

# Not wanted – Dirty rotten sediment

Approach with care - renowned for dirty work in our streams; collapsing (stream) banks a favourite.

Water clarity can be measured using standard water monitoring equipment such as a water clarity tube, and a "black disk", or with a "homemade" clarity tube. The instructions for operating the first two can be found at: [www.ew.govt.nz/educationprogrammes/schools/teachers/classroomunits/streams.htm](http://www.ew.govt.nz/educationprogrammes/schools/teachers/classroomunits/streams.htm) under "Conducting chemical/physical tests".

## Water clarity measurement for waterway detectives

### What you need:

- 1m of 80mm clear plastic tubing (long narrow plastic bag)
- 40mm pipe joiner
- black disk (about 25mm diameter) attached to line
- 1m ruler, or measuring tape
- rubber band or tape
- 2L container, eg clean milk bottle to collect sample in

### Make your tube

1. Insert the end of the plastic bag (clarity tube) into the pipe joiner. Push through until there is enough to fold over the edge of the pipe joiner. (About 5 cm)
2. Fold the top of the bag over the end of the joiner and secure with a rubber band or tape.
3. Connect a 1.5m length of string or line to the black disk.

### Sampling

1. Collect your water sample, being very careful not to disturb sediment on the stream bottom. Taking your sample upstream of your feet may be helpful!

**TIP:** The chances of stirring up sediment are less if you don't get into the water. Find a deeper part of the stream and collect from the stream bank. Use a line to lift out the sampling bottle (or attach the sample bottle to a stick for better control).

2. Get into position to read your sample - be out of the shade of trees, but have your back to the sun, so that the tube is shaded only by your body.
3. Shake your sample well.
4. Slowly pour in the sample to fill your tube.
5. Lower the black disk down the tube until you just lose sight of the disk.
6. Without raising or lowering the disk any further, pinch the line with your fingers at the water surface.
7. Pull up the disk with your fingers still marking the line.
8. Use the ruler or tape to measure the distance between the top of the disk and the point you have marked with your

