MODELLAZIONE POST-OPERA

HEC-RAS 5.0.7 March 2019
U.S. Army Corps of Engineers
Hydrologic Engineering Center
609 Second Street
Davis, California

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X     X   XXXXXX    XXXX        XXXX       XX      XXXX
X     X   X        X    X       X   X     X  X     X
X     X   X        X            X   X    X    X    X
XXXXXXX   XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X   X        X            X  X     X    X        X
X     X   X        X    X       X   X    X    X        X
X     X   XXXXXX    XXXX        X    X   X    X   XXXXX
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PROJECT DATA
Project Title: Fella post opera

Project in SI units

PLAN DATA
Plan Title: post-opera
          Geometry Title: Geom Fella post-opera
          Flow Title    : 480 m3/s

Plan Summary Information:
Number of:  Cross Sections =   62    Multiple Openings  =    0
            Culverts       =    0    Inline Structures  =    0
            Bridges        =    0    Lateral Structures =    0

Computational Information
    Water surface calculation tolerance  =  0.0301
    Critical depth calculation tolerance =  0.0301
    Maximum number of iterations         =  40
    Maximum difference tolerance         =  0.1
    Flow tolerance factor                =  0.0301

Computation Options
    Critical depth computed at all cross sections
    Conveyance Calculation Method: At breaks in n values only
    Friction Slope Method:         Program Selects Appropriate method
    Computational Flow Regime:     Mixed Flow

FLOW DATA
Flow Title: 480 m3/s
Flow Data (m3/s)
  River           Reach           RS                  PF 1
  fiume Fella     fiume Fella     23                   480

Boundary Conditions
  River           Reach           Profile                    Upstream              Downstream
  fiume Fella     fiume Fella     PF 1                   Normal S = 0.019      Normal S = 0.016


GEOMETRY DATA
Geometry Title: Geom Fella post-opera

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 23

INPUT
Description: sezione 23
Station Elevation Data    num=      31
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  681.67    6.04  679.29    9.41  679.79   10.74  679.26   13.71  679.27
   20.32  678.47   22.27  678.31   27.13  677.82   31.55  678.04   35.52  678.05
   37.99  678.28   46.93  678.09   55.54  677.87   65.88  678.17   71.99  676.28
   74.37  675.97   80.63     676   82.48  676.03   87.54  676.59   93.48  677.03
   98.23  677.43   98.72  677.79  100.39  678.16  103.81  679.56  108.39  680.83
  109.76  680.87     115  680.41  120.81  680.42  124.27  680.41  125.09  680.67
  125.09  681.12

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0    .055   13.71    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
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         13.71  103.81            9.074   8.544   8.762            .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)           679.77    Element                Left OB    Channel   Right OB
  Vel Head (m)              0.65    Wt. n-Val.                        0.045
  W.S. Elev (m)           679.13    Reach Len. (m)            9.07     8.54       8.76
  Crit W.S. (m)           679.04    Flow Area (m2)                    134.81
  E.G. Slope (m/m)       0.014683   Area (m2)                         134.81
  Q Total (m3/s)          480.00    Flow (m3/s)                       480.00
  Top Width (m)            87.84    Top Width (m)                      87.84
  Vel Total (m/s)           3.56    Avg. Vel. (m/s)                    3.56
  Max Chl Dpth (m)          3.16    Hydr. Depth (m)                    1.53
  Conv. Total (m3/s)      3961.3    Conv. (m3/s)                      3961.3
  Length Wtd. (m)           8.54    Wetted Per. (m)                    88.66
  Min Ch El (m)           675.97    Shear (N/m2)                      218.94
  Alpha                     1.00    Stream Power (N/m s)              779.57
  Frctn Loss (m)            0.12    Cum Volume (1000 m3)      0.00     61.17
  C & E Loss (m)            0.01    Cum SA (1000 m2)          0.02     45.99


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 22.800*

INPUT
Description:
Station Elevation Data    num=      61
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
       0   681.65      .51   681.5     5.25   679.33     6.29   679.13     9.79   679.72
    12.6   679.16    12.62   679.16   13.82   679.13     14.7   679.11    18.88   679.16
    20.1   679.01    25.04   678.44   26.68    678.3    26.86   678.29    31.39   677.87
    35.8   678.05    39.77   678.06    41.2   678.17    42.24   678.24    50.12   678.05
   51.18   678.03    59.58   677.83   59.78   677.83    70.12   678.09    71.48   677.67
   73.63   677.16    75.67   676.41   77.06    676.1    77.72   676.04    79.76   675.81
   81.17   675.88    82.23   675.86   83.75   675.89    85.42   675.93    86.62   675.98
   88.65   676.13    88.76   676.14   90.71   676.31    92.67   676.38    93.98    676.5
    94.2   676.54     95.4    676.7   99.06    676.9   100.01   677.06   100.71   677.09
  105.92    677.4   106.46   677.73  106.81   677.82    108.3   678.09   109.58   678.49
  112.07   679.51   115.74   680.53  116.98   680.56   121.76   680.22   123.44   680.23
  127.05   680.24   128.68   680.24  130.21   680.27   130.94   680.49   130.95   680.61
  130.95   680.97

Manning's n Values        num=      2
     Sta   n Val      Sta   n Val
       0    .055    18.88    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         18.88  112.07            9.074   8.544   8.762            .1       .3

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 22.600*

INPUT
Description:
Station Elevation Data    num=      61
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
       0   681.62      .53   681.52    5.45   679.09     6.53   678.97    10.18   679.65
   14.47   679.06    14.49   679.06   16.32   679.01    17.66   678.96    24.04   679.05
   25.18   678.91    29.76    678.4   31.27   678.23    31.44   678.26    35.64   677.92
   40.06   678.06    44.03   678.07   45.45   678.15    46.49   678.19    54.37   677.98
   55.43   677.96    63.83   677.79   64.03   677.73    74.36   678.02    75.88   677.55
   78.29   677.12    80.57   676.15   82.13   675.92    82.87   675.87    85.15   675.65
   86.69   675.79    87.84   675.75   89.49   675.79    91.31   675.86    92.62   675.97
   94.82   676.18    94.94    676.2   97.06   676.35    99.19    676.3   100.62   676.44
  100.86   676.49   102.16   676.74  106.15   676.83   107.18   677.13   107.94   677.16
  113.61   677.36    114.2   677.68  114.58   677.73   116.21   678.01   117.61   678.34
  120.33   679.46   123.08   680.22  124.21   680.26   128.52   680.03   130.03   680.05
   133.3   680.06   134.76   680.06  136.14   680.13    136.8   680.32   136.82   680.55
  136.82   680.82

Manning's n Values        num=      2
     Sta   n Val      Sta   n Val
       0    .055    24.04    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         24.04  120.33            9.074   8.544   8.762            .1       .3

CROSS SECTION
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RIVER: fiume Fella
REACH: fiume Fella RS: 22.400*

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	681.6	.55	681.54	5.66	678.79	6.78	678.8	10.56	679.59
16.33	678.96	16.37	678.95	18.82	678.83	20.63	678.81	29.21	678.94
30.26	678.82	34.47	678.37	35.87	678.25	36.03	678.24	39.9	677.98
44.31	678.07	48.28	678.08	49.71	678.13	50.74	678.15	58.61	677.92
59.67	677.9	68.07	677.74	68.27	677.74	78.6	677.94	80.29	677.42
82.95	677.07	85.48	675.9	87.19	675.74	88.02	675.7	90.54	675.49
92.2	675.69	93.45	675.63	95.23	675.69	97.19	675.79	98.61	675.95
101	676.23	101.12	676.25	103.41	676.33	105.72	676.23	107.26	676.37
107.52	676.44	108.93	676.77	113.24	676.87	114.35	677.21	115.18	677.22
121.3	677.33	121.94	677.62	122.35	677.75	124.12	677.94	125.64	678.19
128.6	679.41	130.43	679.92	131.43	679.95	135.28	679.84	136.63	679.87
139.54	679.88	140.85	679.88	142.08	679.99	142.67	680.15	142.68	680.48
142.68	680.66								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	29.21	.045

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
29.21 128.6 9.074 8.544 8.762 .1 .3
Left Levee Station= 29.21 Elevation= 678.94

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 22.200*

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	681.57	.57	681.57	5.86	678.49	7.03	678.64	10.95	679.52
18.19	678.86	18.24	678.85	21.33	678.75	23.59	678.65	34.37	678.83
35.33	678.72	39.19	678.34	40.47	678.23	40.61	678.22	44.15	678.03
48.57	678.08	52.53	678.09	53.96	678.12	55	678.11	62.86	677.85
63.92	677.84	72.32	677.7	72.52	677.7	82.84	677.87	84.69	677.3
87.61	677.02	90.38	675.65	92.26	675.56	93.16	675.54	95.93	675.33
97.72	675.6	99.05	675.52	100.97	675.59	103.08	675.73	104.6	675.93
107.17	676.29	107.3	676.31	109.77	676.42	112.24	676.15	113.9	676.31
114.18	676.38	115.69	676.81	120.32	676.85	121.52	677.28	122.41	677.28
128.99	677.29	129.68	677.57	130.13	677.71	132.04	677.87	133.67	678.05
136.86	679.36	137.77	679.61	138.66	679.65	142.04	679.65	143.22	679.68
145.79	679.7	146.93	679.7	148.02	679.85	148.53	679.97	148.55	680.42
148.55	680.51								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	34.37	.045

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
34.37 136.86 9.074 8.544 8.762 .1 .3
Left Levee Station= 34.37 Elevation= 678.83

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 22

INPUT
Description: sezione 22
Station Elevation Data num= 39

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	681.55	.59	681.59	6.07	678.19	11.33	679.45	20.11	678.75
23.83	678.62	26.56	678.5	39.54	678.72	40.41	678.62	45.07	678.2
48.41	678.08	58.21	678.1	67.11	677.79	76.56	677.65	87.08	677.79
89.09	677.17	92.27	676.97	95.28	675.4	98.31	675.37	101.32	675.17
103.23	675.5	104.66	675.4	106.71	675.49	108.97	675.66	113.48	676.36
116.12	676.46	118.77	676.08	120.54	676.24	122.46	676.84	127.41	676.83
128.69	677.36	136.68	677.26	137.9	677.67	141.7	677.9	145.12	679.31
149.82	679.5	153.02	679.52	154.4	679.3	154.41	680.36		

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Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .055   39.54    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         39.54  145.12             7.35    6.94   6.918            .1       .3
Left Levee      Station=   39.54      Elevation=  678.72

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)           679.14    Element                Left OB    Channel   Right OB
  Vel Head (m)              0.55    Wt. n-Val.                        0.045
  W.S. Elev (m)           678.59    Reach Len. (m)            7.35      6.94      6.92
  Crit W.S. (m)           678.47    Flow Area (m2)                    146.07
  E.G. Slope (m/m)      0.013850    Area (m2)                         146.07
  Q Total (m3/s)          480.00    Flow (m3/s)                       480.00
  Top Width (m)           102.64    Top Width (m)                     102.64
  Vel Total (m/s)           3.29    Avg. Vel. (m/s)                     3.29
  Max Chl Dpth (m)          3.42    Hydr. Depth (m)                     1.42
  Conv. Total (m3/s)      4078.6    Conv. (m3/s)                      4078.6
  Length Wtd. (m)           6.94    Wetted Per. (m)                   103.70
  Min Ch El (m)           675.17    Shear (N/m2)                      191.31
  Alpha                     1.00    Stream Power (N/m s)              628.67
  Frctn Loss (m)            0.10    Cum Volume (1000 m3)      0.00     55.15
  C & E Loss (m)            0.01    Cum SA (1000 m2)          0.02     41.92

Note:    Multiple critical depths were found at this location.  The critical depth with the lowest, valid,
energy was used.


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 21.750*

INPUT
Description:
Station Elevation Data     num=       71
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
       0   681.43      .67   681.41      .95   681.23     4.24   679.17     6.91   678.03
    9.19    678.5    13.52    679.2     18.9   678.81    21.47   678.64    24.84   678.55
   27.31   678.46    27.38   678.47    39.07   678.61    39.98   678.52    44.34   678.19
   44.87   678.15    48.38   678.02    50.03   678.03     51.1   678.09    56.68   678.12
   58.08   678.11     66.9    677.8    66.95    677.3    76.26   677.63    76.65   677.63
   86.68   677.76    88.08   677.31    88.95   677.12     89.5   677.09    92.55   677.08
   93.04   676.64    94.35   675.97    95.49   675.41    95.63   675.36    97.46   675.34
   98.74   675.31    98.96   675.29   101.82   675.14   103.68    675.4   103.74   675.41
  105.19   675.38   105.63   675.41   107.26   675.47   109.18   675.58   109.54   675.61
  114.09   676.27   116.78   676.32    116.8   676.32   117.53    676.2   119.53      676
  121.35   676.13   121.61   676.19   123.33   676.73   127.34   676.76   129.32   676.65
  130.67   677.09   132.13   677.13    135.1   677.13   138.68   677.17   139.11   677.17
  140.39    677.5   144.41   677.72   147.49   679.24   151.63   679.42      152   679.43
  154.51   679.45   155.07   679.45   155.49   679.51    156.4    679.7    156.4   679.73
  156.41   680.28

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .055   39.07    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         39.07  147.49             7.35    6.94   6.918            .1       .3
Left Levee      Station=   39.07      Elevation=  678.61


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 21.500*

INPUT
Description:
Station Elevation Data     num=       71
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
       0   681.32      .75   681.23     1.06   681.11     4.75   678.69     7.75   677.86
   10.49   678.38     15.7   678.95    20.53   678.64    22.83   678.53    25.85   678.48
   28.06   678.43    28.12   678.43     38.6   678.49    39.55   678.42    44.12   678.14
   44.67    678.1    48.34   677.96    49.98   678.03    51.04    678.1    56.56   678.14
   57.95   678.12    66.68   677.81    66.74    677.3    75.95   677.61    76.35   677.61
   86.27   677.73    87.84   677.21    88.81   677.07    89.42   677.04    92.83   677.19
   93.33   676.57    94.68   675.88    95.84   675.35    95.98   675.32    97.86   675.31
   99.16   675.24    99.39   675.23   102.32   675.11   104.19   675.32   104.26   675.33
  105.72   675.37   106.17    675.4    107.8   675.45   109.74   675.53    110.1   675.56
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   114.7  676.18  117.46  676.19  117.49  676.19  118.23  676.03  120.29  675.92
  122.16  676.03  122.43  676.07  124.19  676.72  128.91  676.68  131.23  676.47
  132.65  676.83  134.19  676.92  137.31  677.05  141.08  677.07  141.53  677.08
  142.89  677.32  147.11  677.55  149.86  679.17  153.83  679.36  154.18  679.37
  156.59  679.38  157.13  679.37  157.53  679.41  158.39   679.6   158.4  679.65
   158.4   680.2

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0    .055    38.6    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          38.6  149.86             7.35    6.94   6.918            .1       .3
Left Levee      Station=    38.6      Elevation=  678.49


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 21.250*

INPUT
Description:
Station Elevation Data    num=      71
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  681.21     .83  681.05    1.18  680.95    5.27  678.21    8.59   677.7
    11.8  678.25   17.89  678.69   22.15  678.47   24.19  678.43   26.86  678.41
   28.81  678.39   28.87   678.4   38.12  678.33   39.12  678.33   43.89  678.08
   44.47  678.05   48.31  677.91   49.93  678.03   50.98   678.1   56.45  678.16
   57.82  678.12   66.47  677.81   66.52  677.81   75.65  677.59   76.04  677.58
   85.86  677.71    87.6  677.11   88.67  677.02   89.35     677   93.11  677.31
   93.62  676.49      95   675.8   96.19  675.29   96.34  675.27   98.25  675.27
   99.59  675.18   99.82  675.16  102.81  675.03  104.71  675.23  104.77  675.24
  106.24  675.35   106.7   675.4  108.35  675.43  110.31  675.47  110.67  675.51
   115.3  676.09  118.15  676.05  118.17  676.05  118.94  675.87  121.05  675.84
  122.98  675.92  123.25  675.94  125.06  676.67  130.47  676.61  133.13  676.29
  134.63  676.56  136.24  676.71  139.53  676.93  143.49  676.98  143.96  676.99
  145.38  677.15  149.82  677.37  152.23  679.09  156.02  679.29  156.36   679.3
  158.66  679.32  159.18   679.3  159.56  679.31  160.39  679.51  160.39  679.58
   160.4  680.11

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0    .055   38.12    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         38.12  152.23             7.35    6.94   6.917            .1       .3
Left Levee      Station=    38.12     Elevation=  678.38


