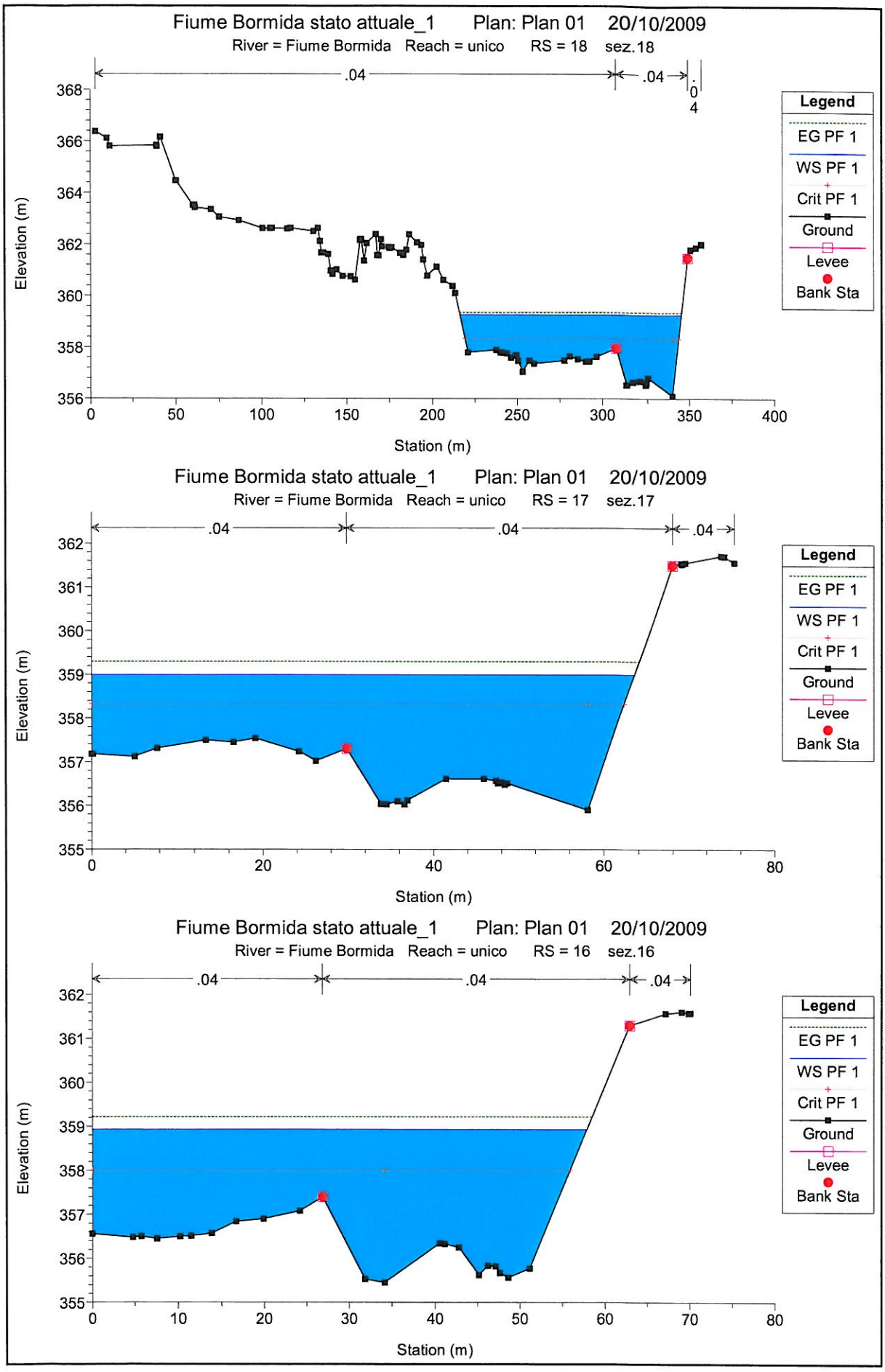

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 33 sez.33
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 32 sez.32
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 31 sez.31
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

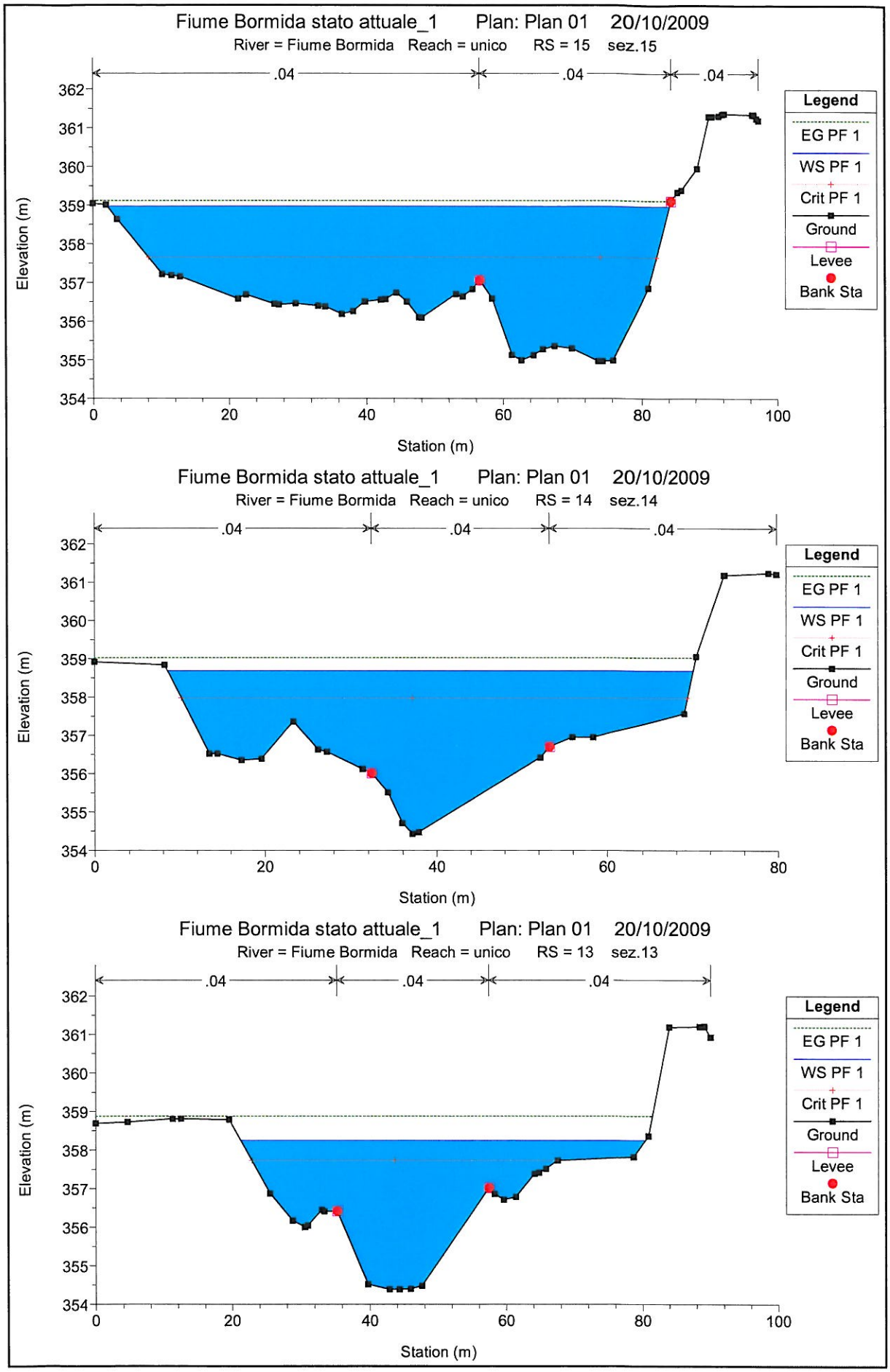

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 30 sez.30
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 29 sez.29
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 28 sez.28
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

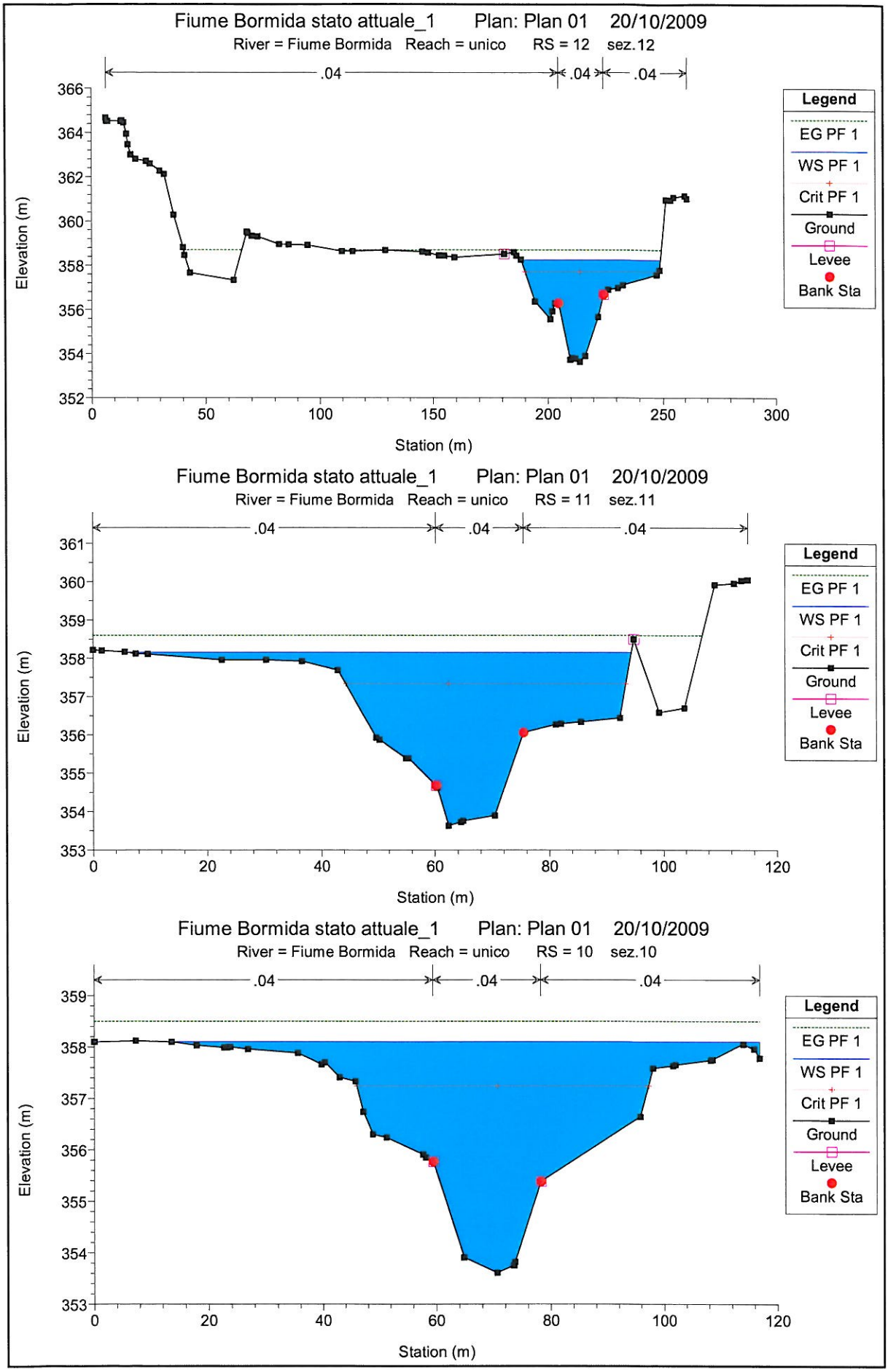

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 27 sez.27
.04
.04
.04
Elevation (m)
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 26 sez.26
.04
.04
.04
Elevation (m)
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 25 sez.25
.04
.04
.04
Elevation (m)
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta

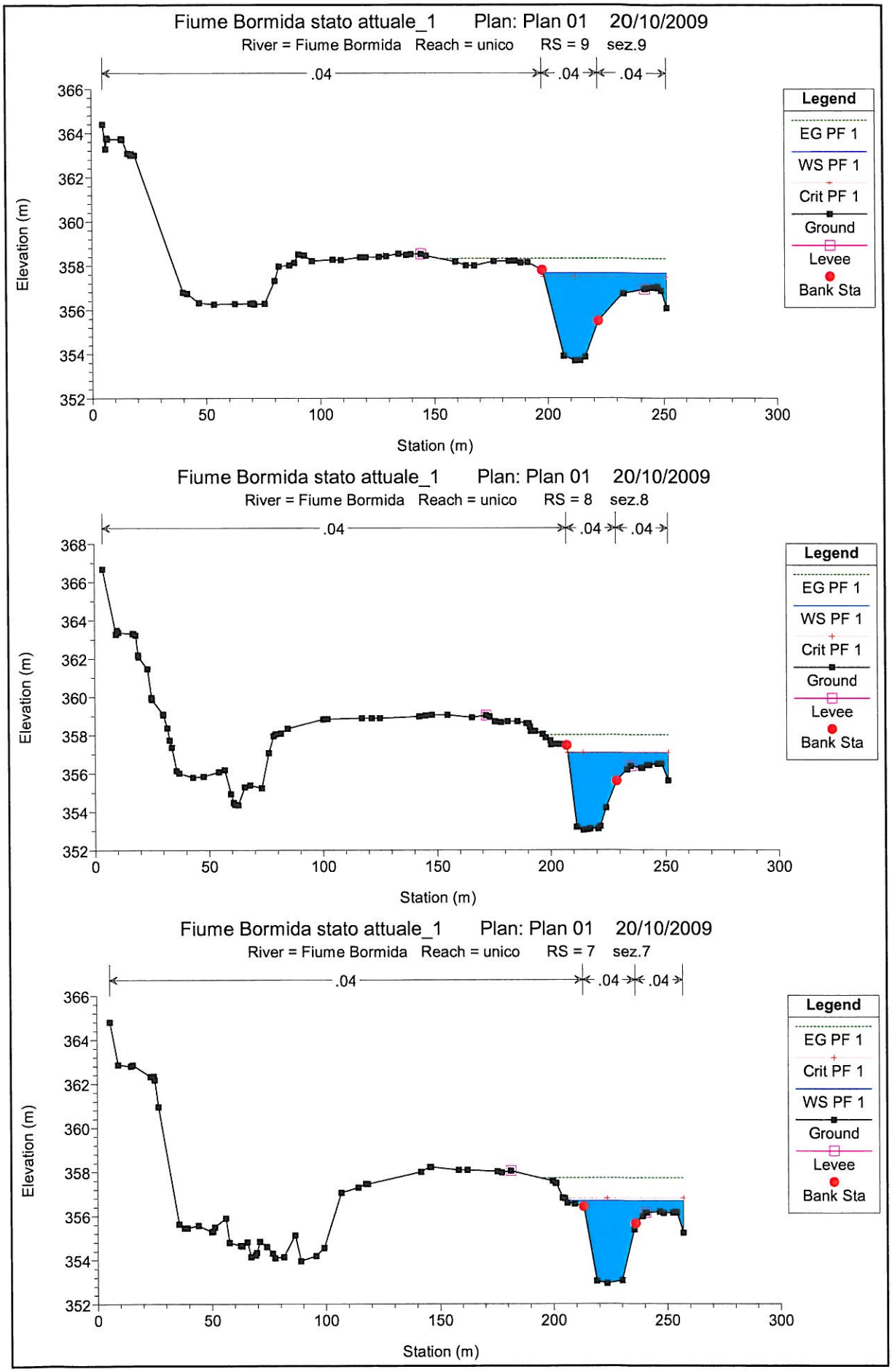

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 24 sez.24
.04
.04
.04
Elevation (m)
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 23 sez.23
.04
.04
.04
Elevation (m)
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 22 sez.22
.04
.04
.04
Elevation (m)
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta

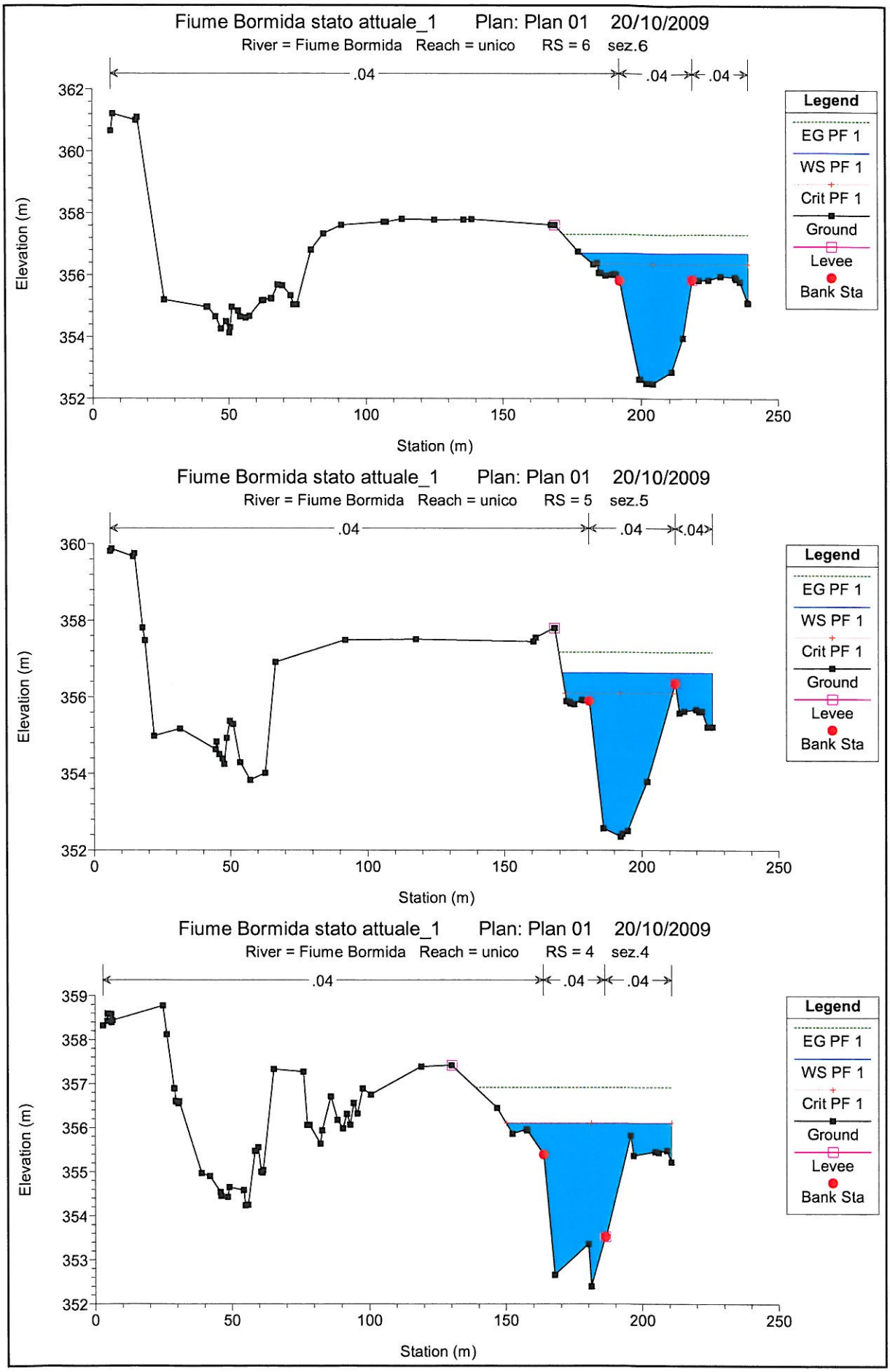

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 21 sez.21
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 20 sez.20
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 19 sez.19
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)

