# Activity 2 Instructions for drawing a line graph in Excel
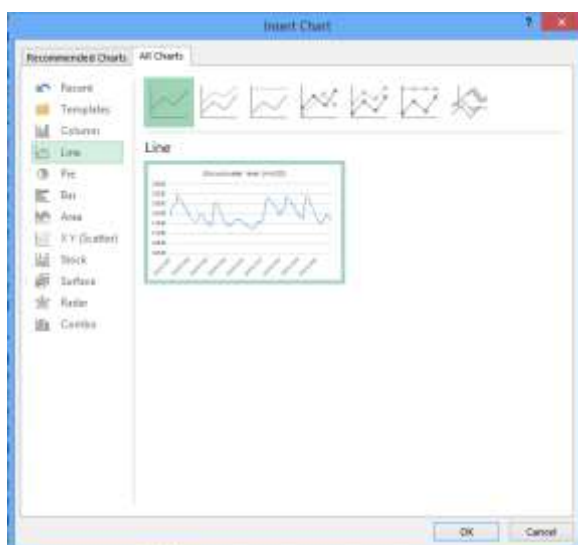
The aim of these instructions is to give you confidence drawing line graphs in Microsoft Excel (2013) in order to help interpret environmental data. The instructions become less prescriptive as you move through the task to encourage you to explore the graph-plotting options for yourself. Once you have created the plot do try clicking on different elements (e.g. axe, lines, titles etc) to explore the many options.

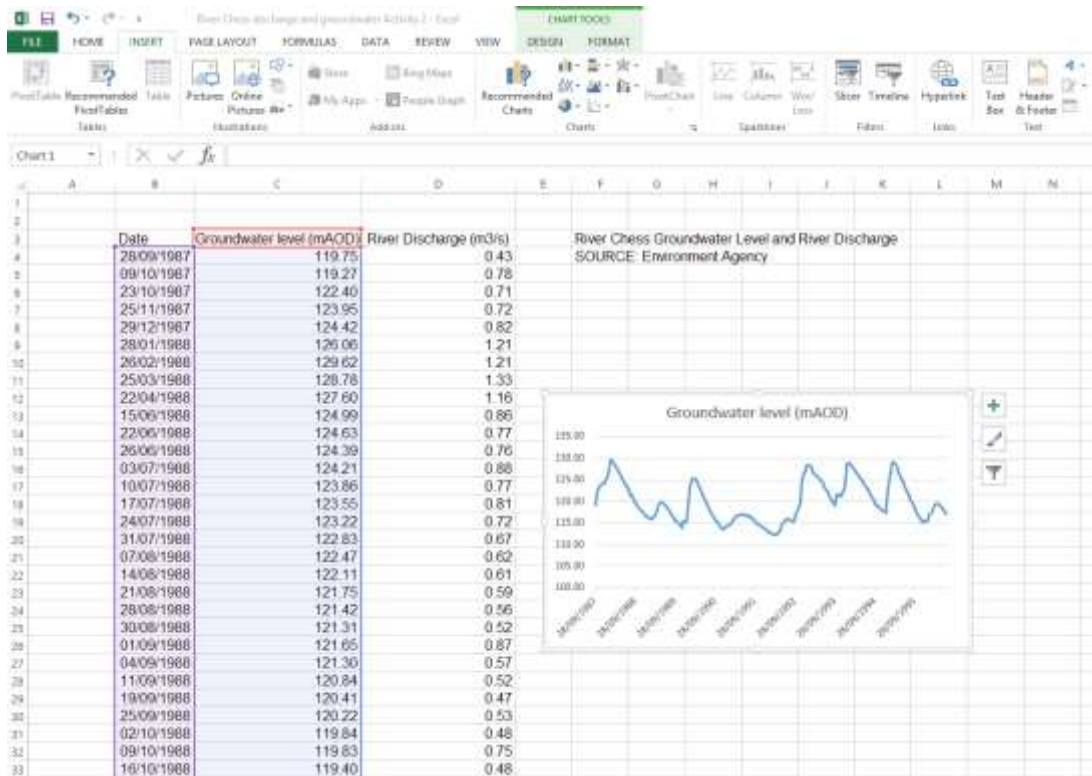Download and open the .xls file (River Chess discharge and groundwater Activity 2).

