

### The Law

In New Zealand, the Resource Management Act 1991 (RMA) is a law designed to protect our environment. Under the RMA, it is illegal to discharge any substance into water, the stormwater system, land, or air, unless authorised by a resource consent or permitted under a district or regional plan.

Polluters may face serious consequences, including:

- Infringements of up to \$2000 for individuals or \$4000 for companies
- Abatement notices requiring immediate action to stop or prevent further harm
- Prosecution, which can result in fines of up to \$1,000,000 for individuals or \$10,000,000 for companies

Landowners: you are responsible for any work on your land. Make sure the contractor you hire knows how to do the job properly.

Employers: you are responsible for the actions of your staff. Make sure you train them well and give them the proper tools to do the job correctly.

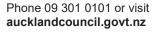
Workers: you are responsible for doing the job in a manner that does not breach the environmental protections put in place by your employer. If you cause pollution, you and/or your company could be held liable for clean-up costs and/or penalties.



Report all spills immediately to the Pollution Response Hotline on 09 377 3107

# Concrete, Cement and Exposing Aggregate







#### What's the Problem?

#### **Environmental Effects of Cement Products**

Lime is a major component of cement and is found in concrete products. When dissolved in water, cement produces an alkaline solution with elevated pH that can burn and kill fish, insects and plants. Water that comes into contact with unset concrete or concrete dust quickly increases in alkalinity and can cause significant harm to aquatic life.



Alkaline wastewater can kill wildlife

**Never** allow concrete slurry or wastewater to enter the stormwater drains. It must be collected for correct disposal or diverted to unsealed ground.

# It is not possible to filter alkalinity from concrete wastewater.

Do not use filter cloth, weed mat, enviro-filters and hay bales - they will not reduce the high pH of concrete wastewater. The filtered water will still have an elevated pH and be extremely harmful even though it looks clear.

#### What Can You Do?

#### Concrete cutting

Make sure all dust is collected. Concrete dust left at a site can be washed by rain into the stormwater system causing environmental harm or air quality issues.

If wet cutting, use as little water as possible. Ensure you put slurry controls in place before you begin work to prevent discharges to the stormwater system.

Make sure all concrete slurry has been diverted to unsealed ground or removed from the cutting site.





## Laying concrete and exposing aggregate

Check the weather – don't lay concrete if rain is forecast as the rainwater may become contaminated and wet concrete will elevate the pH of rainwater runoff.

Put slurry controls in place before you start work, particularly if exposing aggregate.

Check if the controls you have in place can handle the amount of wastewater produced.

For small sites, wash equipment on unsealed areas but not in tree drip lines.

Do not wash any equipment where the wastewater may flow into streams or stormwater drains.

# Slurry controls

If you are cutting concrete, exposing aggregate, or undertaking lime stabilisation, you must have slurry / wastewater controls.









Various methods can be employed to prevent wastewater run-off

#### Remember

- Remove water from pile holes, footings and foundations before pumping concrete
- Check the weather forecast, plan ahead and put controls in place before starting work
- Divert or contain any excess slurry or wastewater to an unsealed surface
- Do not wash cement dust, cement slurry, acid or chemical wastewater into the drain
- Never leave cement dust or slurry onsite where rain could wash it into the stormwater system