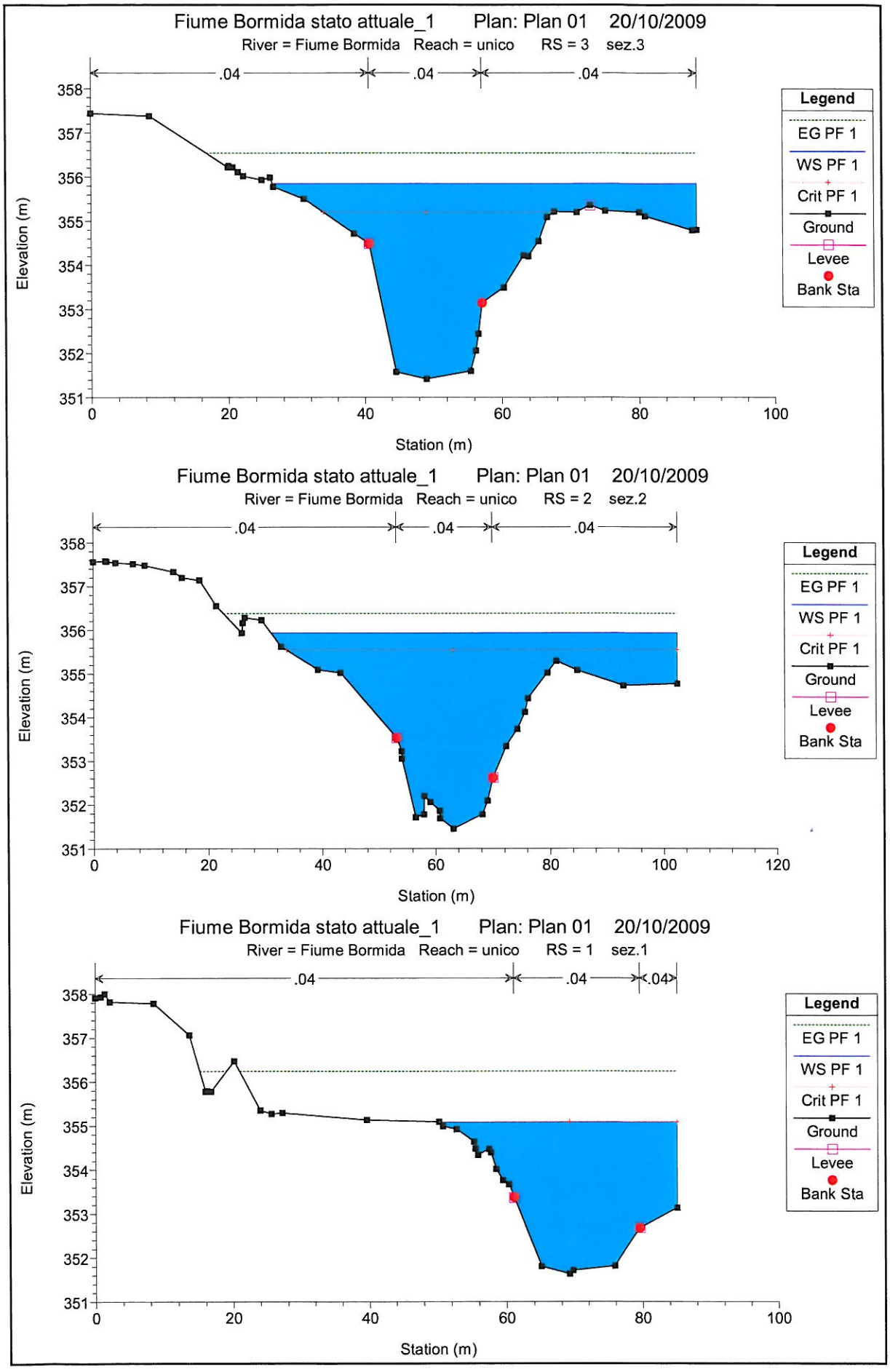

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 18 sez.18
.04
.04
.04
Elevation (m)
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 17 sez.17
.04
.04
.04
Elevation (m)
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 16 sez.16
.04
.04
.04
Elevation (m)
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta

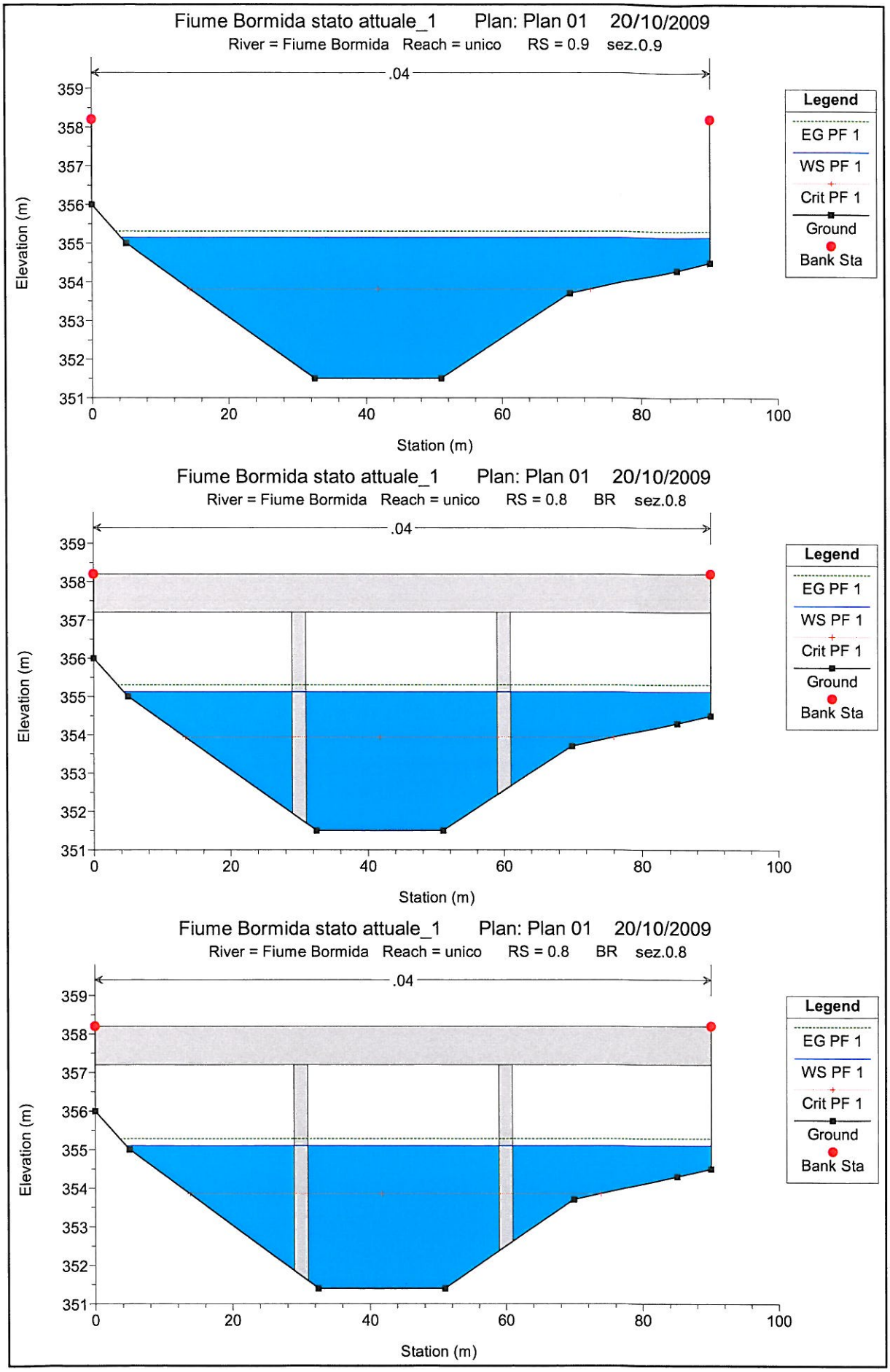

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 15 sez.15
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 14 sez.14
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 13 sez.13

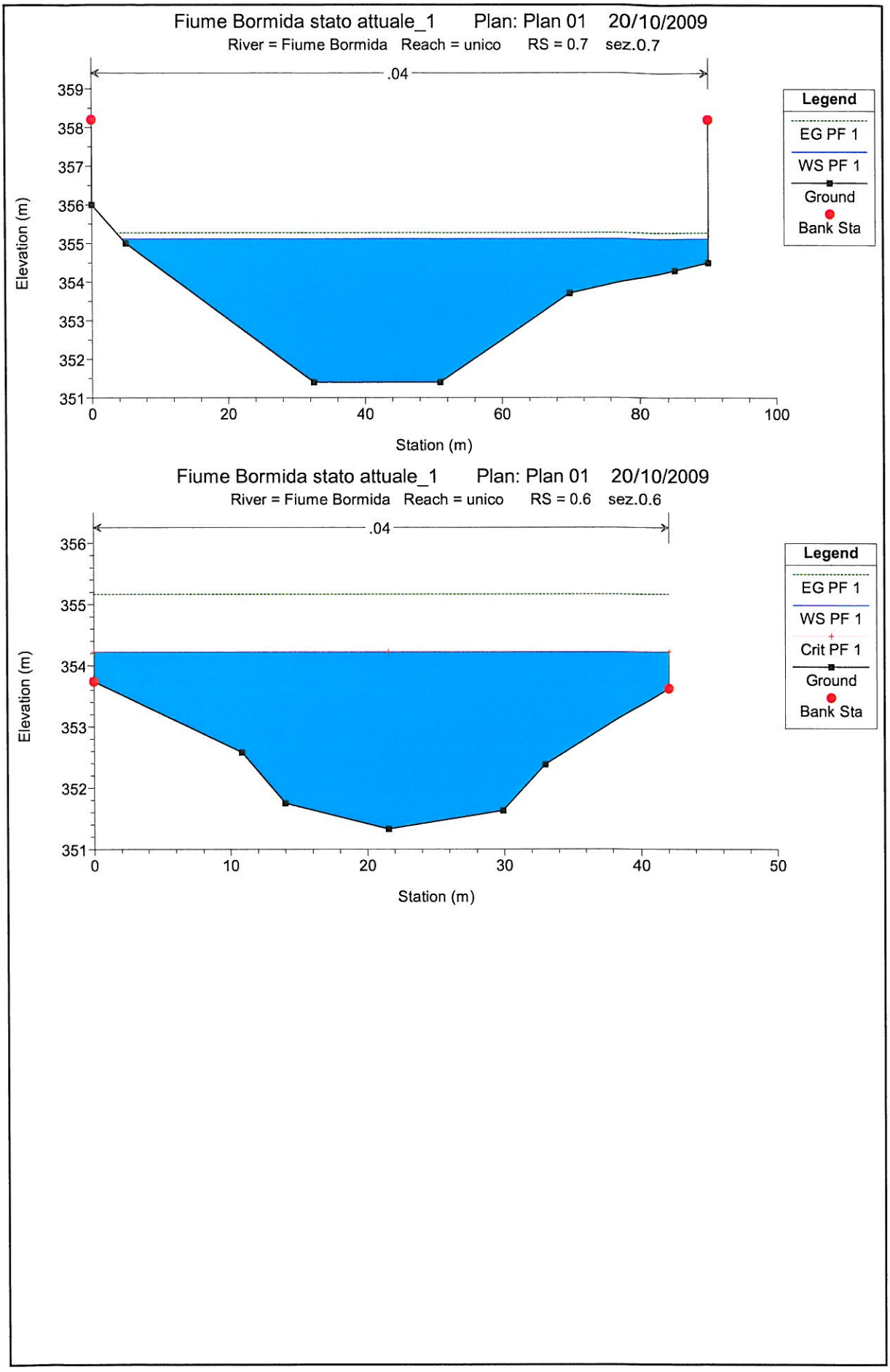

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 12 sez.12
.04
.04
.04
Elevation (m)
366
364
362
360
358
356
354
352
0
50
100
150
200
250
300
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 11 sez.11
.04
.04
.04
Elevation (m)
361
360
359
358
357
356
355
354
353
0
20
40
60
80
100
120
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 10 sez.10
.04
.04
.04
Elevation (m)
359
358
357
356
355
354
353
0
20
40
60
80
100
120
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta

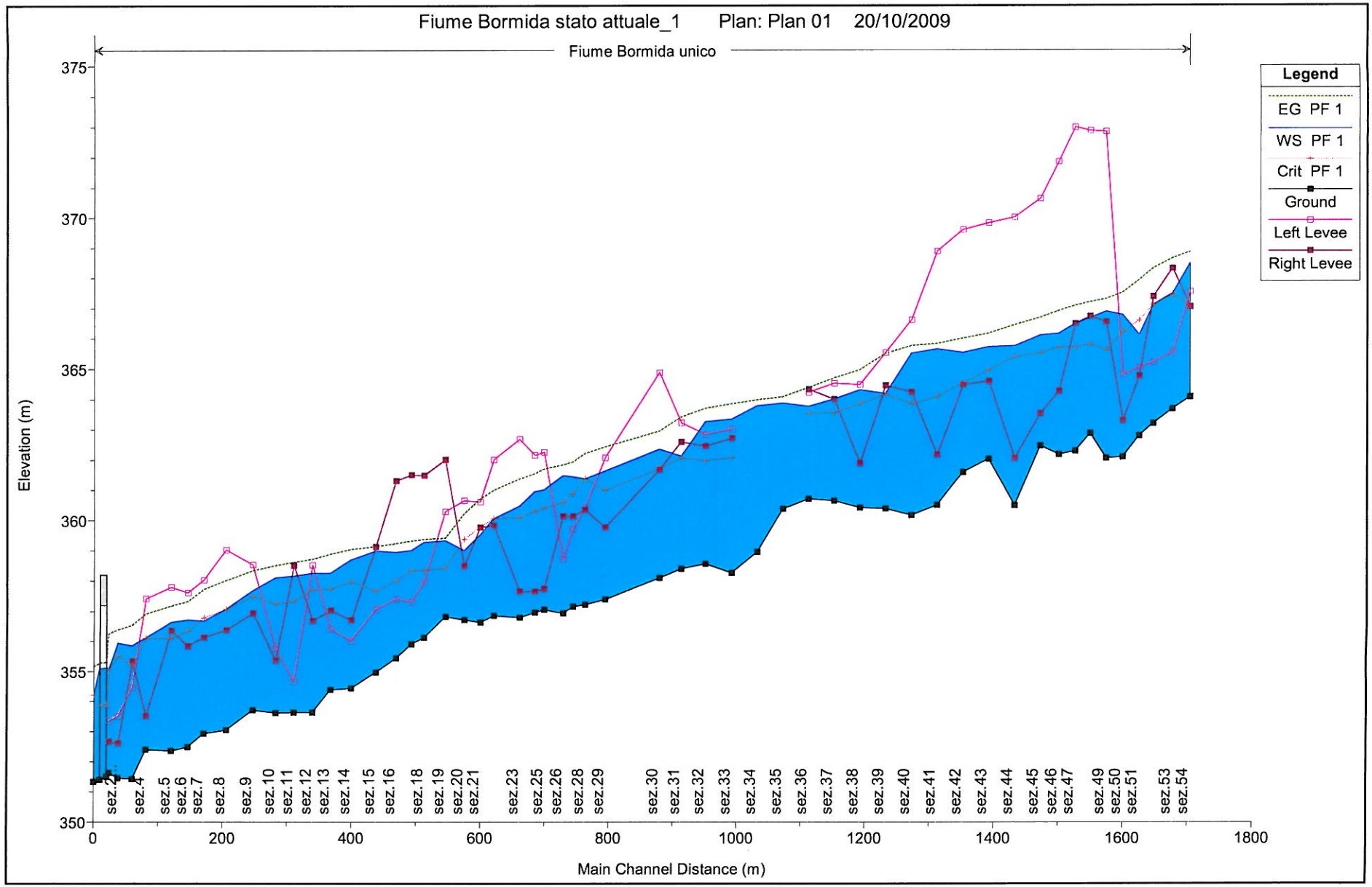

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 9 sez.9
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 8 sez.8
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 7 sez.7