Select the data in Columns B and C using the cursor (include the cells with data titles 'Date' and 'Groundwater level' in your selection as shown).



From the 'Insert' tab select a line plot in the 'Charts' menu as shown below:
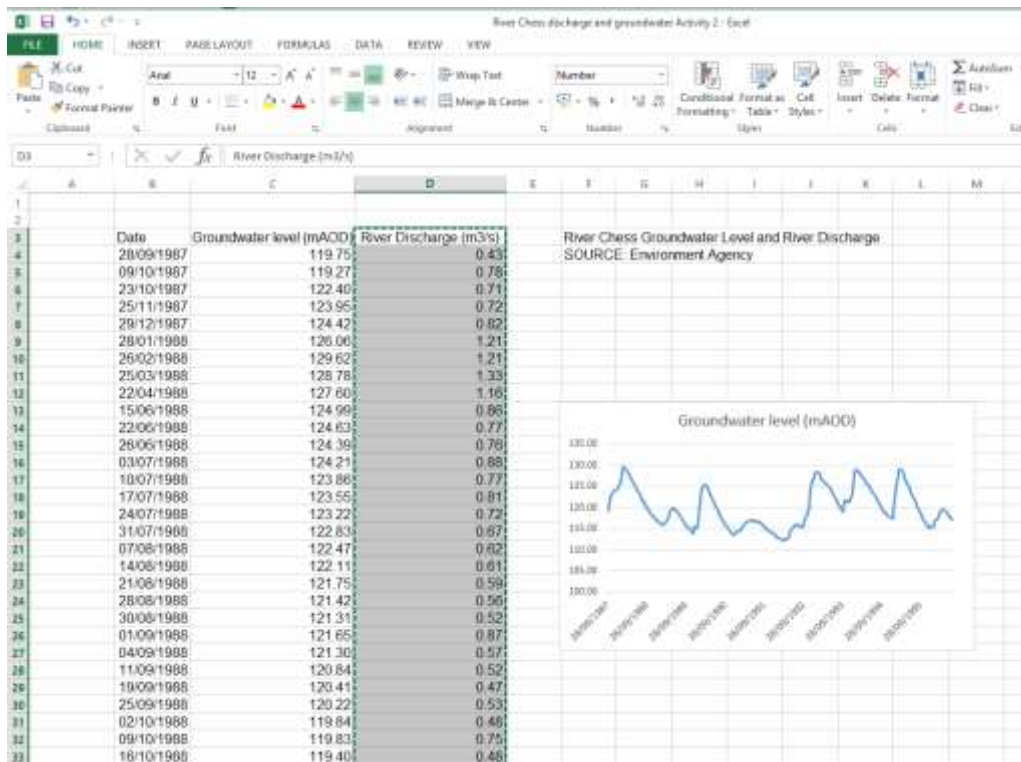
Excel will produce a plot like the screenshot below:



Now highlight the River Discharge data with your cursor and then select 'Copy' in the 'Home' tab