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 21

INPUT
Description: sezione 21
Station Elevation Data    num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  681.09    1.29  680.78    5.78  677.73    9.43  677.54   13.1   678.13
   20.08  678.44   23.78   678.3   29.61  678.36   37.65  678.27   43.67  678.03
   48.27  677.85   49.88  678.08   50.92  678.11   56.33  678.18   66.31  677.82
   75.73  677.56   85.46  677.68   87.36  677.01   89.27  676.95   93.39  677.42
   93.91  676.41   95.32  675.71   96.54  675.23   98.65  675.23  100.25   675.1
  103.31  675.05  105.22  675.15  107.23  675.39  110.87  675.42  115.91     676
  118.83  675.92  119.64  675.71  124.07  675.82  125.93  676.61  132.04  676.53
  135.04  676.11   138.3   676.5  141.74   676.3  145.89  676.88  152.53  677.19
   154.6  679.02  158.22  679.23  160.74  679.25   161.6  679.21  162.39  679.41
   162.4  680.03

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0    .055   56.33    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         37.65  154.6            4.718   4.537   4.847            .1       .3
Left Levee      Station=    56.33     Elevation=  678.18

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)           678.72    Element                Left OB    Channel   Right OB
  Vel Head (m)              0.69    Wt. n-Val.                          0.045
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W.S. Elev (m)	678.03	Reach Len. (m)	4.72	4.54	4.85
Crit W.S. (m)	678.03	Flow Area (m2)		130.39	
E.G. Slope (m/m)	0.017884	Area (m2)		130.39	
Q Total (m3/s)	480.00	Flow (m3/s)		480.00	
Top Width (m)	92.92	Top Width (m)		92.92	
Vel Total (m/s)	3.68	Avg. Vel. (m/s)		3.68	
Max Chl Dpth (m)	2.98	Hydr. Depth (m)		1.40	
Conv. Total (m3/s)	3589.3	Conv. (m3/s)		3589.3	
Length Wtd. (m)	4.54	Wetted Per. (m)		94.58	
Min Ch El (m)	675.05	Shear (N/m2)		241.78	
Alpha	1.00	Stream Power (N/m s)		890.02	
Frctn Loss (m)	0.09	Cum Volume (1000 m3)	0.00	51.04	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.02	38.97	

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 20.750*

INPUT
Description:
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	680.42	1.09	680.17	4.88	677.83	7.96	677.65	11.5	678.09
18.22	678.33	21	678.22	25.37	678.27	31.4	678.2	36.67	677.97
40.69	677.8	42.32	677.98	43.38	678.01	46.62	678.07	48.87	678.17
56.32	677.91	59.27	677.81	63.72	677.63	69.08	677.54	70.9	677.55
79.22	677.65	81.09	676.95	82.52	676.91	87.43	677.34	87.97	676.41
88.41	676.12	89.41	675.65	90.66	675.16	92.83	675.15	93.62	675.1
94.47	675.02	95.19	675	95.41	674.99	97.61	674.96	99.44	675.08
99.53	675.08	101.55	675.3	102.66	675.33	105.21	675.36	105.37	675.37
109.89	675.89	110.28	675.93	112.74	675.89	113.21	675.85	113.97	675.66
114.02	675.65	117.42	675.68	118.48	675.73	120.35	676.52	123.02	676.38
125.17	676.43	126.97	676.42	128.49	676.23	130.22	676.02	130.62	676.03
132.53	676.31	134.38	676.52	135.56	676.62	136.48	676.7	138.35	676.82
140.49	676.83	142.39	676.85	146.42	677	148.55	677.46	148.86	677.49
150.88	679.01	153.19	679.14	154.38	679.19	156.31	679.2	156.82	679.2
157.5	679.17	157.65	679.18	158.41	679.33	158.41	679.4	158.42	679.99

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	56.32	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
31.4	150.88	4.718	4.537	4.847	.01
Left Levee	Station=	48.87	Elevation=	678.17	.3

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 20.500*

INPUT
Description:
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	679.74	.89	679.56	3.98	677.94	6.49	677.76	9.89	678.06
16.36	678.21	18.21	678.15	21.12	678.17	25.15	678.13	29.66	677.91
33.11	677.75	34.77	677.89	35.84	677.92	39.12	677.98	41.4	678.16
49.16	677.91	52.22	677.8	56.86	677.66	62.44	677.52	64.32	677.51
72.99	677.61	74.82	676.9	75.77	676.86	81.48	677.26	82.03	676.42
82.47	676.04	83.5	675.59	84.79	675.1	87.01	675.07	87.81	675.02
88.69	674.95	89.42	674.9	89.65	674.9	91.91	674.88	93.75	675.01
93.84	675.01	95.87	675.21	96.99	675.25	99.55	675.29	99.71	675.3
104.25	675.83	104.64	675.86	107.11	675.84	107.59	675.78	108.35	675.6
108.41	675.59	111.83	675.57	112.89	675.75	114.76	676.43	117.64	676.18
119.96	676.31	121.9	676.31	123.54	676.23	125.4	675.93	126.2	675.94
128.37	676.31	130.46	676.53	131.8	676.66	132.84	676.75	134.96	676.83
137.04	676.81	138.89	676.83	142.81	676.92	144.89	677.75	145.19	677.8
147.15	679	149.38	679.12	150.54	679.15	152.4	679.15	152.89	679.15
153.55	679.12	153.7	679.14	154.43	679.36	154.44	679.4	154.45	679.96

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.055	49.16	.045	154.45	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.

```
         25.15  147.15            4.718   4.537   4.847            .01      .03
Left Levee      Station=    41.4       Elevation=  678.16


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella         RS: 20.250*

INPUT
Description:
Station Elevation Data     num=      75
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  679.07      .69  678.95     3.08  678.04     5.02  677.87     8.29  678.02
    14.5   678.1    15.43  678.07    16.88  678.03    18.89  678.06    22.66  677.86
   25.54   677.7    27.21  677.79     28.3  677.82    31.63   677.9    33.94  678.14
   41.99   677.9    45.18  677.79    49.99  677.64    55.79   677.5    57.75  677.48
   66.75  677.58    68.55  676.84    69.03  676.82    75.53  677.17    76.08  676.42
   76.54  675.96     77.6  675.53    78.91  675.03    81.18  674.99    82.01  674.95
   82.91  674.87    83.66  674.81     83.9  674.81    86.21   674.8    88.06  674.94
   88.15  674.94    90.19  675.12    91.31  675.13    93.89  675.23    94.05  675.24
   98.62  675.77    99.01  675.79   101.49   675.3   101.97  675.71   102.74  675.53
  102.79  675.53   106.23  675.46   107.29  675.71   109.18  676.34   112.27  675.99
  114.75  676.19   116.83  676.21   118.59  676.17   120.59  675.85   121.78  675.86
   124.2  676.31   126.54  676.55   128.04  676.69    129.2  676.79   131.57  676.85
   133.6   676.8    135.4   676.8   139.21  676.85   141.22  678.03   141.52   678.1
  143.43  678.99   145.58   679.1   146.69  679.11    148.5   679.1   148.97  679.09
  149.61  679.08   149.75  679.11   150.46  679.33   150.46  679.39   150.47  679.93

Manning's n Values         num=       2
     Sta   n Val      Sta   n Val
       0    .055    41.99    .045

Bank Sta: Left   Right     Lengths: Left Channel   Right      Coeff Contr.   Expan.
         18.89  143.43            4.718   4.538   4.847            .01      .03
Left Levee      Station=   33.94       Elevation=  678.14


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella         RS: 20

INPUT
Description: sezione 20
Station Elevation Data     num=      44
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0   678.4     3.55  677.98    12.64  677.99    17.96  677.65    24.13  677.81
   26.47  678.13    34.83  677.89    43.13  677.62    51.18  677.44    60.52  677.54
   62.28  676.78    69.57  677.09    70.61  675.83    73.03  674.97    76.21  674.88
    77.9  674.72    78.14  674.72    80.51  674.71    82.37  674.87    85.64  675.11
   88.39  675.17    92.98  675.71    95.87  675.75    97.12  675.47   100.63  675.35
   103.6  676.25   106.89  675.79   109.54  676.07   113.64  676.12   115.77  675.76
  117.36  675.77   120.04  676.31   124.28  676.73   125.56  676.84   128.18  676.87
  130.15  676.78    135.6  676.77   137.56  678.32    139.7  678.98   141.78  679.08
  144.59  679.05   145.66  679.03   146.48  679.31   146.49  679.89

Manning's n Values         num=       2
     Sta   n Val      Sta   n Val
       0    .055    60.52    .045

Bank Sta: Left   Right     Lengths: Left Channel   Right      Coeff Contr.   Expan.
         12.64   139.7            28.31    18.8   10.67            .01      .03
Left Levee      Station=   60.52       Elevation=  677.54

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)          678.36    Element                Left OB    Channel   Right OB
  Vel Head (m)             0.82    Wt. n-Val.                        0.045
  W.S. Elev (m)          677.54    Reach Len. (m)           28.31     18.80      10.67
  Crit W.S. (m)          677.65    Flow Area (m2)                    119.73
  E.G. Slope (m/m)     0.018244    Area (m2)                         119.73
  Q Total (m3/s)         480.00    Flow (m3/s)                       480.00
  Top Width (m)           76.04    Top Width (m)                      76.04
  Vel Total (m/s)          4.01    Avg. Vel. (m/s)                     4.01
  Max Chl Dpth (m)         2.83    Hydr. Depth (m)                     1.57
  Conv. Total (m3/s)     3553.7    Conv. (m3/s)                      3553.7
  Length Wtd. (m)         18.80    Wetted Per. (m)                    77.57
  Min Ch El (m)          674.71    Shear (N/m2)                      276.16
  Alpha                    1.00    Stream Power (N/m s)             1107.11
  Frctn Loss (m)           0.39    Cum Volume (1000 m3)      0.00     48.78
  C & E Loss (m)           0.00    Cum SA (1000 m2)          0.02     37.33
```

Warning: The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 19

INPUT
Description: sezione 19
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	678.14	4.3	678	8.18	678.04	12.32	677.63	18.46	677.67
23.52	677.24	23.68	677.34	24.15	677.39	30.57	677.36	33.85	676.93
39.4	677.09	46.9	676.85	55.18	676.95	65.07	677.15	67.31	675.89
68.5	675.75	70.92	676.51	76.6	676.5	78.36	674.98	81.79	674.8
83.45	674.48	84.74	674.35	87.09	674.13	89.17	674.52	91.75	674.77
97.26	674.98	98.61	675.36	101.72	675.41	105.18	675.05	106.07	674.79
108.38	675.06	110.74	676.05	115.94	676.04	117.6	675.65	122.24	675.8
123.95	675.38	129.29	676.01	130.34	676.53	136.2	676.5	141.84	676.53
147.65	676.53	149.93	678.35	151.25	678.7	154.38	678.85	156.94	678.86
158.08	678.85	159.01	679.09	159.02	679.57				

Manning's n values num= 2

Sta	n Val	Sta	n Val
0	.055	30.57	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
18.46	151.25	5.957	5.95	6.24	.01	.03

Left Levee Station= 65.07 Elevation= 677.15

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (m)	677.96	Element			
Vel Head (m)	0.89	Wt. n-Val.		0.045	
W.S. Elev (m)	677.07	Reach Len. (m)	5.96	5.95	6.24
Crit W.S. (m)	677.27	Flow Area (m2)		114.92	
E.G. Slope (m/m)	0.023631	Area (m2)		114.92	
Q Total (m3/s)	480.00	Flow (m3/s)		480.00	
Top Width (m)	83.12	Top Width (m)		83.12	
Vel Total (m/s)	4.18	Avg. Vel. (m/s)		4.18	
Max Chl Dpth (m)	2.94	Hydr. Depth (m)		1.38	
Conv. Total (m3/s)	3122.5	Conv. (m3/s)		3122.5	
Length Wtd. (m)	5.95	Wetted Per. (m)		84.99	
Min Ch El (m)	674.13	Shear (N/m2)		313.33	
Alpha	1.00	Stream Power (N/m s)		1308.76	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)	0.00	46.57	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.02	35.84	

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 18.750*

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	678.2	1.9	678.02	3.79	677.92	4.52	677.83	5.66	677.72
6.41	677.72	8.6	677.77	8.71	677.77	12.95	677.49	13.45	677.5
19.4	677.57	24.06	677.24	24.21	677.31	24.64	677.35	26.9	677.33
30.55	677.25	33.56	676.87	38.84	677.05	39.96	677.03	45.96	676.88
49.35	676.92	53.56	676.93	53.83	676.93	63.22	677.11	64.77	676.64
65.94	676.06	66.74	675.83	68.07	675.72	68.62	675.71	72.42	676.38
76.68	676.37	77.18	675.86	78.39	674.94	79.04	674.85	81.73	674.69
83.34	674.41	84.6	674.29	85.55	674.21	86.88	674.02	88.45	674.24
89.09	674.38	89.75	674.47	91.02	674.61	91.83	674.67	95.5	674.8
97.67	674.96	99.1	675.31	102.29	675.35	104.85	675.02	105.7	674.95
106.57	674.76	107.25	674.82	108.85	674.99	109.27	675.14	111.17	675.93
114.76	675.96	116.6	675.95	118.33	675.65	122.49	675.71	122.66	675.7
124.26	675.27	124.77	675.28	128.18	675.61	129.24	675.91	130.21	676.48
133.74	676.43	136.66	676.32	136.75	676.32	139.69	676.4	143.04	676.44
145.23	676.47	149.52	676.43	151.2	677.32	152.07	678.01	152.9	678.38
153.54	678.56	154.71	678.63	156.78	678.72	157.25	678.73	159.44	678.74
159.68	678.74	160.62	678.73	160.72	678.75	161.59	678.97	161.59	679.02
161.6	679.42								

```
Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .055   33.56    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          19.4  153.54             5.957    5.95    6.24           .01      .03
Left Levee      Station=   63.22      Elevation=  677.11


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 18.500*

INPUT
Description:
Station Elevation Data      num=       86
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  678.27        2  677.96     3.97  677.82     4.74  677.66     5.93  677.43
    6.72  677.42     9.02  677.51     9.13   677.5     13.58  677.35     14.1  677.36
   20.34  677.47     24.6  677.23    24.73  677.23     25.13   677.3     27.2  677.28
   30.52  677.14    33.28  676.82    38.27  677.01     39.33  677.02    45.02  676.92
   48.24  676.94    52.22  676.91    52.47  676.91     61.37  677.08    63.49  676.68
   65.09  675.94    66.18  675.76    67.99  675.66     68.73  675.66    73.93  676.24
   76.76  676.23    77.25  675.67    78.43  674.89     79.06  674.75    81.67  674.57
   83.24  674.35    84.46  674.24    85.38  674.15     86.68   673.9    88.33  674.08
   89.01  674.23    89.71  674.37    91.05  674.53     91.91  674.58    95.78   674.7
   98.09  674.94     99.6  675.26   102.87  675.23    105.38   674.9   106.21  674.85
  107.08  674.72   107.74  674.76   109.31  674.92    109.73  675.03    111.6  675.81
  115.35  675.88   117.26  675.86   119.07  675.66    122.92  675.63   123.08  675.61
  124.56  675.16   125.04  675.12   128.21  675.34    129.18   675.8   130.09  676.44
  133.98  676.34   137.21  676.14    137.3  676.14    140.54  676.29   144.24  676.36
  146.65   676.4   151.39  676.33   153.25   676.9     154.2  677.67   155.12  678.22
  155.82  678.43   157.04  678.51   159.19  678.59    159.67   678.6   161.94  678.61
  162.18  678.61   163.16  678.61   163.27  678.62    164.16  678.85   164.17  678.89
  164.18  679.27

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .055   33.28    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          20.34  155.82             5.957    5.95    6.24           .01      .03
Left Levee      Station=   61.37      Elevation=  677.08


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 18.250*

INPUT
Description:
Station Elevation Data      num=       86
     Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev      Sta    Elev
       0  678.33     2.09  677.89     4.16  677.72     4.96  677.49     6.21  677.14
    7.03  677.12     9.43  677.24     9.56  677.24    14.21  677.22    14.76  677.23
   21.29  677.37    25.14  677.23    25.26  677.25    25.62  677.26    27.49  677.24
    30.5  677.03    32.99  676.76    37.71  676.97    38.71     677    44.08  676.95
   47.12  676.97    50.88  676.89    51.12  676.89    59.52  677.05     62.2  676.73
   64.23  675.82    65.61   675.7     67.9  675.59    68.85  675.62    75.43   676.1
   76.85   676.1    77.32  675.47    78.46  674.85    79.07  674.65    81.61  674.46
   83.13  674.28    84.32  674.18    85.22   674.1    86.47  673.78    88.22  673.91
   88.93  674.09    89.67  674.26    91.08  674.44    91.98  674.48    96.07   674.6
    98.5  674.92    100.1  675.21   103.44  675.22   105.91  674.78   106.73  674.76
  107.58  674.69   108.23  674.71   109.78  674.85   110.19  674.93   112.02  675.69
  115.93  675.79   117.92  675.77   119.81  675.66   123.36  675.55   123.51  675.51
  124.87  675.05   125.31  674.95   128.23  675.07   129.13   675.7   129.96  676.39
  134.22  676.25   137.75  675.96   137.85  675.97    141.4  676.17   145.45  676.27
  148.08  676.34   153.27  676.23   155.29  676.49   156.34  677.34   157.34  678.05
  158.11  678.29   159.37  678.38   161.59  678.46   162.09  678.48   164.44  678.49
  164.69  678.49   165.71  678.49   165.81   678.5   166.74  678.74   166.74  678.75
  166.75  679.11

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .055   37.71    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          21.29  158.11             5.958    5.95    6.24           .01      .03
Left Levee      Station=   59.52      Elevation=  677.05
```

