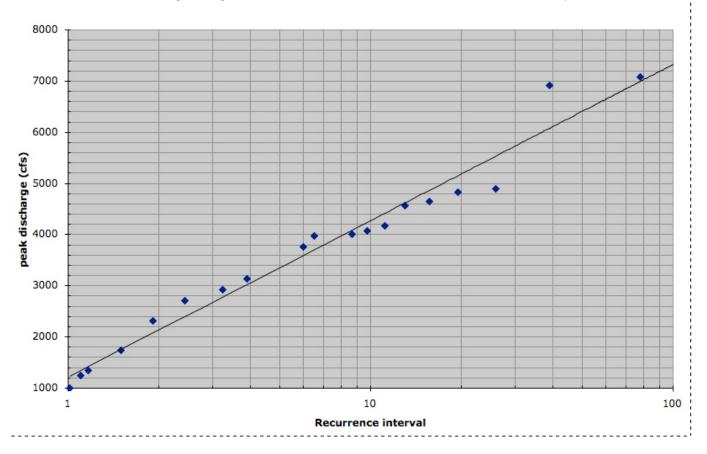
## **Graphing Guidelines**

- Purpose of graphing: to express large quantities of data in a concise way
- X-axis: where independent variable is typically plotted (horizontal)
- Y-axis: where dependent variable is typically plotted (vertical)
- Elements of a graph:
  - Descriptive title (What does the graph show us? Gives additional info that is not available in the axes titles alone. Simplest form: dependent vs independent variable. But elaboration best.)
  - Axes:
    - Tick marks at regular numbered increments
    - Labelled, with units
  - o Data points
  - (Legend)
  - Trendline\*
    - Linear data:
      - Line of best fit: straight line that follows data; has ~same number of points above as below it
    - Non-linear data:
      - Connect the dots
      - Follow the curve

## \*not always required

- Good graph:
  - Will take up a reasonable amount of space. Aim for half a page at least; as much space, the better!
  - Axes will be scaled appropriately to the amount of space you have to work with. (Should use as much of the axis as possible! Tip: Divide largest value by # of squares)
  - Neat and tidy! Use pencil for majority of graph! (pen for axes, labels, etc. is ok)



Flood frequency data for Embarrass River near Embarrass, WI