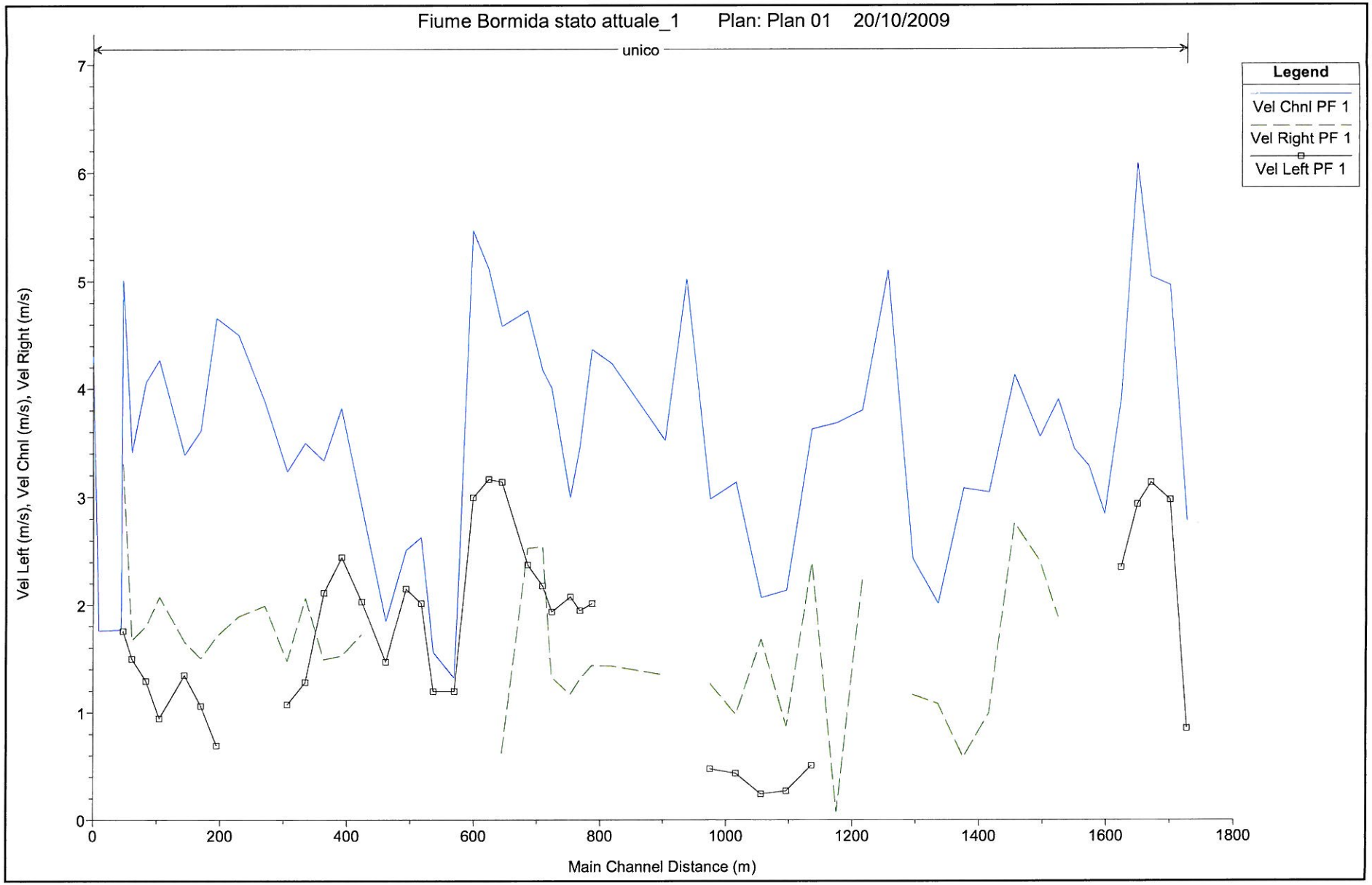

Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 6 sez.6
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 5 sez.5
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 4 sez.4
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)


Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 3 sez.3
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 2 sez.2
Legend
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 1 sez.1
Legend
Elevation (m)
Station (m)


Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 0.9 sez.0.9
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 0.8 BR sez.0.8
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 0.8 BR sez.0.8
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 0.7 sez.0.7
.04
Elevation (m)
359
358
357
356
355
354
353
352
351
0
20
40
60
80
100
Station (m)
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
River = Fiume Bormida Reach = unico RS = 0.6 sez.0.6
.04
Elevation (m)
356
355
354
353
352
351
0
10
20
30
40
50
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta


Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
Fiume Bormida unico
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Left Levee
Right Levee
Elevation (m)
375
370
365
360
355
350
0
200
400
600
800
1000
1200
1400
1600
1800
Main Channel Distance (m)
sez.2
sez.4
sez.5
sez.6
sez.7
sez.8
sez.9
sez.10
sez.11
sez.12
sez.13
sez.14
sez.15
sez.16
sez.18
sez.19
sez.20
sez.21
sez.23
sez.25
sez.26
sez.28
sez.29
sez.30
sez.31
sez.32
sez.33
sez.34
sez.35
sez.36
sez.37
sez.38
sez.39
sez.40
sez.41
sez.42
sez.43
sez.44
sez.45
sez.46
sez.47
sez.49
sez.50
sez.51
sez.53
sez.54


Fiume Bormida stato attuale_1 Plan: Plan 01 20/10/2009
unico
Legend
Vel Chnl PF 1
Vel Right PF 1
Vel Left PF 1
Vel Left (m/s), Vel Chnl (m/s), Vel Right (m/s)
Main Channel Distance (m)
0
1
2
3
4
5
6
7
0
200
400
600
800
1000
1200
1400
1600
1800

Plan: Plan 01  Fiume Bormida  unico  RS: 54  Profile: PF 1

| E.G. Elev (m) | 368.83 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.39 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 368.45 | Reach Len. (m) | 27.00 | 27.00 | 27.00 |
| Crit W.S. (m) | 367.06 | Flow Area (m2) | 3.57 | 96.65 | |
| E.G. Slope (m/m) | 0.002907 | Area (m2) | 3.57 | 96.65 | |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | 3.05 | 267.95 | |
| Top Width (m) | 35.75 | Top Width (m) | 7.02 | 28.73 | |
| Vel Total (m/s) | 2.70 | Avg. Vel. (m/s) | 0.85 | 2.77 | |
| Max Chl Dpth (m) | 4.42 | Hydr. Depth (m) | 0.51 | 3.36 | |
| Conv. Total (m3/s) | 5026.0 | Conv. (m3/s) | 56.5 | 4969.5 | |
| Length Wtd. (m) | 27.00 | Wetted Per. (m) | 7.09 | 32.77 | |
| Min Ch El (m) | 364.03 | Shear (N/m2) | 14.36 | 84.09 | |
| Alpha | 1.04 | Stream Power (N/m s) | 12.26 | 233.12 | |
| Frctn Loss (m) | 0.14 | Cum Volume (1000 m3) | 27.22 | 125.41 | 30.21 |
| C & E Loss (m) | 0.08 | Cum SA (1000 m2) | 22.70 | 43.57 | 32.38 |

Plan: Plan 01  Fiume Bormida  unico  RS: 53  Profile: PF 1

| E.G. Elev (m) | 368.62 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 1.18 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 367.44 | Reach Len. (m) | 30.00 | 30.00 | 30.00 |
| Crit W.S. (m) | 367.40 | Flow Area (m2) | 8.00 | 49.90 | |
| E.G. Slope (m/m) | 0.010605 | Area (m2) | 8.00 | 49.90 | |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | 23.74 | 247.26 | |
| Top Width (m) | 23.28 | Top Width (m) | 6.01 | 17.27 | |
| Vel Total (m/s) | 4.68 | Avg. Vel. (m/s) | 2.97 | 4.96 | |
| Max Chl Dpth (m) | 3.80 | Hydr. Depth (m) | 1.33 | 2.89 | |
| Conv. Total (m3/s) | 2631.5 | Conv. (m3/s) | 230.5 | 2401.0 | |
| Length Wtd. (m) | 30.00 | Wetted Per. (m) | 6.47 | 18.68 | |
| Min Ch El (m) | 363.64 | Shear (N/m2) | 128.60 | 277.72 | |
| Alpha | 1.06 | Stream Power (N/m s) | 381.45 | 1376.23 | |
| Frctn Loss (m) | 0.33 | Cum Volume (1000 m3) | 27.07 | 123.43 | 30.21 |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2) | 22.53 | 42.95 | 32.38 |

Plan: Plan 01  Fiume Bormida  unico  RS: 52  Profile: PF 1

| E.G. Elev (m) | 368.29 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 1.21 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 367.07 | Reach Len. (m) | 18.70 | 21.40 | 23.00 |
| Crit W.S. (m) | 367.07 | Flow Area (m2) | 8.54 | 48.53 | |
| E.G. Slope (m/m) | 0.011113 | Area (m2) | 8.54 | 48.53 | |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | 26.70 | 244.30 | |
| Top Width (m) | 22.98 | Top Width (m) | 6.07 | 16.91 | |
| Vel Total (m/s) | 4.75 | Avg. Vel. (m/s) | 3.13 | 5.03 | |
| Max Chl Dpth (m) | 3.91 | Hydr. Depth (m) | 1.41 | 2.87 | |
| Conv. Total (m3/s) | 2570.7 | Conv. (m3/s) | 253.3 | 2317.5 | |
| Length Wtd. (m) | 21.21 | Wetted Per. (m) | 6.62 | 18.38 | |
| Min Ch El (m) | 363.16 | Shear (N/m2) | 140.73 | 287.70 | |
| Alpha | 1.06 | Stream Power (N/m s) | 439.82 | 1448.33 | |
| Frctn Loss (m) | 0.21 | Cum Volume (1000 m3) | 26.82 | 121.96 | 30.21 |
| C & E Loss (m) | 0.07 | Cum SA (1000 m2) | 22.35 | 42.44 | 32.38 |

Plan: Plan 01  Fiume Bormida  unico  RS: 51  Profile: PF 1

| E.G. Elev (m) | 367.90 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 1.82 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 366.08 | Reach Len. (m) | 23.40 | 25.50 | 28.00 |
| Crit W.S. (m) | 366.55 | Flow Area (m2) | 4.19 | 42.54 | |
| E.G. Slope (m/m) | 0.021740 | Area (m2) | 4.19 | 42.54 | |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | 12.27 | 258.73 | |

Plan: Plan 01 Fiume Bormida unico RS: 51 Profile: PF 1 (Continued)

| | | | | | |
|---|---|---|---|---|---|
| Top Width (m) | 23.87 | Top Width (m) | 5.74 | 18.13 | |
| Vel Total (m/s) | 5.80 | Avg. Vel. (m/s) | 2.93 | 6.08 | |
| Max Chl Dpth (m) | 3.32 | Hydr. Depth (m) | 0.73 | 2.35 | |
| Conv. Total (m3/s) | 1838.0 | Conv. (m3/s) | 83.2 | 1754.8 | |
| Length Wtd. (m) | 25.34 | Wetted Per. (m) | 5.92 | 20.08 | |
| Min Ch El (m) | 362.76 | Shear (N/m2) | 150.92 | 451.80 | |
| Alpha | 1.06 | Stream Power (N/m s) | 441.85 | 2747.68 | |
| Frctn Loss (m) | 0.32 | Cum Volume (1000 m3) | 26.70 | 120.98 | 30.21 |
| C & E Loss (m) | 0.06 | Cum SA (1000 m2) | 22.24 | 42.06 | 32.38 |

Plan: Plan 01 Fiume Bormida unico RS: 50 Profile: PF 1

| E.G. Elev (m) | 367.47 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.74 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 366.74 | Reach Len. (m) | 23.50 | 25.80 | 27.60 |
| Crit W.S. (m) | 366.17 | Flow Area (m2) | 8.45 | 64.48 | |
| E.G. Slope (m/m) | 0.006626 | Area (m2) | 8.45 | 64.48 | |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | 19.82 | 251.18 | |
| Top Width (m) | 26.56 | Top Width (m) | 6.41 | 20.15 | |
| Vel Total (m/s) | 3.72 | Avg. Vel. (m/s) | 2.35 | 3.90 | |
| Max Chl Dpth (m) | 4.68 | Hydr. Depth (m) | 1.32 | 3.20 | |
| Conv. Total (m3/s) | 3329.2 | Conv. (m3/s) | 243.5 | 3085.7 | |
| Length Wtd. (m) | 25.72 | Wetted Per. (m) | 6.82 | 24.35 | |
| Min Ch El (m) | 362.06 | Shear (N/m2) | 80.44 | 172.09 | |
| Alpha | 1.05 | Stream Power (N/m s) | 188.73 | 670.37 | |
| Frctn Loss (m) | 0.11 | Cum Volume (1000 m3) | 26.55 | 119.62 | 30.21 |
| C & E Loss (m) | 0.10 | Cum SA (1000 m2) | 22.09 | 41.57 | 32.38 |

Plan: Plan 01 Fiume Bormida unico RS: 49 Profile: PF 1

| E.G. Elev (m) | 367.26 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.41 | Wt. n-Val. | | 0.040 | |
| W.S. Elev (m) | 366.85 | Reach Len. (m) | 23.60 | 24.70 | 27.00 |
| Crit W.S. (m) | 365.58 | Flow Area (m2) | | 95.48 | |
| E.G. Slope (m/m) | 0.003064 | Area (m2) | | 95.48 | |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | | 271.00 | |
| Top Width (m) | 30.03 | Top Width (m) | | 30.03 | |
| Vel Total (m/s) | 2.84 | Avg. Vel. (m/s) | | 2.84 | |
| Max Chl Dpth (m) | 4.83 | Hydr. Depth (m) | | 3.18 | |
| Conv. Total (m3/s) | 4895.8 | Conv. (m3/s) | | 4895.8 | |
| Length Wtd. (m) | 24.76 | Wetted Per. (m) | | 32.51 | |
| Min Ch El (m) | 362.02 | Shear (N/m2) | | 88.26 | |
| Alpha | 1.00 | Stream Power (N/m s) | | 250.51 | |
| Frctn Loss (m) | 0.09 | Cum Volume (1000 m3) | 26.45 | 117.55 | 30.21 |
| C & E Loss (m) | 0.01 | Cum SA (1000 m2) | 22.02 | 40.92 | 32.38 |

Plan: Plan 01 Fiume Bormida unico RS: 48 Profile: PF 1

| E.G. Elev (m) | 367.16 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.53 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 366.64 | Reach Len. (m) | 23.30 | 23.00 | 23.20 |
| Crit W.S. (m) | 365.77 | Flow Area (m2) | | 78.20 | 8.12 |
| E.G. Slope (m/m) | 0.004256 | Area (m2) | | 78.20 | 8.12 |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | | 256.24 | 14.76 |
| Top Width (m) | 30.83 | Top Width (m) | | 24.33 | 6.50 |
| Vel Total (m/s) | 3.14 | Avg. Vel. (m/s) | | 3.28 | 1.82 |
| Max Chl Dpth (m) | 3.80 | Hydr. Depth (m) | | 3.21 | 1.25 |
| Conv. Total (m3/s) | 4154.1 | Conv. (m3/s) | | 3927.9 | 226.2 |
| Length Wtd. (m) | 23.01 | Wetted Per. (m) | | 27.46 | 6.90 |
| Min Ch El (m) | 362.84 | Shear (N/m2) | | 118.86 | 49.12 |

Plan: Plan 01 Fiume Bormida unico RS: 48 Profile: PF 1 (Continued)

| | | | | | |
|---|---|---|---|---|---|
| Alpha | 1.05 | Stream Power (N/m s) | | 389.50 | 89.31 |
| Frctn Loss (m) | 0.11 | Cum Volume (1000 m3) | 26.45 | 115.41 | 30.10 |
| C & E Loss (m) | 0.01 | Cum SA (1000 m2) | 22.02 | 40.25 | 32.29 |

Plan: Plan 01 Fiume Bormida unico RS: 47 Profile: PF 1

| E.G. Elev (m) | 367.05 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.60 | Wt. n-Val. | | 0.040 | |
| W.S. Elev (m) | 366.45 | Reach Len. (m) | 26.30 | 25.50 | 24.80 |
| Crit W.S. (m) | 365.66 | Flow Area (m2) | | 78.98 | |
| E.G. Slope (m/m) | 0.005345 | Area (m2) | | 78.98 | |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | | 271.00 | |
| Top Width (m) | 28.45 | Top Width (m) | | 28.45 | |
| Vel Total (m/s) | 3.43 | Avg. Vel. (m/s) | | 3.43 | |
| Max Chl Dpth (m) | 4.19 | Hydr. Depth (m) | | 2.78 | |
| Conv. Total (m3/s) | 3706.8 | Conv. (m3/s) | | 3706.8 | |
| Length Wtd. (m) | 25.49 | Wetted Per. (m) | | 30.71 | |
| Min Ch El (m) | 362.26 | Shear (N/m2) | | 134.82 | |
| Alpha | 1.00 | Stream Power (N/m s) | | 462.57 | |
| Frctn Loss (m) | 0.15 | Cum Volume (1000 m3) | 26.45 | 113.60 | 30.01 |
| C & E Loss (m) | 0.02 | Cum SA (1000 m2) | 22.02 | 39.65 | 32.22 |

Plan: Plan 01 Fiume Bormida unico RS: 46 Profile: PF 1

| E.G. Elev (m) | 366.88 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.75 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 366.12 | Reach Len. (m) | 29.60 | 28.50 | 27.80 |
| Crit W.S. (m) | 365.68 | Flow Area (m2) | | 67.53 | 4.35 |
| E.G. Slope (m/m) | 0.006723 | Area (m2) | | 67.53 | 4.35 |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | | 262.80 | 8.20 |
| Top Width (m) | 29.28 | Top Width (m) | | 24.72 | 4.56 |
| Vel Total (m/s) | 3.77 | Avg. Vel. (m/s) | | 3.89 | 1.88 |
| Max Chl Dpth (m) | 3.97 | Hydr. Depth (m) | | 2.73 | 0.95 |
| Conv. Total (m3/s) | 3305.1 | Conv. (m3/s) | | 3205.1 | 99.9 |
| Length Wtd. (m) | 28.43 | Wetted Per. (m) | | 25.82 | 4.94 |
| Min Ch El (m) | 362.15 | Shear (N/m2) | | 172.45 | 58.06 |
| Alpha | 1.04 | Stream Power (N/m s) | | 671.08 | 109.33 |
| Frctn Loss (m) | 0.17 | Cum Volume (1000 m3) | 26.45 | 111.73 | 29.95 |
| C & E Loss (m) | 0.05 | Cum SA (1000 m2) | 22.02 | 38.97 | 32.16 |