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 18

INPUT
Description: sezione 18
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	678.39	2.18	677.83	4.34	677.62	6.48	676.85	7.34	676.82
9.98	676.98	15.41	677.09	22.23	677.27	27.78	677.19	32.71	676.7
38.09	676.98	46	676.99	49.54	676.87	57.67	677.01	60.92	676.77
63.37	675.7	67.82	675.52	76.93	675.97	77.39	675.28	79.09	674.55
85.05	674.05	86.27	673.67	88.1	673.75	89.63	674.15	91.11	674.36
96.36	674.5	100.59	675.16	104.01	675.16	106.44	674.66	108.72	674.66
110.65	674.82	112.45	675.57	116.51	675.71	120.54	675.66	123.79	675.47
125.58	674.79	128.25	674.8	129.84	676.34	134.46	676.16	138.29	675.78
142.25	676.06	149.51	676.27	157.34	676.07	159.56	677.89	160.4	678.15
161.7	678.26	164.51	678.35	167.2	678.37	168.36	678.37	169.32	678.62
169.33	678.96								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	57.67	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
22.23	160.4	10.463	8	5.307	.01	.03

Left Levee Station= 57.67 Elevation= 677.01

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (m)	677.42	Element			
Vel Head (m)	0.74	Wt. n-Val.		0.045	
W.S. Elev (m)	676.68	Reach Len. (m)	10.46	8.00	5.31
Crit W.S. (m)	676.74	Flow Area (m2)		125.88	
E.G. Slope (m/m)	0.021408	Area (m2)		125.88	
Q Total (m3/s)	480.00	Flow (m3/s)		480.00	
Top Width (m)	96.96	Top Width (m)		96.96	
Vel Total (m/s)	3.81	Avg. Vel. (m/s)		3.81	
Max Chl Dpth (m)	3.01	Hydr. Depth (m)		1.30	
Conv. Total (m3/s)	3280.6	Conv. (m3/s)		3280.6	
Length Wtd. (m)	8.00	Wetted Per. (m)		99.11	
Min Ch El (m)	673.67	Shear (N/m2)		266.63	
Alpha	1.00	Stream Power (N/m s)		1016.73	
Frctn Loss (m)	0.13	Cum Volume (1000 m3)	0.00	43.71	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.02	33.69	

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 17.667*

INPUT
Description:
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	678.16	1.43	677.95	2.07	677.79	4.12	677.48	5.91	676.89
6.15	676.83	6.96	676.83	9.3	676.96	9.47	676.97	14.62	677.05
17.66	677.11	21.09	677.18	25.56	676.96	26.55	676.95	26.8	676.94
30.53	676.59	31.4	676.53	36.69	676.72	38.88	676.72	42.81	676.76
44.47	676.75	47.96	676.64	50.32	676.66	55.95	676.75	57.47	676.68
59.15	676.37	60.01	675.99	61.56	675.52	65.94	675.35	66.75	675.37
74.9	675.79	75.35	675.34	76.37	675.06	77.02	674.64	77.26	674.55
78.17	674.35	82.37	673.97	82.88	673.92	84.08	673.6	85.97	673.65
87.41	673.9	87.54	673.93	88.86	674.14	89.07	674.17	90.38	674.26
92.74	674.26	94.48	674.33	95.23	674.42	97.59	674.8	98.84	674.93
100.39	674.94	102.36	674.9	102.64	674.85	104.86	674.57	105.38	674.57
107.21	674.65	108.65	674.78	109.2	674.91	109.83	675.2	111.05	675.53
115.24	675.61	116.49	675.6	119.39	675.56	122.27	675.44	122.74	675.35
124	674.85	124.58	674.7	126.51	674.69	127.33	674.75	128.84	675.79
128.97	675.89	131.28	676.24	132.12	676.17	133.5	675.98	133.73	675.97
136.45	675.83	137.67	675.77	140.58	675.95	141.75	676.02	145.79	676.13
149.23	676.22	150.17	676.21	154.86	676.1	157.3	676.05	158.31	676.58
159.58	677.62	160.45	678.04	161.46	678.13	161.78	678.15	164.66	678.23
165	678.23	167.41	678.25	167.58	678.25	168.6	678.25	168.88	678.29
169.58	678.52	169.58	678.53	169.59	678.86				

```
Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0    .055   21.09    .045  160.45    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         21.09  160.45           10.463       8   5.307             .1       .3
Left Levee      Station=   55.95      Elevation=  676.75


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 17.333*

INPUT
Description:
Station Elevation Data      num=      96
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  677.93    1.36   677.9    1.96  677.74     3.9  677.35    5.59  676.84
    5.82  676.82    6.59  676.83     8.8  676.96    8.96  676.96   13.83  677.01
   16.71  677.05   19.96   677.1   24.35  676.71   25.32  676.72   25.57  676.71
   29.23   676.4   30.09  676.37    35.3  676.46   37.44  676.46   41.31  676.52
   42.95   676.5   46.37  676.42   48.69   676.4   54.23  676.49   55.72  676.47
   57.38  675.96   58.23   675.6   59.75  675.34   64.05  675.19   64.85  675.19
   72.86  675.61   73.31  675.39   74.31  675.23   74.95  674.74   75.18  674.57
   76.08  674.25   80.21  673.85   80.72  673.73    81.9  673.52   83.84  673.56
   85.32  673.69   85.46  673.72   86.82  673.96   87.03  673.99   88.38  674.13
    90.8  674.07    92.6  674.16   93.37  674.22    95.8  674.62   97.08   674.7
   98.68  674.73  100.71  674.63  100.99   674.6  103.28  674.47  103.81  674.48
   105.7  674.63  107.19  674.79  107.75  675.01  108.39  675.32  109.66  675.49
  113.96  675.52  115.26   675.5  118.23  675.46   121.2  675.38  121.68  675.23
  122.98   674.7  123.58  674.62  125.56  674.59  126.41  674.69  127.97  675.36
   128.1  675.44  130.47  676.22  131.34  676.13  132.76  675.78  132.99  675.78
  135.79  675.75  137.06  675.76  140.05  675.93  141.25  675.97  145.41  676.08
  148.95  676.16  149.92  676.17  154.74  676.07  157.26  676.04  158.29   676.3
   160.5  677.92  161.54  678.03  161.86  678.04  164.81  678.11  165.15  678.12
  167.62  678.12  167.79  678.12  168.84  678.12  169.12  678.15  169.85  678.41
  169.86  678.75

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0    .055   19.96    .045  141.25    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         19.96   160.5           10.463       8   5.307             .1       .3


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 17

INPUT
Description: sezione 17
Station Elevation Data      num=      52
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0   677.7    1.28  677.85    5.27  676.79     8.3  676.95   15.76  676.99
   18.82  677.01   23.14  676.46   24.34  676.49   27.94   676.2   36.01   676.2
   39.81  676.29   47.07  676.15   53.98  676.26   56.44   675.2   62.95     675
   72.25   675.5   73.11  674.59   73.99  674.15   78.05  673.73   79.71  673.45
   83.23  673.47   84.77  673.77   86.38     674   88.87  673.88   91.51  674.03
   94.01  674.45   96.97  674.51   99.35  674.35  102.25  674.39  105.72   674.8
  106.96  675.45  114.02  675.41  120.13  675.32  121.96  674.55  124.62  674.48
  127.09  674.93  129.67  676.21  130.56  676.03  132.02  675.59  135.14  675.68
  139.52   675.9  145.03  676.04  149.67  676.13  154.63  676.04  158.28  676.01
  160.55  677.81  161.61  677.93  165.31     678  168.01     678  169.37     678
  170.11  678.31  170.12  678.65

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
       0    .055   18.82    .045  149.67    .055

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         18.82  160.55           10.063   7.133   3.093             .1       .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)          677.01    Element                Left OB    Channel   Right OB
  Vel Head (m)             0.39    Wt. n-Val.                        0.045
  W.S. Elev (m)          676.62    Reach Len. (m)           10.06      7.13       3.09
  Crit W.S. (m)          676.42    Flow Area (m2)                    174.64
  E.G. Slope (m/m)     0.011031    Area (m2)                         174.64
```

Q Total (m3/s)	480.00	Flow (m3/s)			480.00
Top Width (m)	137.19	Top Width (m)			137.19
Vel Total (m/s)	2.75	Avg. Vel. (m/s)			2.75
Max Chl Dpth (m)	3.17	Hydr. Depth (m)			1.27
Conv. Total (m3/s)	4570.3	Conv. (m3/s)			4570.3
Length Wtd. (m)	7.13	Wetted Per. (m)			139.08
Min Ch El (m)	673.45	Shear (N/m2)			135.83
Alpha	1.00	Stream Power (N/m s)			373.32
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		0.00	40.10
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.02	30.88

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 16.667*

INPUT
Description:
Station Elevation Data num= 81

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	677.54	.85	677.64	3.51	676.93	4.36	677.08	6.14	677.18
11.18	677.17	12.87	677.05	12.96	677.05	15.76	677.08	17.24	676.79
19.64	676.53	20.72	676.54	23.95	676.31	31.19	676.24	34.61	676.27
35.29	676.26	41.13	676.17	47.33	676.23	49.8	675.34	50.15	675.3
53.62	674.97	56.34	674.92	61.45	675.1	65.67	675.34	66.51	674.52
67.12	674.16	67.37	674.06	71.34	673.59	72.96	673.32	73.93	673.41
76.43	673.4	77.56	673.54	77.95	673.61	79.5	673.82	79.54	673.82
81.99	673.75	84.59	673.86	85.13	673.93	87.06	674.28	87.53	674.32
89.57	674.4	89.98	674.39	91.69	674.25	92.32	674.23	95.18	674.3
97.03	674.47	98.6	674.8	99.82	675.39	107.67	675.34	107.93	675.33
114.95	675.21	115.94	674.78	117.03	674.43	117.67	674.45	120.05	674.52
120.19	674.54	121.7	674.93	122.86	675.03	125.8	676.02	127.15	675.94
129.38	675.63	132.22	675.7	136.2	675.85	137.46	675.87	141.22	675.95
144.68	676.01	145.44	676.02	149.96	675.97	152.77	675.95	153.28	676.06
155.35	677.7	156.4	677.9	156.48	677.91	160.09	677.98	160.35	677.98
162.71	677.97	162.78	677.97	163.84	677.97	164.14	678	164.88	678.28
164.89	678.66								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.055	15.76	.045	144.68	.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
15.76	155.35	10.063	7.133	3.093	.1 .3

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 16.333*

INPUT
Description:
Station Elevation Data num= 81

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	677.37	.43	677.42	1.76	677.07	2.48	677.31	3.98	677.41
8.55	677.35	10.08	677.12	10.16	677.12	12.7	677.16	14.01	676.77
16.14	676.6	17.09	676.59	19.95	676.41	26.38	676.29	29.4	676.26
30.01	676.24	35.18	676.18	40.69	676.2	43.16	675.47	43.52	675.42
46.99	674.86	49.72	674.84	54.86	674.93	59.09	675.19	59.91	674.45
60.5	674.04	60.75	673.97	64.63	673.45	66.21	673.2	67.16	673.36
69.63	673.33	70.75	673.38	71.13	673.44	72.65	673.64	72.69	673.64
75.11	673.62	77.68	673.7	78.21	673.73	80.1	674.11	80.57	674.17
82.58	674.29	82.98	674.27	84.67	674.1	85.29	674.11	88.11	674.21
89.94	674.34	91.48	674.8	92.69	675.34	101.54	675.26	101.84	675.26
109.76	675.1	110.87	674.6	112.1	674.41	112.81	674.37	115.49	674.56
115.64	674.57	117.34	675.11	118.64	675.23	121.93	675.82	123.75	675.8
126.73	675.68	129.29	675.71	132.89	675.3	134.02	675.81	137.41	675.87
140.53	675.91	141.22	675.92	145.29	675.9	147.82	675.89	148.28	676.11
150.14	677.6	151.2	677.87	151.28	677.89	154.87	677.96	155.13	677.97
157.49	677.94	157.56	677.94	158.61	677.93	158.91	677.99	159.64	678.25
159.65	678.68								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.055	12.7	.045	123.75	.055

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
12.7	150.14	10.063	7.133	3.093	.1 .3

CROSS SECTION

RIVER: fiume Fella
REACH: fiume Fella RS: 16

INPUT
Description: sezione 16
Station Elevation Data num= 43

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	677.21	.59	677.55	1.82	677.64	5.92	677.54	7.29	677.18
9.64	677.23	10.78	676.76	15.96	676.52	24.73	676.22	34.04	676.17
36.88	675.53	40.37	674.75	48.26	674.76	52.51	675.03	53.89	673.92
59.46	673.07	60.4	673.31	63.93	673.23	65.81	673.46	71.28	673.54
73.61	674.03	75.59	674.19	77.65	673.96	82.84	674.2	85.55	675.28
95.42	675.19	104.58	674.99	105.81	674.43	107.96	674.29	111.09	674.61
112.97	675.29	118.06	675.63	124.09	675.72	130.58	675.75	136.38	675.81
142.87	675.83	144.94	677.49	146.07	677.87	149.91	677.95	152.26	677.91
153.38	677.9	154.41	678.22	154.42	678.69				

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	9.64	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
9.64	144.94	3.493 3.435	3.435	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (m)	676.71	Element			
Vel Head (m)	0.62	Wt. n-Val.		0.045	
W.S. Elev (m)	676.09	Reach Len. (m)	3.49	3.44	3.44
Crit W.S. (m)	676.09	Flow Area (m2)		137.40	
E.G. Slope (m/m)	0.018390	Area (m2)		137.40	
Q Total (m3/s)	480.00	Flow (m3/s)		480.00	
Top Width (m)	108.78	Top Width (m)		108.78	
Vel Total (m/s)	3.49	Avg. Vel. (m/s)		3.49	
Max Chl Dpth (m)	3.02	Hydr. Depth (m)		1.26	
Conv. Total (m3/s)	3539.6	Conv. (m3/s)		3539.6	
Length Wtd. (m)	3.44	Wetted Per. (m)		110.09	
Min Ch El (m)	673.07	Shear (N/m2)		225.08	
Alpha	1.00	Stream Power (N/m s)		786.30	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)	0.00	36.65	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.02	28.15	

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 15.750*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	677.18	.71	677.46	2.19	677.57	2.79	677.58	4.65	677.58
6.32	677.61	7.13	677.59	8.37	677.37	8.78	677.3	11.61	677.35
12.75	676.92	15.35	676.66	17.95	676.55	23.18	676.36	26.75	676.23
29.93	676.19	34.97	676.17	36.09	676.06	38.93	675.31	40.07	675.01
42.44	674.65	48.59	674.74	50.35	674.74	54.62	674.96	56	674.14
56.62	674.07	58.56	673.46	61.59	673.05	62.53	673.24	64.94	673.23
66.06	673.22	66.77	673.3	67.94	673.39	69.99	673.39	73.19	673.44
73.41	673.45	75.74	673.89	77.72	674.07	79.06	673.99	79.78	673.9
80.58	673.9	83.56	674.05	84.97	674.22	86.93	674.98	87.68	675.2
94.05	675.15	97.55	675.14	100.44	675.1	105.67	674.97	106.71	674.95
107.94	674.53	110.09	674.41	111.35	674.5	112.36	674.48	113.22	674.54
115.1	675.05	118.47	675.21	120.06	675.44	120.19	675.45	120.4	675.46
122.39	675.55	124.67	675.68	126.22	675.63	130.89	675.67	132.71	675.68
135.65	675.7	138.51	675.71	140.27	675.7	143.3	675.72	145	675.98
147.07	677.54	148.38	677.82	152.14	677.87	152.83	677.88	154.64	677.86
155.56	677.85	156.57	677.85	156.86	677.84	157.41	677.95	158.05	678.16
158.06	678.3	158.07	678.61						

