

# Concrete Information Sheet

*If you are cutting concrete or mixing cement this information sheet is for you*

*The lime in cement is toxic to aquatic life. It is important that you dispose of your waste correctly to avoid toxic run-off entering waterways directly or through run off into the stormwater system.*

*Please read the following sheet to learn how you can dispose of your waste correctly to avoid killing aquatic life.*

## Why is concrete/cement toxic to fish?

Lime is a major component of cement and concrete. It dissolves easily in water (water soluble) and drastically changes the pH of water increasing the alkalinity (pH 11-13), which causes burns (just like an acid burn) on fish and kills fish and other aquatic life.

## What operations will cause pollution?

- Concrete cutting
- Washing away dust residues
- Concrete spills
- Disposing of unwanted concrete
- Dampening down of freshly laid concrete
- Washing equipment: shovels, wheelbarrows and concrete truck chutes
- Rinsing exposed aggregate concrete
- Cooling concrete cutting blades
- Concrete dust left to wash or blow into waterways.

All these operations can be carried out safely without risk to aquatic life if a few simple steps are followed.

## Is dilution OK?

No. Dilution only increases the size of the problem. It takes 10,000 litres of clean water to neutralise a litre of concrete slurry to a neutral pH of 7. It is important to reduce the amount of water that is being used for clean up.

## Is filtering OK?

No. Filtering water through cloth, hay bales or felt does not help the problem because the pollutants remain dissolved in the water.

## How can I stop pollutants from entering the waterway?

Develop standard procedures for disposing of liquid waste and make site specific plans. Ensure all staff are well trained in these procedures and in the use of relevant equipment onsite.

### CONCRETE DELIVERY

- Ensure that the site designated for concrete delivery is away from stormwater drains or that drains and gutters in the vicinity have been blocked off.
- Use spill mats to contain any spills



Image courtesy of ARC

*Remember that all road gutters and drains run directly into streams and onto beaches. Unless your waste is delivered to a waste treatment site or sewage system, it will enter these natural waterways untreated and cause death to aquatic life.*



Image courtesy of ARC

*Wastewater being removed by trade waste truck*

## How can I stop pollutants from entering the waterway? continued...

### DUST

- If there is dust residue from cutting concrete or mixing cement this must be swept up or vacuumed up and disposed of in an approved facility or buried in the construction pit.
- Fresh concrete should be washed down (water blasted) to remove all particles. All waste water must be diverted to a soakage area or removed to an approved disposal facility.

### WASTE WATER

- Prior to starting the job, assess where any wastewater will run and what is the most appropriate way to dispose of it. For small jobs with small quantities of water, one easy solution is to divert run off on to a grassed area where it can soak in. Use sandbags or diversion booms to direct the water to the appropriate site and create a soaking area using more booms. Do not exceed the ground's soakage capacity.
- Set up a designated Washdown Area on an unsealed or grassed area. This should be used for washing all tools and equipment onsite. Ensure all staff know about it.
- If the lie of the land means that wastewater will run into the stormwater system, then all gutters and stormwater drains need to be blocked completely before works begin. This can be done using tarpaulins and sand bags to block drains and to create a catchpit.
- Use a wet vacuum to suck up wastewater.
- Wastewater from the catchpit or wet vacuum can be pumped into a tank for re-use, pumped on to an unsealed soakage area (well away from stormwater drains and protected trees) or pumped away by a trade waste truck (sucker truck) to an approved disposal facility.



## Wastewater Disposal

1. Trade waste/sewage system
2. Recycle and re use
3. Over unsealed area/ grass away from protected trees (distance from waterways or stormwater)

## In Case of a Spill.

- Do not wash into the stormwater
- Sweep or shovel spill and allow residue to set before removing

If you need to report a spill or stormwater pollution, ring the POLLUTION HOTLINE 0800 73 83 93

## Your Obligations

Permitting or allowing lime, cement, concrete, asphalt and any of their derivatives to enter the stormwater is illegal and may result in a large fine and/or imprisonment. A person (or organisation and its directors) can be liable for the actions of employees and contractors.

### Environment Bay of Plenty

- 5 Quay Street, Whakatane
- 1125 Arawa Street, Rotorua
- 6 Rata Street, Mount Maunganui

Post: P O Box 364, Whakatane

Phone: 0800 ENV BOP (368 267)

Fax: 0800 ENV FAX (368 329)

Pollution Hotline: 0800 73 83 93

Email: [info@envbop.govt.nz](mailto:info@envbop.govt.nz)

Website: [www.envbop.govt.nz](http://www.envbop.govt.nz)