Plan: Plan 01 Fiume Bormida unico RS: 45 Profile: PF 1

| E.G. Elev (m) | 366.66 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.58 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 366.08 | Reach Len. (m) | 42.00 | 40.00 | 38.00 |
| Crit W.S. (m) | 365.49 | Flow Area (m2) | | 63.45 | 19.21 |
| E.G. Slope (m/m) | 0.005266 | Area (m2) | | 63.45 | 19.21 |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | | 224.80 | 46.20 |
| Top Width (m) | 34.58 | Top Width (m) | | 22.32 | 12.27 |
| Vel Total (m/s) | 3.28 | Avg. Vel. (m/s) | | 3.54 | 2.40 |
| Max Chl Dpth (m) | 3.64 | Hydr. Depth (m) | | 2.84 | 1.57 |
| Conv. Total (m3/s) | 3734.4 | Conv. (m3/s) | | 3097.8 | 636.6 |
| Length Wtd. (m) | 39.47 | Wetted Per. (m) | | 23.25 | 12.59 |
| Min Ch El (m) | 362.44 | Shear (N/m2) | | 140.94 | 78.80 |
| Alpha | 1.06 | Stream Power (N/m s) | | 499.35 | 189.46 |
| Frctn Loss (m) | 0.23 | Cum Volume (1000 m3) | 26.45 | 109.87 | 29.63 |
| C & E Loss (m) | 0.01 | Cum SA (1000 m2) | 22.02 | 38.30 | 31.93 |

Plan: Plan 01  Fiume Bormida  unico  RS: 44  Profile: PF 1

| E.G. Elev (m) | 366.41 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.70 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 365.72 | Reach Len. (m) | 40.00 | 40.00 | 40.00 |
| Crit W.S. (m) | 365.36 | Flow Area (m2) | | 42.31 | 35.03 |
| E.G. Slope (m/m) | 0.006667 | Area (m2) | | 42.31 | 35.03 |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | | 174.40 | 96.60 |
| Top Width (m) | 34.31 | Top Width (m) | | 12.38 | 21.93 |
| Vel Total (m/s) | 3.50 | Avg. Vel. (m/s) | | 4.12 | 2.76 |
| Max Chl Dpth (m) | 5.26 | Hydr. Depth (m) | | 3.42 | 1.60 |
| Conv. Total (m3/s) | 3318.9 | Conv. (m3/s) | | 2135.9 | 1183.0 |
| Length Wtd. (m) | 40.00 | Wetted Per. (m) | | 14.74 | 22.32 |
| Min Ch El (m) | 360.46 | Shear (N/m2) | | 187.62 | 102.64 |
| Alpha | 1.11 | Stream Power (N/m s) | | 773.38 | 282.99 |
| Frctn Loss (m) | 0.20 | Cum Volume (1000 m3) | 26.45 | 107.75 | 28.60 |
| C & E Loss (m) | 0.07 | Cum SA (1000 m2) | 22.02 | 37.60 | 31.28 |

Plan: Plan 01  Fiume Bormida  unico  RS: 43  Profile: PF 1

| E.G. Elev (m) | 366.13 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.45 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 365.69 | Reach Len. (m) | 40.00 | 40.00 | 40.00 |
| Crit W.S. (m) | 364.93 | Flow Area (m2) | | 84.39 | 14.78 |
| E.G. Slope (m/m) | 0.004007 | Area (m2) | | 84.39 | 14.78 |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | | 256.31 | 14.69 |
| Top Width (m) | 59.89 | Top Width (m) | | 30.23 | 29.66 |
| Vel Total (m/s) | 2.73 | Avg. Vel. (m/s) | | 3.04 | 0.99 |
| Max Chl Dpth (m) | 3.69 | Hydr. Depth (m) | | 2.79 | 0.50 |
| Conv. Total (m3/s) | 4280.9 | Conv. (m3/s) | | 4048.8 | 232.1 |
| Length Wtd. (m) | 40.00 | Wetted Per. (m) | | 31.74 | 29.69 |
| Min Ch El (m) | 362.00 | Shear (N/m2) | | 104.48 | 19.57 |
| Alpha | 1.18 | Stream Power (N/m s) | | 317.32 | 19.45 |
| Frctn Loss (m) | 0.15 | Cum Volume (1000 m3) | 26.45 | 105.22 | 27.60 |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2) | 22.02 | 36.75 | 30.25 |

Plan: Plan 01  Fiume Bormida  unico  RS: 42  Profile: PF 1

| E.G. Elev (m) | 365.98 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.47 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 365.50 | Reach Len. (m) | 40.00 | 40.00 | 40.00 |
| Crit W.S. (m) | 364.50 | Flow Area (m2) | | 86.84 | 6.94 |
| E.G. Slope (m/m) | 0.003728 | Area (m2) | | 86.84 | 6.94 |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | | 266.93 | 4.07 |
| Top Width (m) | 57.65 | Top Width (m) | | 28.55 | 29.10 |
| Vel Total (m/s) | 2.89 | Avg. Vel. (m/s) | | 3.07 | 0.59 |
| Max Chl Dpth (m) | 3.94 | Hydr. Depth (m) | | 3.04 | 0.24 |
| Conv. Total (m3/s) | 4438.5 | Conv. (m3/s) | | 4371.9 | 66.6 |
| Length Wtd. (m) | 40.00 | Wetted Per. (m) | | 30.39 | 29.16 |
| Min Ch El (m) | 361.56 | Shear (N/m2) | | 104.47 | 8.70 |
| Alpha | 1.12 | Stream Power (N/m s) | | 321.15 | 5.10 |
| Frctn Loss (m) | 0.09 | Cum Volume (1000 m3) | 26.45 | 101.79 | 27.16 |
| C & E Loss (m) | 0.09 | Cum SA (1000 m2) | 22.02 | 35.58 | 29.07 |

Plan: Plan 01  Fiume Bormida  unico  RS: 41  Profile: PF 1

| E.G. Elev (m) | 365.80 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.18 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 365.62 | Reach Len. (m) | 40.00 | 40.00 | 40.00 |
| Crit W.S. (m) | 364.06 | Flow Area (m2) | | 107.87 | 50.06 |
| E.G. Slope (m/m) | 0.001392 | Area (m2) | | 107.87 | 50.06 |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | | 216.81 | 54.19 |

Plan: Plan 01 Fiume Bormida unico RS: 41 Profile: PF 1 (Continued)

| | | | | | |
|---|---|---|---|---|---|
| Top Width (m) | 71.76 | Top Width (m) | | 32.75 | 39.01 |
| Vel Total (m/s) | 1.72 | Avg. Vel. (m/s) | | 2.01 | 1.08 |
| Max Chl Dpth (m) | 5.15 | Hydr. Depth (m) | | 3.29 | 1.28 |
| Conv. Total (m3/s) | 7263.1 | Conv. (m3/s) | | 5810.8 | 1452.3 |
| Length Wtd. (m) | 40.00 | Wetted Per. (m) | | 34.11 | 40.05 |
| Min Ch El (m) | 360.47 | Shear (N/m2) | | 43.18 | 17.06 |
| Alpha | 1.18 | Stream Power (N/m s) | | 86.79 | 18.47 |
| Frctn Loss (m) | 0.06 | Cum Volume (1000 m3) | 26.45 | 97.90 | 26.02 |
| C & E Loss (m) | 0.01 | Cum SA (1000 m2) | 22.02 | 34.35 | 27.71 |

Plan: Plan 01 Fiume Bormida unico RS: 40 Profile: PF 1

| E.G. Elev (m) | 365.73 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.25 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 365.48 | Reach Len. (m) | 40.00 | 40.00 | 40.00 |
| Crit W.S. (m) | 363.81 | Flow Area (m2) | | 89.61 | 53.20 |
| E.G. Slope (m/m) | 0.001725 | Area (m2) | | 89.61 | 53.20 |
| Q Total (m3/s) | 279.68 | Flow (m3/s) | | 217.65 | 62.03 |
| Top Width (m) | 66.61 | Top Width (m) | | 22.79 | 43.82 |
| Vel Total (m/s) | 1.96 | Avg. Vel. (m/s) | | 2.43 | 1.17 |
| Max Chl Dpth (m) | 5.35 | Hydr. Depth (m) | | 3.93 | 1.21 |
| Conv. Total (m3/s) | 6733.8 | Conv. (m3/s) | | 5240.3 | 1493.4 |
| Length Wtd. (m) | 40.00 | Wetted Per. (m) | | 25.05 | 44.71 |
| Min Ch El (m) | 360.13 | Shear (N/m2) | | 60.52 | 20.13 |
| Alpha | 1.28 | Stream Power (N/m s) | | 146.99 | 23.47 |
| Frctn Loss (m) | 0.15 | Cum Volume (1000 m3) | 26.45 | 93.95 | 23.96 |
| C & E Loss (m) | 0.11 | Cum SA (1000 m2) | 22.02 | 33.24 | 26.05 |

Plan: Plan 01 Fiume Bormida unico RS: 39 Profile: PF 1

| E.G. Elev (m) | 365.47 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 1.32 | Wt. n-Val. | | 0.040 | |
| W.S. Elev (m) | 364.15 | Reach Len. (m) | 40.00 | 40.00 | 40.00 |
| Crit W.S. (m) | 364.14 | Flow Area (m2) | | 54.88 | |
| E.G. Slope (m/m) | 0.013025 | Area (m2) | | 54.88 | |
| Q Total (m3/s) | 279.68 | Flow (m3/s) | | 279.68 | |
| Top Width (m) | 20.46 | Top Width (m) | | 20.46 | |
| Vel Total (m/s) | 5.10 | Avg. Vel. (m/s) | | 5.10 | |
| Max Chl Dpth (m) | 3.79 | Hydr. Depth (m) | | 2.68 | |
| Conv. Total (m3/s) | 2450.6 | Conv. (m3/s) | | 2450.6 | |
| Length Wtd. (m) | 40.00 | Wetted Per. (m) | | 22.99 | |
| Min Ch El (m) | 360.36 | Shear (N/m2) | | 304.91 | |
| Alpha | 1.00 | Stream Power (N/m s) | | 1553.93 | |
| Frctn Loss (m) | 0.34 | Cum Volume (1000 m3) | 26.45 | 91.06 | 22.90 |
| C & E Loss (m) | 0.20 | Cum SA (1000 m2) | 22.02 | 32.37 | 25.17 |

Plan: Plan 01 Fiume Bormida unico RS: 38 Profile: PF 1

| E.G. Elev (m) | 364.94 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.66 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 364.28 | Reach Len. (m) | 40.00 | 40.00 | 40.00 |
| Crit W.S. (m) | 363.83 | Flow Area (m2) | | 62.50 | 19.01 |
| E.G. Slope (m/m) | 0.005890 | Area (m2) | | 62.50 | 19.01 |
| Q Total (m3/s) | 279.68 | Flow (m3/s) | | 237.11 | 42.57 |
| Top Width (m) | 36.07 | Top Width (m) | | 21.20 | 14.87 |
| Vel Total (m/s) | 3.43 | Avg. Vel. (m/s) | | 3.79 | 2.24 |
| Max Chl Dpth (m) | 3.89 | Hydr. Depth (m) | | 2.95 | 1.28 |
| Conv. Total (m3/s) | 3644.3 | Conv. (m3/s) | | 3089.6 | 554.7 |
| Length Wtd. (m) | 40.00 | Wetted Per. (m) | | 22.48 | 15.07 |
| Min Ch El (m) | 360.39 | Shear (N/m2) | | 160.59 | 72.85 |

Plan: Plan 01 Fiume Bormida unico RS: 38 Profile: PF 1 (Continued)

| | | | | | |
|---|---|---|---|---|---|
| Alpha | 1.10 | Stream Power (N/m s) | | 609.20 | 163.16 |
| Frctn Loss (m) | 0.26 | Cum Volume (1000 m3) | 26.45 | 88.71 | 22.52 |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2) | 22.02 | 31.54 | 24.88 |

Plan: Plan 01 Fiume Bormida unico RS: 37 Profile: PF 1

| E.G. Elev (m) | 364.67 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.69 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 363.98 | Reach Len. (m) | 40.00 | 40.00 | 40.00 |
| Crit W.S. (m) | 363.53 | Flow Area (m2) | | 76.10 | 0.00 |
| E.G. Slope (m/m) | 0.007283 | Area (m2) | | 76.10 | 0.00 |
| Q Total (m3/s) | 279.68 | Flow (m3/s) | | 279.68 | 0.00 |
| Top Width (m) | 31.44 | Top Width (m) | | 31.37 | 0.07 |
| Vel Total (m/s) | 3.67 | Avg. Vel. (m/s) | | 3.67 | 0.07 |
| Max Chl Dpth (m) | 3.36 | Hydr. Depth (m) | | 2.43 | 0.01 |
| Conv. Total (m3/s) | 3277.2 | Conv. (m3/s) | | 3277.2 | 0.0 |
| Length Wtd. (m) | 40.00 | Wetted Per. (m) | | 33.67 | 0.07 |
| Min Ch El (m) | 360.62 | Shear (N/m2) | | 161.46 | 0.43 |
| Alpha | 1.00 | Stream Power (N/m s) | | 593.34 | 0.03 |
| Frctn Loss (m) | 0.30 | Cum Volume (1000 m3) | 26.45 | 85.94 | 22.14 |
| C & E Loss (m) | 0.02 | Cum SA (1000 m2) | 22.02 | 30.49 | 24.58 |

Plan: Plan 01 Fiume Bormida unico RS: 36 Profile: PF 1

| E.G. Elev (m) | 364.35 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.61 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 363.73 | Reach Len. (m) | 40.00 | 40.00 | 40.00 |
| Crit W.S. (m) | 363.51 | Flow Area (m2) | 0.43 | 66.28 | 16.57 |
| E.G. Slope (m/m) | 0.007699 | Area (m2) | 0.43 | 66.28 | 16.57 |
| Q Total (m3/s) | 279.68 | Flow (m3/s) | 0.22 | 239.75 | 39.71 |
| Top Width (m) | 48.02 | Top Width (m) | 3.81 | 30.30 | 13.91 |
| Vel Total (m/s) | 3.36 | Avg. Vel. (m/s) | 0.51 | 3.62 | 2.40 |
| Max Chl Dpth (m) | 3.06 | Hydr. Depth (m) | 0.11 | 2.19 | 1.19 |
| Conv. Total (m3/s) | 3187.5 | Conv. (m3/s) | 2.5 | 2732.5 | 452.6 |
| Length Wtd. (m) | 40.00 | Wetted Per. (m) | 3.82 | 31.30 | 14.50 |
| Min Ch El (m) | 360.68 | Shear (N/m2) | 8.48 | 159.87 | 86.24 |
| Alpha | 1.07 | Stream Power (N/m s) | 4.33 | 578.26 | 206.72 |
| Frctn Loss (m) | 0.17 | Cum Volume (1000 m3) | 26.44 | 83.09 | 21.80 |
| C & E Loss (m) | 0.12 | Cum SA (1000 m2) | 21.94 | 29.26 | 24.30 |

Plan: Plan 01 Fiume Bormida unico RS: 35 Profile: PF 1

| E.G. Elev (m) | 364.05 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.21 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 363.85 | Reach Len. (m) | 40.00 | 40.00 | 40.00 |
| Crit W.S. (m) | | Flow Area (m2) | 1.19 | 112.70 | 44.47 |
| E.G. Slope (m/m) | 0.002777 | Area (m2) | 1.19 | 112.70 | 44.47 |
| Q Total (m3/s) | 279.68 | Flow (m3/s) | 0.32 | 240.59 | 38.77 |
| Top Width (m) | 148.28 | Top Width (m) | 12.72 | 53.33 | 82.23 |
| Vel Total (m/s) | 1.77 | Avg. Vel. (m/s) | 0.27 | 2.13 | 0.87 |
| Max Chl Dpth (m) | 3.50 | Hydr. Depth (m) | 0.09 | 2.11 | 0.54 |
| Conv. Total (m3/s) | 5307.7 | Conv. (m3/s) | 6.1 | 4565.9 | 735.8 |
| Length Wtd. (m) | 40.00 | Wetted Per. (m) | 12.72 | 54.63 | 82.62 |
| Min Ch El (m) | 360.35 | Shear (N/m2) | 2.54 | 56.17 | 14.66 |
| Alpha | 1.29 | Stream Power (N/m s) | 0.69 | 119.92 | 12.78 |
| Frctn Loss (m) | 0.10 | Cum Volume (1000 m3) | 26.41 | 79.51 | 20.58 |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2) | 21.61 | 27.58 | 22.38 |

Plan: Plan 01 Fiume Bormida unico RS: 34 Profile: PF 1

| E.G. Elev (m) | 363.95 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.19 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 363.76 | Reach Len. (m) | 40.00 | 40.00 | 40.00 |
| Crit W.S. (m) | | Flow Area (m2) | 1.78 | 93.78 | 50.88 |
| E.G. Slope (m/m) | 0.002059 | Area (m2) | 1.78 | 93.78 | 50.88 |
| Q Total (m3/s) | 279.68 | Flow (m3/s) | 0.43 | 193.71 | 85.53 |
| Top Width (m) | 81.97 | Top Width (m) | 18.01 | 36.85 | 27.11 |
| Vel Total (m/s) | 1.91 | Avg. Vel. (m/s) | 0.24 | 2.07 | 1.68 |
| Max Chl Dpth (m) | 4.84 | Hydr. Depth (m) | 0.10 | 2.55 | 1.88 |
| Conv. Total (m3/s) | 6163.2 | Conv. (m3/s) | 9.5 | 4268.8 | 1884.9 |
| Length Wtd. (m) | 40.00 | Wetted Per. (m) | 18.01 | 38.17 | 28.20 |
| Min Ch El (m) | 358.92 | Shear (N/m2) | 2.00 | 49.61 | 36.43 |
| Alpha | 1.05 | Stream Power (N/m s) | 0.49 | 102.47 | 61.24 |
| Frctn Loss (m) | 0.10 | Cum Volume (1000 m3) | 26.35 | 75.38 | 18.68 |
| C & E Loss (m) | 0.03 | Cum SA (1000 m2) | 21.00 | 25.78 | 20.19 |