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	11.61	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
11.61	147.07	3.493 3.435	3.435	.01	.03

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 15.500*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	677.15	.83	677.36	2.56	677.5	3.26	677.53	5.44	677.57
7.4	677.67	8.34	677.64	9.79	677.46	10.27	677.42	13.58	677.47
14.72	677.09	17.33	676.68	19.94	676.57	25.18	676.37	28.76	676.24
31.96	676.17	37.02	676.17	38.13	675.95	40.99	675.09	42.13	674.74
44.5	674.54	50.68	674.71	52.44	674.73	56.72	674.9	58.11	674.35
58.73	674.31	60.67	673.38	63.72	673.04	64.65	673.18	67.07	673.2
68.18	673.21	68.9	673.27	70.06	673.32	72.12	673.28	75.32	673.35
75.53	673.36	77.86	673.74	79.84	673.94	81.19	673.95	81.9	673.85
82.71	673.8	85.69	673.96	87.09	674.24	89.06	674.98	89.8	675.12
96.18	675.08	99.67	675.08	102.57	675.06	107.8	674.94	108.83	674.91
110.06	674.62	112.21	674.53	113.48	674.53	114.49	674.44	115.34	674.48
117.22	674.81	120.6	674.9	122.19	675.27	122.31	675.28	122.53	675.29
124.52	675.44	126.8	675.66	128.34	675.65	133.02	675.59	134.83	675.6
137.78	675.63	140.63	675.61	142.4	675.59	145.43	675.61	147.12	676.13
149.19	677.58	150.68	677.78	154.97	677.81	155.75	677.81	157.82	677.79
158.86	677.79	160.01	677.79	160.34	677.79	160.97	677.86	161.7	678.1
161.7	678.2	161.71	678.54						

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	13.58	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
13.58	149.19	3.493 3.435	3.435	.01	.03

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 15.250*

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	677.12	.95	677.27	2.93	677.43	3.74	677.49	6.23	677.56
8.47	677.73	9.54	677.69	11.21	677.56	11.75	677.55	15.54	677.6
16.69	677.25	19.31	676.71	21.92	676.6	27.19	676.39	30.78	676.25
33.98	676.16	39.06	676.16	40.18	675.84	43.04	674.87	44.19	674.48
46.57	674.44	52.76	674.69	54.53	674.71	58.83	674.83	60.22	674.57
60.84	674.55	62.79	673.31	65.84	673.02	66.78	673.11	69.19	673.18
70.31	673.21	71.02	673.25	72.19	673.24	74.24	673.17	77.44	673.25
77.66	673.27	79.99	673.6	81.97	673.82	83.31	673.9	84.03	673.79
84.83	673.7	87.81	673.87	89.22	674.26	91.18	674.97	91.93	675.05
98.3	675.01	101.8	675.03	104.69	675.03	109.92	674.9	110.96	674.88
112.19	674.72	114.34	674.65	115.6	674.66	116.61	674.39	117.47	674.41
119.35	674.56	122.72	674.6	124.31	675.09	124.44	675.1	124.65	675.11
126.64	675.33	128.92	675.64	130.47	675.61	135.14	675.52	136.96	675.53
139.9	675.55	142.76	675.51	144.52	675.43	147.55	675.51	149.25	676.28
151.32	677.63	152.99	677.73	157.79	677.74	158.68	677.74	160.99	677.72
162.16	677.73	163.45	677.74	163.81	677.73	164.52	677.76	165.34	678.05
165.35	678.09	165.35	678.47						

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	15.54	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
15.54	151.32	3.493 3.435	3.435	.01	.03

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 15

INPUT
Description: sezione 15
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	677.09	4.21	677.44	7.02	677.55	9.54	677.79	12.63	677.66
17.51	677.72	21.29	676.73	29.19	676.4	36.01	676.14	41.1	676.16
46.25	674.21	54.85	674.67	62.95	674.79	64.91	673.23	67.97	673
71.32	673.15	73.15	673.23	76.37	673.07	79.57	673.16	85.44	673.85

```
  86.96   673.6   89.94  673.78   93.31  674.97  100.43  674.94  106.82     675
 112.05  674.86  117.73  674.74  118.74  674.35  124.85  674.29  126.44  674.91
 126.78  674.94  128.77  675.22  131.05  675.62  137.27  675.44  142.03  675.47
 146.65  675.37  149.68   675.4  153.44  677.63  160.62  677.68  164.16  677.65
 166.89  677.68  168.08  677.67  168.99  677.99     169  678.39

Manning's n Values         num=       2
     Sta   n Val     Sta   n Val
       0    .055   17.51    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         17.51  153.44             7.67    7.26    7.11           .01      .03

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)           676.43    Element                Left OB    Channel   Right OB
  Vel Head (m)              0.68    Wt. n-Val.                        0.045
  W.S. Elev (m)           675.75    Reach Len. (m)            7.67      7.26      7.11
  Crit W.S. (m)           675.80    Flow Area (m2)                    131.70
  E.G. Slope (m/m)      0.021045    Area (m2)                         131.70
  Q Total (m3/s)          480.00    Flow (m3/s)                       480.00
  Top Width (m)           108.08    Top Width (m)                     108.08
  Vel Total (m/s)           3.64    Avg. Vel. (m/s)                     3.64
  Max Chl Dpth (m)          2.75    Hydr. Depth (m)                     1.22
  Conv. Total (m3/s)      3308.7    Conv. (m3/s)                      3308.7
  Length Wtd. (m)           7.26    Wetted Per. (m)                   109.56
  Min Ch El (m)           673.00    Shear (N/m2)                      248.09
  Alpha                     1.00    Stream Power (N/m s)              904.20
  Frctn Loss (m)            0.18    Cum Volume (1000 m3)      0.00     34.81
  C & E Loss (m)            0.00    Cum SA (1000 m2)          0.02     26.66


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 14

INPUT
Description: sezione 14
Station Elevation Data    num=      47
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  677.61     .62  677.62    4.61  677.53    9.41  677.25   11.29  676.69
   18.69  676.47   25.63  676.28   30.66  674.31   38.15  674.47   44.39  674.61
   50.72  674.73   55.85  674.82   58.51  673.22    61.3  672.95   65.46  672.99
    66.8  673.11   72.16  673.22   73.63  673.19   76.05  673.45    78.8  673.84
   81.28  673.55   83.95  674.53   88.26  674.23   90.43  674.73   92.58  674.57
   94.03  674.53   95.02   674.7  103.86  674.79  108.75  674.81  113.59  674.26
  120.19  674.13  121.04  674.82   121.2  674.75  123.51  675.23  124.21  675.21
  128.59   675.3  133.57   675.1  139.22  675.14  139.68   675.2  144.74  675.29
  148.43  677.42  155.43  677.42  159.08  677.52  161.58  677.54  162.89  677.51
  163.41  677.77  163.42  678.16

Manning's n Values         num=       2
     Sta   n Val     Sta   n Val
       0    .055    9.41    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          9.41  148.43             9.01   7.377   4.453           .01      .03

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)           676.24    Element                Left OB    Channel   Right OB
  Vel Head (m)              0.78    Wt. n-Val.                        0.045
  W.S. Elev (m)           675.46    Reach Len. (m)            9.01      7.38      4.45
  Crit W.S. (m)           675.62    Flow Area (m2)                    122.65
  E.G. Slope (m/m)      0.029690    Area (m2)                         122.65
  Q Total (m3/s)          480.00    Flow (m3/s)                       480.00
  Top Width (m)           117.32    Top Width (m)                     117.32
  Vel Total (m/s)           3.91    Avg. Vel. (m/s)                     3.91
  Max Chl Dpth (m)          2.51    Hydr. Depth (m)                     1.05
  Conv. Total (m3/s)      2785.7    Conv. (m3/s)                      2785.7
  Length Wtd. (m)           7.38    Wetted Per. (m)                   118.71
  Min Ch El (m)           672.95    Shear (N/m2)                      300.83
  Alpha                     1.00    Stream Power (N/m s)             1177.27
  Frctn Loss (m)            0.18    Cum Volume (1000 m3)      0.00     33.89
  C & E Loss (m)            0.01    Cum SA (1000 m2)          0.02     25.84


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 13.667*
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```
INPUT
Description:
Station Elevation Data    num=      87
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  677.37     .77  677.38    3.27  677.37    5.53  676.98    5.71  676.98
   11.66  676.74   13.55  676.34   19.93  676.13   20.97  676.13   25.84  676.09
   27.68  675.37   27.93  675.36   30.86  674.58   32.98  674.17   34.47  674.28
   39.99  674.41   40.49  674.42   44.72  674.53   46.75  674.55   50.39  674.59
    53.1  674.62   55.16  674.63    56.4  674.37   58.24  674.34   60.91  673.21
   62.02  673.11   63.71  672.86   67.29  672.92   67.93  672.93   69.29  673.03
   69.35  673.03   74.73  673.12   74.79  673.12   76.23  673.12   76.87  673.18
   78.68  673.32   79.25  673.38   81.47  674.01   81.75  674.04   83.99  673.92
   85.35  674.27    86.7  674.53   90.64  674.13   91.08  674.16   93.28  674.42
   95.46  674.28    96.4  674.25   96.93  674.27   97.94  674.45   98.06  674.46
  101.24  674.54  103.76  674.54  106.91  674.64  108.88   674.7  111.73  674.66
  111.88  674.66  113.62  674.58  116.23  674.39  116.79  674.32  118.49  674.19
  123.49   674.1  124.35  674.55  124.51   674.5   125.5  674.63  126.86  675.13
  127.18  675.19  127.57  675.18  131.07  675.19  132.01   675.2  136.21  675.08
  137.07  675.05  140.93  675.03   142.8  675.08  143.27  675.13  145.08  675.19
  148.35  675.22  148.41  675.23  152.15  677.38  159.09  677.38  159.21  677.38
  161.86  677.46  162.71  677.48  164.54  677.49  165.19   677.5  166.49  677.49
  167.01  677.67  167.02  678.15

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0    .055   11.66    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         11.66  152.15             9.01   7.377   4.453            .01      .03


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 13.333*

INPUT
Description:
Station Elevation Data    num=      88
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  677.13     .92  677.14     3.9  677.14     6.6  676.37    6.81  676.37
   13.91  676.22    15.8  675.99    22.2  675.77   23.25  675.78   28.14  675.85
   29.98  674.45   30.23  674.44   33.17  674.03   35.29  674.02   36.79  674.22
   42.32  674.37   42.83  674.38   47.07  674.49   49.11   674.5   52.76   674.5
   55.47   674.5   57.55   674.5   58.79  673.96   60.64  673.87   63.31  673.19
   64.43   673.1   66.12  672.78   69.76  672.85   70.41  672.87   71.79  672.95
   71.85  672.95   77.31  673.02   77.37  673.02   78.82  673.05   79.47  673.09
   81.31  673.19   81.89  673.23   84.15  674.13   84.43  674.28    86.7  674.29
   88.08  674.51   89.45  674.53   93.45  674.05   93.89  674.03   96.13  674.11
   98.34  673.99   99.29  673.95   99.84  674.01  100.86   674.2  100.98  674.21
   104.2  674.34  106.77  674.31  109.96  674.49  111.96  674.59  114.86   674.5
     115  674.51  116.77  674.55  119.42  674.47  119.99  674.38  121.72  674.16
  126.79  674.06  127.66  674.28  127.83  674.26  128.83  674.31  130.21  675.02
  130.54  675.17  130.93  675.15  134.48  675.09  135.44   675.1  139.69  675.02
  140.57     675  144.48  674.94  146.39  675.02  146.86  675.06   148.7  675.15
  152.01  675.14  152.08  675.17  155.88  677.34  162.76  677.34  162.88  677.34
   165.5  677.43  166.35  677.44  168.16  677.44   168.8  677.46  170.09  677.47
   170.6  677.57   170.6  677.58  170.61  678.13

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0    .055   13.91    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         13.91  155.88             9.01   7.377   4.453             .1       .3


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 13

INPUT
Description: sezione 13
Station Elevation Data    num=      46
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  676.89    4.53  676.91    7.67  675.77   16.16  675.71   24.48   675.4
   30.43   675.6   32.28  673.53   35.48  673.43   39.11  674.16   44.66  674.32
   49.42  674.46   55.13  674.41   59.93  674.37   61.18  673.54   66.83  673.09
   68.53  672.69   72.22  672.78   74.34  672.87   79.94  672.92   82.08  673.01
   84.53  673.08   87.11  674.51   90.81  674.74   96.26  673.93  102.19  673.65
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103.9	673.97	107.17	674.15	109.77	674.09	115.04	674.49	117.98	674.35
119.92	674.52	122.61	674.54	124.94	674.12	132.16	673.99	133.89	675.14
137.89	675	143.18	674.97	148.04	674.85	152.32	675.11	155.68	675.07
159.6	677.3	166.54	677.3	169.14	677.39	171.78	677.4	174.2	677.47
174.21	678.12								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	30.43	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
16.16	159.6	6.95	6.703	6.777	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (m)	675.83	Element			
Vel Head (m)	0.54	Wt. n-Val.		0.045	
W.S. Elev (m)	675.29	Reach Len. (m)	6.95	6.70	6.78
Crit W.S. (m)	675.26	Flow Area (m2)		147.65	
E.G. Slope (m/m)	0.017597	Area (m2)		147.65	
Q Total (m3/s)	480.00	Flow (m3/s)		480.00	
Top Width (m)	125.36	Top Width (m)		125.36	
Vel Total (m/s)	3.25	Avg. Vel. (m/s)		3.25	
Max Chl Dpth (m)	2.60	Hydr. Depth (m)		1.18	
Conv. Total (m3/s)	3618.4	Conv. (m3/s)		3618.4	
Length Wtd. (m)	6.70	Wetted Per. (m)		127.50	
Min Ch El (m)	672.69	Shear (N/m2)		199.84	
Alpha	1.00	Stream Power (N/m s)		649.65	
Frctn Loss (m)	0.12	Cum Volume (1000 m3)	0.00	30.79	
C & E Loss (m)	0.00	Cum SA (1000 m2)	0.02	23.14	

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 12.667*

INPUT
Description:
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	676.78	3.3	676.76	4.9	676.46	6.05	676.44	10.24	675.6
10.64	675.59	15.37	675.54	16.13	675.33	21.57	675.63	29.44	675.31
31.3	675.32	33.48	674.76	35.07	674.82	36.82	673.46	38.66	673.47
39.85	673.61	40.17	673.7	43.29	674.14	44.58	674.18	48.54	674.22
53.04	674.27	55.04	674.23	56.51	673.98	58.45	673.95	62.99	673.88
63.06	673.85	64.17	673.31	69.52	672.92	71.13	672.63	73.06	672.67
74.8	672.72	76.91	672.8	77.77	672.81	81.33	672.84	82.48	672.9
84.61	673.06	86.12	673.16	87.05	673.29	88.16	673.85	89.61	674.39
93.29	674.55	93.76	674.5	98.71	673.95	100.17	673.89	103.69	673.64
104.61	673.65	106.31	673.93	106.56	673.95	109.22	673.97	109.56	673.98
112.15	673.93	113.14	673.98	117.39	674.26	118.19	674.24	120.32	674.2
122.25	674.34	123.97	674.37	124.92	674.37	127.24	674.06	130.65	673.98
133.03	673.77	134.42	673.85	135.61	674.45	136.14	674.7	138.58	674.7
140	674.89	140.12	674.89	145.38	674.85	147.6	674.81	150.22	674.75
152.22	674.82	154.48	674.92	157.51	674.91	157.74	674.91	157.82	674.92
161.72	677.15	168.56	677.15	168.92	677.16	171.13	677.22	171.35	677.22
173.73	677.21	173.87	677.22	174.93	677.24	176.12	677.37	176.13	678.03

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	21.57	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
21.57	161.72	6.95	6.703	6.777	.1	.3

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 12.333*

INPUT
Description:
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	676.66	4.12	676.63	6.12	676.02	7.56	675.98	12.8	675.43
13.3	675.42	19.23	675.33	20.18	675.01	26.97	675.55	34.4	675.21
36.15	675.18	38.21	673.97	39.71	674.04	41.37	673.39	43.1	673.43
44.22	673.75	44.53	673.85	47.46	674.12	48.69	674.16	52.42	674.12
56.67	674.07	58.55	674.03	59.94	673.54	61.77	673.49	66.05	673.4
66.11	673.38	67.17	673.08	72.21	672.75	73.73	672.56	75.65	672.61

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   77.38  672.65   79.48  672.73   80.34  672.75   83.87  672.78   85.02  672.89
   87.14  673.11   88.64  673.26   89.56  673.51   90.67     674   92.11  674.27
   95.77  674.36   96.24  674.34  101.17  673.93  102.61  673.92  106.11  673.59
  107.03  673.65  108.72  673.88  108.97  673.91  111.61  673.81  111.96  673.81
  114.53  673.78  115.51   673.8  119.75  674.02  120.54  674.03  122.66  674.05
  124.57  674.16  126.29  674.21  127.24  674.19  129.54  673.99  132.93  673.89
   135.3  673.53  136.68   673.7  137.86  674.12   138.4  674.27  140.82  674.35
  142.24  674.77  142.35  674.77  147.59  674.73  149.79   674.7   152.4  674.65
  154.38  674.66  156.63  674.73  159.65  674.75  159.88  674.75  159.95  674.78
  163.83  677.01  170.58  677.01  170.93  677.01  173.11  677.05  173.34  677.05
  175.68  677.03  175.82  677.03  176.87  677.04  178.03  677.27  178.03  677.29
  178.04  677.93

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0    .055   26.97    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         26.97  163.83             6.95   6.703   6.777            .1       .3
Left Levee      Station=   26.97      Elevation=  675.55


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 12

INPUT
Description: sezione 12
Station Elevation Data    num=      45
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  676.55    4.95  676.49    7.35  675.53   15.97  675.24   23.08  675.12
   24.22  674.65   32.38  675.47   41.01  675.04   42.94  673.19   47.54   673.4
   48.88  674.01   52.79  674.14   62.06  673.82   63.37  673.09   69.17  672.91
   76.33   672.5   78.24  672.54    82.9  672.63   86.42  672.71   91.16  673.37
   93.18  674.15   98.72  674.17  105.06  673.95  108.54  673.54  111.38  673.87
  114.01  673.65  117.89  673.61  122.89  673.82  128.61  674.05  135.21  673.81
  137.57  673.29  140.12  673.79  143.06     674  144.47  674.66  151.98  674.59
  156.55  674.51  161.79  674.59  162.02  674.59  165.95  676.86  172.95  676.86
  175.32  676.88  177.77  676.84   178.8  676.84  179.95  677.17  179.96  677.84

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0    .055   32.38    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         32.38  165.95             7.24   6.883    6.81            .01       .03
Left Levee      Station=   32.38      Elevation=  675.47

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)          675.47    Element                Left OB    Channel   Right OB
  Vel Head (m)             0.59    Wt. n-Val.                        0.045
  W.S. Elev (m)          674.88    Reach Len. (m)            7.24       6.88       6.81
  Crit W.S. (m)          674.88    Flow Area (m2)                     141.60
  E.G. Slope (m/m)      0.019282   Area (m2)                          141.60
  Q Total (m3/s)         480.00    Flow (m3/s)                        480.00
  Top Width (m)          121.35    Top Width (m)                      121.35
  Vel Total (m/s)          3.39    Avg. Vel. (m/s)                      3.39
  Max Chl Dpth (m)         2.38    Hydr. Depth (m)                      1.17
  Conv. Total (m3/s)     3456.7    Conv. (m3/s)                       3456.7
  Length Wtd. (m)          6.88    Wetted Per. (m)                    122.99
  Min Ch El (m)          672.50    Shear (N/m2)                       217.71
  Alpha                    1.00    Stream Power (N/m s)               737.99
  Frctn Loss (m)           0.15    Cum Volume (1000 m3)      0.00      27.81
  C & E Loss (m)           0.00    Cum SA (1000 m2)          0.02      20.63

Note:    Multiple critical depths were found at this location.  The critical depth with the lowest, valid,
energy was used.


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 11.667*

INPUT
Description:
Station Elevation Data    num=      89
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  676.49     .55  676.49    3.32  676.47    5.84  676.41    7.85  675.94
    8.68  675.61   10.08  675.31   16.93  675.23   18.86  675.22    20.9  675.17
```

