

CONCRETE WASHINGS & CONCRETE CUTTING WASTE WATER

If your day to day activities involve the handling of concrete and other cement based products, then before you begin you must consider the effects your activity may have on the environment.

What sort of things cause pollution?

Poor work practices while handling fresh concrete or undertaking concrete cutting may be causing some of these common problems.

The discharge of waste water onto the ground and into the stormwater system from:

- washing the chutes of concrete mixing trucks
- the use of cooling water in concrete cutting
- rinsing freshly laid concrete to remove fines
- washing concrete pumping gear and other concrete equipment.

How can my waste pollute the environment?

Cooling water used in concrete cutting and rinse water used to remove fines will pick up concrete particles and cause the receiving water to turn strongly alkaline. Wash water from concrete trucks and equipment will also be highly alkaline and contain high sediment loads.

Cement wash water and cement based products can cause harm to the environment because:

- They are strongly alkaline, due to lime content. This alkalinity can kill or burn aquatic life, in much the same way as acid would.
- High sediment loads can smother and kill the small creatures that live in the bed of a water body. It also causes abrasion and clogging of the gills of fish.
- The sediment makes it difficult for plants to get the energy they need to live and for animals to find food, by reducing sunlight penetration.
- Chemical additives can poison the creatures that live in a water body.

It is important to realise that even a very small quantity of a pollutant, or just one accidental discharge, can drastically alter the quality of a stream. Fish, insects and plant life can be killed, habitats destroyed and the stream can take up to ten years to recover.

You may think that your little bit of waste can't harm the environment, but remember there are many other people carrying out activities similar to yours. Your waste, when

combined with that of others, can result in a significant amount of pollution occurring every day of the year.

It is the cumulative effects of this combined discharge that causes serious damage to our environment and must be prevented.

It is illegal to cause pollution

In New Zealand the Resource Management Act (1991) is the law that protects our environment. It clearly states that every person is responsible for ensuring that their activities and those of their employees do not contribute to pollution of our environment.

Specifically, it is illegal to allow any substance to enter water either directly, through the stormwater system or via the contamination of land without prior authorisation from Environment Canterbury.

Environment Canterbury is committed to caring for our environment and is responsible for both helping the residents of our region to prevent pollution and enforcing the Resource Management Act if necessary.

By making a few simple changes to your site and daily practices you will be contributing to a pollution free environment for us all to enjoy both now and in the future.



Make sure drains are protected from wash down run-off.

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PLAY IT SAFE

YOU CAN STOP POLLUTION RESULTING FROM YOUR ACTIVITIES

CONCRETE CUTTING & THE WASHING OF FINES

- ✓ if cooling water is needed or washing needs to be carried out on site, ensure that there is no discharge to the environment by:
 - diverting runoff to a grassed or unsealed area where it can soak into the ground
 - blocking a receiving drain and pumping the wastewater to an area where it can evaporate or soak into the ground
 - discharging filtered wash water (i.e. filtered via haybales) to the sanitary sewer with the approval of the local council
 - washing the fines off freshly laid concrete to the side, not into the stormwater drainage system
- ✓ **above all**, never wash concrete products in areas where the wastes and associated wash water will drain to a stormwater drain or stream
- ✓ clean up all spilt material immediately and dispose of wastes in a bin in such a manner that they won't leak out
- ✓ ensure all workers and/or contractors are aware of these requirements

CONCRETE TRUCKS AND EQUIPMENT

- ✓ use a specifically designed wash area which either discharges into the sanitary sewer or contains all waste water in a sealed pond or tank for re-use as concrete make-up water or for equipment washing
- ✓ on any large construction sites requiring multiple deliveries, ensure there is a designated wash out area which allows water to soak into the ground and not run overland into the stormwater system

Environment Canterbury can assist your company in developing a spill procedure or provide guidance on these matters. Call a Customer Services Officer on 0800 324 636 for further information.

Pollution Hotline

Christchurch (03) 366 4663

Timaru (03) 688 3320