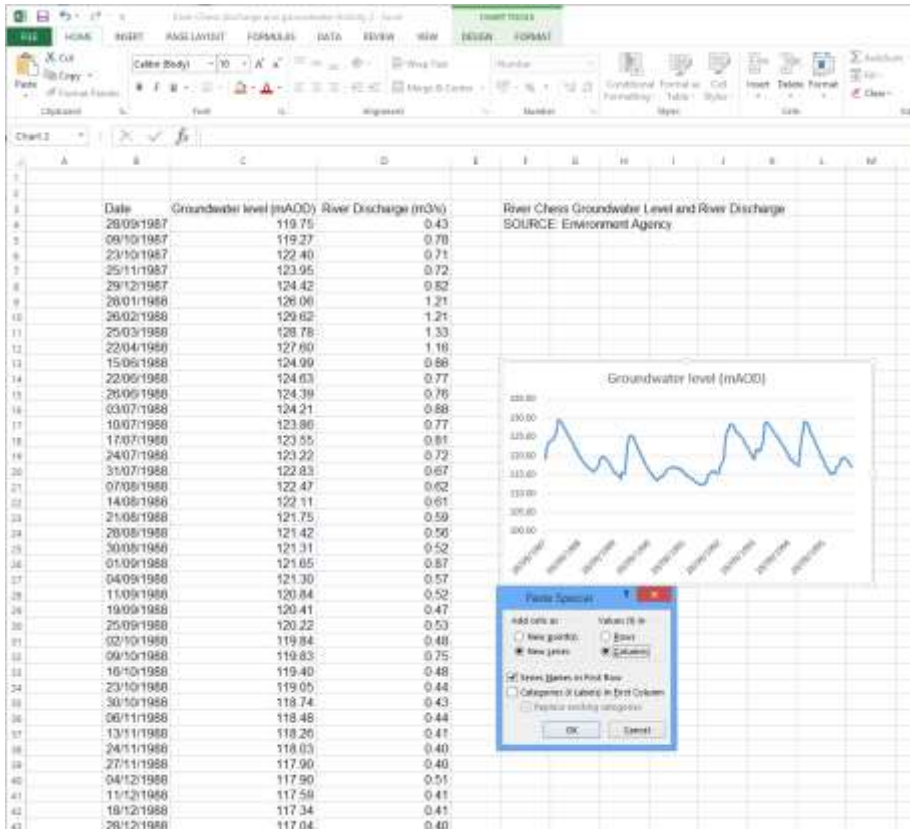The River Discharge data should now be highlighted with a green dotted line as below:
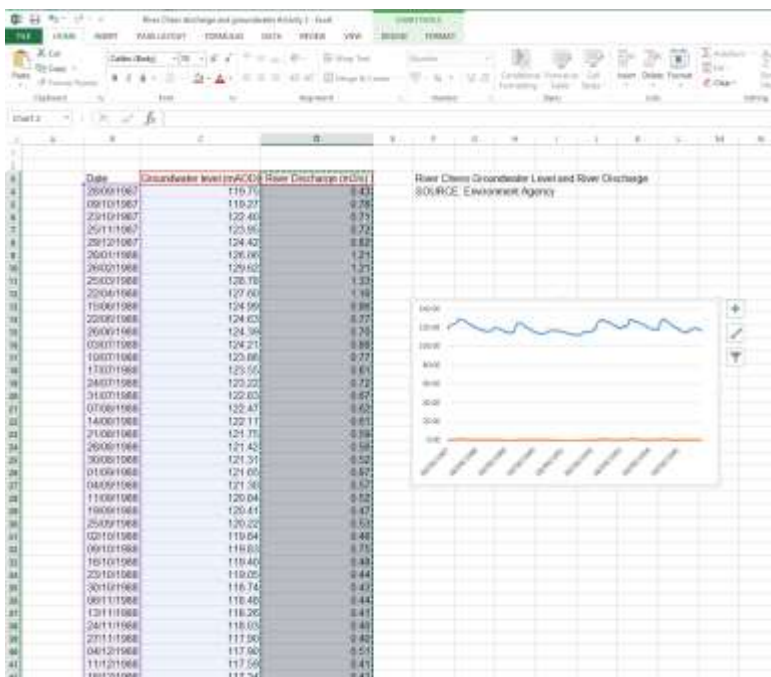
Now click on your graph to highlight the entire window. Then select 'paste special' in the 'Home' tab.

The paste special option should appear as illustrated below.

Select 'new series' in 'Columns' and make sure that 'series Names in First Row' is also selected.



Press OK. You should now see a graph with an additional orange line.

The orange line on the chart is the discharge data plotted on the primary y axis along with the groundwater level data. We want to plot this discharge data on a secondary y axis so that we can see the data clearly.

