

# Water pollution



Water is **essential to life on Earth**, we couldn't live without it, but are we harming the waterways we rely on?

## Why is pollution a problem?

Plants and animals living in streams, rivers and oceans rely on water to provide oxygen, which is essential for life. Pollutants such as untreated sewage, vegetable and animal waste, silt and detergents can all reduce the amount of oxygen available in the water. Pollutants such as fertilisers, chemicals and oils can also directly poison animal and plant life.

## How is water polluted?

Water pollution can happen in many ways such as when untreated sewage is released into the environment or through littering/dumping rubbish incorrectly. This can be accidental, however sometimes it happens deliberately.

## Water pollution

### Urban development

- Building and construction can cause the **top layer of soil** to wash into our waterways.
- Rain that falls onto rooftops and roads is carried away by pipes that are separate from sewer pipes. These **stormwater drains** also collect litter and other material (such as animal droppings) which is generally carried straight into rivers and oceans.
- Stormwater drains are commonly responsible for carrying **spilled toxic chemicals** such as pesticides, detergents, fertilisers, oils and other materials into our waterways.

### Industry

Pollution can occur through direct discharge and contamination of soils into our waterways. Industries must follow state government legislations and Council policies to ensure careful disposal of waste chemicals and other materials.

### Farming and horticulture

Most farmers use a wide range of fertilisers, herbicides, insecticides and other chemicals on crops which can run into the waterways. The movement of livestock and wildlife can also cause soils to be washed into the waterways.

### Human activities

Littering and dumping of rubbish have a negative effect on our waterways, rivers and oceans. Other activities like water sports and boating can result in oil spills and erosion.

## Other types of water pollution?

There are **many forms of water pollution**. Here are just a few you often read about:

- **E.Coli:** These micro-organisms come from animal waste (mainly human) and the level of E.Coli found in the water is used as a guide to indicate the presence of pathogenic or disease-causing bacteria.
- **Toxic chemicals:** Many chemicals and heavy metals are used for industry are poisonous to wildlife. Dioxin and mercury are well known examples of the thousands of toxic chemicals

produced. Even in very small quantities toxic chemicals are a very serious cause of water pollution.

- **Oils:** Spilled oils floats on the surface and can be disastrous for marine life. The oil film can stop oxygen dissolving into the water and can cause bird feathers or seal fur to be covered in oil.
- **Plastic:** Plastic bags and other plastic items are very useful but have disastrous effects on the environment and animal life. A great deal of plastic pollution finds its way into our rivers and oceans through stormwater drains and it is increasing every year. Once in the water, plastic breaks down into tiny particles where it can be mistaken as food by marine life, causing harm and unnecessary death.

## How can we prevent water pollution?

- **Reduce plastic consumption.**
- **Properly dispose** of domestic and industrial chemicals, oils and non-biodegradable items.
- **Prevent oil leaks**, antifreeze or coolant from vehicles.
- **Landscape your garden** to prevent soil runoff.
- **Don't flush your medication** down the toilet or sink.
- Put domestic **animal droppings in the bin.**