Plan: Plan 01 Fiume Bormida unico RS: 33 Profile: PF 1

| E.G. Elev (m) | 363.82 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.49 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 363.33 | Reach Len. (m) | 41.00 | 41.00 | 41.00 |
| Crit W.S. (m) | 362.06 | Flow Area (m2) | 2.91 | 88.17 | 2.53 |
| E.G. Slope (m/m) | 0.003403 | Area (m2) | 2.91 | 88.17 | 2.53 |
| Q Total (m3/s) | 279.68 | Flow (m3/s) | 1.26 | 275.93 | 2.49 |
| Top Width (m) | 47.64 | Top Width (m) | 17.84 | 25.91 | 3.89 |
| Vel Total (m/s) | 2.99 | Avg. Vel. (m/s) | 0.43 | 3.13 | 0.98 |
| Max Chl Dpth (m) | 5.10 | Hydr. Depth (m) | 0.16 | 3.40 | 0.65 |
| Conv. Total (m3/s) | 4794.5 | Conv. (m3/s) | 21.7 | 4730.1 | 42.7 |
| Length Wtd. (m) | 41.00 | Wetted Per. (m) | 17.84 | 28.05 | 4.57 |
| Min Ch El (m) | 358.23 | Shear (N/m2) | 5.43 | 104.90 | 18.50 |
| Alpha | 1.08 | Stream Power (N/m s) | 2.36 | 328.27 | 18.20 |
| Frctn Loss (m) | 0.13 | Cum Volume (1000 m3) | 26.26 | 71.74 | 17.61 |
| C & E Loss (m) | 0.02 | Cum SA (1000 m2) | 20.28 | 24.53 | 19.57 |

Plan: Plan 01 Fiume Bormida unico RS: 32 Profile: PF 1

| E.G. Elev (m) | 363.67 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.44 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 363.23 | Reach Len. (m) | 41.00 | 38.00 | 34.50 |
| Crit W.S. (m) | 361.96 | Flow Area (m2) | 3.92 | 103.54 | 6.32 |
| E.G. Slope (m/m) | 0.002947 | Area (m2) | 3.92 | 103.54 | 6.32 |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 1.86 | 307.98 | 8.01 |
| Top Width (m) | 54.54 | Top Width (m) | 18.90 | 29.93 | 5.71 |
| Vel Total (m/s) | 2.79 | Avg. Vel. (m/s) | 0.48 | 2.97 | 1.27 |
| Max Chl Dpth (m) | 4.70 | Hydr. Depth (m) | 0.21 | 3.46 | 1.11 |
| Conv. Total (m3/s) | 5855.0 | Conv. (m3/s) | 34.3 | 5673.2 | 147.5 |
| Length Wtd. (m) | 37.96 | Wetted Per. (m) | 18.90 | 31.91 | 7.01 |
| Min Ch El (m) | 358.53 | Shear (N/m2) | 5.99 | 93.77 | 26.06 |
| Alpha | 1.10 | Stream Power (N/m s) | 2.84 | 278.92 | 33.01 |
| Frctn Loss (m) | 0.20 | Cum Volume (1000 m3) | 26.12 | 67.81 | 17.43 |
| C & E Loss (m) | 0.08 | Cum SA (1000 m2) | 19.53 | 23.38 | 19.37 |

Plan: Plan 01 Fiume Bormida unico RS: 31 Profile: PF 1

| E.G. Elev (m) | 363.39 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 1.28 | Wt. n-Val. | | 0.040 | |
| W.S. Elev (m) | 362.10 | Reach Len. (m) | 35.00 | 33.75 | 32.00 |
| Crit W.S. (m) | 362.05 | Flow Area (m2) | | 63.31 | |
| E.G. Slope (m/m) | 0.012070 | Area (m2) | | 63.31 | |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | | 317.85 | |

Plan: Plan 01 Fiume Bormida unico RS: 31 Profile: PF 1 (Continued)

| | | | | | |
|---|---|---|---|---|---|
| Top Width (m) | 23.39 | Top Width (m) | | 23.39 | |
| Vel Total (m/s) | 5.02 | Avg. Vel. (m/s) | | 5.02 | |
| Max Chl Dpth (m) | 3.73 | Hydr. Depth (m) | | 2.71 | |
| Conv. Total (m3/s) | 2893.1 | Conv. (m3/s) | | 2893.1 | |
| Length Wtd. (m) | 33.70 | Wetted Per. (m) | | 25.62 | |
| Min Ch El (m) | 358.37 | Shear (N/m2) | | 292.52 | |
| Alpha | 1.00 | Stream Power (N/m s) | | 1468.62 | |
| Frctn Loss (m) | 0.25 | Cum Volume (1000 m3) | 26.04 | 64.64 | 17.32 |
| C & E Loss (m) | 0.21 | Cum SA (1000 m2) | 19.14 | 22.37 | 19.27 |

Plan: Plan 01 Fiume Bormida unico RS: 30 Profile: PF 1

| E.G. Elev (m) | 362.93 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.60 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 362.34 | Reach Len. (m) | 86.00 | 85.00 | 83.50 |
| Crit W.S. (m) | 361.71 | Flow Area (m2) | | 85.24 | 13.68 |
| E.G. Slope (m/m) | 0.004933 | Area (m2) | | 85.24 | 13.68 |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | | 299.43 | 18.42 |
| Top Width (m) | 48.06 | Top Width (m) | | 28.21 | 19.85 |
| Vel Total (m/s) | 3.21 | Avg. Vel. (m/s) | | 3.51 | 1.35 |
| Max Chl Dpth (m) | 4.27 | Hydr. Depth (m) | | 3.02 | 0.69 |
| Conv. Total (m3/s) | 4525.4 | Conv. (m3/s) | | 4263.2 | 262.3 |
| Length Wtd. (m) | 84.85 | Wetted Per. (m) | | 30.13 | 20.38 |
| Min Ch El (m) | 358.07 | Shear (N/m2) | | 136.88 | 32.48 |
| Alpha | 1.14 | Stream Power (N/m s) | | 480.79 | 43.72 |
| Frctn Loss (m) | 0.50 | Cum Volume (1000 m3) | 26.04 | 62.14 | 17.10 |
| C & E Loss (m) | 0.02 | Cum SA (1000 m2) | 19.14 | 21.50 | 18.96 |

Plan: Plan 01 Fiume Bormida unico RS: 29 Profile: PF 1

| E.G. Elev (m) | 362.42 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.79 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 361.62 | Reach Len. (m) | 32.50 | 31.25 | 30.50 |
| Crit W.S. (m) | 360.98 | Flow Area (m2) | | 64.13 | 32.58 |
| E.G. Slope (m/m) | 0.007105 | Area (m2) | | 64.13 | 32.58 |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | | 271.16 | 46.69 |
| Top Width (m) | 78.63 | Top Width (m) | | 20.98 | 57.65 |
| Vel Total (m/s) | 3.29 | Avg. Vel. (m/s) | | 4.23 | 1.43 |
| Max Chl Dpth (m) | 4.26 | Hydr. Depth (m) | | 3.06 | 0.57 |
| Conv. Total (m3/s) | 3770.8 | Conv. (m3/s) | | 3216.9 | 553.9 |
| Length Wtd. (m) | 31.19 | Wetted Per. (m) | | 22.56 | 58.09 |
| Min Ch El (m) | 357.36 | Shear (N/m2) | | 198.05 | 39.08 |
| Alpha | 1.44 | Stream Power (N/m s) | | 837.44 | 56.00 |
| Frctn Loss (m) | 0.23 | Cum Volume (1000 m3) | 26.04 | 55.79 | 15.17 |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2) | 19.14 | 19.41 | 15.72 |

Plan: Plan 01 Fiume Bormida unico RS: 28 Profile: PF 1

| E.G. Elev (m) | 362.19 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.83 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 361.36 | Reach Len. (m) | 19.00 | 19.00 | 19.00 |
| Crit W.S. (m) | 361.36 | Flow Area (m2) | 9.96 | 60.43 | 23.87 |
| E.G. Slope (m/m) | 0.007516 | Area (m2) | 9.96 | 60.43 | 23.87 |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 20.03 | 263.52 | 34.30 |
| Top Width (m) | 74.48 | Top Width (m) | 10.96 | 19.64 | 43.88 |
| Vel Total (m/s) | 3.37 | Avg. Vel. (m/s) | 2.01 | 4.36 | 1.44 |
| Max Chl Dpth (m) | 4.17 | Hydr. Depth (m) | 0.91 | 3.08 | 0.54 |
| Conv. Total (m3/s) | 3666.3 | Conv. (m3/s) | 231.0 | 3039.6 | 395.7 |
| Length Wtd. (m) | 19.00 | Wetted Per. (m) | 11.13 | 21.17 | 44.23 |
| Min Ch El (m) | 357.19 | Shear (N/m2) | 65.90 | 210.35 | 39.78 |

Plan: Plan 01 Fiume Bormida unico RS: 28 Profile: PF 1 (Continued)

| | | | | | |
|---|---|---|---|---|---|
| Alpha | 1.43 | Stream Power (N/m s) | 132.57 | 917.30 | 57.16 |
| Frctn Loss (m) | 0.10 | Cum Volume (1000 m3) | 25.88 | 53.84 | 14.31 |
| C & E Loss (m) | 0.10 | Cum SA (1000 m2) | 18.96 | 18.77 | 14.17 |

Plan: Plan 01 Fiume Bormida unico RS: 27 Profile: PF 1

| E.G. Elev (m) | 361.92 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.49 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 361.43 | Reach Len. (m) | 15.50 | 15.00 | 14.75 |
| Crit W.S. (m) | 360.87 | Flow Area (m2) | 15.60 | 68.86 | 38.21 |
| E.G. Slope (m/m) | 0.004064 | Area (m2) | 15.60 | 68.86 | 38.21 |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 30.35 | 237.59 | 49.91 |
| Top Width (m) | 82.56 | Top Width (m) | 11.19 | 20.43 | 50.94 |
| Vel Total (m/s) | 2.59 | Avg. Vel. (m/s) | 1.95 | 3.45 | 1.31 |
| Max Chl Dpth (m) | 4.30 | Hydr. Depth (m) | 1.39 | 3.37 | 0.75 |
| Conv. Total (m3/s) | 4985.7 | Conv. (m3/s) | 476.1 | 3726.8 | 782.8 |
| Length Wtd. (m) | 15.03 | Wetted Per. (m) | 11.57 | 21.62 | 51.50 |
| Min Ch El (m) | 357.13 | Shear (N/m2) | 53.73 | 126.97 | 29.57 |
| Alpha | 1.42 | Stream Power (N/m s) | 104.51 | 438.11 | 38.63 |
| Frctn Loss (m) | 0.05 | Cum Volume (1000 m3) | 25.63 | 52.61 | 13.72 |
| C & E Loss (m) | 0.04 | Cum SA (1000 m2) | 18.75 | 18.39 | 13.27 |

Plan: Plan 01 Fiume Bormida unico RS: 26 Profile: PF 1

| E.G. Elev (m) | 361.82 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.35 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 361.47 | Reach Len. (m) | 30.50 | 29.75 | 28.75 |
| Crit W.S. (m) | 360.58 | Flow Area (m2) | 29.49 | 69.22 | 42.55 |
| E.G. Slope (m/m) | 0.002695 | Area (m2) | 29.49 | 69.22 | 42.55 |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 61.17 | 207.01 | 49.67 |
| Top Width (m) | 82.63 | Top Width (m) | 14.77 | 18.75 | 49.11 |
| Vel Total (m/s) | 2.25 | Avg. Vel. (m/s) | 2.07 | 2.99 | 1.17 |
| Max Chl Dpth (m) | 4.56 | Hydr. Depth (m) | 2.00 | 3.69 | 0.87 |
| Conv. Total (m3/s) | 6122.4 | Conv. (m3/s) | 1178.3 | 3987.4 | 956.7 |
| Length Wtd. (m) | 29.71 | Wetted Per. (m) | 15.35 | 19.79 | 49.90 |
| Min Ch El (m) | 356.91 | Shear (N/m2) | 50.79 | 92.44 | 22.54 |
| Alpha | 1.36 | Stream Power (N/m s) | 105.36 | 276.43 | 26.31 |
| Frctn Loss (m) | 0.11 | Cum Volume (1000 m3) | 25.28 | 51.58 | 13.12 |
| C & E Loss (m) | 0.03 | Cum SA (1000 m2) | 18.55 | 18.10 | 12.53 |

Plan: Plan 01 Fiume Bormida unico RS: 25 Profile: PF 1

| E.G. Elev (m) | 361.69 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.69 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 360.99 | Reach Len. (m) | 15.00 | 14.50 | 14.00 |
| Crit W.S. (m) | 360.40 | Flow Area (m2) | 11.36 | 65.20 | 26.47 |
| E.G. Slope (m/m) | 0.005054 | Area (m2) | 11.36 | 65.20 | 26.47 |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 21.95 | 260.73 | 35.17 |
| Top Width (m) | 68.56 | Top Width (m) | 9.71 | 18.65 | 40.20 |
| Vel Total (m/s) | 3.09 | Avg. Vel. (m/s) | 1.93 | 4.00 | 1.33 |
| Max Chl Dpth (m) | 3.96 | Hydr. Depth (m) | 1.17 | 3.50 | 0.66 |
| Conv. Total (m3/s) | 4471.2 | Conv. (m3/s) | 308.8 | 3667.6 | 494.7 |
| Length Wtd. (m) | 14.41 | Wetted Per. (m) | 10.01 | 19.32 | 40.95 |
| Min Ch El (m) | 357.03 | Shear (N/m2) | 56.21 | 167.27 | 32.03 |
| Alpha | 1.43 | Stream Power (N/m s) | 108.66 | 668.88 | 42.56 |
| Frctn Loss (m) | 0.08 | Cum Volume (1000 m3) | 24.66 | 49.58 | 12.13 |
| C & E Loss (m) | 0.03 | Cum SA (1000 m2) | 18.18 | 17.54 | 11.25 |

Plan: Plan 01 Fiume Bormida unico RS: 24 Profile: PF 1

| E.G. Elev (m) | 361.53 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.60 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 360.93 | Reach Len. (m) | 24.25 | 23.50 | 22.75 |
| Crit W.S. (m) | 360.29 | Flow Area (m2) | 12.83 | 38.20 | 51.37 |
| E.G. Slope (m/m) | 0.005589 | Area (m2) | 12.83 | 38.20 | 51.37 |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 27.93 | 159.27 | 130.64 |
| Top Width (m) | 57.27 | Top Width (m) | 9.92 | 10.98 | 36.37 |
| Vel Total (m/s) | 3.10 | Avg. Vel. (m/s) | 2.18 | 4.17 | 2.54 |
| Max Chl Dpth (m) | 3.99 | Hydr. Depth (m) | 1.29 | 3.48 | 1.41 |
| Conv. Total (m3/s) | 4251.5 | Conv. (m3/s) | 373.6 | 2130.4 | 1747.4 |
| Length Wtd. (m) | 23.35 | Wetted Per. (m) | 10.21 | 11.47 | 36.96 |
| Min Ch El (m) | 356.94 | Shear (N/m2) | 68.90 | 182.61 | 76.18 |
| Alpha | 1.22 | Stream Power (N/m s) | 150.00 | 761.35 | 193.73 |
| Frctn Loss (m) | 0.15 | Cum Volume (1000 m3) | 24.48 | 48.83 | 11.58 |
| C & E Loss (m) | 0.03 | Cum SA (1000 m2) | 18.03 | 17.33 | 10.71 |

Plan: Plan 01 Fiume Bormida unico RS: 23 Profile: PF 1

| E.G. Elev (m) | 361.35 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.89 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 360.46 | Reach Len. (m) | 37.50 | 40.50 | 44.00 |
| Crit W.S. (m) | 360.09 | Flow Area (m2) | 14.19 | 47.25 | 24.06 |
| E.G. Slope (m/m) | 0.007708 | Area (m2) | 14.19 | 47.25 | 24.06 |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 33.65 | 223.37 | 60.83 |
| Top Width (m) | 45.92 | Top Width (m) | 12.43 | 14.44 | 19.04 |
| Vel Total (m/s) | 3.72 | Avg. Vel. (m/s) | 2.37 | 4.73 | 2.53 |
| Max Chl Dpth (m) | 3.69 | Hydr. Depth (m) | 1.14 | 3.27 | 1.26 |
| Conv. Total (m3/s) | 3620.4 | Conv. (m3/s) | 383.3 | 2544.2 | 692.9 |
| Length Wtd. (m) | 40.33 | Wetted Per. (m) | 12.63 | 14.95 | 19.46 |
| Min Ch El (m) | 356.77 | Shear (N/m2) | 84.92 | 238.91 | 93.46 |
| Alpha | 1.27 | Stream Power (N/m s) | 201.43 | 1129.34 | 236.33 |
| Frctn Loss (m) | 0.37 | Cum Volume (1000 m3) | 24.15 | 47.82 | 10.73 |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2) | 17.76 | 17.03 | 10.08 |

Plan: Plan 01 Fiume Bormida unico RS: 22 Profile: PF 1

| E.G. Elev (m) | 360.98 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.94 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 360.04 | Reach Len. (m) | 18.75 | 21.00 | 23.00 |
| Crit W.S. (m) | 360.04 | Flow Area (m2) | 23.22 | 53.48 | 0.36 |
| E.G. Slope (m/m) | 0.010934 | Area (m2) | 23.22 | 53.48 | 0.36 |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 72.79 | 244.83 | 0.22 |
| Top Width (m) | 41.82 | Top Width (m) | 17.13 | 21.60 | 3.09 |
| Vel Total (m/s) | 4.12 | Avg. Vel. (m/s) | 3.13 | 4.58 | 0.62 |
| Max Chl Dpth (m) | 4.54 | Hydr. Depth (m) | 1.36 | 2.48 | 0.12 |
| Conv. Total (m3/s) | 3039.7 | Conv. (m3/s) | 696.1 | 2341.4 | 2.1 |
| Length Wtd. (m) | 20.53 | Wetted Per. (m) | 17.69 | 23.08 | 3.10 |
| Min Ch El (m) | 356.83 | Shear (N/m2) | 140.79 | 248.47 | 12.46 |
| Alpha | 1.08 | Stream Power (N/m s) | 441.30 | 1137.41 | 7.75 |
| Frctn Loss (m) | 0.22 | Cum Volume (1000 m3) | 23.45 | 45.78 | 10.19 |
| C & E Loss (m) | 0.02 | Cum SA (1000 m2) | 17.20 | 16.30 | 9.60 |

Plan: Plan 01 Fiume Bormida unico RS: 21 Profile: PF 1

| E.G. Elev (m) | 360.69 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 1.18 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 359.51 | Reach Len. (m) | 23.00 | 24.75 | 26.00 |
| Crit W.S. (m) | 359.75 | Flow Area (m2) | 19.01 | 50.43 | |
| E.G. Slope (m/m) | 0.016178 | Area (m2) | 19.01 | 50.43 | |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 60.08 | 257.77 | |

Plan: Plan 01 Fiume Bormida unico RS: 21 Profile: PF 1 (Continued)

| | | | | | |
|---|---|---|---|---|---|
| Top Width (m) | 42.44 | Top Width (m) | 18.64 | 23.81 | |
| Vel Total (m/s) | 4.58 | Avg. Vel. (m/s) | 3.16 | 5.11 | |
| Max Chl Dpth (m) | 2.90 | Hydr. Depth (m) | 1.02 | 2.12 | |
| Conv. Total (m3/s) | 2499.0 | Conv. (m3/s) | 472.3 | 2026.6 | |
| Length Wtd. (m) | 24.36 | Wetted Per. (m) | 19.17 | 24.74 | |
| Min Ch El (m) | 356.61 | Shear (N/m2) | 157.25 | 323.36 | |
| Alpha | 1.10 | Stream Power (N/m s) | 497.07 | 1652.97 | |
| Frctn Loss (m) | 0.27 | Cum Volume (1000 m3) | 23.06 | 44.69 | 10.18 |
| C & E Loss (m) | 0.02 | Cum SA (1000 m2) | 16.87 | 15.82 | 9.56 |

Plan: Plan 01 Fiume Bormida unico RS: 20 Profile: PF 1

| E.G. Elev (m) | 360.20 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 1.22 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 358.99 | Reach Len. (m) | 28.25 | 29.50 | 31.00 |
| Crit W.S. (m) | 359.36 | Flow Area (m2) | 28.39 | 41.72 | 2.74 |
| E.G. Slope (m/m) | 0.023692 | Area (m2) | 28.39 | 41.72 | 2.74 |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 84.95 | 228.05 | 4.85 |
| Top Width (m) | 75.51 | Top Width (m) | 42.89 | 23.90 | 8.73 |
| Vel Total (m/s) | 4.36 | Avg. Vel. (m/s) | 2.99 | 5.47 | 1.77 |
| Max Chl Dpth (m) | 2.30 | Hydr. Depth (m) | 0.66 | 1.75 | 0.31 |
| Conv. Total (m3/s) | 2065.0 | Conv. (m3/s) | 551.9 | 1481.6 | 31.5 |
| Length Wtd. (m) | 28.87 | Wetted Per. (m) | 43.23 | 24.64 | 8.75 |
| Min Ch El (m) | 356.69 | Shear (N/m2) | 152.60 | 393.36 | 72.64 |
| Alpha | 1.25 | Stream Power (N/m s) | 456.53 | 2150.23 | 128.75 |
| Frctn Loss (m) | 0.47 | Cum Volume (1000 m3) | 22.51 | 43.55 | 10.15 |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2) | 16.16 | 15.23 | 9.45 |

Plan: Plan 01 Fiume Bormida unico RS: 19 Profile: PF 1

| E.G. Elev (m) | 359.40 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.08 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 359.32 | Reach Len. (m) | 28.50 | 33.00 | 37.50 |
| Crit W.S. (m) | 358.41 | Flow Area (m2) | 186.80 | 71.48 | |
| E.G. Slope (m/m) | 0.001218 | Area (m2) | 186.80 | 71.48 | |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 223.54 | 94.31 | |
| Top Width (m) | 153.83 | Top Width (m) | 115.77 | 38.06 | |
| Vel Total (m/s) | 1.23 | Avg. Vel. (m/s) | 1.20 | 1.32 | |
| Max Chl Dpth (m) | 2.52 | Hydr. Depth (m) | 1.61 | 1.88 | |
| Conv. Total (m3/s) | 9108.0 | Conv. (m3/s) | 6405.6 | 2702.4 | |
| Length Wtd. (m) | 30.17 | Wetted Per. (m) | 116.27 | 38.44 | |
| Min Ch El (m) | 356.80 | Shear (N/m2) | 19.19 | 22.21 | |
| Alpha | 1.01 | Stream Power (N/m s) | 22.96 | 29.30 | |
| Frctn Loss (m) | 0.04 | Cum Volume (1000 m3) | 19.47 | 41.88 | 10.11 |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2) | 13.92 | 14.32 | 9.31 |

Plan: Plan 01 Fiume Bormida unico RS: 18 Profile: PF 1

| E.G. Elev (m) | 359.36 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.10 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 359.26 | Reach Len. (m) | 17.00 | 19.50 | 22.50 |
| Crit W.S. (m) | 358.34 | Flow Area (m2) | 147.56 | 90.51 | |
| E.G. Slope (m/m) | 0.001225 | Area (m2) | 147.56 | 90.51 | |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 176.60 | 141.25 | |
| Top Width (m) | 128.87 | Top Width (m) | 91.94 | 36.94 | |
| Vel Total (m/s) | 1.34 | Avg. Vel. (m/s) | 1.20 | 1.56 | |
| Max Chl Dpth (m) | 3.15 | Hydr. Depth (m) | 1.61 | 2.45 | |
| Conv. Total (m3/s) | 9079.7 | Conv. (m3/s) | 5044.8 | 4034.9 | |
| Length Wtd. (m) | 18.41 | Wetted Per. (m) | 92.27 | 38.01 | |
| Min Ch El (m) | 356.11 | Shear (N/m2) | 19.22 | 28.62 | |

Plan: Plan 01 Fiume Bormida unico RS: 18 Profile: PF 1 (Continued)

| | | | | | |
|---|---|---|---|---|---|
| Alpha | 1.05 | Stream Power (N/m s) | 23.00 | 44.66 | |
| Frctn Loss (m) | 0.04 | Cum Volume (1000 m3) | 14.71 | 39.21 | 10.11 |
| C & E Loss (m) | 0.02 | Cum SA (1000 m2) | 10.96 | 13.08 | 9.31 |

Plan: Plan 01 Fiume Bormida unico RS: 17 Profile: PF 1

| E.G. Elev (m) | 359.30 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.31 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 359.00 | Reach Len. (m) | 23.50 | 23.75 | 24.50 |
| Crit W.S. (m) | 358.33 | Flow Area (m2) | 50.41 | 82.31 | |
| E.G. Slope (m/m) | 0.003502 | Area (m2) | 50.41 | 82.31 | |
| Q Total (m3/s) | 317.85 | Flow (m3/s) | 101.51 | 216.34 | |
| Top Width (m) | 63.55 | Top Width (m) | 29.89 | 33.66 | |
| Vel Total (m/s) | 2.39 | Avg. Vel. (m/s) | 2.01 | 2.63 | |
| Max Chl Dpth (m) | 3.10 | Hydr. Depth (m) | 1.69 | 2.45 | |
| Conv. Total (m3/s) | 5371.3 | Conv. (m3/s) | 1715.4 | 3655.9 | |
| Length Wtd. (m) | 23.66 | Wetted Per. (m) | 31.75 | 34.76 | |
| Min Ch El (m) | 355.90 | Shear (N/m2) | 54.53 | 81.32 | |
| Alpha | 1.05 | Stream Power (N/m s) | 109.79 | 213.74 | |
| Frctn Loss (m) | 0.07 | Cum Volume (1000 m3) | 13.02 | 37.53 | 10.11 |
| C & E Loss (m) | 0.01 | Cum SA (1000 m2) | 9.92 | 12.39 | 9.31 |

Plan: Plan 01 Fiume Bormida unico RS: 16 Profile: PF 1

| E.G. Elev (m) | 359.22 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.29 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 358.93 | Reach Len. (m) | 31.50 | 31.75 | 32.50 |
| Crit W.S. (m) | 358.00 | Flow Area (m2) | 59.59 | 82.61 | |
| E.G. Slope (m/m) | 0.002873 | Area (m2) | 59.59 | 82.61 | |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 128.07 | 207.28 | |
| Top Width (m) | 57.92 | Top Width (m) | 26.93 | 30.99 | |
| Vel Total (m/s) | 2.36 | Avg. Vel. (m/s) | 2.15 | 2.51 | |
| Max Chl Dpth (m) | 3.48 | Hydr. Depth (m) | 2.21 | 2.67 | |
| Conv. Total (m3/s) | 6257.0 | Conv. (m3/s) | 2389.5 | 3867.5 | |
| Length Wtd. (m) | 31.64 | Wetted Per. (m) | 29.34 | 32.24 | |
| Min Ch El (m) | 355.45 | Shear (N/m2) | 57.22 | 72.19 | |
| Alpha | 1.02 | Stream Power (N/m s) | 122.96 | 181.14 | |
| Frctn Loss (m) | 0.06 | Cum Volume (1000 m3) | 11.73 | 35.57 | 10.11 |
| C & E Loss (m) | 0.04 | Cum SA (1000 m2) | 9.26 | 11.62 | 9.31 |

Plan: Plan 01 Fiume Bormida unico RS: 15 Profile: PF 1

| E.G. Elev (m) | 359.12 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.14 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 358.98 | Reach Len. (m) | 37.50 | 38.25 | 39.75 |
| Crit W.S. (m) | 357.65 | Flow Area (m2) | 118.13 | 87.66 | |
| E.G. Slope (m/m) | 0.001245 | Area (m2) | 118.13 | 87.66 | |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 173.50 | 161.85 | |
| Top Width (m) | 82.06 | Top Width (m) | 54.57 | 27.49 | |
| Vel Total (m/s) | 1.63 | Avg. Vel. (m/s) | 1.47 | 1.85 | |
| Max Chl Dpth (m) | 4.01 | Hydr. Depth (m) | 2.16 | 3.19 | |
| Conv. Total (m3/s) | 9505.7 | Conv. (m3/s) | 4918.0 | 4587.8 | |
| Length Wtd. (m) | 38.05 | Wetted Per. (m) | 54.97 | 28.94 | |
| Min Ch El (m) | 354.97 | Shear (N/m2) | 26.23 | 36.97 | |
| Alpha | 1.04 | Stream Power (N/m s) | 38.52 | 68.26 | |
| Frctn Loss (m) | 0.07 | Cum Volume (1000 m3) | 8.93 | 32.86 | 10.11 |
| C & E Loss (m) | 0.02 | Cum SA (1000 m2) | 7.97 | 10.69 | 9.31 |

Plan: Plan 01  Fiume Bormida  unico  RS: 14  Profile: PF 1

| E.G. Elev (m) | 359.03 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.34 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 358.69 | Reach Len. (m) | 33.00 | 31.75 | 30.75 |
| Crit W.S. (m) | 357.98 | Flow Area (m2) | 45.58 | 68.38 | 24.95 |
| E.G. Slope (m/m) | 0.002895 | Area (m2) | 45.58 | 68.38 | 24.95 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 92.49 | 199.94 | 42.93 |
| Top Width (m) | 61.52 | Top Width (m) | 23.90 | 20.89 | 16.73 |
| Vel Total (m/s) | 2.41 | Avg. Vel. (m/s) | 2.03 | 2.92 | 1.72 |
| Max Chl Dpth (m) | 4.26 | Hydr. Depth (m) | 1.91 | 3.27 | 1.49 |
| Conv. Total (m3/s) | 6232.5 | Conv. (m3/s) | 1718.9 | 3715.8 | 797.8 |
| Length Wtd. (m) | 31.92 | Wetted Per. (m) | 24.61 | 21.34 | 17.24 |
| Min Ch El (m) | 354.43 | Shear (N/m2) | 52.60 | 90.98 | 41.08 |
| Alpha | 1.13 | Stream Power (N/m s) | 106.72 | 266.02 | 70.69 |
| Frctn Loss (m) | 0.12 | Cum Volume (1000 m3) | 5.86 | 29.88 | 9.61 |
| C & E Loss (m) | 0.03 | Cum SA (1000 m2) | 6.50 | 9.77 | 8.98 |

Plan: Plan 01  Fiume Bormida  unico  RS: 13  Profile: PF 1

| E.G. Elev (m) | 358.88 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.62 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 358.25 | Reach Len. (m) | 28.50 | 28.00 | 27.50 |
| Crit W.S. (m) | 357.73 | Flow Area (m2) | 21.67 | 67.21 | 17.12 |
| E.G. Slope (m/m) | 0.005540 | Area (m2) | 21.67 | 67.21 | 17.12 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 52.93 | 256.33 | 26.09 |
| Top Width (m) | 59.17 | Top Width (m) | 14.06 | 22.19 | 22.92 |
| Vel Total (m/s) | 3.16 | Avg. Vel. (m/s) | 2.44 | 3.81 | 1.52 |
| Max Chl Dpth (m) | 3.86 | Hydr. Depth (m) | 1.54 | 3.03 | 0.75 |
| Conv. Total (m3/s) | 4505.5 | Conv. (m3/s) | 711.1 | 3443.8 | 350.6 |
| Length Wtd. (m) | 28.04 | Wetted Per. (m) | 14.40 | 22.90 | 23.09 |
| Min Ch El (m) | 354.39 | Shear (N/m2) | 81.72 | 159.43 | 40.28 |
| Alpha | 1.22 | Stream Power (N/m s) | 199.64 | 608.09 | 61.41 |
| Frctn Loss (m) | 0.12 | Cum Volume (1000 m3) | 4.75 | 27.73 | 8.96 |
| C & E Loss (m) | 0.05 | Cum SA (1000 m2) | 5.88 | 9.09 | 8.37 |

Plan: Plan 01  Fiume Bormida  unico  RS: 12  Profile: PF 1

| E.G. Elev (m) | 358.70 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.45 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 358.25 | Reach Len. (m) | 29.00 | 29.00 | 28.75 |
| Crit W.S. (m) | 357.71 | Flow Area (m2) | 28.88 | 71.23 | 24.94 |
| E.G. Slope (m/m) | 0.003476 | Area (m2) | 28.88 | 71.23 | 24.94 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 60.98 | 237.17 | 37.20 |
| Top Width (m) | 60.49 | Top Width (m) | 16.38 | 19.87 | 24.24 |
| Vel Total (m/s) | 2.68 | Avg. Vel. (m/s) | 2.11 | 3.33 | 1.49 |
| Max Chl Dpth (m) | 4.62 | Hydr. Depth (m) | 1.76 | 3.58 | 1.03 |
| Conv. Total (m3/s) | 5688.0 | Conv. (m3/s) | 1034.3 | 4022.7 | 631.0 |
| Length Wtd. (m) | 28.96 | Wetted Per. (m) | 16.84 | 20.98 | 24.49 |
| Min Ch El (m) | 353.63 | Shear (N/m2) | 58.45 | 115.74 | 34.71 |
| Alpha | 1.24 | Stream Power (N/m s) | 123.41 | 385.39 | 51.78 |
| Frctn Loss (m) | 0.10 | Cum Volume (1000 m3) | 4.03 | 25.79 | 8.39 |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2) | 5.44 | 8.50 | 7.72 |

Plan: Plan 01  Fiume Bormida  unico  RS: 11  Profile: PF 1

| E.G. Elev (m) | 358.60 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.45 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 358.16 | Reach Len. (m) | 28.50 | 28.25 | 28.25 |
| Crit W.S. (m) | 357.33 | Flow Area (m2) | 45.34 | 59.67 | 33.38 |
| E.G. Slope (m/m) | 0.003353 | Area (m2) | 45.34 | 59.67 | 33.38 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 58.06 | 208.45 | 68.84 |

Plan: Plan 01  Fiume Bormida  unico  RS: 11  Profile: PF 1 (Continued)

| | | | | | |
|---|---|---|---|---|---|
| Top Width (m) | 88.39 | Top Width (m) | 54.18 | 15.22 | 18.99 |
| Vel Total (m/s) | 2.42 | Avg. Vel. (m/s) | 1.28 | 3.49 | 2.06 |
| Max Chl Dpth (m) | 4.53 | Hydr. Depth (m) | 0.84 | 3.92 | 1.76 |
| Conv. Total (m3/s) | 5790.9 | Conv. (m3/s) | 1002.7 | 3599.6 | 1188.7 |
| Length Wtd. (m) | 28.29 | Wetted Per. (m) | 54.49 | 15.92 | 19.63 |
| Min Ch El (m) | 353.63 | Shear (N/m2) | 27.36 | 123.28 | 55.91 |
| Alpha | 1.49 | Stream Power (N/m s) | 35.04 | 430.70 | 115.31 |
| Frctn Loss (m) | 0.09 | Cum Volume (1000 m3) | 2.96 | 23.89 | 7.55 |
| C & E Loss (m) | 0.01 | Cum SA (1000 m2) | 4.42 | 7.99 | 7.10 |