22.27	674.94	27.25	674.92	28.23	674.69	28.6	674.61	38.23	675.19
40.18	674.38	42.58	674.57	45.96	674.49	47.69	673.29	49.76	673.39
51.82	673.44	53.02	673.83	53.12	673.83	56.52	673.66	56.83	673.63
62.92	673.55	64.83	673.44	66	672.92	70.21	672.7	71.2	672.69
72.01	672.66	74.54	672.5	75.98	672.38	77.62	672.29	79.53	672.33
82.1	672.39	84.21	672.46	84.31	672.46	87.74	672.67	88.6	672.79
91.5	673.19	92.5	673.28	93.88	673.63	94.53	673.89	95.75	674.06
100.09	674.03	104.07	673.9	106.45	673.83	109.94	673.53	111.04	673.6
112.79	673.66	115.43	673.39	116.09	673.36	119.33	673.42	123.26	673.64
124.34	673.57	125.23	673.52	127.75	673.59	129.04	673.73	130.08	673.73
131.61	673.66	133.45	673.71	136.71	673.43	137.64	673.3	139.08	673.18
141.63	673.69	142.66	673.81	144.57	673.99	144.58	673.99	146	674.44
150.57	674.45	153.54	674.49	154.08	674.49	158.12	674.44	159.57	674.45
163.31	674.43	163.38	674.44	163.61	674.49	167.56	676.77	174.53	676.77
174.62	676.77	176.88	676.8	177.06	676.79	179.25	676.76	179.32	676.76
180.35	676.76	180.45	676.78	181.49	677.12	181.5	677.75		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	38.23	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
38.23	167.56	7.24	6.883	6.81	.01 .03

Left Levee Station= 38.23 Elevation=675.1866

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 11.333*

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	676.44	.64	676.43	3.82	676.43	6.74	676.33	9.05	676.04
10.01	675.63	11.63	675.08	19.52	675.26	21.74	675.19	24.1	675.14
25.67	674.68	31.42	674.71	32.55	674.61	32.97	674.57	44.08	674.9
45.81	673.4	47.92	673.9	50.92	673.95	52.45	673.38	54.28	673.49
56.09	673.48	57.15	673.65	57.25	673.65	60.25	673.17	60.52	673.12
65.91	673.2	67.6	673.07	68.63	672.76	72.36	672.46	73.23	672.46
73.94	672.45	76.19	672.3	77.45	672.15	78.9	672.09	80.83	672.12
83.41	672.17	85.52	672.23	85.62	672.23	89.07	672.62	89.92	672.76
92.83	673.15	93.84	673.19	95.23	673.36	95.87	673.63	97.1	673.97
101.45	673.9	105.45	673.78	107.84	673.71	111.34	673.51	112.44	673.54
114.2	673.44	116.85	673.13	117.52	673.07	120.76	673.23	124.71	673.5
125.8	673.33	126.68	673.19	129.21	673.23	130.51	673.44	131.56	673.41
133.09	673.33	134.93	673.49	138.2	673.14	139.14	672.99	140.58	673.08
143.15	673.59	144.18	673.75	146.1	673.93	146.11	673.98	147.53	674.22
152.11	674.27	155.09	674.39	155.64	674.41	159.7	674.36	161.15	674.36
164.9	674.27	164.97	674.3	165.21	674.39	169.16	676.67	176.1	676.67
176.2	676.67	178.45	676.71	178.63	676.71	180.81	676.67	180.88	676.67
181.9	676.69	182	676.7	183.04	677.06	183.05	677.66		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	44.08	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
44.08	169.16	7.24	6.883	6.81	.01 .03

Left Levee Station= 44.08 Elevation=674.9033

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 11

INPUT
Description: sezione 11
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	676.38	.72	676.38	4.33	676.39	10.25	676.13	13.17	674.86
22.11	675.24	27.3	675.1	29.08	674.43	36.87	674.52	49.93	674.62
51.43	672.42	53.27	673.24	58.79	673.53	61.37	673.47	64.22	672.62
68.9	672.86	74.5	672.22	75.88	672.25	77.83	672.1	78.93	671.92
80.19	671.88	84.71	671.95	86.93	672.01	91.25	672.72	94.17	673.11
96.57	673.09	98.45	673.88	106.83	673.65	113.85	673.47	118.94	672.78
126.16	673.37	128.14	672.85	130.68	672.87	131.98	673.16	134.57	673
136.42	673.27	140.64	672.68	145.7	673.7	147.62	673.97	153.66	674.1
157.2	674.32	162.73	674.28	166.49	674.11	170.77	676.58	177.77	676.58
180.19	676.63	182.36	676.59	183.55	676.61	184.58	677.01	184.59	677.57

```
Manning's n Values         num=       2
     Sta   n Val      Sta   n Val
       0    .055    49.93    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         49.93  170.77             5.773    6.56   7.763           .1       .3
Left Levee       Station=   49.93      Elevation=  674.62

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)           675.04    Element                Left OB    Channel   Right OB
  Vel Head (m)              0.44    Wt. n-Val.                        0.045
  W.S. Elev (m)           674.60    Reach Len. (m)            5.77      6.56       7.76
  Crit W.S. (m)           674.38    Flow Area (m2)                    164.15
  E.G. Slope (m/m)      0.011361    Area (m2)                         164.15
  Q Total (m3/s)          480.00    Flow (m3/s)                       480.00
  Top Width (m)           117.40    Top Width (m)                     117.40
  Vel Total (m/s)           2.92    Avg. Vel. (m/s)                     2.92
  Max Chl Dpth (m)          2.72    Hydr. Depth (m)                     1.40
  Conv. Total (m3/s)      4503.3    Conv. (m3/s)                      4503.3
  Length Wtd. (m)           6.56    Wetted Per. (m)                   119.68
  Min Ch El (m)           671.88    Shear (N/m2)                      152.82
  Alpha                     1.00    Stream Power (N/m s)              446.85
  Frctn Loss (m)            0.07    Cum Volume (1000 m3)      0.00     24.93
  C & E Loss (m)            0.00    Cum SA (1000 m2)          0.02     18.12

Note:    Hydraulic jump has occurred between this cross section and the previous upstream section.


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella         RS: 10.667*

INPUT
Description:
Station Elevation Data     num=      88
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  676.35     .75  676.36    1.32  676.36    4.35  676.36    4.53  676.36
   10.72  676.16   11.24  676.01   13.77  675.04   16.24  674.85   23.12  675.12
   26.33   675.1   28.54  674.85   29.16  674.65   30.41  674.35   37.44  674.38
   38.55   674.4   44.68  674.49   52.21  674.57   53.67  672.92   55.47  673.24
   57.12  673.09   60.85  673.17   62.12   673.1   63.37  673.09   66.15  672.59
    69.3  672.77   70.72  672.67   71.63  672.5    76.04  672.02   76.19     672
   77.53  671.93   77.56  671.92   79.44  671.82   80.51  671.7    81.74  671.67
   83.32  671.79   86.22  671.89   86.37   671.9   88.42  672.04   90.43  672.36
   91.61   672.6    92.7  672.89   93.14     673   95.59  673.25   97.97  673.26
   98.69  673.46   99.84  673.76  103.49  673.62  108.14  673.49  112.92  673.36
   115.1  673.31  120.14  672.83  121.72   672.9   127.3  673.02   127.9   672.9
  129.26  672.62  130.44  672.59  131.78  672.66  133.07  672.92   133.1  672.92
  135.63  672.82  136.51  672.91  137.47  673.05  141.49  672.85  141.65  672.85
  143.29  673.26  145.34   673.6  146.66  673.79  148.57  673.98  152.38  674.05
  154.55  674.09  157.37  674.22  158.06  674.25  162.88  674.22  163.54  674.21
  167.27  674.08  167.41  674.13  171.51  676.49  178.33  676.49  178.57  676.49
  181.01  676.52  181.04  676.52   183.2  676.43  183.71  676.49   184.4   676.5
  184.58  676.54  185.44  676.88  185.45  677.41

Manning's n Values         num=       4
     Sta   n Val      Sta   n Val      Sta   n Val      Sta   n Val
       0    .055    52.21    .045  171.51    .045  185.45    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         52.21  171.51             5.773    6.56   7.763           .1       .3
Left Levee       Station=52.20667      Elevation=674.5733


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella         RS: 10.333*

INPUT
Description:
Station Elevation Data     num=      88
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  676.31     .79  676.33    1.37  676.35    4.54  676.33    4.72  676.33
   11.18  676.18   11.73   676.1   14.37  675.23   16.95  674.75   24.13  674.99
   27.48  675.04   29.79  674.61   30.43  674.42   31.73  674.26   39.08  674.24
   40.23  674.27   46.63  674.41   54.48  674.53   55.91  673.42   57.66  673.23
   59.27  672.84   62.92  672.75   64.16  672.67   65.37  672.71   68.09  672.56
   71.15  672.76   72.54  672.48   73.43  672.25   77.73   671.8   77.87  671.77
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   79.19   671.6   79.22   671.6   81.04  671.54   82.09  671.48   83.29  671.47
   84.85  671.68   87.73  671.84   87.88  671.84   89.91  672.07    91.9  672.38
   93.07  672.65   94.15  673.06   94.58  673.22   97.02  673.38   99.38  673.42
  100.08  673.54  101.22  673.65  104.85  673.45  109.45  673.33  114.19   673.2
  116.35  673.16  121.35  672.87  122.91   672.9  128.44  672.68  129.04  672.58
  130.38  672.39  131.55  672.33  132.88  672.45  134.15  672.67  134.18  672.67
   136.7  672.64  137.56  672.69  138.51  672.82   142.5     673  142.66  673.03
  144.29   673.5  146.31  673.77  147.63  673.87  149.51  673.98   153.3  674.05
  155.45  674.08  158.24  674.17  158.92  674.13   163.7  674.15  164.35  674.15
  168.05  674.05  168.18  674.08  172.25   676.4  179.13   676.4  179.37   676.4
  181.84  676.42  181.87  676.42  184.05  676.33  184.56  676.37  185.26  676.39
  185.43  676.41  186.31  676.75  186.32  677.24

Manning's n Values        num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
       0    .055   54.48    .045  172.25    .045  186.32    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         54.48  172.25            5.773    6.56   7.763             .1       .3
Left Levee      Station=54.48333      Elevation=674.5267


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 10

INPUT
Description: sezione 10
Station Elevation Data    num=      44
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  676.28    1.43  676.33    4.73   676.3   12.22   676.2   17.66  674.64
   28.63  674.98    31.7  674.19   40.71  674.11   48.58  674.34   56.76  674.48
   61.43  672.59   66.19  672.25   73.01  672.74   75.23     672   79.42  671.58
   80.87  671.27   84.84  671.26   86.39  671.57   89.39  671.79   93.37   672.4
   94.53  672.71   96.03  673.44  101.48  673.61   106.2  673.29  115.46  673.04
   124.1  672.89  130.17  672.27  132.66  672.06  135.27  672.43  138.62  672.47
  143.51  673.15  145.28  673.74  147.29  673.94  154.21  674.05  159.11  674.11
  164.52  674.09  168.96  674.02  172.99  676.31  179.93  676.31  182.69  676.31
  185.41  676.26  186.29  676.28  187.17  676.62  187.18  677.08

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0    .055   56.76    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         56.76  172.99            7.103    7.12    6.75             .1       .3
Left Levee      Station=   56.76      Elevation=  674.48

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)           674.78    Element                Left OB    Channel   Right OB
  Vel Head (m)              0.61    Wt. n-Val.                        0.045
  W.S. Elev (m)           674.17    Reach Len. (m)            7.10      7.12      6.75
  Crit W.S. (m)           674.17    Flow Area (m2)                    138.57
  E.G. Slope (m/m)      0.018461    Area (m2)                         138.57
  Q Total (m3/s)          480.00    Flow (m3/s)                       480.00
  Top Width (m)           111.68    Top Width (m)                     111.68
  Vel Total (m/s)           3.46    Avg. Vel. (m/s)                     3.46
  Max Chl Dpth (m)          2.91    Hydr. Depth (m)                     1.24
  Conv. Total (m3/s)      3532.8    Conv. (m3/s)                      3532.8
  Length Wtd. (m)           7.12    Wetted Per. (m)                   112.76
  Min Ch El (m)           671.26    Shear (N/m2)                      222.46
  Alpha                     1.00    Stream Power (N/m s)              770.62
  Frctn Loss (m)            0.14    Cum Volume (1000 m3)      0.00     21.81
  C & E Loss (m)            0.00    Cum SA (1000 m2)          0.02     15.86

Note:    Multiple critical depths were found at this location.  The critical depth with the lowest, valid,
energy was used.


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 9.6667*

INPUT
Description:
Station Elevation Data    num=      89
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  676.36     1.4  676.12    3.07  675.79    4.62  675.78   11.31  675.75
   11.94  675.74   14.17  675.31   17.26  674.72   25.14   674.9    25.5  674.86
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   27.48  674.49   27.97   674.5   30.97  673.97   38.05  673.92   39.78  673.93
   47.47  674.21   47.76  674.22   55.46  674.37    56.5  674.06   60.12  672.84
   60.35  672.81   64.88  672.63   66.58  672.73   69.03   672.2   71.68   672.4
   73.58  672.03    73.9  671.94   78.09  671.49   79.26  671.28   79.53  671.24
   82.31  671.25    83.5  671.16   85.07  671.38   85.14  671.39   85.66  671.42
   87.68  671.59   88.12   671.6   88.54  671.63   91.69  672.15   92.17  672.31
   92.96  672.63   93.35  672.69   94.87  673.17   98.76  673.23  100.41  673.25
  103.85  673.07  105.21  673.02  109.59  672.98  114.62  672.92  114.79  672.92
  121.19  672.79   123.4  672.76  128.29  672.45  129.57  672.28  131.44  672.07
   132.1  672.04  134.75   672.3  135.91  672.32  138.16  672.35  140.33  672.56
  143.13   672.9  144.65  673.28  144.93  673.35  146.97  673.54  148.86  673.62
  149.84  673.77  150.26  673.82  153.72  673.88     154  673.89  158.93  673.99
  158.98  673.98  159.48  673.95  163.47  673.93  164.48  673.98  168.99  673.92
  169.17  673.99  169.37  674.06  173.09  676.22  179.98  676.22  180.38  676.22
  181.03  676.23  182.72  676.22  185.26  676.17  185.42  676.16  185.55  676.15
  186.17  676.19  186.29  676.21  187.17  676.52  187.18  676.99

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .055   55.46    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         55.46  173.09           7.103    7.12    6.75            .01      .03
Left Levee       Station=   55.46       Elevation=674.3733


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 9.3333*

INPUT
Description:
Station Elevation Data      num=      89
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  676.43    1.36  675.91       3  675.26    4.51  675.27   11.05  675.28
   11.66  675.28   13.84  675.07   16.85  674.79   24.55  674.92    24.9  674.82
   26.83  674.02   27.32  674.03   30.25  673.75   37.16  673.71   38.85  673.76
   46.35  674.08   46.64   674.1   54.16  674.27    55.2  674.07   58.82  673.08
   59.04  673.04   63.56  673.01   65.27  673.03   67.71  671.85   70.36  672.05
   72.25  671.94   72.57  671.88   76.75   671.4   77.93  671.22    78.2  671.21
   80.97  671.23   82.15  671.07   83.75   671.2   83.83   671.2   84.35  671.24
   86.41  671.41   86.85   671.4   87.28   671.4   90.48  671.98   90.96  672.22
   91.77  672.65   92.16  672.68   93.71   672.9   97.66  672.89   99.34  672.89
  102.84  672.77  104.21  672.76  108.66  672.73  113.78   672.8  113.95   672.8
  120.46  672.64  122.7   672.64  127.67  672.49  128.97   672.3  130.87  672.02
  131.54  672.02  134.23  672.17  135.41  672.19  137.69  672.23   139.9  672.36
  142.74  672.65  144.29  672.91  144.57  672.96  146.65  673.14  148.57  673.26
  149.56  673.55  149.99  673.64  153.51  673.72   153.8  673.72   158.8  673.86
  158.86  673.86  159.36   673.8  163.41  673.87  164.44  673.87  169.03  673.83
   169.2  673.86  169.41  673.89  173.19  676.13  180.03  676.13  180.42  676.13
  181.07  676.16  182.75  676.12  185.27  676.03  185.43  676.06  185.56  676.04
  186.18  676.11   186.3  676.13  187.16  676.42  187.17  676.89

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .055   54.16    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         54.16  173.19           7.103    7.12    6.75            .01      .03
Left Levee       Station=   54.16       Elevation=674.2667
Right Levee      Station=   158.8       Elevation=  673.86


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 9

INPUT
Description: sezione 9
Station Elevation Data      num=      52
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  676.51    2.93  674.74   10.78  674.82   13.51  674.84   23.96  674.93
    24.3  674.78   26.19  673.55   36.27   673.5   45.52  673.97   52.86  674.16
    53.9  674.07   57.73  673.28   63.95  673.44   66.39   671.5   70.92  671.86
   76.59  671.17   79.63  671.21   80.81  670.97   82.51  671.01   83.04  671.05
   85.13  671.24   86.02  671.18   89.27   671.3   90.58  672.67   96.56  672.56
  101.82  672.46  107.74  672.58  113.11  672.63  119.72   672.5  127.05  672.54
   130.3  671.98  134.91  672.07  139.47  672.16  143.93  672.54  148.28  672.91
  149.29  673.33  149.72  673.47   153.3  673.55  158.67  673.74  159.24  673.64
  163.36  673.76  169.24  673.73  169.45  673.72  173.29  676.04  180.47  676.04
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  181.11  676.08  182.78  676.03  185.28  675.99  185.57  675.93  186.18  676.02
  187.16  676.32  187.17   676.8

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .055   63.95    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         52.86  173.29              8.7   8.485  12.155           .01      .03
Left Levee       Station=   52.86      Elevation=  674.16
Right Levee      Station=  158.67      Elevation=  673.74

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)           674.36    Element                Left OB    Channel   Right OB
  Vel Head (m)              0.73    Wt. n-Val.                        0.045
  W.S. Elev (m)           673.64    Reach Len. (m)            8.70      8.49      12.16
  Crit W.S. (m)           673.74    Flow Area (m2)                    127.16
  E.G. Slope (m/m)      0.019909    Area (m2)                         127.16
  Q Total (m3/s)          480.00    Flow (m3/s)                       480.00
  Top Width (m)            99.75    Top Width (m)                      99.75
  Vel Total (m/s)           3.77    Avg. Vel. (m/s)                    3.77
  Max Chl Dpth (m)          2.67    Hydr. Depth (m)                    1.27
  Conv. Total (m3/s)      3401.9    Conv. (m3/s)                      3401.9
  Length Wtd. (m)           8.49    Wetted Per. (m)                   101.08
  Min Ch El (m)           670.97    Shear (N/m2)                      245.63
  Alpha                     1.00    Stream Power (N/m s)              927.16
  Frctn Loss (m)            0.16    Cum Volume (1000 m3)      0.00    18.95
  C & E Loss (m)            0.00    Cum SA (1000 m2)          0.02    13.58

Note:    Multiple critical depths were found at this location.  The critical depth with the lowest, valid,
energy was used.


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 8.5000*

INPUT
Description:
Station Elevation Data      num=       92
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
       0   676.72     2.78    675.1     3.55   674.89    10.22   674.83    12.81   674.81
   13.35    674.8    20.36   674.78    22.72   674.77    23.05   674.69    24.84   674.06
   26.56   674.05    29.36   673.39     34.4   673.37     35.3   673.39    40.29   673.62
   43.17   673.77    50.13   674.02    51.33   673.63    52.18   673.39    55.75   673.13
   57.99   673.19    59.38    672.9    61.01   673.03    62.93    673.1    65.74   672.19
   65.84    672.2    67.47   672.25     69.5   672.31    70.11   671.65    70.97   671.67
    73.5   671.52    77.09   671.18    77.52   671.15    79.43   671.09    81.02   671.09
   82.38   670.96    84.06   671.03    84.58   671.06    85.51   671.13    86.64   671.24
   87.52   671.25    88.75   671.43    90.73   671.96    91.26   672.23    92.02   672.48
   96.93   672.45    97.91   672.44    101.4   672.42    103.1   672.39   107.56   672.41
  108.94   672.42   112.33   672.43   114.23   672.46   119.04   672.44   120.75   672.44
  126.22    672.5   127.98   672.39   131.18    671.9   131.42   671.88   135.72   671.99
  136.19      672   140.22   672.06   142.21   672.16   144.62   672.34   148.56   672.64
  148.91   672.66    149.9   672.87   150.33   672.94   153.86      673   154.03   673.01
  154.25   673.05   159.15    673.6   159.65    673.6   159.71   673.59   163.77   673.58
  165.12   673.56   169.57   673.58   169.78   673.58   169.97   673.64    172.1   674.31
  173.57   675.77   180.48   675.77   180.84   675.78   181.48   675.82   183.15   675.85
  183.17   675.85   185.71   675.83      186    675.8   186.62   675.84   186.82   675.88
  187.61   676.18   187.62   676.66

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .055   50.13    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         50.13  173.57              8.7   8.485  12.155           .1       .3
Left Levee       Station=   50.13      Elevation=  674.02
Right Levee      Station=  159.15      Elevation=   673.6


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 8

INPUT
Description: sezione 8
Station Elevation Data      num=       46
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
```