Double click on the orange line on the graph and a 'Format data series' menu will appear with a choice of primary and secondary axis.
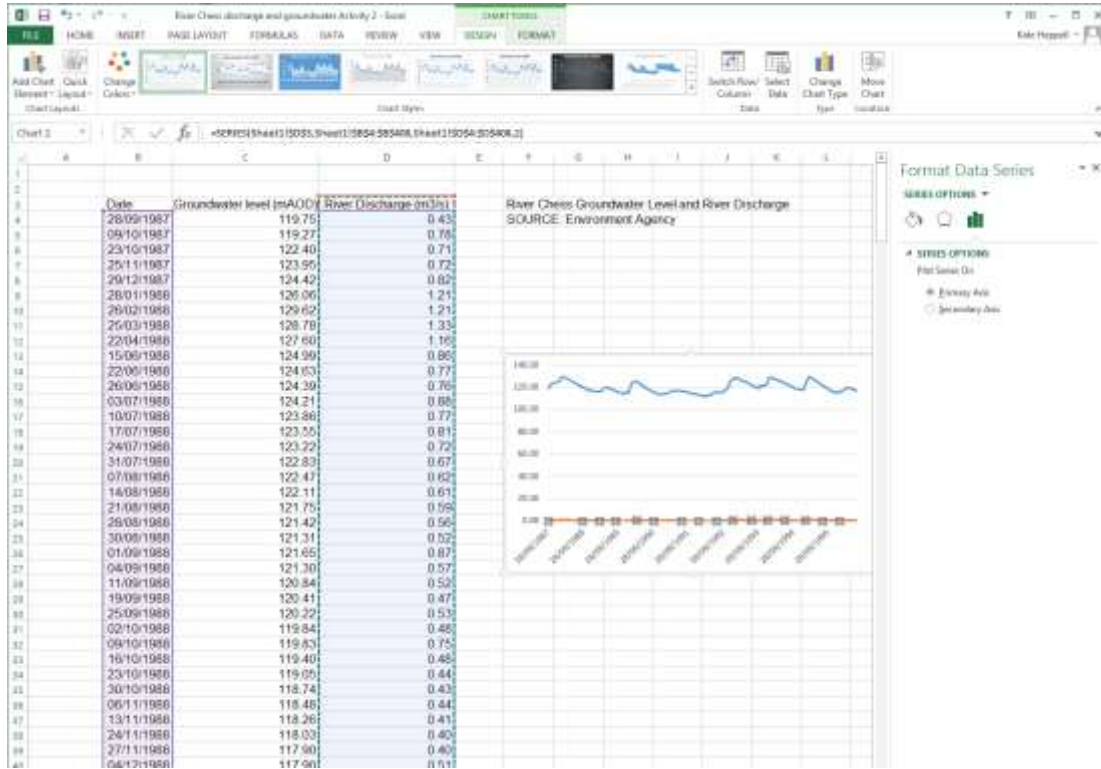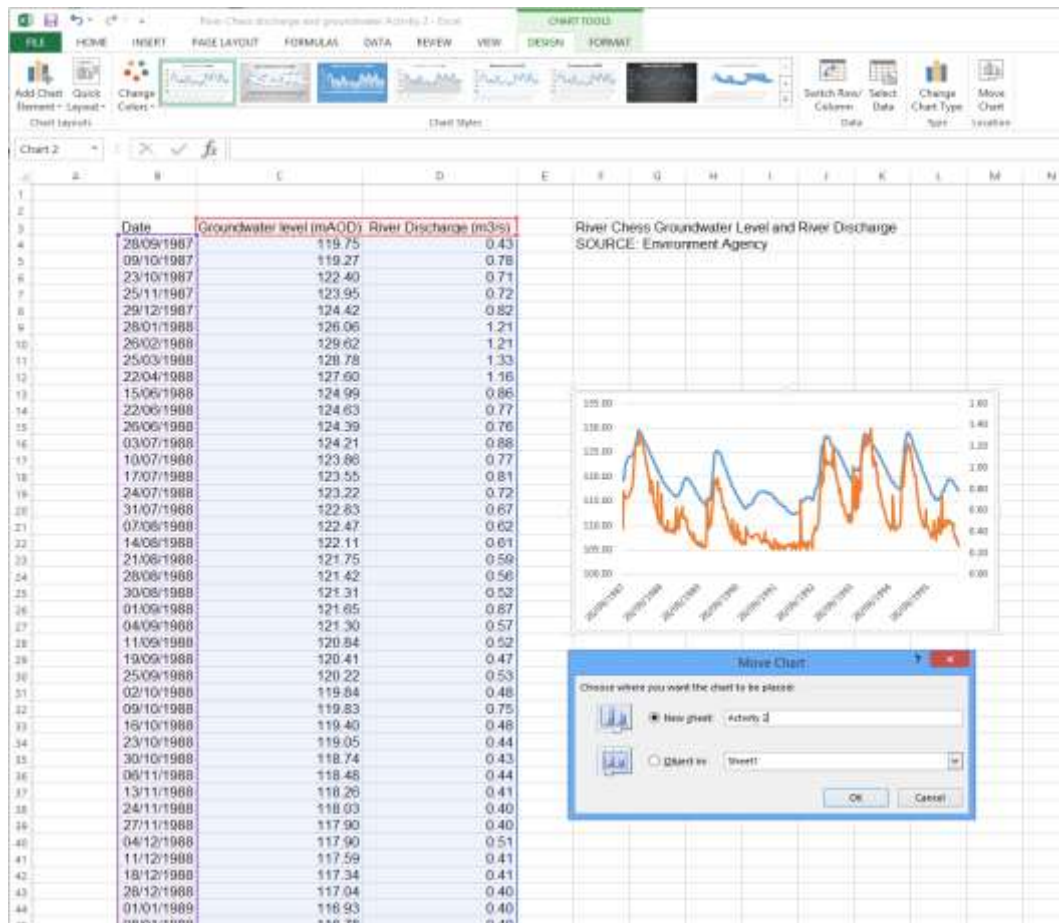


