

Concrete/asphalt



Illustration: Auckland City Council

WHAT'S THE PROBLEM WITH CONCRETE AND ASPHALT?

It pollutes the environment

Set or cured concrete or asphalt poses little risk to the environment unless it is cut or crushed. Any water that comes into contact with unset concrete, concrete fines, concrete dust or concrete washings becomes highly alkaline (that is, it has a very high pH).

This water will burn and kill all fish, aquatic insects and plants that come into contact with it.

You cannot dilute or filter this contaminated water to a level that is safe for discharge to the receiving environment. If it enters the sea or a stream, it only spreads the contaminated water further. It would take at least 100,000 litres of clean water to dilute the concrete fines from a very small cutting job to a neutral pH (pH7).

Asphalt/bitumen rinse and cutting wastewater contains large amounts of hydrocarbons (like petrol), which are very toxic to people, plants and animals. Like concrete, you cannot dilute hydrocarbons to a level that is safe for discharge to the receiving environment.

SITE MANAGEMENT AND ENVIRONMENTAL CONTROLS

Plan before you start

- Identify receiving environments (for example, kerb channels, stormwater drains and natural water bodies).
- Check the lay of the land and decide where any run off is likely to go.
- Check the weather forecast, specially when blocking stormwater catch pits.
- Ensure you have the correct materials on site to implement controls. Filter cloth and hay bales cannot, will not and do not filter concrete wastewater.
- Make sure the person responsible for ensuring environmental practices and controls has followed/implemented these prior to starting works.



During construction

- As the environmental risk of concrete or asphalt works is high, it is recommended that you completely block off stormwater drains with drain plugs and use a submersible pump or vacuum truck to remove contaminated run off from the catch pit.
- If this is not practicable then careful sandbagging or bunding around the catch pit grate can be used as an alternative.
- Minimise the amount of water used on site so there is less to control.
- Remember that dust is also created during dry concrete or asphalt cutting. Use saws that can have a vacuum attached to minimise the amount of dust.
- Use a wet/dry vacuum, or vacuum truck for larger jobs, to collect all concrete or asphalt contaminated material or run off on site.
- If this is not practical, divert all run off to the construction pit or unsealed ground, away from surface water flow paths.
- Wash all equipment and tools in a designated wash area or on a large grassed area well away from stormwater drains, streams and the coast.
- Use tarpaulin sheets under concrete pumps and delivery chutes to capture any spills.
- Do not allow concrete trucks or concrete pumps to wash out on site unless there is a designated wash area.

TIPS

- Make sure the rate of flow of diverted or wash water does not exceed the ground's soakage capacity (for example, no ponding), and clean up any fines or solids left after the water has soaked into the ground.
- Regularly check that drain plugs, sandbags or bunds are in place and are working effectively.
- Do not undertake concrete or asphalt works if there is a chance of heavy showers or rain.
- Inspect site controls at least once a day to ensure they are working properly. Take immediate action to remedy.
- Have a site specific spill response plan along with a spill kit and make sure all staff/contractors are well trained with the equipment and the plan.

If contamination of a watercourse occurs, contact Waikato Regional Council immediately on freephone 0800 800 401.