0	676.93	3.36	675.04	12.62	674.76	19.25	674.65	25.11	674.55
27.76	673.26	33.38	673.23	38.1	673.43	47.4	673.88	49.72	672.86
56.31	673.05	57.89	672.44	59.73	672.66	65.21	672.89	67.06	672.88
69.35	672.86	70.05	671.49	73.89	671.45	77.96	671.15	80.61	670.99
83.96	670.95	87.04	671.12	90.23	671.45	92.71	672.29	98.3	672.32
102.7	672.34	108.78	672.27	113.48	672.21	120.09	672.34	127.17	672.47
132.3	671.78	137	671.92	142.93	671.93	149.19	672.4	154.58	672.46
154.8	672.54	160.12	673.55	165.52	673.36	170.3	673.44	172.4	673.48
173.84	675.49	180.84	675.49	183.54	675.67	187.26	675.67	188.06	676.04
188.07	676.52								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	56.31	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
47.4	173.84	6.86	8.24 12.365	.1	.3

Left Levee Station= 47.4 Elevation= 673.88
Right Levee Station= 160.12 Elevation= 673.55

CROSS SECTION OUTPUT Profile #PF 1

			Left OB	Channel	Right OB
E.G. Elev (m)	674.04	Element			
Vel Head (m)	0.58	Wt. n-Val.		0.045	
W.S. Elev (m)	673.47	Reach Len. (m)	6.86	8.24	12.37
Crit W.S. (m)	673.43	Flow Area (m2)		142.78	
E.G. Slope (m/m)	0.016192	Area (m2)		142.78	
Q Total (m3/s)	480.00	Flow (m3/s)		480.00	
Top Width (m)	111.35	Top Width (m)		111.35	
Vel Total (m/s)	3.36	Avg. Vel. (m/s)		3.36	
Max Chl Dpth (m)	2.52	Hydr. Depth (m)		1.28	
Conv. Total (m3/s)	3772.2	Conv. (m3/s)		3772.2	
Length Wtd. (m)	8.24	Wetted Per. (m)		112.80	
Min Ch El (m)	670.95	Shear (N/m2)		200.99	
Alpha	1.00	Stream Power (N/m s)		675.69	
Frctn Loss (m)	0.14	Cum Volume (1000 m3)	0.00	16.65	
C & E Loss (m)	0.01	Cum SA (1000 m2)	0.02	11.78	

Note: Hydraulic jump has occurred between this cross section and the previous upstream section.

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 7.5000*

INPUT
Description:
Station Elevation Data num= 81

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	676.12	3.01	675.12	6.53	675	11.31	674.83	12.92	674.79
17.25	674.66	18.57	674.62	20.01	674.53	21.63	674.05	22.5	673.97
24.23	673.34	24.88	673.16	27.71	673.11	29.91	673.12	34.14	673.26
35.87	673.32	42.47	673.59	44.89	672.93	49.84	672.84	51.75	672.88
53.39	672.58	55.3	672.7	57.13	672.75	61.01	672.84	62.51	672.84
62.93	672.83	65.31	672.79	66.04	672.09	68.18	672.05	68.84	671.39
70.04	671.19	70.19	671.16	72.29	671.09	74.27	671.05	75.61	671.03
76.62	670.96	77.03	670.94	80.51	670.86	83.52	671.03	85.14	671.16
86.63	671.31	86.68	671.32	89.04	671.94	91.59	672.16	94.49	672.19
98.78	672.23	99.27	672.23	102.52	672.23	104.7	672.22	108.96	672.18
109.28	672.18	115.72	672.23	116.57	672.23	122.62	672.26	124.11	672.15
127.62	671.9	129.12	671.91	132.2	671.69	132.82	671.63	137.98	671.75
139.5	671.83	144.08	672.04	149.34	672.13	149.55	672.17	150.87	672.32
152.68	672.74	154.73	672.97	158.28	672.95	160	672.8	161.02	672.73
162.93	672.89	168.1	675.39	174.29	675.39	176.17	675.39	179.28	675.49
179.68	675.49	183.53	675.49	183.56	675.5	184.48	675.87	184.49	675.93
184.49	676.28								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	42.47	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
42.47	168.1	6.86	8.24 12.365	.1	.3

Left Levee Station= 42.475 Elevation= 673.59

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 7

```
INPUT
Description: sezione 7
Station Elevation Data    num=      42
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  675.32    5.77  675.08   11.42  674.84   16.42  674.62   17.69  674.57
   19.12  673.54   21.42  673.07    24.5  672.97   31.71  673.11   37.55   673.3
    45.2  672.69   52.77  672.76   58.36  672.79   64.25  672.63   64.94  671.31
   66.34  670.88   68.53  670.89   71.97  670.93   73.02   670.9   77.07  670.78
   81.57  671.02   83.07  671.18   87.86  672.02   95.33  672.13    98.5  672.17
  104.77  672.15  112.18  672.11  119.53  672.04   124.4     672  128.01  671.34
  134.51  671.57  145.59  671.84  147.35  672.33   152.8  672.47  155.47  672.09
  157.33  672.37  162.37  675.28  169.37  675.23  175.47  675.31  179.83  675.32
  180.91   675.7  180.92  676.04

Manning's n Values        num=      2
     Sta   n Val     Sta   n Val
       0    .055   64.25    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         37.55  162.37             1.295    3.06    7.09           .1       .3
Left Levee      Station=   37.55      Elevation=   673.3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)           673.76    Element                Left OB    Channel   Right OB
  Vel Head (m)              0.52    Wt. n-Val.                        0.045
  W.S. Elev (m)           673.24    Reach Len. (m)            1.30      3.06       7.09
  Crit W.S. (m)           673.17    Flow Area (m2)                     149.94
  E.G. Slope (m/m)      0.014060    Area (m2)                          149.94
  Q Total (m3/s)          480.00    Flow (m3/s)                        480.00
  Top Width (m)           120.54    Top Width (m)                      120.54
  Vel Total (m/s)           3.20    Avg. Vel. (m/s)                      3.20
  Max Chl Dpth (m)          2.46    Hydr. Depth (m)                      1.24
  Conv. Total (m3/s)      4048.0    Conv. (m3/s)                       4048.0
  Length Wtd. (m)           3.06    Wetted Per. (m)                    121.94
  Min Ch El (m)           670.78    Shear (N/m2)                       169.53
  Alpha                     1.00    Stream Power (N/m s)               542.74
  Frctn Loss (m)            0.04    Cum Volume (1000 m3)      0.00      14.24
  C & E Loss (m)            0.03    Cum SA (1000 m2)          0.02       9.83

Note:    Multiple critical depths were found at this location.  The critical depth with the lowest, valid,
energy was used.


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 6.5000*

INPUT
Description:
Station Elevation Data    num=      79
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  675.32    4.88  675.12    5.82  675.03   10.31   674.9   11.52  674.85
   14.73   674.7   16.57  674.62   17.85  674.57   18.06  674.49   19.29  673.57
   19.38  673.53   21.61  673.08   21.74  673.07   24.55  672.97   24.72  672.97
   31.99   673.1   37.89  673.24   40.22  672.93   45.43  672.67   45.55  672.67
   53.14  672.58   53.94  672.57   58.74  672.73   59.07  672.74   64.65  672.59
   65.23  672.02   65.34  671.91   66.74  671.43   68.94  671.15   70.37  670.94
   72.38   670.9   73.44  670.82   73.75  670.81   77.49  670.67   82.06  671.01
   82.16  671.02   83.58  671.15   87.93  671.72   88.43   671.8   91.71  672.05
   96.01  672.08   97.74  672.09   99.22  672.09  102.56  672.08  105.57  672.06
  107.22  672.05  111.84  672.02  113.09  672.02  117.36  672.02  120.54  672.03
  123.32  672.03  125.47  671.81  128.72  671.13  129.13  671.15  133.94  671.25
  135.72  671.51  135.88  671.54  138.79   671.4  142.34   671.7  146.87   671.7
  146.95  671.72  147.58  671.96  148.74  672.14  154.26  672.31  154.51  672.29
  156.35  671.82  156.97  671.81  158.86  672.05  160.41  672.58  163.96   675.2
  168.51  675.21  170.58   675.2  174.07  675.13  176.34   675.2  180.46  675.22
  180.52  675.23  181.48  675.58  181.49  675.61  181.49  676.04

Manning's n Values        num=      2
     Sta   n Val     Sta   n Val
       0    .055   37.89    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         37.89  163.96             1.295    3.06    7.09           .1       .3
Left Levee      Station=   37.89      Elevation=  673.24

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 6
```

```
INPUT
Description: sezione 6
Station Elevation Data    num=      41
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  675.32    4.92  675.12    10.4  674.91   14.86   674.7   18.22  674.57
   19.55  673.54   21.93  673.07   24.77  672.97   38.22  673.18   40.56  672.84
   45.78  672.65   54.31  672.38   59.45  672.69   65.63  672.54   70.78  670.96
   74.17  670.72   77.92  670.56   82.65     671    88.5   671.5   92.33  672.04
   98.44  672.02  103.32  672.01  108.05  671.96  112.73  671.92  118.32  671.98
  124.36  672.05  129.84  670.95  135.13  670.99  137.09   671.5  140.04  671.15
  143.64  671.68  148.23  671.56  148.95   671.9  153.25  672.05  158.56  675.12
  165.56  675.12  169.84  675.14  175.08  675.07  181.15  675.13  182.06  675.46
  182.07  676.03

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0    .055   65.63    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         38.22  158.56              .84    4.58   12.51             .1       .3
Left Levee      Station=   38.22      Elevation=  673.18

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)           673.63    Element                Left OB    Channel   Right OB
  Vel Head (m)              0.60    Wt. n-Val.                        0.045
  W.S. Elev (m)           673.03    Reach Len. (m)            0.84       4.58      12.51
  Crit W.S. (m)           673.03    Flow Area (m2)                     139.35
  E.G. Slope (m/m)      0.016666    Area (m2)                          139.35
  Q Total (m3/s)          480.00    Flow (m3/s)                        480.00
  Top Width (m)           115.67    Top Width (m)                      115.67
  Vel Total (m/s)           3.44    Avg. Vel. (m/s)                      3.44
  Max Chl Dpth (m)          2.47    Hydr. Depth (m)                      1.20
  Conv. Total (m3/s)      3718.1    Conv. (m3/s)                       3718.1
  Length Wtd. (m)           4.58    Wetted Per. (m)                    116.61
  Min Ch El (m)           670.56    Shear (N/m2)                       195.31
  Alpha                     1.00    Stream Power (N/m s)               672.75
  Frctn Loss (m)            0.11    Cum Volume (1000 m3)                13.28
  C & E Loss (m)            0.03    Cum SA (1000 m2)                     9.09

Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth,
the calculated water surface came back below critical depth.  This indicates that there is not a valid
subcritical answer.  The program defaulted to critical depth.


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella        RS: 5

INPUT
Description: sezione 5
Station Elevation Data    num=      44
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  675.17    5.39  674.99   10.71  674.81   15.79  674.63   17.48  674.57
    18.9  673.54   21.53  673.07   23.67  672.97   32.46  673.19   37.62  673.25
   40.29  672.77   44.32  672.67   53.62  672.34   61.23  672.63   65.45  672.49
   66.14  670.82   69.32  670.95   72.14  670.91   73.28  670.83   76.66  670.34
    82.2  670.85   89.47  671.23    93.3  671.83   97.91  671.88  103.73  671.89
  109.68  671.84  114.66  671.79  120.85  671.69  124.79  671.96  129.06  671.49
  131.88  670.72  134.34  670.92  138.44  671.01  142.23  671.01  147.11  671.48
  150.11  671.28  156.31  671.62  160.19  674.83  163.63  674.92  170.58  675.05
  177.36  674.89  182.28  674.88  183.24  675.16  183.25  675.78

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
       0    .055   65.45    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         37.62  160.19            19.95    20.9   23.77             .01      .03

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)           673.50    Element                Left OB    Channel   Right OB
  Vel Head (m)              0.91    Wt. n-Val.                        0.045
  W.S. Elev (m)           672.58    Reach Len. (m)            19.95      20.90      23.77
  Crit W.S. (m)           672.83    Flow Area (m2)                     113.46
  E.G. Slope (m/m)      0.029463    Area (m2)                          113.46
  Q Total (m3/s)          480.00    Flow (m3/s)                        480.00
  Top Width (m)           108.09    Top Width (m)                      108.09
```

