## **Adding Natural Cross Section data**

Not only does the GSSHA allow you to define trapezoidal cross sections, it also allows you to import cross sections from survey data. Using cross section data can make your model more realistic, and help you achieve better calibration. The process is relatively simple, and the following tutorial will show you how this can be done.

- 1. Select the Map Module  $\stackrel{\textbf{\#}}{=}$ .
- 2. Click on the Select Arc tool  $\overset{\frown}{\overset{\frown}{\overset{\frown}{\overset{\bullet}}}}$ .
- 3. Double-click on arc "#1" as defined in the following figure.
- 4. Toggle Irregular cross-section channel to enable the use of survey data.
- 5. Click on the Define Cross Section Parameter button.

You should now see the XY Series Editor window, which is where you will enter the cross section data (notice the spreadsheet on the left side of the window, with columns labeled "X" and "Y"). The cross section data you will be entering into this spreadsheet is located in an Excel file, which you will copy from and paste into the "XY Series Editor".

- 6. Download the file "xsections.xls" from the class web page.
- Copy the data for cross section #1 located in cells "A2" to "B35" (this data corresponds to cross section #1 in the following figure.
- 8. Paste this data into the top-left cell of the WMS "XY Series Editor" spreadsheet by right-click on the cell and selecting "paste".
- 9. Select OK, then OK again.
- 10. Double-click on arc "#2" as defined in the following figure.
- 11. Repeat steps 3 through 9, except this time copy the data from "#2" in the Excel spreadsheet.
- 12. Repeat step 11 for the stream arcs #3, #4, and #5.
- 13. All streams in the basin now have survey geometry for their cross sections.
- 14. Save the GSSHA project by selecting the 2-D Grid Module 🛗.

