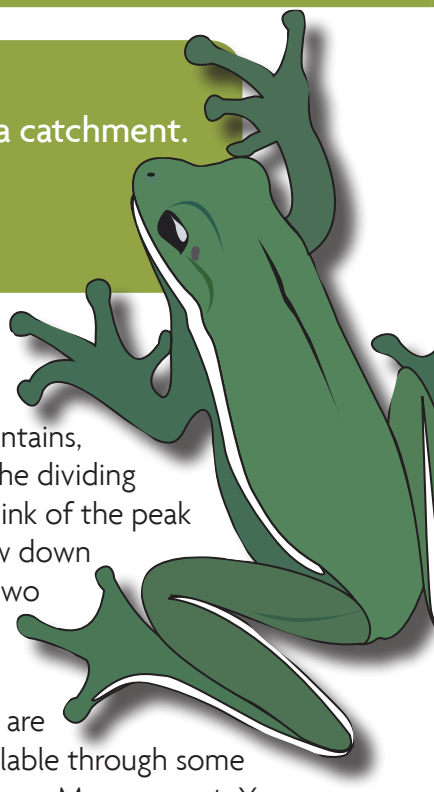
Understanding Catchments

PURPOSE:

1. Introduce the concept of a catchment and how water flows within a catchment.
2. Create an understanding of land uses.
3. Learn where rainfall is captured and how it reaches your waterway.



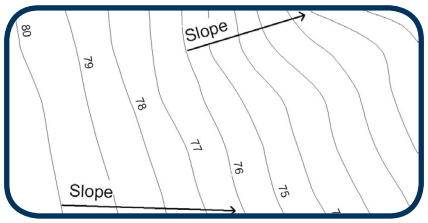
GET TO KNOW YOUR CATCHMENT

What is a catchment? A catchment is the land area from which all run-off water flows to form a waterway. Its boundary is the natural features, such as hills and mountains, which surround it, forming what is known as the watershed. A watershed is simply the dividing ridge between two catchments with water flowing down each side. For example, think of the peak in your roof as a watershed. When the rain hits the roof, some of the water will flow down one side and the rest will flow down the other. This symbolises water flowing into two different catchments. A catchment can be as large as the Murray-Darling Basin, or as small as the area that forms a puddle.

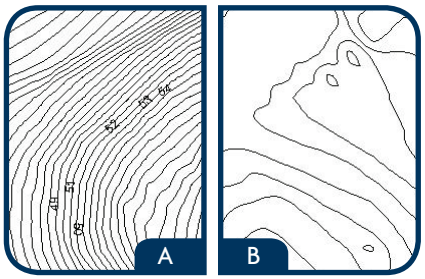
You can map a catchment area by looking at a topographic map. Topographic maps are a representation of different contour lines or changes in land height. These are available through some State Government departments, such as the Department of Environment and Resource Management. You may need to do some research to make yourself familiar with contour lines and understand what contour patterns represent. The following tips will help you to read a contour map.

HOW TO READ CONTOUR LINES

1. A contour line represents points of similar elevation (height) measured in metres. They run perpendicular to the direction of the slope.

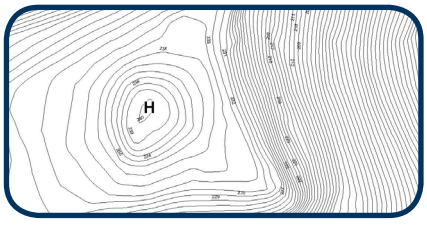


2. The distance between contour lines indicates the steepness of a slope: so the closer together they are, the steeper the slope (A). Wide spacing means a gentle slope or flat land such as a floodplain (B).



3. Drainage lines, where water will accumulate and flow into waterways, are well defined by contour lines in steep country. Look for sharp changes in direction along the contour lines (X, Y).

4. Closed contour lines which increase in elevation represent hills. In the diagram on the right, H represents the top of a hill.



For further information contact
Ipswich City Council
Phone: (07) 3810 6666
www.ipswich.qld.gov.au

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ACTIVITY

Draw a map of your waterway and its catchment area

Materials:

- a topographic map of your chosen waterway
- an A4 or A3 clean sheet of white paper
- tracing paper
- coloured pencils
- eraser

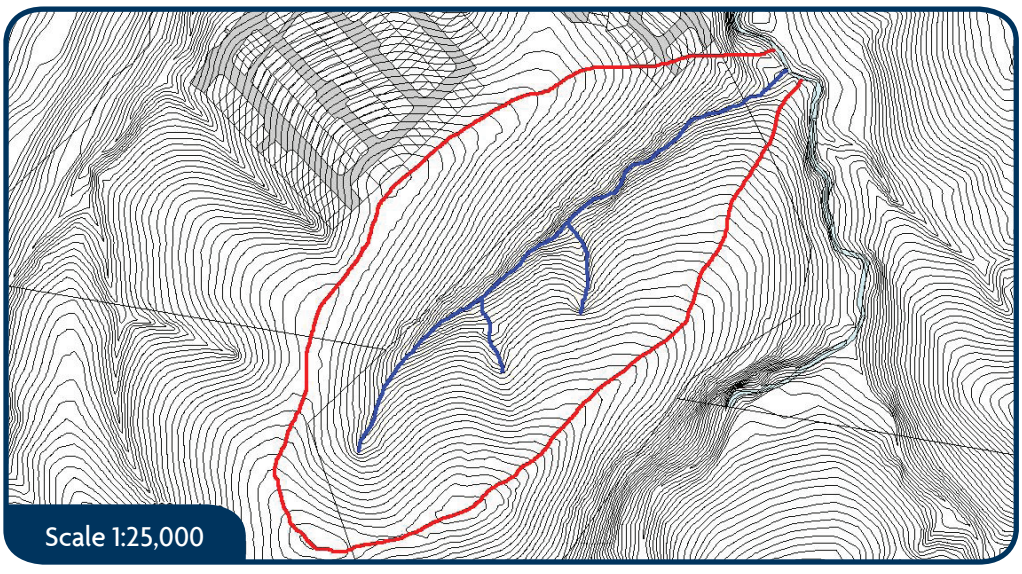
Step 1 - Take time to look at 'How to Read Contour Lines' on page 1 to understand what the contour patterns represent. This will help you identify the start of your creek or river (the source), any high points, and the ridges that make the boundary of your catchment.

Step 2 - Using a coloured pencil, start at the mouth of your creek and trace back along the high points and ridges, outlining the boundary of your catchment.

Step 3 - Copy your catchment onto a clean sheet of paper. Make sure to also copy your creek or river and indicate where smaller creeks and gullies might exist.

Step 4 - You will be able to expand on your catchment map in other activities so that at the end, you will have a complete picture of your catchment area and the land uses that exist within it. Once completed, your catchment map will serve as a record of your catchment as it is today. In the future you will be able to look back at your map and identify any changes that have occurred over time.

EXAMPLE OF A CATCHMENT



REMINDER!!! Did you find your key words for this activity?

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