Vel Total (m/s)	4.23	Avg. Vel. (m/s)	4.23
Max Chl Dpth (m)	2.24	Hydr. Depth (m)	1.05
Conv. Total (m3/s)	2796.4	Conv. (m3/s)	2796.4
Length Wtd. (m)	20.90	Wetted Per. (m)	109.88
Min Ch El (m)	670.34	Shear (N/m2)	298.33
Alpha	1.00	Stream Power (N/m s)	1262.11
Frctn Loss (m)	0.30	Cum Volume (1000 m3)	12.70
C & E Loss (m)	0.00	Cum SA (1000 m2)	8.58

Note: Program found supercritical flow starting at this cross section.
Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 4

INPUT
Description: sezione 4
Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	675.25	4.26	675.02	9.49	674.71	14.99	674.4	17.78	673.09
22.26	673.07	27.33	673.04	31.05	673.02	33.59	673.15	36.08	672.28
40.26	672.17	43.75	672.29	46.97	672.39	51.29	672.38	55.93	672.31
58.82	672.27	61.67	672.22	62.06	671.23	64.5	670.8	65.94	670.79
70.58	670.6	72.71	670.07	76.46	670.61	80.1	670.69	83.39	671.29
87.92	670.88	89.9	670.45	94.14	670.35	96.83	671.56	100.98	671.55
103.79	671.54	107.32	671.53	111.09	670.81	116.58	670.96	118.29	671.28
124.59	671.49	126.91	670.08	130.41	670.09	133.87	670.42	137.21	670.39
141.4	670.35	146	674.45	154.04	674.54	161.79	674.76	173.85	674.62
180.54	674.42	181.5	674.7	181.52	675.3				

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	61.67	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
33.59	146	3.647	4.567	8.667	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (m)	673.11	Element	Left OB	Channel	Right OB
Vel Head (m)	0.58	Wt. n-Val.		0.045	
W.S. Elev (m)	672.52	Reach Len. (m)	3.65	4.57	8.67
Crit W.S. (m)	672.48	Flow Area (m2)		142.08	
E.G. Slope (m/m)	0.013094	Area (m2)		142.08	
Q Total (m3/s)	480.00	Flow (m3/s)		480.00	
Top Width (m)	108.46	Top Width (m)		108.46	
Vel Total (m/s)	3.38	Avg. Vel. (m/s)		3.38	
Max Chl Dpth (m)	2.45	Hydr. Depth (m)		1.31	
Conv. Total (m3/s)	4194.7	Conv. (m3/s)		4194.7	
Length Wtd. (m)	4.57	Wetted Per. (m)		111.01	
Min Ch El (m)	670.07	Shear (N/m2)		164.34	
Alpha	1.00	Stream Power (N/m s)		555.21	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		10.03	
C & E Loss (m)	0.01	Cum SA (1000 m2)		6.32	

Note: Hydraulic jump has occurred between this cross section and the previous upstream section.