Plan: Plan 01  Fiume Bormida  unico  RS: 10  Profile: PF 1

| E.G. Elev (m) | 358.50 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.40 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 358.10 | Reach Len. (m) | 35.50 | 35.50 | 35.50 |
| Crit W.S. (m) | 357.24 | Flow Area (m2) | 33.45 | 72.10 | 45.07 |
| E.G. Slope (m/m) | 0.002892 | Area (m2) | 33.45 | 72.10 | 45.07 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 35.88 | 232.96 | 66.51 |
| Top Width (m) | 105.07 | Top Width (m) | 47.73 | 18.75 | 38.59 |
| Vel Total (m/s) | 2.23 | Avg. Vel. (m/s) | 1.07 | 3.23 | 1.48 |
| Max Chl Dpth (m) | 4.49 | Hydr. Depth (m) | 0.70 | 3.85 | 1.17 |
| Conv. Total (m3/s) | 6236.1 | Conv. (m3/s) | 667.2 | 4332.0 | 1236.9 |
| Length Wtd. (m) | 35.50 | Wetted Per. (m) | 47.95 | 19.35 | 39.18 |
| Min Ch El (m) | 353.61 | Shear (N/m2) | 19.78 | 105.66 | 32.62 |
| Alpha | 1.57 | Stream Power (N/m s) | 21.22 | 341.37 | 48.14 |
| Frctn Loss (m) | 0.14 | Cum Volume (1000 m3) | 1.83 | 22.03 | 6.44 |
| C & E Loss (m) | 0.03 | Cum SA (1000 m2) | 2.97 | 7.51 | 6.29 |

Plan: Plan 01  Fiume Bormida  unico  RS: 9  Profile: PF 1

| E.G. Elev (m) | 358.33 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.66 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 357.67 | Reach Len. (m) | 41.50 | 41.25 | 41.00 |
| Crit W.S. (m) | 357.49 | Flow Area (m2) | | 69.94 | 32.07 |
| E.G. Slope (m/m) | 0.006082 | Area (m2) | | 69.94 | 32.07 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | | 271.49 | 63.86 |
| Top Width (m) | 53.17 | Top Width (m) | | 23.90 | 29.27 |
| Vel Total (m/s) | 3.29 | Avg. Vel. (m/s) | | 3.88 | 1.99 |
| Max Chl Dpth (m) | 3.97 | Hydr. Depth (m) | | 2.93 | 1.10 |
| Conv. Total (m3/s) | 4300.1 | Conv. (m3/s) | | 3481.2 | 818.8 |
| Length Wtd. (m) | 41.21 | Wetted Per. (m) | | 24.90 | 31.07 |
| Min Ch El (m) | 353.70 | Shear (N/m2) | | 167.55 | 61.56 |
| Alpha | 1.20 | Stream Power (N/m s) | | 650.36 | 122.57 |
| Frctn Loss (m) | 0.29 | Cum Volume (1000 m3) | 1.24 | 19.51 | 5.07 |
| C & E Loss (m) | 0.03 | Cum SA (1000 m2) | 2.12 | 6.75 | 5.08 |

Plan: Plan 01  Fiume Bormida  unico  RS: 8  Profile: PF 1

| E.G. Elev (m) | 358.02 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.94 | Wt. n-Val. | | 0.040 | 0.040 |
| W.S. Elev (m) | 357.07 | Reach Len. (m) | 35.00 | 34.75 | 34.00 |
| Crit W.S. (m) | 357.07 | Flow Area (m2) | | 66.66 | 18.65 |
| E.G. Slope (m/m) | 0.007995 | Area (m2) | | 66.66 | 18.65 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | | 300.07 | 35.28 |
| Top Width (m) | 43.66 | Top Width (m) | | 21.33 | 22.33 |
| Vel Total (m/s) | 3.93 | Avg. Vel. (m/s) | | 4.50 | 1.89 |
| Max Chl Dpth (m) | 4.03 | Hydr. Depth (m) | | 3.13 | 0.84 |
| Conv. Total (m3/s) | 3750.5 | Conv. (m3/s) | | 3355.9 | 394.6 |
| Length Wtd. (m) | 34.68 | Wetted Per. (m) | | 23.33 | 23.97 |
| Min Ch El (m) | 353.04 | Shear (N/m2) | | 224.03 | 61.02 |

Plan: Plan 01 Fiume Bormida unico RS: 8 Profile: PF 1 (Continued)

| | | | | | |
|---|---|---|---|---|---|
| Alpha | 1.20 | Stream Power (N/m s) | | 1008.40 | 115.42 |
| Frctn Loss (m) | 0.27 | Cum Volume (1000 m3) | 1.24 | 16.69 | 4.03 |
| C & E Loss (m) | 0.01 | Cum SA (1000 m2) | 2.12 | 5.82 | 4.02 |

Plan: Plan 01 Fiume Bormida unico RS: 7 Profile: PF 1

| E.G. Elev (m) | 357.72 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 1.04 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 356.68 | Reach Len. (m) | 25.00 | 24.50 | 23.50 |
| Crit W.S. (m) | 356.78 | Flow Area (m2) | 1.21 | 66.86 | 13.62 |
| E.G. Slope (m/m) | 0.009054 | Area (m2) | 1.21 | 66.86 | 13.62 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 0.84 | 311.32 | 23.18 |
| Top Width (m) | 51.49 | Top Width (m) | 7.69 | 22.94 | 20.86 |
| Vel Total (m/s) | 4.11 | Avg. Vel. (m/s) | 0.69 | 4.66 | 1.70 |
| Max Chl Dpth (m) | 3.75 | Hydr. Depth (m) | 0.16 | 2.91 | 0.65 |
| Conv. Total (m3/s) | 3524.4 | Conv. (m3/s) | 8.8 | 3271.9 | 243.7 |
| Length Wtd. (m) | 24.43 | Wetted Per. (m) | 7.70 | 24.41 | 22.50 |
| Min Ch El (m) | 352.93 | Shear (N/m2) | 13.98 | 243.15 | 53.75 |
| Alpha | 1.21 | Stream Power (N/m s) | 9.70 | 1132.20 | 91.49 |
| Frctn Loss (m) | 0.29 | Cum Volume (1000 m3) | 1.22 | 14.37 | 3.48 |
| C & E Loss (m) | 0.01 | Cum SA (1000 m2) | 1.98 | 5.05 | 3.29 |

Plan: Plan 01 Fiume Bormida unico RS: 6 Profile: PF 1

| E.G. Elev (m) | 357.32 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.61 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 356.71 | Reach Len. (m) | 26.50 | 26.00 | 25.50 |
| Crit W.S. (m) | 356.35 | Flow Area (m2) | 7.22 | 83.21 | 18.20 |
| E.G. Slope (m/m) | 0.004672 | Area (m2) | 7.22 | 83.21 | 18.20 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 7.65 | 300.37 | 27.32 |
| Top Width (m) | 60.81 | Top Width (m) | 14.66 | 25.76 | 20.39 |
| Vel Total (m/s) | 3.09 | Avg. Vel. (m/s) | 1.06 | 3.61 | 1.50 |
| Max Chl Dpth (m) | 4.23 | Hydr. Depth (m) | 0.49 | 3.23 | 0.89 |
| Conv. Total (m3/s) | 4906.2 | Conv. (m3/s) | 112.0 | 4394.5 | 399.7 |
| Length Wtd. (m) | 25.97 | Wetted Per. (m) | 14.76 | 27.10 | 22.09 |
| Min Ch El (m) | 352.48 | Shear (N/m2) | 22.40 | 140.68 | 37.74 |
| Alpha | 1.25 | Stream Power (N/m s) | 23.76 | 507.87 | 56.66 |
| Frctn Loss (m) | 0.12 | Cum Volume (1000 m3) | 1.11 | 12.53 | 3.11 |
| C & E Loss (m) | 0.02 | Cum SA (1000 m2) | 1.71 | 4.45 | 2.81 |

Plan: Plan 01 Fiume Bormida unico RS: 5 Profile: PF 1

| E.G. Elev (m) | 357.18 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.54 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 356.64 | Reach Len. (m) | 39.75 | 39.50 | 39.00 |
| Crit W.S. (m) | 356.10 | Flow Area (m2) | 6.94 | 89.16 | 14.54 |
| E.G. Slope (m/m) | 0.004773 | Area (m2) | 6.94 | 89.16 | 14.54 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 9.32 | 301.98 | 24.04 |
| Top Width (m) | 54.85 | Top Width (m) | 9.94 | 31.03 | 13.88 |
| Vel Total (m/s) | 3.03 | Avg. Vel. (m/s) | 1.34 | 3.39 | 1.65 |
| Max Chl Dpth (m) | 4.28 | Hydr. Depth (m) | 0.70 | 2.87 | 1.05 |
| Conv. Total (m3/s) | 4854.1 | Conv. (m3/s) | 134.9 | 4371.1 | 348.0 |
| Length Wtd. (m) | 39.45 | Wetted Per. (m) | 10.11 | 32.47 | 15.52 |
| Min Ch El (m) | 352.36 | Shear (N/m2) | 32.12 | 128.53 | 43.85 |
| Alpha | 1.15 | Stream Power (N/m s) | 43.15 | 435.32 | 72.51 |
| Frctn Loss (m) | 0.23 | Cum Volume (1000 m3) | 0.93 | 10.29 | 2.69 |
| C & E Loss (m) | 0.03 | Cum SA (1000 m2) | 1.38 | 3.71 | 2.37 |

Plan: Plan 01  Fiume Bormida  unico  RS: 4  Profile: PF 1

| E.G. Elev (m) | 356.92 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.81 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 356.11 | Reach Len. (m) | 20.00 | 21.00 | 22.00 |
| Crit W.S. (m) | 356.11 | Flow Area (m2) | 3.94 | 66.06 | 24.03 |
| E.G. Slope (m/m) | 0.007491 | Area (m2) | 3.94 | 66.06 | 24.03 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 3.72 | 281.77 | 49.86 |
| Top Width (m) | 60.39 | Top Width (m) | 13.58 | 22.51 | 24.30 |
| Vel Total (m/s) | 3.57 | Avg. Vel. (m/s) | 0.95 | 4.27 | 2.08 |
| Max Chl Dpth (m) | 3.71 | Hydr. Depth (m) | 0.29 | 2.93 | 0.99 |
| Conv. Total (m3/s) | 3874.7 | Conv. (m3/s) | 43.0 | 3255.6 | 576.1 |
| Length Wtd. (m) | 21.14 | Wetted Per. (m) | 13.62 | 23.87 | 25.58 |
| Min Ch El (m) | 352.40 | Shear (N/m2) | 21.23 | 203.31 | 68.99 |
| Alpha | 1.25 | Stream Power (N/m s) | 20.08 | 867.21 | 143.16 |
| Frctn Loss (m) | 0.13 | Cum Volume (1000 m3) | 0.71 | 7.23 | 1.94 |
| C & E Loss (m) | 0.04 | Cum SA (1000 m2) | 0.91 | 2.66 | 1.62 |

Plan: Plan 01  Fiume Bormida  unico  RS: 3  Profile: PF 1

| E.G. Elev (m) | 356.54 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.69 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 355.85 | Reach Len. (m) | 21.00 | 22.00 | 23.00 |
| Crit W.S. (m) | 355.20 | Flow Area (m2) | 9.16 | 64.46 | 34.28 |
| E.G. Slope (m/m) | 0.004853 | Area (m2) | 9.16 | 64.46 | 34.28 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 11.84 | 261.87 | 61.64 |
| Top Width (m) | 62.07 | Top Width (m) | 14.23 | 16.50 | 31.34 |
| Vel Total (m/s) | 3.11 | Avg. Vel. (m/s) | 1.29 | 4.06 | 1.80 |
| Max Chl Dpth (m) | 4.43 | Hydr. Depth (m) | 0.64 | 3.91 | 1.09 |
| Conv. Total (m3/s) | 4814.0 | Conv. (m3/s) | 170.0 | 3759.1 | 884.8 |
| Length Wtd. (m) | 22.13 | Wetted Per. (m) | 14.31 | 18.10 | 32.68 |
| Min Ch El (m) | 351.42 | Shear (N/m2) | 30.46 | 169.53 | 49.92 |
| Alpha | 1.40 | Stream Power (N/m s) | 39.40 | 688.69 | 89.75 |
| Frctn Loss (m) | 0.09 | Cum Volume (1000 m3) | 0.58 | 5.86 | 1.30 |
| C & E Loss (m) | 0.07 | Cum SA (1000 m2) | 0.63 | 2.25 | 1.01 |

Plan: Plan 01  Fiume Bormida  unico  RS: 2  Profile: PF 1

| E.G. Elev (m) | 356.38 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.45 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 355.94 | Reach Len. (m) | 14.25 | 14.25 | 14.25 |
| Crit W.S. (m) | 355.54 | Flow Area (m2) | 24.00 | 66.80 | 42.90 |
| E.G. Slope (m/m) | 0.003256 | Area (m2) | 24.00 | 66.80 | 42.90 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 35.95 | 227.93 | 71.47 |
| Top Width (m) | 71.41 | Top Width (m) | 22.19 | 16.77 | 32.45 |
| Vel Total (m/s) | 2.51 | Avg. Vel. (m/s) | 1.50 | 3.41 | 1.67 |
| Max Chl Dpth (m) | 4.49 | Hydr. Depth (m) | 1.08 | 3.98 | 1.32 |
| Conv. Total (m3/s) | 5876.7 | Conv. (m3/s) | 630.0 | 3994.2 | 1252.5 |
| Length Wtd. (m) | 14.25 | Wetted Per. (m) | 22.36 | 18.06 | 33.99 |
| Min Ch El (m) | 351.45 | Shear (N/m2) | 34.28 | 118.12 | 40.30 |
| Alpha | 1.39 | Stream Power (N/m s) | 51.34 | 403.06 | 67.15 |
| Frctn Loss (m) | 0.07 | Cum Volume (1000 m3) | 0.23 | 4.41 | 0.41 |
| C & E Loss (m) | 0.07 | Cum SA (1000 m2) | 0.25 | 1.88 | 0.28 |

Plan: Plan 01  Fiume Bormida  unico  RS: 1  Profile: PF 1

| E.G. Elev (m) | 356.24 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 1.15 | Wt. n-Val. | 0.040 | 0.040 | 0.040 |
| W.S. Elev (m) | 355.09 | Reach Len. (m) | 3.00 | 3.00 | 3.00 |
| Crit W.S. (m) | 355.09 | Flow Area (m2) | 6.90 | 56.58 | 12.02 |
| E.G. Slope (m/m) | 0.009288 | Area (m2) | 6.90 | 56.58 | 12.02 |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | 12.09 | 283.51 | 39.74 |

Plan: Plan 01 Fiume Bormida unico RS: 1 Profile: PF 1 (Continued)

| | | | | | |
|---|---|---|---|---|---|
| Top Width (m) | 34.76 | Top Width (m) | 10.81 | 18.45 | 5.50 |
| Vel Total (m/s) | 4.44 | Avg. Vel. (m/s) | 1.75 | 5.01 | 3.31 |
| Max Chl Dpth (m) | 3.46 | Hydr. Depth (m) | 0.64 | 3.07 | 2.19 |
| Conv. Total (m3/s) | 3479.6 | Conv. (m3/s) | 125.5 | 2941.8 | 412.4 |
| Length Wtd. (m) | 3.00 | Wetted Per. (m) | 11.12 | 18.86 | 7.47 |
| Min Ch El (m) | 351.63 | Shear (N/m2) | 56.50 | 273.22 | 146.45 |
| Alpha | 1.15 | Stream Power (N/m s) | 99.02 | 1369.17 | 484.29 |
| Frctn Loss (m) | 0.01 | Cum Volume (1000 m3) | 0.01 | 3.53 | 0.02 |
| C & E Loss (m) | 0.30 | Cum SA (1000 m2) | 0.02 | 1.63 | 0.01 |

Plan: Plan 01 Fiume Bormida unico RS: 0.9 Profile: PF 1

| | | | | | |
|---|---|---|---|---|---|
| E.G. Elev (m) | 355.32 | Element | Left OB | Channel | Right OB |
| Vel Head (m) | 0.16 | Wt. n-Val. | | 0.040 | |
| W.S. Elev (m) | 355.16 | Reach Len. (m) | 0.50 | 0.50 | 0.50 |
| Crit W.S. (m) | 353.82 | Flow Area (m2) | | 189.88 | |
| E.G. Slope (m/m) | 0.001758 | Area (m2) | | 189.88 | |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | | 335.35 | |
| Top Width (m) | 85.79 | Top Width (m) | | 85.79 | |
| Vel Total (m/s) | 1.77 | Avg. Vel. (m/s) | | 1.77 | |
| Max Chl Dpth (m) | 3.66 | Hydr. Depth (m) | | 2.21 | |
| Conv. Total (m3/s) | 7998.2 | Conv. (m3/s) | | 7998.2 | |
| Length Wtd. (m) | 0.50 | Wetted Per. (m) | | 86.82 | |
| Min Ch El (m) | 351.50 | Shear (N/m2) | | 37.70 | |
| Alpha | 1.00 | Stream Power (N/m s) | | 66.59 | |
| Frctn Loss (m) | 0.00 | Cum Volume (1000 m3) | | 3.16 | |
| C & E Loss (m) | 0.00 | Cum SA (1000 m2) | | 1.47 | |

Plan: Plan 01 Fiume Bormida unico RS: 54 Profile: PF 1

| | | | | | |
|---|---|---|---|---|---|
| E.G. Elev (m) | 368.83 | Element | Left OB | Channel | Right OB |
| Vel Head (m) | 0.39 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 368.45 | Reach Len. (m) | 27.00 | 27.00 | 27.00 |
| Crit W.S. (m) | 367.06 | Flow Area (m2) | 3.57 | 96.65 | |
| E.G. Slope (m/m) | 0.002907 | Area (m2) | 3.57 | 96.65 | |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | 3.05 | 267.95 | |
| Top Width (m) | 35.75 | Top Width (m) | 7.02 | 28.73 | |
| Vel Total (m/s) | 2.70 | Avg. Vel. (m/s) | 0.85 | 2.77 | |
| Max Chl Dpth (m) | 4.42 | Hydr. Depth (m) | 0.51 | 3.36 | |
| Conv. Total (m3/s) | 5026.0 | Conv. (m3/s) | 56.5 | 4969.5 | |
| Length Wtd. (m) | 27.00 | Wetted Per. (m) | 7.09 | 32.77 | |
| Min Ch El (m) | 364.03 | Shear (N/m2) | 14.36 | 84.09 | |
| Alpha | 1.04 | Stream Power (N/m s) | 12.26 | 233.12 | |
| Frctn Loss (m) | 0.14 | Cum Volume (1000 m3) | 27.22 | 125.41 | 30.21 |
| C & E Loss (m) | 0.08 | Cum SA (1000 m2) | 22.70 | 43.57 | 32.38 |

Plan: Plan 01 Fiume Bormida unico RS: 54 Profile: PF 1

| | | | | | |
|---|---|---|---|---|---|
| E.G. Elev (m) | 368.83 | Element | Left OB | Channel | Right OB |
| Vel Head (m) | 0.39 | Wt. n-Val. | 0.040 | 0.040 | |
| W.S. Elev (m) | 368.45 | Reach Len. (m) | 27.00 | 27.00 | 27.00 |
| Crit W.S. (m) | 367.06 | Flow Area (m2) | 3.57 | 96.65 | |
| E.G. Slope (m/m) | 0.002907 | Area (m2) | 3.57 | 96.65 | |
| Q Total (m3/s) | 271.00 | Flow (m3/s) | 3.05 | 267.95 | |
| Top Width (m) | 35.75 | Top Width (m) | 7.02 | 28.73 | |
| Vel Total (m/s) | 2.70 | Avg. Vel. (m/s) | 0.85 | 2.77 | |
| Max Chl Dpth (m) | 4.42 | Hydr. Depth (m) | 0.51 | 3.36 | |
| Conv. Total (m3/s) | 5026.0 | Conv. (m3/s) | 56.5 | 4969.5 | |
| Length Wtd. (m) | 27.00 | Wetted Per. (m) | 7.09 | 32.77 | |
| Min Ch El (m) | 364.03 | Shear (N/m2) | 14.36 | 84.09 | |

Plan: Plan 01 Fiume Bormida unico RS: 54 Profile: PF 1 (Continued)

| | | | | | |
|---|---|---|---|---|---|
| Alpha | 1.04 | Stream Power (N/m s) | 12.26 | 233.12 | |
| Frctn Loss (m) | 0.14 | Cum Volume (1000 m3) | 27.22 | 125.41 | 30.21 |
| C & E Loss (m) | 0.08 | Cum SA (1000 m2) | 22.70 | 43.57 | 32.38 |

Plan: Plan 01 Fiume Bormida unico RS: 0.7 Profile: PF 1

| E.G. Elev (m) | 355.28 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.16 | Wt. n-Val. | | 0.040 | |
| W.S. Elev (m) | 355.12 | Reach Len. (m) | 9.00 | 9.00 | 9.00 |
| Crit W.S. (m) | | Flow Area (m2) | | 190.85 | |
| E.G. Slope (m/m) | 0.001723 | Area (m2) | | 190.85 | |
| Q Total (m3/s) | 335.35 | Flow (m3/s) | | 335.35 | |
| Top Width (m) | 85.60 | Top Width (m) | | 85.60 | |
| Vel Total (m/s) | 1.76 | Avg. Vel. (m/s) | | 1.76 | |
| Max Chl Dpth (m) | 3.72 | Hydr. Depth (m) | | 2.23 | |
| Conv. Total (m3/s) | 8078.6 | Conv. (m3/s) | | 8078.6 | |
| Length Wtd. (m) | 9.00 | Wetted Per. (m) | | 86.62 | |
| Min Ch El (m) | 351.40 | Shear (N/m2) | | 37.23 | |
| Alpha | 1.00 | Stream Power (N/m s) | | 65.42 | |
| Frctn Loss (m) | 0.03 | Cum Volume (1000 m3) | | 1.21 | |
| C & E Loss (m) | 0.08 | Cum SA (1000 m2) | | 0.57 | |

Plan: Plan 01 Fiume Bormida unico RS: 0.6 Profile: PF 1

| E.G. Elev (m) | 355.17 | Element | Left OB | Channel | Right OB |
|---|---|---|---|---|---|
| Vel Head (m) | 0.94 | Wt. n-Val. | | 0.040 | |
| W.S. Elev (m) | 354.22 | Reach Len. (m) | | | |
| Crit W.S. (m) | 354.22 | Flow Area (m2) | | 79.13 | |
| E.G. Slope (m/m) | 0.013283 | Area (m2) | | 79.13 | |
| Q Total (m3/s) | 340.00 | Flow (m3/s) | | 340.00 | |
| Top Width (m) | 42.00 | Top Width (m) | | 42.00 | |
| Vel Total (m/s) | 4.30 | Avg. Vel. (m/s) | | 4.30 | |
| Max Chl Dpth (m) | 2.89 | Hydr. Depth (m) | | 1.88 | |
| Conv. Total (m3/s) | 2950.1 | Conv. (m3/s) | | 2950.1 | |
| Length Wtd. (m) | | Wetted Per. (m) | | 43.45 | |
| Min Ch El (m) | 351.33 | Shear (N/m2) | | 237.21 | |
| Alpha | 1.00 | Stream Power (N/m s) | | 1019.27 | |
| Frctn Loss (m) | | Cum Volume (1000 m3) | | | |
| C & E Loss (m) | | Cum SA (1000 m2) | | | |

Plan: Plan 01  Fiume Bormida  unico  RS: 0.8  Profile: PF 1

| E.G. US. (m) | 355.32 | Element | Inside BR US | Inside BR DS |
|---|---|---|---|---|
| W.S. US. (m) | 355.16 | E.G. Elev (m) | 355.31 | 355.29 |
| Q Total (m3/s) | 335.35 | W.S. Elev (m) | 355.13 | 355.10 |
| Q Bridge (m3/s) | 335.35 | Crit W.S. (m) | 353.94 | 353.85 |
| Q Weir (m3/s) | | Max Chl Dpth (m) | 3.63 | 3.70 |
| Weir Sta Lft (m) | | Vel Total (m/s) | 1.91 | 1.89 |
| Weir Sta Rgt (m) | | Flow Area (m2) | 175.44 | 177.54 |
| Weir Submerg | | Froude # Chl | 0.42 | 0.41 |
| Weir Max Depth (m) | | Specif Force (m3) | 307.24 | 314.68 |
| Min El Weir Flow (m) | 358.20 | Hydr Depth (m) | 2.15 | 2.18 |
| Min El Prs (m) | 357.20 | W.P. Total (m) | 94.39 | 94.48 |
| Delta EG (m) | 0.04 | Conv. Total (m3/s) | 6630.5 | 6759.3 |
| Delta WS (m) | 0.04 | Top Width (m) | 81.63 | 81.52 |
| BR Open Area (m2) | 351.90 | Frctn Loss (m) | 0.03 | 0.00 |
| BR Open Vel (m/s) | 1.91 | C & E Loss (m) | 0.00 | 0.01 |
| Coef of Q | | Shear Total (N/m2) | 46.63 | 45.36 |
| Br Sel Method | Energy only | Power Total (N/m s) | 89.13 | 85.68 |

HEC-RAS Plan: Plan 01 River: Fiume Bormida Reach: unico Profile: PF 1

| Reach | River Sta | Profile | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (m3/s) | (m) | (m) | (m) | (m) | (m/m) | (m/s) | (m2) | (m) | |
| unico | 54 | PF 1 | 271.00 | 364.03 | 368.45 | 367.06 | 368.83 | 0.002907 | 2.77 | 100.22 | 35.75 | 0.48 |
| unico | 53 | PF 1 | 271.00 | 363.64 | 367.44 | 367.40 | 368.62 | 0.010605 | 4.96 | 57.90 | 23.28 | 0.93 |
| unico | 52 | PF 1 | 271.00 | 363.16 | 367.07 | 367.07 | 368.29 | 0.011113 | 5.03 | 57.07 | 22.98 | 0.95 |
| unico | 51 | PF 1 | 271.00 | 362.76 | 366.08 | 366.55 | 367.90 | 0.021740 | 6.08 | 46.73 | 23.87 | 1.27 |
| unico | 50 | PF 1 | 271.00 | 362.06 | 366.74 | 366.17 | 367.47 | 0.006626 | 3.90 | 72.93 | 26.56 | 0.70 |
| unico | 49 | PF 1 | 271.00 | 362.02 | 366.85 | 365.58 | 367.26 | 0.003064 | 2.84 | 95.48 | 30.03 | 0.51 |
| unico | 48 | PF 1 | 271.00 | 362.84 | 366.64 | 365.77 | 367.16 | 0.004256 | 3.28 | 86.31 | 30.83 | 0.58 |
| unico | 47 | PF 1 | 271.00 | 362.26 | 366.45 | 365.66 | 367.05 | 0.005345 | 3.43 | 78.98 | 28.45 | 0.66 |
| unico | 46 | PF 1 | 271.00 | 362.15 | 366.12 | 365.68 | 366.88 | 0.006723 | 3.89 | 71.89 | 29.28 | 0.75 |
| unico | 45 | PF 1 | 271.00 | 362.44 | 366.08 | 365.49 | 366.66 | 0.005266 | 3.54 | 82.66 | 34.58 | 0.67 |
| unico | 44 | PF 1 | 271.00 | 360.46 | 365.72 | 365.36 | 366.41 | 0.006667 | 4.12 | 77.34 | 34.31 | 0.71 |
| unico | 43 | PF 1 | 271.00 | 362.00 | 365.69 | 364.93 | 366.13 | 0.004007 | 3.04 | 99.17 | 59.89 | 0.58 |
| unico | 42 | PF 1 | 271.00 | 361.56 | 365.50 | 364.50 | 365.98 | 0.003728 | 3.07 | 93.77 | 57.65 | 0.56 |
| unico | 41 | PF 1 | 271.00 | 360.47 | 365.62 | 364.06 | 365.80 | 0.001392 | 2.01 | 157.94 | 71.76 | 0.35 |
| unico | 40 | PF 1 | 279.68 | 360.13 | 365.48 | 363.81 | 365.73 | 0.001725 | 2.43 | 142.81 | 66.61 | 0.39 |
| unico | 39 | PF 1 | 279.68 | 360.36 | 364.15 | 364.14 | 365.47 | 0.013025 | 5.10 | 54.88 | 20.46 | 0.99 |
| unico | 38 | PF 1 | 279.68 | 360.39 | 364.28 | 363.83 | 364.94 | 0.005890 | 3.79 | 81.51 | 36.07 | 0.71 |
| unico | 37 | PF 1 | 279.68 | 360.62 | 363.98 | 363.53 | 364.67 | 0.007283 | 3.67 | 76.11 | 31.44 | 0.75 |
| unico | 36 | PF 1 | 279.68 | 360.68 | 363.73 | 363.51 | 364.35 | 0.007699 | 3.62 | 83.28 | 48.02 | 0.78 |
| unico | 35 | PF 1 | 279.68 | 360.35 | 363.85 | | 364.05 | 0.002777 | 2.13 | 158.36 | 148.28 | 0.47 |
| unico | 34 | PF 1 | 279.68 | 358.92 | 363.76 | | 363.95 | 0.002059 | 2.07 | 146.45 | 81.97 | 0.41 |
| unico | 33 | PF 1 | 279.68 | 358.23 | 363.33 | 362.06 | 363.82 | 0.003403 | 3.13 | 93.61 | 47.64 | 0.54 |
| unico | 32 | PF 1 | 317.85 | 358.53 | 363.23 | 361.96 | 363.67 | 0.002947 | 2.97 | 113.78 | 54.54 | 0.51 |
| unico | 31 | PF 1 | 317.85 | 358.37 | 362.10 | 362.05 | 363.39 | 0.012070 | 5.02 | 63.31 | 23.39 | 0.97 |
| unico | 30 | PF 1 | 317.85 | 358.07 | 362.34 | 361.71 | 362.93 | 0.004933 | 3.51 | 98.93 | 48.06 | 0.65 |
| unico | 29 | PF 1 | 317.85 | 357.36 | 361.62 | 360.98 | 362.42 | 0.007105 | 4.23 | 96.71 | 78.63 | 0.77 |
| unico | 28 | PF 1 | 317.85 | 357.19 | 361.36 | 361.36 | 362.19 | 0.007516 | 4.36 | 94.26 | 74.48 | 0.79 |
| unico | 27 | PF 1 | 317.85 | 357.13 | 361.43 | 360.87 | 361.92 | 0.004064 | 3.45 | 122.67 | 82.56 | 0.60 |
| unico | 26 | PF 1 | 317.85 | 356.91 | 361.47 | 360.58 | 361.82 | 0.002695 | 2.99 | 141.27 | 82.63 | 0.50 |
| unico | 25 | PF 1 | 317.85 | 357.03 | 360.99 | 360.40 | 361.69 | 0.005054 | 4.00 | 103.03 | 68.56 | 0.68 |
| unico | 24 | PF 1 | 317.85 | 356.94 | 360.93 | 360.29 | 361.53 | 0.005589 | 4.17 | 102.40 | 57.27 | 0.71 |
| unico | 23 | PF 1 | 317.85 | 356.77 | 360.46 | 360.09 | 361.35 | 0.007708 | 4.73 | 85.50 | 45.92 | 0.83 |
| unico | 22 | PF 1 | 317.85 | 356.83 | 360.04 | 360.04 | 360.98 | 0.010934 | 4.58 | 77.07 | 41.82 | 0.93 |
| unico | 21 | PF 1 | 317.85 | 356.61 | 359.51 | 359.75 | 360.69 | 0.016178 | 5.11 | 69.43 | 42.44 | 1.12 |
| unico | 20 | PF 1 | 317.85 | 356.69 | 358.99 | 359.36 | 360.20 | 0.023692 | 5.47 | 72.85 | 75.51 | 1.32 |

HEC-RAS Plan: Plan 01 River: Fiume Bormida Reach: unico Profile: PF 1 (Continued)

| Reach | River Sta | Profile | Q Total | Min Ch El | W.S. Elev | Crit W.S. | E.G. Elev | E.G. Slope | Vel Chnl | Flow Area | Top Width | Froude # Chl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (m3/s) | (m) | (m) | (m) | (m) | (m/m) | (m/s) | (m2) | (m) | |
| unico | 19 | PF 1 | 317.85 | 356.80 | 359.32 | 358.41 | 359.40 | 0.001218 | 1.32 | 258.28 | 153.83 | 0.31 |
| unico | 18 | PF 1 | 317.85 | 356.11 | 359.26 | 358.34 | 359.36 | 0.001225 | 1.56 | 238.07 | 128.87 | 0.32 |
| unico | 17 | PF 1 | 317.85 | 355.90 | 359.00 | 358.33 | 359.30 | 0.003502 | 2.63 | 132.72 | 63.55 | 0.54 |
| unico | 16 | PF 1 | 335.35 | 355.45 | 358.93 | 358.00 | 359.22 | 0.002873 | 2.51 | 142.20 | 57.92 | 0.49 |
| unico | 15 | PF 1 | 335.35 | 354.97 | 358.98 | 357.65 | 359.12 | 0.001245 | 1.85 | 205.79 | 82.06 | 0.33 |
| unico | 14 | PF 1 | 335.35 | 354.43 | 358.69 | 357.98 | 359.03 | 0.002895 | 2.92 | 138.91 | 61.52 | 0.52 |
| unico | 13 | PF 1 | 335.35 | 354.39 | 358.25 | 357.73 | 358.88 | 0.005540 | 3.81 | 105.99 | 59.17 | 0.70 |
| unico | 12 | PF 1 | 335.35 | 353.63 | 358.25 | 357.71 | 358.70 | 0.003476 | 3.33 | 125.04 | 60.49 | 0.56 |
| unico | 11 | PF 1 | 335.35 | 353.63 | 358.16 | 357.33 | 358.60 | 0.003353 | 3.49 | 138.38 | 88.39 | 0.56 |
| unico | 10 | PF 1 | 335.35 | 353.61 | 358.10 | 357.24 | 358.50 | 0.002892 | 3.23 | 150.62 | 105.07 | 0.53 |
| unico | 9 | PF 1 | 335.35 | 353.70 | 357.67 | 357.49 | 358.33 | 0.006082 | 3.88 | 102.01 | 53.17 | 0.72 |
| unico | 8 | PF 1 | 335.35 | 353.04 | 357.07 | 357.07 | 358.02 | 0.007995 | 4.50 | 85.32 | 43.66 | 0.81 |
| unico | 7 | PF 1 | 335.35 | 352.93 | 356.68 | 356.78 | 357.72 | 0.009054 | 4.66 | 81.69 | 51.49 | 0.87 |
| unico | 6 | PF 1 | 335.35 | 352.48 | 356.71 | 356.35 | 357.32 | 0.004672 | 3.61 | 108.62 | 60.81 | 0.64 |
| unico | 5 | PF 1 | 335.35 | 352.36 | 356.64 | 356.10 | 357.18 | 0.004773 | 3.39 | 110.64 | 54.85 | 0.64 |
| unico | 4 | PF 1 | 335.35 | 352.40 | 356.11 | 356.11 | 356.92 | 0.007491 | 4.27 | 94.02 | 60.39 | 0.79 |
| unico | 3 | PF 1 | 335.35 | 351.42 | 355.85 | 355.20 | 356.54 | 0.004853 | 4.06 | 107.90 | 62.07 | 0.66 |
| unico | 2 | PF 1 | 335.35 | 351.45 | 355.94 | 355.54 | 356.38 | 0.003256 | 3.41 | 133.70 | 71.41 | 0.55 |
| unico | 1 | PF 1 | 335.35 | 351.63 | 355.09 | 355.09 | 356.24 | 0.009288 | 5.01 | 75.49 | 34.76 | 0.91 |
| unico | 0.9 | PF 1 | 335.35 | 351.50 | 355.16 | 353.82 | 355.32 | 0.001758 | 1.77 | 189.88 | 85.79 | 0.38 |
| unico | 0.8 | | Bridge | | | | | | | | | |
| unico | 0.7 | PF 1 | 335.35 | 351.40 | 355.12 | | 355.28 | 0.001723 | 1.76 | 190.85 | 85.60 | 0.38 |
| unico | 0.6 | PF 1 | 340.00 | 351.33 | 354.22 | 354.22 | 355.17 | 0.013283 | 4.30 | 79.13 | 42.00 | 1.00 |