

Stormwater audit

How to do a stormwater audit

Why do a stormwater audit?

Many schools have large areas of hard surfaces like car parks, basketball courts, assembly areas or concrete quadrangles. These hard surfaces increase the amount of run-off after rain. This run-off, called stormwater, can carry dirt and rubbish with it to the nearest stormwater drain. These drains form part of a local stormwater network, which lead to the nearest waterway.

By doing a stormwater audit, you can:

- find out what pollutants get into drains from your school
- work out the source of these pollutants
- create a Stormwater Management Plan to reduce pollution in the drains.
- help to reduce stormwater pollution in local waterways.

Stormwater and wastewater systems

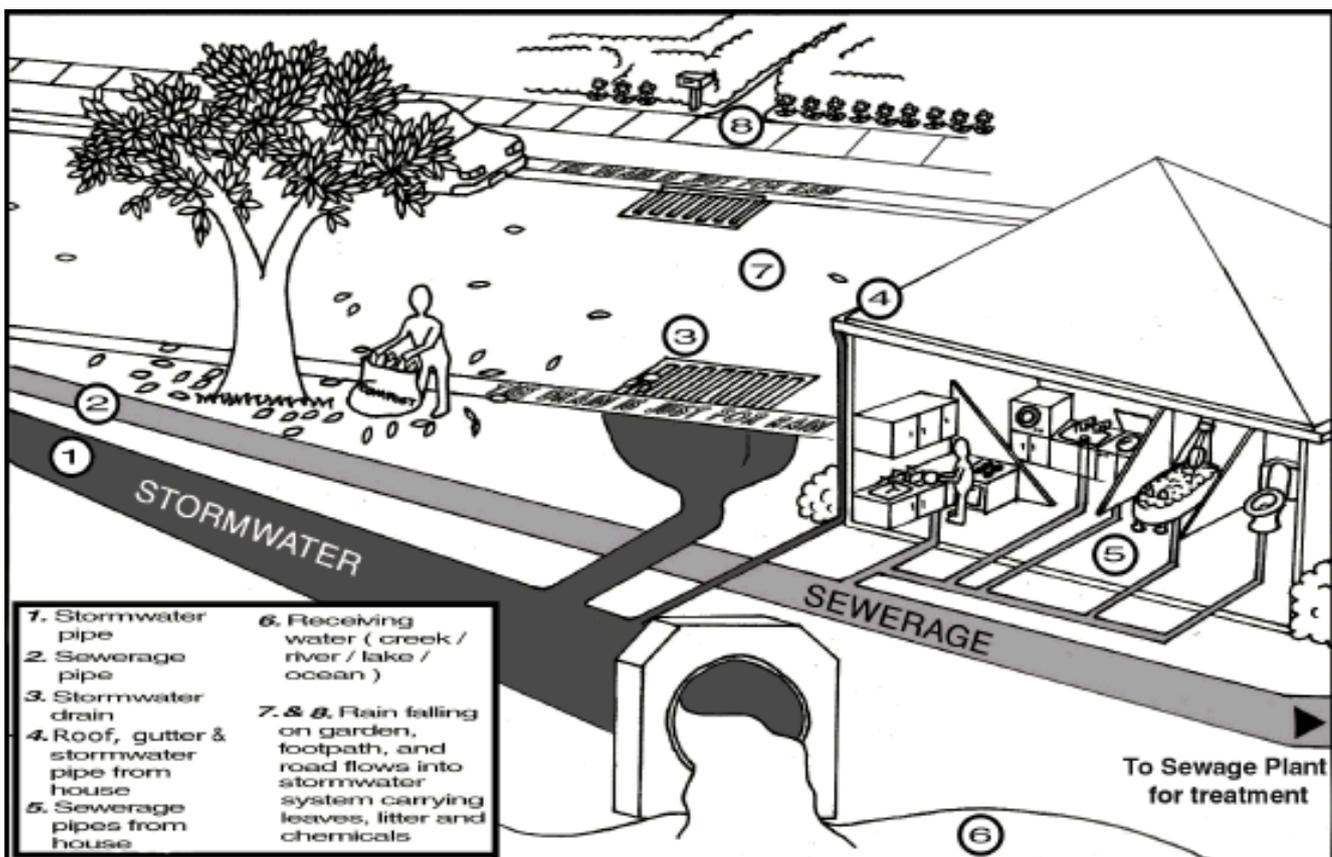


Image source: NSW Office of Environment & Heritage

<http://www.environment.nsw.gov.au/stormwater/HSIEteachguide/stmwtrandsewage.htm>

Before the audit

- Get an aerial map of the local community, centred on the school and showing the closest waterway (maps are available from Google Earth or your local council). Look at the map to find where stormwater from your school goes. This will usually be the closest waterway like a creek, river or ocean. If the map has contours (lines showing areas of equal height above sea level), this will help show which direction the water flows.
- Talk about how clean the local waterway is and any obvious links to the stormwater drains in the school and local community
- Talk about the difference between stormwater and wastewater (sewage) using the diagram on page 1.
- Divide into groups of five or six students with a scribe for each group. Each group should have an audit sheet and an A3 map of the school grounds showing all buildings. Some schools may be able to get a stormwater map from school asset managers.
- Make sure everyone knows about being safe around stormwater drains.

Being safe around stormwater

Stormwater drains can be very dangerous places.

It's important that you don't go into drains- even in fine weather. This is why stormwater drains are often fenced and have warning signs telling people to stay out. It's also a good idea to keep pets away from drains.

Stormwater drains can be open channels or underground tunnels. They are dangerous because:

- water in drains can rise quickly and unexpectedly, even when it's not raining in the local area
- when it rains, huge amounts of water can suddenly wash into the drain
- if you're swept away by water in a stormwater drain, you may not be able to get out and could even drown. Even shallow water can be very powerful and could knock you over
- drains can contain pollution like broken glass, dangerous chemicals and disease causing bacteria.

Don't try to lift stormwater grates near footpaths and roads, even if something has accidentally dropped down. These grates can be very heavy.

If you're in a flooded area, stay away from roads, footpaths and areas where you can't clearly see where you're walking.

Doing the audit

1. Each group checks the school grounds and marks on the A3 map each stormwater drain using a number.
2. Use this number to show the drain on the audit worksheet.
3. As each drain is found complete the table on the audit worksheet.
4. When finished, discuss each group's results with other groups.
5. Identify strategies to reduce stormwater pollution in your school and include these in a School Water Management Plan (a plan which shows water use issues in schools and suggests actions to help increase water efficiency and reduce stormwater pollution).

Audit worksheet

School _____ Audit date _____ Name _____

Local waterway _____ Stormwater eventually ends up in _____

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Drain number	Condition of drain	Issues affecting drain	Proposed solutions to problem
Example – Drain 1	Full of dirt	Dirt has washed into drain from nearby garden	<ul style="list-style-type: none"> • Build a border around the garden to stop dirt washing into drain
Example – Drain 2	Plastic water bottles in drain	Discarded bottles blown or washed into drain	<ul style="list-style-type: none"> • Choose tap water • Use refillable drink bottles • Use drinking fountains or bubblers • Educate school community about using refillable drink bottles

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Drain number	Condition of drain	Issues affecting drain	Proposed solutions to problem