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 3.6667*

INPUT
Description:
Station Elevation Data num= 84

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	675.26	4.61	675	5.47	674.95	10.27	674.69	10.38	674.69
14.32	674.48	16.23	674.09	17.16	673.67	19.22	673.06	19.25	673.05
23.5	673.02	24.1	673.01	29	672.97	29.59	672.96	33.4	672.93
33.61	672.94	36.36	673.14	38.03	672.43	38.73	672.27	42.69	672.26
43.69	672.3	46	672.28	47.59	672.26	49.06	672.3	51.47	672.3
53.16	672.31	54.48	672.31	56.71	672.23	57.56	672.26	60.3	672.2
62.45	672.15	63.01	671.9	63.38	671.11	63.58	671	65.69	670.72
67.06	670.73	68.72	670.7	71.46	670.45	73.48	669.97	76.52	670.45
77.16	670.52	80.73	670.63	81.01	670.67	83.96	671.1	86.75	670.99
88.4	670.9	90.35	670.64	91.65	670.64	94.5	670.53	97.14	671.28
101.21	671.19	102.5	671.16	103.97	671.12	106.11	671.06	107.43	671.07

```
  111.13  670.62  113.55  670.69  116.52  670.81  118.19  671.06   121.2  671.19
  124.37  671.24  126.65  670.29  127.04  670.23  130.08  670.13   131.9  670.16
  133.48  670.27  133.84  670.27  135.25   670.2  136.75  670.19  139.86  670.18
  140.06   670.2  140.86  670.38  145.38  674.13  153.41  674.32  154.53  674.34
  161.53  674.52  163.35  674.56  170.29  674.54  177.08  674.48  179.96  674.43
  184.69  674.41  185.78  674.62  185.79  674.73  185.81  675.22

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .055   36.36    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         36.36  145.38             3.647   4.567   8.667             .1      .3


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 3.3333*

INPUT
Description:
Station Elevation Data      num=      84
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  675.26    4.96  674.98    5.89  674.93   11.06  674.67   11.17  674.67
   15.41  674.45   17.47  673.78   18.47  673.34   20.68  673.02   20.72  673.02
   25.29  672.96   25.94  672.95   31.21  672.89   31.84  672.89   35.95  672.84
   36.18  672.86   39.14  673.12   40.72  672.33   41.37  672.26   45.12   672.3
   46.07   672.3   48.26  672.27   49.76  672.25   51.15  672.26   53.43  672.26
   55.03  672.29   56.27  672.33   58.38  672.23   59.19  672.21   61.79  672.14
   63.82  672.08   64.35  671.58    64.7  670.94   64.88  670.75   66.89  670.65
   68.18  670.67   69.75  670.68   72.34   670.3   74.26  669.88   77.24  670.39
   77.86  670.44   81.37  670.57   81.63  670.59   84.53   670.9   87.26  670.94
   88.89  670.93   90.79  670.84   92.07  670.86   94.87  670.72   97.46  671.01
  101.45  670.83  102.71  670.78  104.15   670.7  106.25  670.59  107.55  670.61
  111.17  670.44  113.55  670.51  116.45  670.66   118.1  670.84  121.04  671.01
  124.16     671  126.39  670.49  126.78  670.49  129.76  670.18  131.54  670.05
  133.09  670.13  133.44  670.13  134.83  669.99   136.3     670  139.35  670.01
  139.54  670.03  140.33  670.41  144.75   673.9  153.77  674.12  155.02  674.14
  162.87  674.32  164.91  674.36   172.7  674.39   180.3  674.35  183.53  674.31
  188.84  674.41  190.07  674.53  190.08  674.59  190.09  675.13

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .055   39.14    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         39.14  144.75             3.647   4.567   8.667             .1      .3


CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella          RS: 3

INPUT
Description: sezione 3
Station Elevation Data      num=      41
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
       0  675.27    6.31  674.91   11.96  674.65    16.5  674.43   19.78  673.01
   22.15  672.98   27.08   672.9   33.42  672.82    38.5  672.75   41.91  673.11
    43.4  672.39   48.45  672.49   51.93   672.1   55.39  672.13   58.07  672.31
   60.06  672.19   65.19     672   66.19  670.51   70.78  670.66   75.03  669.78
   77.95  670.32   82.26  670.52   87.78  670.89   92.49  671.08  102.92  670.39
  106.39  670.12  113.54  670.32  120.89  670.82  126.51  670.69  131.18  669.94
  133.04  669.99   134.4  669.79  138.83  669.83  139.02  669.87  144.13  673.63
  154.12  673.91  164.21  674.13   175.1  674.24  187.11   674.2  194.36  674.45
  194.38  675.05

Manning's n Values          num=       2
     Sta   n Val     Sta   n Val
       0    .055   58.07    .045

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         41.91  144.13             8.484   8.734   8.092             .1      .3

CROSS SECTION OUTPUT  Profile #PF 1

  E.G. Elev (m)           672.91    Element                Left OB    Channel   Right OB
  Vel Head (m)              0.53    Wt. n-Val.                        0.045
  W.S. Elev (m)           672.37    Reach Len. (m)            8.48      8.73      8.09
  Crit W.S. (m)           672.09    Flow Area (m2)                    148.36
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E.G. Slope (m/m)	0.010628	Area (m2)	148.36
Q Total (m3/s)	480.00	Flow (m3/s)	480.00
Top Width (m)	92.92	Top Width (m)	92.92
Vel Total (m/s)	3.24	Avg. Vel. (m/s)	3.24
Max Chl Dpth (m)	2.59	Hydr. Depth (m)	1.60
Conv. Total (m3/s)	4656.0	Conv. (m3/s)	4656.0
Length Wtd. (m)	8.73	Wetted Per. (m)	94.86
Min Ch El (m)	669.78	Shear (N/m2)	163.01
Alpha	1.00	Stream Power (N/m s)	527.39
Frctn Loss (m)	0.09	Cum Volume (1000 m3)	8.04
C & E Loss (m)	0.00	Cum SA (1000 m2)	4.91

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 2.8000*

INPUT
Description:
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	675.47	3.9	675.18	7.05	674.95	7.73	674.9	11.24	674.65
13.37	674.51	15.33	674.38	18.45	674.16	18.94	673.99	22.11	672.9
24.36	672.88	28.87	672.82	29.03	672.82	35.03	672.75	35.63	672.74
39.84	672.68	43.07	672.97	44.45	672.54	49.14	672.4	50.29	672.28
52.36	672.07	53.77	672.07	55.05	672.07	55.57	672.07	58.06	672.19
59.9	672.08	64.66	671.88	65.44	671.05	65.88	670.6	65.9	670.58
69.12	670.65	69.82	670.6	71.6	670.57	72.18	670.48	73.45	670.29
75.21	670.04	76.87	669.66	78.77	670.06	79.72	670.21	83.68	670.39
83.93	670.41	89.08	670.73	89.32	670.75	93.92	670.97	97.05	670.74
101.14	670.54	106.66	670.31	110.5	669.94	116.48	670.15	122.64	670.6
127.4	670.49	130.78	669.92	131.72	669.79	132.54	669.81	133.44	669.83
134.69	669.67	136.37	669.69	138.79	669.94	138.96	669.99	143.68	673.47
153.25	673.74	159.94	673.9	162.9	673.97	173.33	674.11	173.73	674.11
184.83	674.16	185.75	674.19	191.77	674.81	191.79	675.29		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	43.07	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
43.07	143.68	8.484	8.734	8.092	.1 .3

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 2.6000*

INPUT
Description:
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	675.67	4.31	675.29	7.8	674.93	8.54	674.92	12.42	674.56
14.78	674.37	16.95	674.2	20.39	673.83	20.93	673.73	24.45	672.79
26.57	672.77	30.82	672.74	30.97	672.74	36.64	672.67	37.21	672.66
41.18	672.61	44.23	672.82	45.5	672.26	49.82	672.31	50.89	672.2
52.8	672.03	54.09	672.03	55.27	672.01	55.75	672	58.04	672.07
59.74	671.96	64.13	671.76	65.06	671.04	65.59	670.67	65.61	670.65
69.45	670.7	70.29	670.58	72.41	670.49	73.1	670.39	74.63	670.24
76.73	670.03	78.71	669.54	80.57	669.97	81.49	670.1	85.36	670.28
85.6	670.29	90.63	670.58	90.87	670.6	95.36	670.85	99.05	670.57
103.88	670.39	110.4	670.22	114.61	669.75	119.43	669.98	124.39	670.38
128.3	670.29	131.39	669.74	132.26	669.64	133.01	669.66	133.83	669.67
134.99	669.55	136.53	669.56	138.74	670.06	138.9	670.12	143.23	673.31
152.37	673.58	158.77	673.74	161.6	673.81	171.56	673.98	171.95	673.98
182.54	674.12	183.42	674.15	189.17	675.17	189.19	675.53		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	44.23	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
44.23	143.23	8.484	8.734	8.092	.1 .3

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 2.4000*

INPUT

Description:
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	675.87	4.72	675.41	8.54	675.02	9.36	674.93	13.61	674.48
16.19	674.23	18.56	674.01	22.34	673.61	22.93	673.48	26.78	672.67
28.77	672.67	32.78	672.66	32.92	672.66	38.25	672.6	38.79	672.59
42.52	672.55	45.39	672.68	46.56	672.27	50.51	672.22	51.48	672.13
53.23	672	54.42	671.99	55.5	671.95	55.93	671.94	58.03	671.95
59.59	671.85	63.6	671.64	64.68	671.03	65.3	670.74	65.32	670.73
69.79	670.75	70.77	670.56	73.23	670.4	74.03	670.3	75.81	670.18
78.24	670.02	80.55	669.43	82.36	669.89	83.27	669.99	87.03	670.17
87.28	670.18	92.18	670.44	92.41	670.46	96.79	670.74	101.05	670.41
106.62	670.24	114.13	670.14	118.71	669.57	122.37	669.8	126.13	670.17
129.19	670.1	132.01	669.56	132.79	669.5	133.48	669.51	134.23	669.52
135.28	669.44	136.68	669.44	138.7	670.17	138.84	670.24	142.79	673.16
151.5	673.41	157.6	673.58	160.29	673.65	169.79	673.85	170.16	673.86
180.26	674.07	181.1	674.11	186.58	675.53	186.6	675.77		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	45.39	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
45.39	142.79	8.484	8.734	8.092	.1	.3

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 2.2000*

INPUT
Description:
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	676.07	5.13	675.52	9.29	675.05	10.17	674.95	14.79	674.39
17.61	674.09	20.18	673.83	24.29	673.33	24.93	673.22	29.12	672.56
30.98	672.57	34.73	672.58	34.87	672.53	39.86	672.52	40.36	672.51
43.86	672.48	46.55	672.53	47.61	672.29	51.19	672.13	52.08	672.05
53.66	671.97	54.74	671.94	55.72	671.9	56.12	671.88	58.02	671.82
59.43	671.73	63.07	671.52	64.3	671.01	65	670.8	65.03	670.8
70.12	670.8	71.24	670.55	74.05	670.31	74.96	670.22	76.98	670.13
79.76	670	82.39	669.31	84.16	669.3	85.04	669.87	88.71	670.05
88.95	670.06	93.73	670.29	93.95	670.31	98.23	670.62	103.05	670.24
109.36	670.09	117.87	670.05	122.82	669.38	125.32	669.63	127.88	669.95
130.09	669.9	132.62	669.38	133.33	669.35	133.95	669.35	134.63	669.36
135.57	669.32	136.84	669.32	138.65	670.29	138.78	670.37	142.34	673
150.62	673.25	156.42	673.41	158.99	673.49	168.02	673.72	168.37	673.73
177.98	674.03	178.77	674.06	183.99	675.83	184	676.01		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	46.55	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
46.55	142.34	8.484	8.734	8.092	.1	.3

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 2

INPUT
Description: sezione 2
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	676.27	5.54	675.63	10.99	674.97	15.98	674.3	21.8	673.64
26.93	672.97	31.45	672.45	36.69	672.5	41.94	672.44	47.71	672.39
52.67	671.98	55.06	671.9	55.94	671.84	62.54	671.4	63.92	671
64.71	670.87	70.46	670.85	71.71	670.53	75.89	670.13	78.16	670.07
81.28	669.99	84.23	669.19	85.95	669.72	90.39	669.94	95.28	670.15
99.66	670.51	105.05	670.07	112.1	669.94	121.61	669.97	126.93	669.2
129.63	669.73	130.98	669.7	133.24	669.2	134.42	669.2	136.99	669.2
141.89	672.84	155.25	673.25	166.58	673.6	176.45	674.02	181.41	676.25

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	47.71	.045

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
47.71	141.89	10.14	11.67	10.2	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (m)	672.41	Element	Left OB	Channel	Right OB	
Vel Head (m)	0.64	Wt. n-Val.		0.045		
W.S. Elev (m)	671.77	Reach Len. (m)	10.14	11.67	10.20	
Crit W.S. (m)	671.61	Flow Area (m2)		136.01		
E.G. Slope (m/m)	0.013457	Area (m2)		136.01		
Q Total (m3/s)	480.00	Flow (m3/s)		480.00		
Top Width (m)	83.52	Top Width (m)		83.52		
Vel Total (m/s)	3.53	Avg. Vel. (m/s)		3.53		
Max Chl Dpth (m)	2.58	Hydr. Depth (m)		1.63		
Conv. Total (m3/s)	4137.8	Conv. (m3/s)		4137.8		
Length Wtd. (m)	11.67	Wetted Per. (m)		84.91		
Min Ch El (m)	669.19	Shear (N/m2)		211.39		
Alpha	1.00	Stream Power (N/m s)		746.03		
Frctn Loss (m)	0.17	Cum Volume (1000 m3)		1.56		
C & E Loss (m)	0.00	Cum SA (1000 m2)		0.99		

CROSS SECTION
RIVER: fiume Fella
REACH: fiume Fella RS: 1

INPUT
Description: sezione 1
Station Elevation Data num= 38

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	675.91	5.68	675.41	11.24	674.92	15.74	674.43	21.729	673.93
21.73	673.94	26.95	672.96	31.27	672.85	36.19	672.67	40.56	672.3
43.1	672.39	45.35	671.51	49	671.33	56.39	671.02	56.86	670.94
60.66	670.37	64.63	670.34	66.98	670.34	68.96	670.69	69.46	670.04
71.68	669.8	76.17	669.71	80.39	669	82.43	669.65	89.3	670.12
95.3	670.23	103.88	669.88	108.71	669.45	113.48	669.66	118.92	669.62
123.32	669.05	124.32	669.02	126.27	669.01	128.38	669.16	134.04	672.72
141.32	673.04	151.01	674	161.49	676.02				

Manning's n Values num= 2

Sta	n Val	Sta	n Val
0	.055	43.1	.045

Bank Sta: Left Right Coeff Contr. Expan.
36.19 134.04 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (m)	672.23	Element	Left OB	Channel	Right OB	
Vel Head (m)	0.68	Wt. n-Val.		0.045		
W.S. Elev (m)	671.55	Reach Len. (m)				
Crit W.S. (m)	671.50	Flow Area (m2)		131.16		
E.G. Slope (m/m)	0.016004	Area (m2)		131.16		
Q Total (m3/s)	480.00	Flow (m3/s)		480.00		
Top Width (m)	86.94	Top Width (m)		86.94		
Vel Total (m/s)	3.66	Avg. Vel. (m/s)		3.66		
Max Chl Dpth (m)	2.55	Hydr. Depth (m)		1.51		
Conv. Total (m3/s)	3794.3	Conv. (m3/s)		3794.3		
Length Wtd. (m)		Wetted Per. (m)		88.31		
Min Ch El (m)	669.00	Shear (N/m2)		233.10		
Alpha	1.00	Stream Power (N/m s)		853.07		
Frctn Loss (m)		Cum Volume (1000 m3)				
C & E Loss (m)		Cum SA (1000 m2)				

SUMMARY OF MANNING'S N VALUES
River:fiume Fella

Reach	River Sta.	n1	n2	n3	n4
fiume Fella	23	.055	.045		
fiume Fella	22.800*	.055	.045		
fiume Fella	22.600*	.055	.045		
fiume Fella	22.400*	.055	.045		
fiume Fella	22.200*	.055	.045		
fiume Fella	22	.055	.045		
fiume Fella	21.750*	.055	.045		
fiume Fella	21.500*	.055	.045		
fiume Fella	21.250*	.055	.045		
fiume Fella	21	.055	.045		
fiume Fella	20.750*	.055	.045		
fiume Fella	20.500*	.055	.045	.045	
fiume Fella	20.250*	.055	.045		

fiume Fella	20	.055	.045		
fiume Fella	19	.055	.045		
fiume Fella	18.750*	.055	.045		
fiume Fella	18.500*	.055	.045		
fiume Fella	18.250*	.055	.045		
fiume Fella	18	.055	.045		
fiume Fella	17.667*	.055	.045	.055	
fiume Fella	17.333*	.055	.045	.055	
fiume Fella	17	.055	.045	.055	
fiume Fella	16.667*	.055	.045	.055	
fiume Fella	16.333*	.055	.045	.055	
fiume Fella	16	.055	.045		
fiume Fella	15.750*	.055	.045		
fiume Fella	15.500*	.055	.045		
fiume Fella	15.250*	.055	.045		
fiume Fella	15	.055	.045		
fiume Fella	14	.055	.045		
fiume Fella	13.667*	.055	.045		
fiume Fella	13.333*	.055	.045		
fiume Fella	13	.055	.045		
fiume Fella	12.667*	.055	.045		
fiume Fella	12.333*	.055	.045		
fiume Fella	12	.055	.045		
fiume Fella	11.667*	.055	.045		
fiume Fella	11.333*	.055	.045		
fiume Fella	11	.055	.045		
fiume Fella	10.667*	.055	.045	.045	.045
fiume Fella	10.333*	.055	.045	.045	.045
fiume Fella	10	.055	.045		
fiume Fella	9.6667*	.055	.045		
fiume Fella	9.3333*	.055	.045		
fiume Fella	9	.055	.045		
fiume Fella	8.5000*	.055	.045		
fiume Fella	8	.055	.045		
fiume Fella	7.5000*	.055	.045		
fiume Fella	7	.055	.045		
fiume Fella	6.5000*	.055	.045		
fiume Fella	6	.055	.045		
fiume Fella	5	.055	.045		
fiume Fella	4	.055	.045		
fiume Fella	3.6667*	.055	.045		
fiume Fella	3.3333*	.055	.045		
fiume Fella	3	.055	.045		
fiume Fella	2.8000*	.055	.045		
fiume Fella	2.6000*	.055	.045		
fiume Fella	2.4000*	.055	.045		
fiume Fella	2.2000*	.055	.045		
fiume Fella	2	.055	.045		
fiume Fella	1	.055	.045		

SUMMARY OF REACH LENGTHS

River: fiume Fella

Reach	River Sta.	Left	Channel	Right
fiume Fella	23	9.074	8.544	8.762
fiume Fella	22.800*	9.074	8.544	8.762
fiume Fella	22.600*	9.074	8.544	8.762
fiume Fella	22.400*	9.074	8.544	8.762
fiume Fella	22.200*	9.074	8.544	8.762
fiume Fella	22	7.35	6.94	6.918
fiume Fella	21.750*	7.35	6.94	6.918
fiume Fella	21.500*	7.35	6.94	6.918
fiume Fella	21.250*	7.35	6.94	6.917
fiume Fella	21	4.718	4.537	4.847
fiume Fella	20.750*	4.718	4.537	4.847
fiume Fella	20.500*	4.718	4.537	4.847
fiume Fella	20.250*	4.718	4.538	4.847
fiume Fella	20	28.31	18.8	10.67
fiume Fella	19	5.957	5.95	6.24
fiume Fella	18.750*	5.957	5.95	6.24
fiume Fella	18.500*	5.957	5.95	6.24
fiume Fella	18.250*	5.958	5.95	6.24
fiume Fella	18	10.463	8	5.307
fiume Fella	17.667*	10.463	8	5.307
fiume Fella	17.333*	10.463	8	5.307
fiume Fella	17	10.063	7.133	3.093
fiume Fella	16.667*	10.063	7.133	3.093
fiume Fella	16.333*	10.063	7.133	3.093
fiume Fella	16	3.493	3.435	3.435

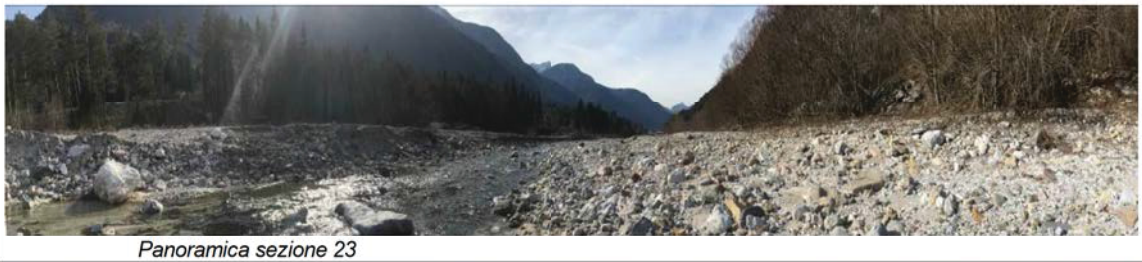
fiume Fella	15.750*	3.493	3.435	3.435
fiume Fella	15.500*	3.493	3.435	3.435
fiume Fella	15.250*	3.493	3.435	3.435
fiume Fella	15	7.67	7.26	7.11
fiume Fella	14	9.01	7.377	4.453
fiume Fella	13.667*	9.01	7.377	4.453
fiume Fella	13.333*	9.01	7.377	4.453
fiume Fella	13	6.95	6.703	6.777
fiume Fella	12.667*	6.95	6.703	6.777
fiume Fella	12.333*	6.95	6.703	6.777
fiume Fella	12	7.24	6.883	6.81
fiume Fella	11.667*	7.24	6.883	6.81
fiume Fella	11.333*	7.24	6.883	6.81
fiume Fella	11	5.773	6.56	7.763
fiume Fella	10.667*	5.773	6.56	7.763
fiume Fella	10.333*	5.773	6.56	7.763
fiume Fella	10	7.103	7.12	6.75
fiume Fella	9.6667*	7.103	7.12	6.75
fiume Fella	9.3333*	7.103	7.12	6.75
fiume Fella	9	8.7	8.485	12.155
fiume Fella	8.5000*	8.7	8.485	12.155
fiume Fella	8	6.86	8.24	12.365
fiume Fella	7.5000*	6.86	8.24	12.365
fiume Fella	7	1.295	3.06	7.09
fiume Fella	6.5000*	1.295	3.06	7.09
fiume Fella	6	.84	4.58	12.51
fiume Fella	5	19.95	20.9	23.77
fiume Fella	4	3.647	4.567	8.667
fiume Fella	3.6667*	3.647	4.567	8.667
fiume Fella	3.3333*	3.647	4.567	8.667
fiume Fella	3	8.484	8.734	8.092
fiume Fella	2.8000*	8.484	8.734	8.092
fiume Fella	2.6000*	8.484	8.734	8.092
fiume Fella	2.4000*	8.484	8.734	8.092
fiume Fella	2.2000*	8.484	8.734	8.092
fiume Fella	2	10.14	11.67	10.2
fiume Fella	1			

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: fiume Fella

Reach	River Sta.	Contr.	Expan.
fiume Fella	23	.1	.3
fiume Fella	22.800*	.1	.3
fiume Fella	22.600*	.1	.3
fiume Fella	22.400*	.1	.3
fiume Fella	22.200*	.1	.3
fiume Fella	22	.1	.3
fiume Fella	21.750*	.1	.3
fiume Fella	21.500*	.1	.3
fiume Fella	21.250*	.1	.3
fiume Fella	21	.1	.3
fiume Fella	20.750*	.01	.3
fiume Fella	20.500*	.01	.03
fiume Fella	20.250*	.01	.03
fiume Fella	20	.01	.03
fiume Fella	19	.01	.03
fiume Fella	18.750*	.01	.03
fiume Fella	18.500*	.01	.03
fiume Fella	18.250*	.01	.03
fiume Fella	18	.01	.03
fiume Fella	17.667*	.1	.3
fiume Fella	17.333*	.1	.3
fiume Fella	17	.1	.3
fiume Fella	16.667*	.1	.3
fiume Fella	16.333*	.1	.3
fiume Fella	16	.1	.3
fiume Fella	15.750*	.01	.03
fiume Fella	15.500*	.01	.03
fiume Fella	15.250*	.01	.03
fiume Fella	15	.01	.03
fiume Fella	14	.01	.03
fiume Fella	13.667*	.01	.03
fiume Fella	13.333*	.1	.3
fiume Fella	13	.1	.3
fiume Fella	12.667*	.1	.3
fiume Fella	12.333*	.1	.3
fiume Fella	12	.01	.03
fiume Fella	11.667*	.01	.03
fiume Fella	11.333*	.01	.03

fiume Fella	11	.1	.3
fiume Fella	10.667*	.1	.3
fiume Fella	10.333*	.1	.3
fiume Fella	10	.1	.3
fiume Fella	9.6667*	.01	.03
fiume Fella	9.3333*	.01	.03
fiume Fella	9	.01	.03
fiume Fella	8.5000*	.1	.3
fiume Fella	8	.1	.3
fiume Fella	7.5000*	.1	.3
fiume Fella	7	.1	.3
fiume Fella	6.5000*	.1	.3
fiume Fella	6	.1	.3
fiume Fella	5	.01	.03
fiume Fella	4	.1	.3
fiume Fella	3.6667*	.1	.3
fiume Fella	3.3333*	.1	.3
fiume Fella	3	.1	.3
fiume Fella	2.8000*	.1	.3
fiume Fella	2.6000*	.1	.3
fiume Fella	2.4000*	.1	.3
fiume Fella	2.2000*	.1	.3
fiume Fella	2	.1	.3
fiume Fella	1	.1	.3

APPENDICE II - REPORT FOTOGRAFICO SEZIONI DI MODELLAZIONE



Panoramica sezione 23

Panoramica sezione 22

Panoramica sezione 21

Panoramica sezione 20

Panoramica sezione 19

Panoramica sezione 18

Panoramica sezione 17

Panoramica sezione 16

Panoramica sezione 14

Panoramica sezione 13

Panoramica sezione 12

Panoramica sezione 11

Panoramica sezione 10

Panoramica sezione 9

Panoramica sezione 8

Panoramica sezione 7

Panoramica sezione 5

Panoramica sezione 4

Panoramica sezione 3

Panoramica sezione 2

Panoramica sezione 1