Select the secondary axis and the graph should plot as below.



4
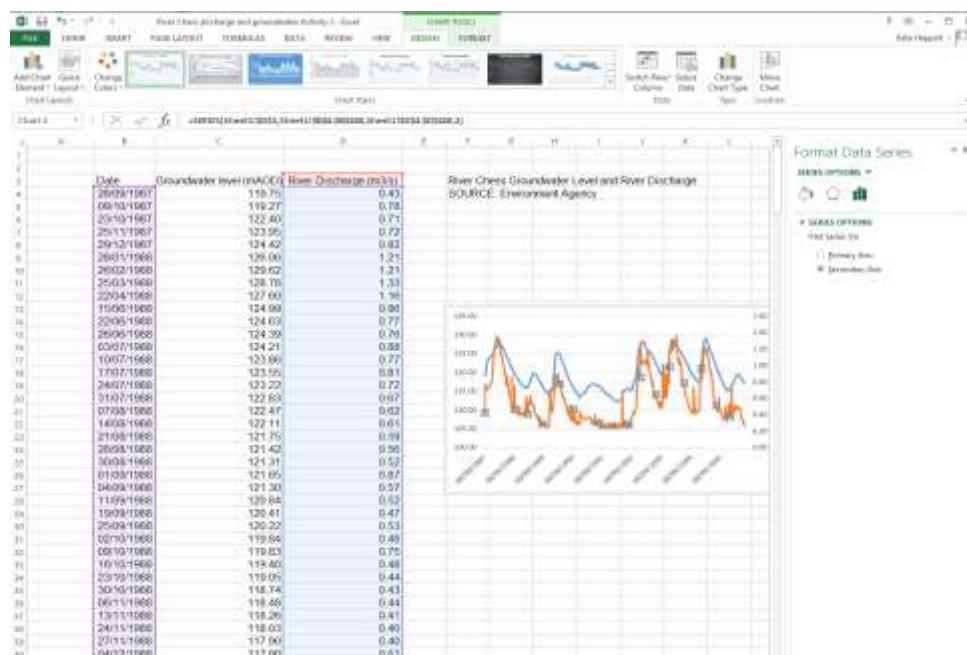
Now you need to work on tidying up the graphs.

Select the chart and then choose 'Move Chart Location' from the 'Chart Tools, Design' menu

Select New Sheet in the 'Move Chart' menu that appears on your screen. You can name the new sheet in this menu. In this instance we have named the new sheet Activity 2.



Press OK and the graph will appear as a separate sheet in your Excel workbook.

Now you can improve the graph by:

- adding titles to the two y axis;
- creating a chart title;
- adding lines to the y axis to delineate them more clearly.

Click the + sign in the upper right of your graph and select Axis Titles and Chart Title. Boxes will appear for you to fill in the appropriate text in your graph.

You can also remove the additional horizontal grey lines that clutter the plot by selecting them and pressing delete.

You should aim for a final plot that looks like this: